

Handbook of Religion and the
Authority of Science

Brill Handbooks on Contemporary Religion

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VOLUME 3

Handbook of Religion and the Authority of Science

Edited by

James R. Lewis and Olav Hammer



BRILL

LEIDEN • BOSTON
2010

This book is printed on acid-free paper.

Library of Congress Cataloging-in-Publication Data

Handbook of religion and the authority of science / edited by James R. Lewis and Olav Hammer.

p. cm. — (Brill handbooks on contemporary religion ; v. 3)

ISBN 978-90-04-18791-7 (hardback : alk. paper) 1. Religion and science.

2. Authority. I. Lewis, James R. II. Hammer, Olav.

BL240.3.H357 2001

201'.65—dc22

2010036406

ISSN 1874-6691

ISBN 978 90 04 18791 7

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CONTENTS

Contributors	ix
Introduction	1
<i>Olav Hammer and James R. Lewis</i>	

THEORETICAL

1. How Religions Appeal to the Authority of Science	23
<i>James R. Lewis</i>	
2. From Analogies to Narrative Entanglement: Invoking Scientific Authority in Indian New Age Spirituality	41
<i>Kathinka Frøystad</i>	
3. “We Demand Bedrock Knowledge”: Modern Satanism between Secularized Esotericism and ‘Esotericized’ Secularism	67
<i>Jesper Aagaard Petersen</i>	

BUDDHISM AND EAST ASIAN TRADITIONS

4. Buddhism as the “Religion of Science”: From Colonial Ceylon to the Laboratories of Harvard	117
<i>David L. McMahan</i>	
5. Falun Gong and Science: Origins, Pseudoscience, and China’s Scientific Establishment	141
<i>Helen Farley</i>	
6. Metaphorical and Metonymical Science: Constructing Authority in a Japanese New Religion	165
<i>Christal Whelan</i>	

7. “When Science Fiction Becomes Science Fact”: The Role of Science, Science Fiction, and Technology in Aum Shinrikyo 185
Martin Repp

SOUTH ASIAN TRADITIONS

8. Vivekananda and the Scientific Legitimation of Advaita Vedānta 207
C. Mackenzie Brown
9. Inverted Orientalism, Vedic Science, and the Modern World: Bhaktivedanta and the International Society for Krishna Consciousness 249
Benjamin E. Zeller
10. Madame Blavatsky’s Children: Modern Hindu Encounters with Darwinism 279
Meera Nanda
11. The Transcendental Meditation Organization and Its Encounter with Science 345
Cynthia Ann Humes
12. The Sikh Scientific Ethic—Worldly and Mystical 371
Richard Cimini
13. The God Experiment: Radhasoami’s Version of Science and the Rhetoric of Guru Succession 391
David Christopher Lane

JUDAISM AND ISLAM

14. The Use of Medicinal Legitimizations in the Construction of Religious Practice: The Dietary Laws of Judaism 441
Damián Selton
15. Science is Just Catching Up: The Kabbalah Centre and the Neo-Enlightenment 453
Hanna Skartveit

16. Islamic Opposition to the Darwinian Theory of Evolution 483
Martin Riexinger

CHRISTIAN TRADITION

17. Fighting Science with Science at Pat Robertson's Christian Broadcasting Network 513
Carie Little Hersh
18. Christian Science, New Thought, and Scientific Discourse 549
Jeremy Rapport
19. The Unification Movement: Science, Religion, and Absolute Values 571
Sarah M. Lewis

SPIRITUALISM AND SPIRITISM

20. Spiritualism and Psychical Research 591
Cathy Gutierrez
21. Popular Epistemologies and "Spiritual Science" in Early Twentieth-Century Buenos Aires 609
Gustavo Andrés Ludueña
22. Parapsychology: Naturalising the Supernatural, Re-Enchanting Science 633
Egil Asprem

NEW AGE AND OCCULT

23. The "Scientific" Presentation and Legitimation of the Teaching of Synchronicity in New Age Literature 673
Jochen Scherer
24. Science as Legitimation for Spirituality: From *The Aquarian Conspiracy* to Channelling and *A Course in Miracles* 687
Ruth Bradby

25. Modern Western Magic and Altered States of
Consciousness 707
Nevill Drury
26. Legitimizing Belief through the Authority of Science:
The Case of the Church of Scientology 741
Régis Dericquebourg

ALTERNATIVE ARCHAEOLOGIES

27. New Religions and the Science of Archaeology: Mormons,
the Goddess, and Atlantis 765
Carole M. Cusack
28. Is Dialogue between Religion and Science Possible?
The Case of Archaeology and the Goddess Movement 797
Kathryn Rountree
29. Mormon Archaeology and the Claims of History 819
Charles W. Nuckolls

THEORIES AND SCEPTICS

30. Folklore and Discourse: The Authority of Scientific
Rhetoric, from State Atheism to New Spirituality 847
Ülo Valk
31. The Phlogiston Theory: A Late Relic of Pre-Enlightenment
Science 867
Christopher McIntosh
32. “Oh no, it isn’t.” Sceptics and the Rhetorical Use of
Science in Religion 879
Asbjørn Dyrendal
- General Index 901
- Index of Names 919

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INTRODUCTION

OLAV HAMMER AND JAMES R. LEWIS

The Problem

How can we know that a particular statement is correct? The traditional account held by philosophers since the days of Plato suggests that knowledge consists of justified true belief.¹ My knowing that it rained yesterday entails that I hold the belief that this was indeed the case, that it really did rain, and that I have some reliable means of connecting my belief with the facts (for instance that I was soaked after being caught outdoors, and that I have a trustworthy memory of the event).

How does such knowledge of empirical facts arise? Some propositions are trivial to verify. For instance, the ISBN number of the publication that you are reading at this moment can readily be found on the book cover. Many other propositions are empirically verifiable in principle, although it may require considerable skill and years of professional training to verify them. Scientists have good reason to accept as fact the proposition that light travels through a vacuum at a speed of 299 792 458 meters per second. Verifying the speed of light is, of course, no simple matter. In this instance, 'justified true belief' for most of us means something rather different than it does in the simpler cases. Here, justification, our feeling that we know this to be the case, is the result of relying on statements provided to us by trustworthy experts. Our acceptance of these experts in turn relies on a whole set of background factors: their status is considered sufficiently guaranteed; e.g., by their educational background and by their having submitted their results to intersubjective scrutiny.

Religious propositions share some of the characteristics of such hard-to-verify empirical statements. Few people have much personal experience that might validate religious truth claims. Most of what

¹ For a discussion with an overview of the problems with the classic account and of dissenting opinions, see the *Stanford Encyclopedia of Philosophy* at plato.stanford.edu/entries/knowledge-analysis/

religious people say that they know comes from experts whose claims they value and accept. The problem of justifying belief in the statements of these religious experts is compounded by the diversity of opinions. Whereas one would be hard pressed to find anybody seriously arguing for a different value for the speed of light, disagreement is rampant when it comes to the domain of religion. Some religions postulate the existence of a single deity; others propose that there is a multiplicity of gods. Some traditions affirm that the universe we live in and every creature that inhabits it owes its origin to the creative activity of the god or gods at some given point in time, while others state that the world has existed eternally and accept the emergence of the various species through evolution over vast epochs. Adherents of all of these worldviews and practices affirm that they are confident that their own religious predilections are not merely based on their personal opinions or preferences, but are in fact true. How does this air of certainty come about?

Warrants

Religious claims are generally supported by explicit or implicit arguments, and most crucially by a warrant that ultimately backs up the argument. Such warrants can be classified into a small number of types. In some instances, the warrant can be the unquestioned authority of a canonical text. When Sayyid Qutb, the father of Islamist ideology, in chapter 5 of his book *Milestones* argues that the only acceptable way to rule a society is by following the will of God as manifested in the Prophet's *sunna*, the clinching warrant is the text of the Qur'an. Qutb quotes Sura 12 verse 40 ("The command belongs to God alone. He commands you not to worship anyone except Him. This is the right way of life.") and Sura 4 verse 80 ("Whoever obeys the Prophet obeys God") to support his statement. Since the Qur'an is taken axiomatically as the literal word of God, these quotes are by definition valid representations of absolute truth and no further discussion or argumentation is needed.

In other instances, the warrant consists of the words and deeds of unimpeachable individuals. Max Weber's concept of charismatic authority clearly falls under this rubric: "'Charismatic authority', hence, shall refer to a rule over men, [...] to which the governed submit because of their belief in the extraordinary quality of the specific

person”.² Religious figures as diverse as magical sorcerers,³ tribal shamans and the Mormon prophet Joseph Smith⁴ are singled out by Weber as holders of this ability to lead and convince others. The axiomatic warrant is that truly extraordinary individuals speak with extraordinary authority.

A different way of relying on the absolute authority of particular individuals can be found in the Islamic tradition. The authoritative praxis of the prophet Muhammad has come down to subsequent generations of Muslims via the hadith literature, collections of texts documenting the words and actions of the prophet in specific situations. The normative status of the prophet Muhammad himself is beyond discussion, but the Muslim community already at an early stage acknowledged that hadith reports about him could be forged. How does one distinguish spurious hadith from authentic ones? The solution was to engage in a specific form of textual criticism that examined the chains of narrators who transmitted the information about the prophet from Muhammad’s own time and place to the final compiler of hadiths. A key criterion in assessing these chains was the moral probity of the transmitters. The unquestioned assumption was that individuals generally known for their piety and integrity would not lie about what they had heard.

In yet other instances the power to function as warrant for truth claims lies in subjective validation by the individual adherent of the religious tradition. Many contemporary forms of religion insist that nothing needs to be accepted uncritically. By meditating according to the prescribed methods, by personally trying the method of spiritual healing proposed or by experiencing the divinatory practices for oneself, one will arrive at the conclusion that the proffered religious claims are true. Doubting one’s own first-hand experiences, in this perspective, would be a futile and bizarre exercise.

Finally, institutional backing is frequently invoked as warrant. Weber’s traditional and legal forms of authority fall under this heading. In the former, the accumulated historical weight of the religious

² Weber, Max (1948) *From Max Weber: Essays in Sociology*. Edited, with an Introduction by H. H. Gerth and C. Wright Mills. London: Routledge, 295f.; Emphasis in the original.

³ *From Max Weber*, 296.

⁴ *From Max Weber*, 246.

community legitimates claims; in the second, core social institutions back up the doctrines and practices of the religious group.

The Authority of Science

Few if any institutions in modern society have a rhetorical strength matching that of the sciences. It is, however, an institution whose support for religious claims is far from self-evident, and not all religious traditions attempt to draw legitimacy from science. Indeed, a standard argument in sceptical and atheist literature, from 19th century classics such as John William Draper's *History of the Conflict Between Religion and Science* (1874) to widely read contemporary atheist literature by Richard Dawkins (*The God Delusion*) and others, is that science supercedes religion because the latter is based on unfounded assertions.

Such conflicts between the claims of the science and those of religious traditions can basically be handled in three different ways. Perhaps most uncommonly, science can be branded as an ungodly institution purveying crude antireligious propaganda. The founder of the International Society for Krishna Consciousness (ISKCON), Swami Bhaktivedanta Prabhupada, was thus fond of calling scientists cheaters, scoundrels and rascals, and denounced science as nonsense.⁵ Secondly, and much more commonly, it can be claimed that science and religion are in fact two different domains. Science, it is suggested, answers questions about how the world functions, whereas religion addresses issue such as how we should live. They are, in the words of Steven Jay Gould, non-overlapping magisteria.⁶ Thirdly, and most importantly for the present purposes, it is often claimed that there is in reality no conflict at all between science and religion. Science, it is argued, in fact corroborates the claims of religion.

Given the rhetorical strength of science in contemporary society, an appeal to a concord between science and religion would seem an attractive way to provide a warrant for religious claims. This is in fact what we observe in a vast array of religious traditions. Christians,

⁵ See, for instance, his book *Life Comes from Life*, which is replete with such attacks on the sciences, and especially biology. See also <http://www.bbt.info/usingwordsrascalsfools>.

⁶ Stephen Jay Gould (2002). *Rocks of Ages: Science and Religion in the Fullness of Life*. New York: Ballantine Books.

Muslims, Buddhists, Hindus, adherents of dozens of new religious movements, esoteric and New Age currents all affirm that science is in fact in agreement with their own world views. Their scriptures are scientific documents, their practices in agreement with the latest advances in neurology or particle physics, and their cosmologies resonant with the most up-to-date discoveries in the natural sciences.

How is this possible? How can science, seen by Richard Dawkins and other arch-sceptics as the ultimate weapon against the putative illusions of religion, for others be the preferred legitimator of religious propositions? The answer, we suggest, lies in the specific understanding of science that underlies its use as warrant.

Science as Legitimator of Religion

Philosophically, the issue of how to demarcate science from ‘everything else’ appears intractable. In practice, however, the scientific community acts as if this philosophical problem were a minor issue. The line of demarcation between science and ‘pseudo-science’ may be hard to define with any precision, but there is widespread agreement on particular instances. Intelligent design theory, astrology and faith healing are (almost) universally rejected, whereas genetics, astronomy and biomedicine are universally accepted as scientific disciplines.

Similarly, in the philosophy of science the nature of the link between observational data and explanatory theories remains essentially contested. Nevertheless, scientists within particular disciplines accept a nucleus of generally accepted explanatory claims, and affirm that these claims are connected into larger systems, theories accepted by nearly all. Geneticists rejecting Darwinian evolution, or astronomers sceptical of Einstein’s theory of relativity, are few and far between. Most research involves investigating contentious issues at the periphery of this generally accepted core. The results of this research are subjected to an institutionalized peer review process, and are evaluated according to widely shared standards.

Religions function rather differently. They consist of mythological and ritual elements that display a much more modest degree of internal coherence, and very few key claims are accepted by all members of a given religious tradition, or remain stable over time. Old doctrines are replaced by new ones, existing rituals die out in favour of ritual innovations, and organizational structures are transformed, a process

that takes place more by historical contingency than, e.g., by any widely shared process of verification. For instance, in various branches of the Christian tradition, few issues subsist over time, while very many others become contested or are rejected: Is Scripture inerrant? Is Hell a physical location? Are there really demons? Is Satan a powerful and evil being? Are there witches? Are rituals of exorcism a vital element of Christian ritual life? Should heretics be compelled by force to convert? Must good Christians reject Darwin's theory of natural selection? Should only men be accepted as members of the clergy? Is homosexuality an abomination in the eyes of God? In the past (sometimes the not-too-distant past), these questions would be answered in the affirmative by most people who identified themselves as Christians. Today, the responses to some of these issues become identity markers that distinguish different denominations, e.g., "conservative" from "liberal". Each group has selected or rejected a particular cluster of elements from the total repertoire.

Science and religion would thus appear to be radically different institutions, and the most common way to make science function as a legitimating warrant is to reinterpret science. Rather than being understood as a firmly interconnected core, and a generally accepted set of review procedures and of corroborating or disconfirming methods, science is approached as a religion-like cluster of elements that can be adopted or rejected on a piecemeal basis as needed. These individual elements can be specific instances of scientific research that confirm particular religious claims; the use of technical devices, scientific terms, or mathematical calculations; references to scientific theories, the deployment of stylistic features commonly found in scientific texts; or the identification of what particular groups or authors perceive as significant analogies. Other scientific research, data and theories may not corroborate religious claims, and are therefore tacitly left out of the discussion, or are explicitly rejected. Science thus becomes split into two parts: unacceptable and potentially disconfirming science, versus acceptable and potentially confirming science. As succinctly put in a 19th century theosophical text, the *Mahatma Letters*, 'Modern science is our best ally. Yet it is generally that same science which is made the enemy to break our heads with'.

This piecemeal approach to science comes across most clearly in two attempts to link religious claims with physics, separated by nearly a century. Helena Blavatsky, co-founder and chief ideologue of theosophy, argued that there was an eternal spiritual teaching that had

been preserved with various degrees of fidelity in the world's religious traditions, in particular the primary religions of India, Hinduism and Buddhism. The validity of this eternal truth was, in Blavatsky's own time, the last decades of the 19th century, being confirmed by the natural sciences in general, and physics in particular. Her two-volume work *The Secret Doctrine*, first published in 1888, devotes considerable space to the links between this suggested primeval wisdom tradition and the latest advances in physics. Much more recently, Fritjof Capra achieved bestseller status by claiming (in *The Tao of Physics*, first published in 1975), that there was a core of mysticism shared by the major religions of the East, and that this mystical truth was in Capra's own lifetime being confirmed by the latest advances in physics. The instructive point of comparing Blavatsky's and Capra's versions of the argument is that physics in the 1880s was a very different science than in the 1970s. Blavatsky refers approvingly to theoreticians of electromagnetism and atomic theory; Capra's interest lies with particle physics and quantum mechanics. The authorities and theories are invoked for the same rhetorical purpose by both writers, but hold opinions that differ radically and are difficult to reconcile.

Survey of Contents

When we began exploring the idea of compiling an anthology on how religions appeal to the authority of science, we were not sure we would find enough scholars working on this specific theme to create a collection of any reasonable size. Then, after we succeeded in bringing together enough initial contributors, reviewers for the first publisher we approached failed to understand the thrust of our project. (One reviewer even misperceived the proposed volume as focused on the theme of the conflict between religion and science.)

When we finally brought the project to Brill, our acquisitions editor not only immediately understood the importance of *Religion and the Authority of Science*, but she also encouraged us to invite more contributors. When we did so, we were pleasantly surprised to discover numerous researchers—including some of the top scholars in the field—who were either already researching this theme or who were interested in writing something on this intriguing topic. Subsequently, we decided to expand this project into a larger-than-usual anthology that would seek to incorporate a wide range of different approaches. As a consequence of this way of proceeding, chapters in the present collection

examine the theme of the appeal to the authority of science among an extremely wide variety of different religions and movements, indicating the global appeal of this legitimization strategy.

The contributions we received resisted categorization into neat thematic sections, so we chose to organize the volume primarily according to religious traditions (though some readers may object to our classifications of specific groups under certain headings). The exceptions to this approach are the initial theoretical section and the concluding section.

The chapters that follow illustrate some of the many ways in which selected aspects of modern science are made into the ally of religion. Sacred texts are reinterpreted as scientific documents, rituals carried out by members of the tradition are understood as scientific methods yielding proven results, and religious doctrines are declared to be analogous to scientific theories. They also show how less palatable elements of science are defused and rejected. Darwinian evolution is demoted to a mere hypothesis (and a presumably false one at that), mainstream science is denounced as a ideological straightjacket unable to accept the fact that mind reigns over matter, and the majority of scientists are understood to be blinkered by their materialistic bias. Using science as a warrant for religion, then, only works when science is subsumed under a religious strategy. Only a sacralised science can confirm a scientific religion.

Theoretical

Academic analysts usually think of religion as legitimating other social institutions. However, one often finds apologists appealing to the authority of science as a strategy for supporting the truths of their particular tradition. In a social environment where diverse religious claims compete with each other, it is probably inevitable that different groups would seek alternate sources of legitimacy. Science is an attractive legitimator because of its high social status and because of the popular view of science as an objective arbiter of “truth.” In “How Religions Appeal to the Authority of Science,” James Lewis examines the notion of “legitimation strategies” derived from Max Weber’s discussion of the legitimation of authority, and then analyzes the specific ways in which religious groups appeal to the authority of science.

Kathinka Frøystad’s “From analogies to narrative entanglement: Invoking scientific authority in Indian New Age spirituality” examines

some of the ways in which science is invoked in the many New Age-inspired spiritual movements that have grown popular among the urban middle class in India since the mid 1990s. Most attention is devoted to the use of analogies associated with the sciences, references to research experiments, terminological loans and the use of academic titles, all of which are highly common in these movements. Besides exemplifying the salience of scientific rhetoric in urban middle-class spirituality in India, this chapter argues for the fruitfulness of going beyond the well-tried analytical frameworks of Weberian authority or Taussig-inspired mimesis when analyzing religious appeals to science.

Modern religious Satanism as a whole can be conceptualized within a satanic sub-milieu of the cultic milieu in terms of the broad types of rationalist and esoteric Satanism. This shines a light on a basic tension when legitimizing specific discourses and practices in modern religion, namely the respective appeal to scientific theories, models and terminology versus the appeal to esoteric knowledge, historiography, experiences and vocabulary. In “‘We Demand Bedrock Knowledge’: Modern Satanism between Secularized Esotericism and ‘Esotericized’ Secularism,” Jesper Aagaard Petersen suggests viewing the flows in the satanic milieu through processes of secularization, esoterization, and syncretization, thus highlighting both the “how”, “what” and “why” of Satanism, esotericism and science.

Buddhism and East Asian Traditions

David L. McMahan’s “Buddhism as the ‘Religion of Science’: From Colonial Ceylon to the Laboratories of Harvard” discusses how, from its earliest encounters with modernity, Buddhists and Buddhist sympathizers have represented Buddhism as uniquely compatible with modern science and even, in some cases, as a kind of science itself. For spiritually unmoored Victorians, this reformed Buddhism offered the hope of a religion that did not conflict with science. For Asian Buddhists who were colonized or under threat of colonization by the West, it offered a tool by which to assert their own cultural value and critique the colonists’ and missionaries’ assumption of intellectual and spiritual superiority. The second phase in the attempt to forge a relationship between Buddhism and science began in the mid-to-late twentieth century and continues vigorously at present. The most salient aspects of the recent discourse include (1) comparative studies that liken particular Buddhist philosophical concepts, such as emptiness, dependent

origination, and causality to contemporary theories about the physical world, especially quantum physics, and (2) neuroscientific studies of meditation that make use of new technologies of brain imaging.

Practitioners of Falun Gong are generally perceived by the West as being unfairly persecuted by the great might of China. Yet those clinging to this view remain unaware of what ideologies lie behind this movement; of what makes *Falun Gong* tick. For example, they remain ignorant of the problematic discourse that exists between *Falun Gong* and the scientific community; ironic given that the movement is so heavily reliant on the science of telecommunications to spread its word. In “Falun Gong and Science: Origins, Pseudoscience and China’s Scientific Establishment,” Helen Farley scrutinizes the uneasy relationship between *Falun Gong* and science by examining the emergence of *Falun Gong* from the larger *qigong* movement in the 1990s. *Qigong* itself was a formulated tradition that appeared just before the founding of the People’s Republic of China (PRC). The relationship between *qigong* and science is considered, with the latter being both friend and foe to the movement at different times. The nature of this association has to some extent influenced the relationship between science and *Falun Gong*. The chapter concludes with an examination of the ideologies of *Falun Gong* in relation to the contemporary scientific worldview as expressed by its charismatic founder, Li Hongzhi.

God Light Association, known as GLA, is a Japanese new religion founded in Tokyo in 1970 by Takahashi Shinji and now led by his daughter Takahashi Keiko. GLA represents a religious expression of Japanese civilization in its confrontation with late modernity and globalization. In “Religion Metaphorical and Metonymical Science: Constructing Authority in a Japanese New Religion,” Christal Whelan analyzes how the religious group perceived and ultimately managed to absorb certain elements from the dominant Western historical narrative it was compelled to confront during post-war occupation and the geo-politics that followed. Crucial to this enterprise was GLA’s extensive use of metaphor and metonymy in evoking the authority of the educational establishment and the authority of science in order to legitimate its own claims to possess the ultimate truth.

In the beginning, Aum Shinrikyô followed the traditional pattern of an incompatibility of religion and natural sciences which was introduced to Japan at the end of the 19th century from the West. However, as Martin Repp observes in “‘When Science Fiction becomes Science Fact’: The Role of Science, Science Fiction and Technology

in Aum Shinrikyo,” after young gifted scientists joined the group, they attempted to harmonize their beliefs with modern sciences in theoretical and practical ways. They claimed, for example, that “True religion is science.” Science had to verify the truth of their religious beliefs, e.g. through scientific tests of meditation practices. Since the mindset of these young believers had been formed by contemporary science fiction literature, they even attempted to proceed from science fiction to “science fact.” Thus, Aum Shinrikyo became in Japan the religious group which was (in comparison with other groups) most deeply involved in the natural sciences.

South Asian Traditions

“Vivekananda and the Scientific Legitimation of Advaita Vedānta” examines one of the key figures in the Hindu endeavor to reconcile tradition with modernity: Swami Vivekananda. C. Mackenzie Brown begins by discussing the general crisis of religious authority in late nineteenth-century colonial India, and, in that context, analyzes the personal spiritual crisis of Vivekananda as he realized that his religious beliefs and trust in the ancient Hindu sages were undercut both by the writings of European skeptics like David Hume and John Stuart Mill and by the discoveries of modern science. Brown then explores the impact of western writers, in particular Herbert Spencer and the Theosophist Helena Petrovna Blavatsky, on Vivekananda’s eventual resolution of the crisis, leading to his reinterpretation and scientization of the classical Hindu monistic philosophy of Advaita Vedānta. The chapter concludes with an assessment of Vivekananda’s rhetorical strategies and in particular his understanding of “science.”

Western commentators often envision the International Society for Krishna Consciousness (ISKCON)—also called the Hare Krishna movement—as a countercultural group born out of the American youth subculture. Yet the movement’s origins are actually in the Indian experience of colonization and the response to the colonial experience. In “Inverted Orientalism, Vedic Science, and the Modern World: Bhaktivedanta and the International Society for Krishna Consciousness,” Benjamin Zeller considers ISKCON’s position on science as it developed from its founder A.C. Bhaktivedanta Swami Prabhupada. Zeller argues that Bhaktivedanta’s views on science emerged from his encounter with colonialism, and that his eventual

rejection of Western science must be read as part of this process. Bhaktivedanta utilized the concept of the West in order to position himself and his movement as ideally Oriental, but in a reversal of traditional Orientalism, Bhaktivedanta reserved the ideals of modern and scientific for the Orient. The approach to science, for ISKCON, came to represent their self-identification as the paragons of both ancient Asian tradition as well as modern thought.

Modern Vedic Evolutionism is a popular Hindu response to debates about evolution which absorbs Darwinism as a “lower-level” truth in the Hindu beliefs about karmic cycles of manifestation and dissolution of the universe. In “Madame Blavatsky’s Children: Modern Hindu Encounters with Darwinism,” Meera Nanda sets out to explore the social and intellectual history of Modern Vedic Evolutionism in the intersection between the cultic milieu in the United States and the Hindu reformist/revivalist milieu in India in the 19th century. She traces the roots of Modern Vedic Evolutionism to Madame Blavatsky’s Theosophy which first appropriated Hindu cosmology and mythology to produce an esoteric theory of evolution, and demonstrates that the entire repertoire of intellectual arguments that modern Hindus use to dress up traditional Hindu cosmology in scientistic costume of progressive evolution was originally created and popularized by Madame Blavatsky and her fellow Theosophists.

Maharishi Mahesh Yogi, founder of the Transcendental Meditation Organization, was a prime example of a Hindu leader who appealed to the authority of science to lend his movement legitimacy. Maharishi claimed that parallels to quantum physics and other forms of Western science such as biochemistry confirmed ancient Vedic “sciences,” thus developing strategic apologetics to redescribe traditional Advaita Vedanta philosophy and various practices as scientific. As discussed in Cynthia Ann Humes’ “The Transcendental Meditation Organization and its Encounter with Science,” Maharishi added to his apologetics intensive field study through which he claimed he could prove the western scientific basis of his metaphysical interpretations. Maharishi sought to validate his programs by undertaking social-scientific research on Transcendental Meditation, the Sidhi techniques, and group meditation. He also established academies, universities, institutes, as well as journals, and held quasi-academic conferences to announce and explore the “Science of Creative Intelligence.”

In “The Sikh Scientific Ethic—Worldly and Mystical,” Richard Cimino examines the religious discourse of Sikh applied science

professionals in the U.S. and how they relate their faith to work in science and technology. Based on in-depth interviews with 15 Sikh applied science professionals—mainly engineers and IT workers—he finds that the Sikh emphasis on practicality (“living the truth”) and mysticism supports both the pragmatism and technological optimism of applied science. This Sikh “scientific ethic” makes for little conflict between the domains of science and religion, though it may weaken the social justice thrust of the religion.

The Radhasoami tradition has almost since its inception in 1861 in Agra, India, attempted to explain its practices and teachings as a higher form of spiritual science. But in so doing, Radhasoami has developed its own unique understanding of how science operates which at times is at odds with more conventional definitions of how to systematically study nature. In “The God Experiment: Radhasoami’s Version of Science and the Rhetoric of Guru Succession,” David Christopher Lane examines the history of Radhasoami’s version of science and how and why it has attempted to legitimize its religious practices in light of the latest discoveries in astronomy, physics, biology, and psychology. Lane is also particularly interested in exploring how and why Radhasoami’s definitional use of science often contradicts a scientific worldview.

Judaism and Islam

Damián Setton’s “The Use of Medicinal Legitimizations in the Construct of Religious Practice: The Dietary Laws of Judaism” focuses on the relationship between medical science and religion as part of the proselytizing strategies of orthodox movements in the Judaic world. Based in sociological research inside the Chabad Lubavitch community of Buenos Aires, Argentina, the article analyses how secularization of the dietary laws implies an appeal to medical discourse, by which these laws are legitimized according to their health benefits. This secular universe of representation was hegemonic throughout the 20th Century. But by the end of the century religious movements began emerging from all over the Judaic world. By approaching non-religious Jews, striving to bring them closer to religion, they built a discourse opposed to modernity that simultaneously borrows from the same set of meanings formulated by modernist thought. In this process, they claim to arrive at the meaning of religious precepts.

In “Science is just catching up: The Kabbalah Centre and the neo-enlightenment,” Hanna Skartveit discusses the Kabbalah Learning Centre’s somewhat paradoxical relationship to science; as convenient modern reference and as misguided producer of doubt. Notions of knowledge and certainty, as depicted in the interpretations of central Biblical narratives, lay the grounds for the Centre’s perception of science, and deem its material and rationalistic definitions of reality as incomplete. Through analysis of Kabbalistic texts and ethnography from Buenos Aires, Skartveit traces the relationship of Kabbalah to science historically and locates it within a contemporary neo-enlightenment movement. She also argues that, contrary to appearances, the Kabbalah Centre does not approach science looking for authorisation of its cosmology. Rather, it seeks to confirm science’s subordinate position to Kabbalah in the management and production of true knowledge.

Approximately two decades after its publication in 1859 the Darwinian theory of evolution became known in the Muslim world. In “Islamic Opposition to the Darwinian Theory of Evolution,” Martin Riexinger points out that from the very start it met with unfavourable responses from conservative Muslims. However, the issue remained a topic of minor importance until the Nurcu movement started a campaign against the theory of evolution. In order to undermine the materialism of their Kemalist and Marxist opponents they denounced the theory of evolution as unfounded hypothesis. For this purpose they borrowed the auxiliary arguments of American creationists. Since the late 1990s their brand of Islamic creationism has become popular especially in migrant communities due to the propaganda of the free lance writer Harun Yahya on the Internet.

Christian Tradition

Conservative Christians in the United States have historically struggled with the authority and legitimacy of science and scientific knowledge. In “Fighting Science with Science at Pat Robertson’s Christian Broadcasting Network,” Carie Little Hersh examines the Christian Broadcasting Network (CBN), a nondenominational religious organization founded by controversial televangelist Pat Robertson, which expresses a complex and contradictory engagement with science. Employees, students, and other participants at CBN recruit scientific data to support Biblical text while simultaneously critiquing institutions

of science for skewing knowledge to meet their own cultural suppositions. Through dialogue over issues of global warming, evolution, and biblical archaeology, members of Robertson's Christian Broadcasting Network and related organizations construct the scientific "Other" as at once having familiar authority and legitimacy and yet also usurping its boundaries, proffering answers to questions it is not equipped to address and leading people towards atheism and away from Christianity.

Jeremy Rapport's "Christian Science, New Thought, and Scientific Discourse" examines the ways that Christian Science and New Thought groups, especially the Unity School of Christianity, used science as a legitimization strategy. Both Christian Science and New Thought groups validated their claims by attempting to show how they aligned with scientific claims. By using language that invoked science and claiming that their religious practices and tenets could be scientifically demonstrated as accurate and effective, Christian Science and New Thought show one way that alternative religious groups try to appropriate conventional knowledge to support their unconventional claims. Christian Science and New Thought use of science also reveals an important way that religious groups have tried to reconcile religious claims with those of the modern world.

In "The Unification Movement: Science, Religion and Absolute Values," Sarah M. Lewis examines the interpretation and role of science within the Unification Movement, with particular reference to the relationship between science and religion. It explores some of the key aspects of Unificationist theology, particularly the Fall of humanity and consequent need for salvation and how science is accommodated into this belief system. It discusses Sun Myung Moon's creation of the International Conference on the Unity of the Sciences (ICUS) and some of the other organisations created to further his beliefs and aims. It also briefly places the Unification Movement in its Korean context, and suggests how the Korean background of the Movements has influenced its theology.

Spiritualism and Spiritism

Alternative states of consciousness such as trances and the manifestation of additional personalities have traditionally been the purview of religious authority. Cathy Gutierrez's "Spiritualism and Psychical Research" examines nineteenth-century Spiritualism as a staging

ground for a clash of interpretation: mediums entering Mesmeric trance states and speaking in the voices of the dead invited renewed speculation on the source and meaning of multiple kinds of consciousness. Beginning with Mesmerism and its affinities to both esoteric pursuits and medical science, alternative states are traced through hypnosis, mediumship, and psychoanalysis. London's Society for Psychical research and America's William James marshal support for continuing to see such states as theological rather than pathological and this current is traced into contemporary popular movements that blend psychology and spirituality.

At the turn of the twentieth-century Latin America, and coincidentally with the development of new scientific activity, a positivistic epistemology appeared as a strategy for contesting the Catholic hegemony over ritual authority, doctrine and discourse. The contest with Catholicism was most marked in the diffusion of a popular positivism among subaltern sectors of the Argentinean society through the action of a new Spiritist trend, namely, the Basilio Scientific School—*Escuela Científica Basilio*. It popularized the dialogical interchange with spirits and the spiritual world through the doctrinal argument—similar to classical Kardecism—that it was not only possible but also scientifically verifiable. Thus, positivism lost its monopolization by the social elites and became, instead, a popular epistemology about the otherworldliness that contested dogmatic truths. In “Popular Epistemologies and ‘Spiritual Science’ in Early Twentieth Century Buenos Aires,” Gustavo Andrés Ludueña analyses the processes of appropriation of a singular positivism in this particular trend of spiritual religiosity.

Psychical research and parapsychology have been highly influential in forming contemporary notions of the ostensibly “supernatural”, “occult”, and/or “paranormal”. The work of parapsychologists has fuelled modern occulture with indispensable concepts as well as providing an air of scientific legitimacy to new religious formations making use of such concepts. In “Parapsychology: Naturalising the Supernatural, Re-Enchanting Science,” Egil Asprem takes a three-fold thematic approach to parapsychology in its attempt to unravel and analyse some of the social and cultural dynamics that ties parapsychological discourse to scientific and religious discourse in the 20th century. The chapter explores these aspects of 20th century parapsychological discourse, and indicates their reception in, and importance for, contemporary forms of popular religiosity in the negotiation of the authority of science.

New Age and Occult

Based on an analysis of New Age primary literature, in “The ‘Scientific’ Presentation and Legitimation of the Teaching of Synchronicity in New Age Literature,” Jochen Scherer discusses a concept which features prominently in New Age discourse: synchronicity, or meaningful coincidences. Synchronicity is in part an epistemological concept: as the coincidences in view are said to carry meaning for a particular individual, catching synchronicities is a method of attaining knowledge about one’s spiritual journey. Because of this strong focus on individual spiritual development, it is easy to perceive synchronicity as an element of the alleged individualist nature of New Age spirituality, but this would be a misunderstanding of the phenomenon’s ontological implications. In New Age sources, synchronicities are an objective part of the constitution of reality, and individuals must submit to its dynamics or else suffer the consequences.

Fritjof Capra argued that intuition and experience constitute valid approaches for the acquisition of knowledge about reality and are consonant with the new physics. Olav Hammer has called this approach “the scientist stance”. Ruth Bradby’s chapter, “Science as Legitimation for Spirituality: From The Aquarian Conspiracy to Channelling and A Course in Miracles,” deals with the “scientist” strategy by looking at two influential figures in the development of the 1980s New Age network of spiritualities, William Bloom and Marilyn Ferguson. Ferguson appropriated the vocabulary of science as she described the coming shift to a “New Age” and made her central appeal to science for legitimation. In contrast, Bloom argued that channelling has been central in the development of New Age ideas, though it appears to contradict the New Age emphasis on an epistemology of individual experience with its link to scientific empiricism. To illustrate how channelling has influenced the construction of a new religious paradigm, consideration is then given to *A Course in Miracles*, a text channelled in New York in the 1960s and 1970s. The Course, as it is popularly known, continues to be revered in the network of new spiritualities, although its radically world-denying spirituality presents a challenge to those looking to science for legitimation. Those who claim legitimation for channelled wisdom because of the supernatural provenance of their sources adopt a position not unlike believers in religions that claim divine revelation, including Judaism, Christianity and Islam. However, anecdotal evidence suggests that followers of channelled texts rely ultimately on the “scientist” proof of experience.

There appears to be a reasonably clear distinction between science and religion: the scientific method is based on rational enquiry and the exploration of testable hypotheses relating to the nature of physical reality, whereas religions in all their various forms reach beyond the physical realm, often placing their faith in spiritual powers attributed to transcendent deities. Modern Western magic, however, falls into a different category because it is not faith-based. One needs to distinguish between magical beliefs that are simply superstitious, and the 'high magic' approaches utilised in modern esoteric practice that involve willed responses to altered states of consciousness. In "Modern Western Magic and Altered States of Consciousness." Nevill Drury argues that because the practice of 'high magic' involves the use of altered states of consciousness induced by specific meditative, visualisation and mental dissociation techniques that are in turn subject to the individual will, such approaches to magical practice lend themselves, potentially, to scientific evaluation.

In "Legitimizing Belief through the Authority of Science. The Case of the Church of Scientology," Régis Dericquebourg attempts to define the notion of legitimization in religion and then demonstrates how it is expressed among the members of the Church of Scientology. Among the several ways people use to legitimate their belief is appeals to the authority of science. In this chapter, Dericquebourg describes the self-legitimization of Scientology in its writings and the legitimization of Scientology in a sample of confirmed followers. Surprisingly, the scientologists do not validate their creed with the authority of science mainly because, from their viewpoint, Scientology is a form of spirituality; it is thus in itself validated. Some aspects of Scientology such as the psychological theory and the psychosomatic thesis of Ron Hubbard are considered scientific by members, but, in general, they do not feel that an appeal to science is necessary to validate the story of the Thetans, the story of the planet, Scientology's program of self development and the like.

Alternative Archaeologies

In "New Religions and the Science of Archaeology: Mormons, the Goddess and Atlantis," Carole M. Cusack explores three new religious movements and their relationship with the science of archaeology: the Church of Jesus Christ of Latter-day Saints (Mormons), contemporary

Goddess spirituality, and New Age engagement with channelled beings and the lost continent of Atlantis. Cusack demonstrates that a complex and ongoing dialogue between alternative religionists and academic archaeologists has developed since the mid-twentieth century. Alternative spiritual interpretations of sites and artefacts are generally dismissed by the scientific community as “cult archaeology” or “pseudoarchaeology”, but in recent decades feminist and postmodern voices in Post-Processual archaeology have acknowledged the subjective range of potential interpretations, thus opening up the possibility of accommodating alternative views of archaeological phenomena.

In “Is Dialogue between Religion and Science Possible? The Case of Archaeology and the Goddess Movement,” Kathryn Rountree addresses the debate between archaeologists and the followers of modern Goddess religion, many of whom are enthusiastic visitors to ancient sites (they believe were) once associated with Goddess worship. Despite hopeful talk about multivocality and some archaeologists’ stated desire to engage with other stakeholders who have an interest in the past, attempts at dialogue have often foundered. The chapter discusses problems with attempting to interlace scientific and religious discourses which draw on different epistemologies, languages and values. It asks whether it is possible to create a democratically constituted forum where archaeology—as officially authorized interpreter of the past with immediate access to ‘the trowel’s edge’—can engage with the inevitably marginalised Goddess community to the mutual satisfaction of both groups. The high-profile Neolithic site of Çatalhöyük in Turkey, where the author conducted anthropological fieldwork, is used as a case study.

Charles Nuckolls’s “Mormon Archaeology and the Claims of History” examines Mormonism’s claim—possibly unique among the major world religions—that a large part of its scriptural tradition took place in ancient America. The purpose is neither to explore the history of this claim, nor to take any position on its validity. Instead, the analysis explores the claim itself as it unfolds with reference to a particular domain, Mesoamerican archaeology, and a particular object—the so-called “Tree of Life” stone (also known as Izapa Stela Five) that is sometimes cited as archaeological evidence for the ancient American origins of the *Book of Mormon*.

Theories and Sceptics

Legend has been conceptualized in folkloristics as a genre that validates belief in the supernatural through narratives that focus on somebody's personal experience and are located in the social world. Legend is one of the most persistent genres of vernacular belief, spread among diverse tradition groups all over the world. However, the rhetorical devices of truth production in legends have been changing. Ülo Valk's "Folklore and Discourse: The Authority of Scientific Rhetoric, from State Atheism to New Spirituality" is based on Estonian folklore and it argues that contemporary esoteric discourse, blending different religions, beliefs and doctrines, relies strongly on (quasi-)scientific rhetoric. Traditional strategies of belief verification in legends, such as locating supernatural events into well-known places and references to reliable witnesses, are nowadays supported by the prestigious discourse of natural sciences. Scientification has become a common practice to validate beliefs and re-enchant the world—paradoxically once demystified by the spirit of scientific rationalism.

The phlogiston theory propounded by the German scientist Georg Ernst Stahl (1666–1734) was an attempt to explain combustion in terms of an all-pervading, invisible substance, termed by him "phlogiston", which is given off when substances burn. Although by the late 18th century the theory had been largely discredited by Lavoisier's experiments, it nevertheless survived for some time in Germany, where it merged with mystical ideas and the notion of a world soul. It can therefore be seen as a late relic of the alchemical world view. In "The Phlogiston Theory: a late relic of pre-Enlightenment Science," Christopher McIntosh argues furthermore that it straddles the boundary between religion and science.

Religion in the contemporary era appeals to science as a strategy of legitimation. The sceptics reject their appeals as unscientific and misleading. In "'Oh no, it isn't.' Sceptics and the Rhetorical Use of Science in Religion," Asbjørn Dyrendal deals with the modern sceptics movement, the development of it, and their counter-rhetorical strategies. First, the chapter looks at one central understanding of scepticism in light of the philosophical heritage. Then it traces parts of the history of scepticism, showing that it runs along with the development of science as a profession, partly as response to religious appropriations of and reactions to scientific development. The central part of the chapter deals with examples of "debunking" as narratives, that is on how different counter-rhetorical strategies are used to dismantle claims.

THEORETICAL

HOW RELIGIONS APPEAL TO THE AUTHORITY OF SCIENCE*

JAMES R. LEWIS

On a visit to Beijing in the 1990s, I saw an old lady who had set up a booth on a bridge, with a sign advertising her wares which read *kexue kanxiang*—“scientific fortunetelling.” (Ownby 2008, 48)

In the contemporary world, apologists for many religions appeal to the authority of science as a strategy for enhancing the legitimacy of their religion. These strategies range from broad claims about their religion being *compatible* with science, to the more robust claim that their religion is *scientific*. In a few cases (Vedic science, Qur’anic science, creation science, et cetera), believers have even constructed alternative sciences as a way of bringing traditional religious notions into alignment with science. The appeal to science is most overt in new religions that incorporate “science” into their names, such as Christian Science, Religious Science, and Scientology.

This kind of claim strikes most scholars of religion as odd because it inverts the familiar idea that religion legitimates other social institutions. (The legitimating role of religion is a core theme in, for example, Peter Berger’s *The Sacred Canopy*.) However, it is easy to see how the authority of religion becomes problematic in a society where different religions with conflicting truth claims compete for social dominance. Additionally, in the contemporary world unbelievers often claim that the findings of science refute the truth claims of religion. It thus makes sense that, in today’s religious marketplace, religions should seek to enhance their authority by appealing to a source of legitimacy like science, which, at least in the West, possesses both a “mystique of authority” (Levine 1990, 228) and greater social status than any particular religion.

Before analyzing more precisely how religions appeal to the authority of science, it will be helpful to briefly discuss how authority is

* An earlier version of this chapter appeared in *Temenos* 46:1 under the title “The Science Canopy.”

legitimated more generally. The classic approach to this issue is Max Weber's tripartite schema of traditional, rational-legal, and charismatic legitimations of authority.¹ The dynamics of this schema are largely confined to the factor of charisma, a form of legitimation Weber viewed as especially—though not exclusively—characteristic of social movements, particularly emergent religious movements.

Weber's work on the legitimation of authority was insightful and ground breaking, but it was by no means the last word on the subject. For example, in contrast to what one might anticipate from the discussion of authority in Weber's *Economy and Society*, one often finds religions appealing to tradition. The explicit nature of such appeals means that they constitute a variation from what Weber had in mind by the traditional legitimation of authority, which he viewed as largely implicit. Also, when nascent movements attempt to justify a new idea, practice or social arrangement by attributing it to the authority of tradition, it is often only through a reinterpretation—if not an actual recreation—of the past that they are able to portray themselves as the true embodiment of tradition. Such modifications of his schema indicate that Weber did not have the last word on this issue.

Charisma—which, in Weber's use of the term, includes direct revelations from divinity as well as the leader's ability to provide both mundane and supernatural benefits to followers—may be the key to a new movement's attractiveness, but charismatic leaders typically appeal to a variety of other sources of legitimacy. For instance, as mentioned above, founders of new religions often appeal to the authority of tradition. Modern movements also often appeal to the authority of reason and science.

Despite many areas of overlap, it is useful to view these various appeals as distinct *legitimation strategies*—though it should immediately be noted that the term “strategy” in this context is *not* meant to imply that religious leaders necessarily set out to design legitimation strategies in the same way business executives develop marketing strategies or generals develop military strategies. Rather, in the majority of cases, a

¹ Where Weber discusses “The Bases of Legitimacy of an Order,” he notes that “Legitimacy may be ascribed to an order by those acting subject to it” in four rather than three ways (Weber in Eisenstadt 1968, 12). He does this by separating *rational* legitimacy from *legal* legitimacy (in other places, he presents these together as *rational-legal*). For my purposes here, I focus on the rational aspect. The discussion in this section is based on the analysis in my *Legitimizing New Religions* (Lewis 2003, 11–15).

religion's legitimation strategies emerge more or less spontaneously out of the ongoing life of the community. Grouping strategies according to Weber's tripartite schema—Charismatic Appeals, Rational Appeals, and Traditional Appeals to Authority—I listed *some* of the strategies by which religions legitimate their authority in the first chapter of *Legitimizing New Religions*.

The lines of division between these legitimation strategies are often hazy and overlapping. A New Age channeler relaying teachings from "Master Jesus," for example, is simultaneously appealing to the authority of direct revelation (charismatic legitimation strategy) and to the authority of a traditional religious figure (traditional legitimation). Though here merged into a single appeal, it is nevertheless analytically useful to separate them. In this specific case, it is easy to see that the channeler could claim, alternately, that he or she is receiving transmissions from, let us say, a Venusian starship captain. In this case the message would still be authoritative because of its status as a direct revelation, but not because it is coming from a traditional religious figure.

The Charisma of Tradition and the Charisma of Science

As already noted, the conscious, explicit appeal to tradition marks a significant departure from what Weber had in mind by traditional authority. Also, Weber did not think of tradition as being subject to creative reinterpretation. These are key themes in the modern classic, *The Invention of Tradition*. (Hobsbawm & Ranger 1983) In *The Invention of Sacred Tradition*, Olav Hammer and I extend Hobsbawm's and Ranger's approach to religion, observing that "inventing historical lineages seems particularly prevalent in the world of religion" (2007, 2). In the introduction to another recent collection, *Historicizing "Tradition" in the Study of Religion* (2005), Engler and Grieve make a significant contribution by bringing the implications of Hobsbawm's and Ranger's ideas to bear on Weber's notion of traditional authority.

However, an important point Engler and Grieve miss (and that I missed as well when I wrote *Legitimizing New Religions*) is that explicit, conscious appeals to tradition are, in a sense, appeals to the *charisma* of tradition—appeals to what we might characterize as tradition's "magnetic aura" of authority, roughly comparable to the charisma of celebrities. This aura of authority in turn evokes feelings of deference. As Engler and Grieve point out, Weber almost completely equates

tradition with habit (Engler & Grieve 2005, 4), so traditional authority is, for all intents and purposes, habitual authority—we follow tradition without reflection because “it is the way it has always been done.” Clearly, habit has nothing to do with—to use the above example—a New Age medium claiming to channel Jesus. Rather, the traditional figure of Jesus has an aura of *charisma* in Western culture. (Though this may sound odd to say, Jesus is, in a sense, a “traditional celebrity.”) So while it is still analytically useful to separate the New Age medium’s channeling of Jesus from her or his channeling of a Venusian starship commander, they are both, ultimately, charismatic appeals.

The situation is much the same with the authority of science. If an individual is an active scientist, then perhaps she or he regards science as authoritative because it is rational. For the general population, however, I would argue that appeals to the authority of science are appeals to the *charisma* of science—appeals to the “magnetic aura” of authority we associate with science. Prior to the blossoming of cold war nuclear concerns and the emergence of the ecology movement’s critique of runaway technology, the general populace accorded science and science’s child, technology, a level of respect and prestige enjoyed by few other social institutions. Science was viewed quasi-religiously, as an objective arbiter of “Truth.” Thus any religion that claimed its approach was in some way *scientific* drew on the prestige and perceived legitimacy of natural science. Religions such as Christian Science, Science of Mind, and Scientology claim just that.

There are, however, important differences between popular images of science and science proper. Average citizens’ views of science are significantly influenced by their experience of technology. Hence, in many people’s minds, an important goal of science appears to be the solution of practical problems. This aspect of our cultural view of science shaped the various religious sects that incorporated “science” into their names. In sharp contrast to traditional religions that emphasize salvation in the afterlife, the emphasis in these religions is on the improvement of this life. Groups in the Metaphysical (Christian Science-New Thought) tradition, for example, usually claim to have discovered spiritual “laws” which, if properly understood and applied, would transform and improve the lives of ordinary individuals, much as technology has transformed society. (See Rapport, “Christian Science, New Thought, and Scientific Discourse,” pp. 549–570 in this volume.)

The notion of spiritual laws is taken directly from the “laws” of classical physics. The eighteenth and nineteenth century mind was enamored with Newton’s formulation of the mathematical order in

the natural world. A significant aspect of his system of physics was expressed in the laws of gravity. Following Newton's lead, later scientists similarly expressed their discoveries in terms of the same legislative metaphor—for example, the “law” of evolution.

One of the first and, at the time, most influential of the nineteenth century new movements to adopt a rhetoric of establishing religion on a scientific basis was spiritualism. (See Gutierrez, “Spiritualism and Psychical Research,” pp. 591–608 in this volume.) Spiritualism was and is a religious movement emphasizing survival after death, a belief Spiritualists claim is based on scientific proof through communication with the surviving personalities of deceased human beings by means of mediumship. Mediumship was conceived as an avenue for conducting *empirical* (in the broad sense of *experiential*) research.

Like the later New Thought movement, Spiritualists also expressed their discoveries in the spiritual realm in terms of a series of laws. These have rarely been formulated systematically, and tend to vary from writer to writer. Thus, for example, a relevant reading on the official website of the National Spiritualist Association of Churches lists 20 laws, which are said to be “just a few” of the many universal laws. In addition to such familiar items as the law of gravity and the law of evolution, some of the less familiar laws listed are the laws of “harmony,” “desire,” “mind,” “vibration,” and so on. (www.nsac.org)

This legislative rhetoric was carried over into Metaphysical religions, particularly New Thought. Rather than presenting themselves as empirically investigating the spiritual realm via communications from the dead, groups in the Metaphysical tradition view themselves as investigating the mind or spirit in a practical, “experimental” (again in the broadest sense) way, and discovering “laws of the mind” that could be brought together to constitute a *Science of Mind* (the title of Ernest Holmes' influential book).

The Church of Scientology is in this same lineage, emphasizing that L. Ron Hubbard, the Church's founder, discovered the truths of Scientology through scientific research, not through religious revelations. (Willms 2009) Scientology takes this a step further beyond the Christian Science-New Thought tradition by explicitly referring to their religio-therapeutic practices as religious *technology*—in Scientology jargon, the “tech.” In much the same way as the 1950s viewed technology as ushering in a new, utopian world, Scientology sees their psycho-spiritual technology as supplying the missing ingredient in existing technologies—namely the therapeutic engineering of the human psyche.

In addition to appropriating popular notions of science as an enterprise focused on the goals of “discovering laws” and solving practical problems, emergent religions in this lineage see themselves as utilizing a scientific *approach* or *methodology*—specifically, as utilizing “inductive reasoning about ‘plain facts.’” (Rapport 2008) By claiming to adopt a scientific approach, these religions are obviously not claiming to be utilizing a rigorous experimental methodology involving control groups and the like. Rather, they see themselves as scientific in the more general sense of taking a broadly empirical approach to spiritual-mental phenomena, and as verifying their results in the lives of individual converts. They perceive this as sharply departing from the dogmatic, non-empirical approach of older religious bodies that, in this view, simply expound upon received tradition.

Before shifting the discussion to the next variety of science-related legitimization strategies it should be noted that even the traditional revealed religions sometimes claim to utilize a scientific methodology. To take a few random examples: The colonial theologian Jonathan Edwards revamped Puritan theology in terms of Newton’s physics and Locke’s empiricism to make traditional Christianity more relevant to his contemporaries. (Lee 2005) Theologians also draw on the legitimacy of science when they compare their approach with that of the scientists, as in the introduction to Charles Hodge’s *Systematic Theology*:

The Bible is to the theologian what nature is to the man of science. It is his storehouse of facts; and his method of ascertaining what the Bible teaches is the same as that which the natural philosophy adopts to ascertain what nature teaches.... The duty of the Christian Theologian is to ascertain, collect, and combine all the facts which God has revealed concerning himself and our relation to him. There facts are all in the Bible. (Cited in Olson 2004, 163)

“Scientific Worldviews”

There are actually many different ways religions can appeal to the authority of science. Whereas churches in the Metaphysical tradition claim to be scientific on the basis of their *methodology*, many other religions make the same claim on the basis of perceived parallels between their particular religious *worldview* and the worldview implied by certain interpretations of science. This approach has a history that stretches back at least as far as the nineteenth century when Buddhist apologists

asserted the superiority of Buddhism over Christianity on the basis of the former's alleged compatibility with classical physics. (Fields 1981, 126–127) In the contemporary world, numerous religious and spiritual movements have updated this tactic by claiming that the truths of certain key notions are supported by modern quantum physics.

This has particularly been the case with individuals and religions that are a part of the “New Age” milieu.² The appeal to quantum physics is, for example, the dominant theme in Frijof Capra's *The Tao of Physics* and, more recently, the film “What the Bleep Do We know?” Alternative interpretations of the natural sciences are the focus of the chapter on “New Age Science” in Wouter Hanegraaff's important study, *New Age Religion and Western Culture* (1998). In that work, Hanegraaff makes a number of important observations.

In the first place, what the New Age seeks in science is evidence for a unified, “holistic” world view—one that supplies, in effect, a scientific foundation for New Age religion. One consequence of this approach is that New Agers are highly selective about what they draw from science, focussing on elements that suit their purposes but completely ignoring others. (Lucas 1996, 55)

As a closely-related corollary, the New Age also seeks in holistic interpretations of science a critique of mainstream science; in Hanegraaff's words, “New Age believers claim that established science reflects an outdated reductionistic paradigm bound to be replaced by a new paradigm based on the holistic perspective.” Thus, “The evolutionary thrust of science now leads it to reject the very materialism it once helped to create.” (1998, 62)

Finally, Hanegraaff makes a fairly obvious though “largely unnoticed” point that “New Age science” is actually a misnomer, because the real domain of New Age interest in modern science is the *philosophy of nature*—sometimes referred to by the German term *naturphilosophie*. He then cites the prominent historian of Western esotericism, Antoine Faivre, who contrasts natural science, which is the pursuit of “objective knowledge of phenomena” (1987, 328), with *naturphilosophie*, which is an “intuitive and rigorous approach focussing on the reality underlying phenomenal reality.” (336) Though speculative and metaphysical,

² This section and the following section on Capra and the New Age draws heavily on my discussion in “Science and the New Age.” (Lewis 2007).

naturphilosophie nevertheless strives to take into account the data derived from empirical observation.³

Hanegraaff points out that modern secularism is also a *naturphilosophie* rather than science proper. Both defenders of holistic interpretations of science and secularist critics of such interpretations make the mistake of identifying their particular *naturphilosophie* with natural science, while characterizing the other camp as representing an illegitimate interpretation of science. Thus skeptical outsiders tend to refer to New Age *naturphilosophie* as “fringe science,” whereas insiders tend to think of their appropriation of science as “leading edge science.” (1998, 62–63).

A less benign manifestation of the religious appeal to modern physics can be found in contemporary Hindu nationalism. Intellectuals associated with the Bharatiya Janata Party have articulated a number of Vedic sciences (also referred to as *Hindutva* sciences) that include Vedic physics. Upon examination, it turns out that Vedic physics is yet another *naturphilosophie*, aimed at demonstrating that the truths of Hinduism are supported by physics. In the hands of nationalist propagandists, however, Vedic sciences are deployed chauvinistically, as a way of demonstrating the superiority of the Hindu tradition. Here again, *Hindutva* theorists draw heavily on the works of Western popularizers like Capra and Zukav. (Nanda 2003, 107–08) Outside the sphere of Hindu nationalism, a number of Hindu and neo-Hindu movements such as TM have adopted this brand of *naturphilosophie*. (Lowe 2008)

Hindutva thinkers do not confine their appeal to science to the *world-view* of modern physics. As Meera Nanda points out, Vedic science also claims to have adopted the *methodology* of the sciences: Vedic science posits a “relationship of homology, or likeness, between scientific empiricism and the Vedantic view of experience and reason, leading to a declaration of equality between the two.” (Nanda 2003, 95) *Hindutva* science thus provides us with a useful example of how religious traditions can appeal to the authority of science in multiple ways.

Before leaving this worldview discussion, it should finally be noted that there are a number of semi-naturalistic and “atheistic” new

³ As an aspect of this, we should probably also add the imagined implications of scientific theory for everyday life. In her seminal *The Aquarian Conspiracy*, Marilyn Ferguson refers to Fritjof Capra’s remark “that most physicists go home from the laboratory and live their lives as if Newton, not Einstein, were right—as if the world were fragmented and mechanical. ‘They don’t seem to realize the philosophical, cultural, and spiritual implications of their theories.’” (Ferguson 1980, 149–150)

religions that legitimate their worldviews by appealing to a naturalistic interpretation of modern science. Some UFO religions, for example, take a partially naturalistic approach by reinterpreting angels, ascended masters and the like as ufonauts. Heavens Gate, though it did not reject the spiritual dimension completely, was heavily naturalistic, picturing heaven as a physical place and the gods as living biological beings with advanced technology. (Zeller 2003) Heavens Gate and other UFO groups also adhered to a naturalistic exegesis of traditional myths and certain biblical stories using the notion that “ancient astronauts” explain the unusual aerial phenomena recorded in these texts. The Raelian Movement is the most thoroughly secular of all the UFO religions, with Rael, the founder, confidently asserting that their religion *is* science. (Palmer 2004) The appeal to a naturalistic *naturphilosophie* is also a part of Rael’s critique of traditional religions as irrational and unscientific. The appeal to naturalism and critiques of other religions as unscientific is also characteristic of Laveyan Satanism. (Petersen 2009)⁴

A Preliminary Typology

There are a number of other ways in which religions appeal to the authority of science beyond what I have been calling *methodological* and *worldview* appeals. Before examining these other strategies, it might be useful at this juncture to lay out a preliminary typology as a point of reference for our discussion. This is meant to be a *provisional*, heuristic schema rather than the final word in these matters:

1. Terminological/Rhetorical

Apologetics—Re-describing traditional religion and religious practices as scientific (Qur’anic science; Kabbalistic science; nineteenth

⁴ I discuss the naturalistic legitimation strategies of both the Raelian Movement and Laveyan Satanism in *Legitimizing New Religions* (Lewis 2003). For a more thorough treatment of Laveyan Satanism’s naturalistic legitimation strategy, refer to Jesper Aagaard Petersen, “‘We Demand Bedrock Knowledge’: Modern Satanism between Secularization Esotericism and ‘Esotericized’ Secularism,” pp. 67–114 in this volume. For a comparable treatment of a different UFO religion, Heavens Gate, refer to Zeller 2009 and Zeller, “Inverted Orientalism, Vedic Science, and the Modern World: Bhaktivedanta and the International Society for Krishna Consciousness,” pp. 249–278 in this volume.

century Buddhist apologetics; the “science” of yoga; etc.). Apologetics can also include an interpretive dimension that goes beyond the simple deployment of scientific-technological terminology.

Occult “sciences”—Astrology; Numerology; Palmistry. This is another form of apologetics, but, in addition, some traditional practices such as astrology also have a systematic/quantitative dimension that can strike observers as scientific (i.e., there is more at work here than just re-labeling a practice like astrology “the science of astrology” or “the science of the stars”).

Use of scientific-technological terminology in contemporary NRMs (scientific language was an integral part of these religions from day one, rather than a retrospective, apologetic re-languaging)—Christian Science; Scientology; Dianetics (described by Hubbard as an “engineering science”); Spiritual “laws” (modeled after the law of gravity; the law of evolution; etc.); Quantum Healing etc.

2. Methodological

Systematic, empirical (in the broadest sense) research into the spirit/mind, usually tied to some sort of spiritualistic-mentalistic “technology”—Spiritualism; Christian Science; New Thought; Scientology (Scientology is the end result, it is said, of Hubbard’s research—not a revelation). This can include portraying traditional mystical practices as empirical methods (as we noted earlier with respect to Vedantic mysticism).

3. Worldview (*Naturphilosophie*)

Naturalism—Raelian Movement; Satanism; Heavens Gate (especially in its early phase)

Modern Physics—Certain strands of Buddhism; New Age (e.g., *The Tao of Physics*), Vedic physics, groups like the Kabbalah Centre.

4. “Mainstream” empirical research on select religious practices and membership

Biofeedback research on Buddhist meditators; similar research on TM (over 600 studies on TM’s physiological, psychological and sociological impacts)

I.Q. and personality testing of members (e.g., controversial NRMs seeking broader social *classification* as a legitimate religion)

5. Alternative and borderline sciences

Ufology; Past-life research; Ancient Astronauts; NDE research. Alternative sciences often have associations, research programs, and journals that imitate those of mainstream academia.

Creation Science falls into this category. Creationism is also an apologetic strategy (i.e., the first category of this typology), though Creationism is a significant phenomenon that goes well beyond simply referring to the basic Genesis account as “Creation Science.” [This category might be a better place for the “occult sciences” that were discussed above under the first category.]

6. Para-technology

Dowsing rods; aura photography; E-meter; biofeedback and meditation devices

[7. Academic

Emphasis on spokespersons’ doctoral degrees and academic affiliations. Establishment of alternative academic institutions—such as ‘spiritual universities’—that model themselves off of mainstream academic institutions.]

It should immediately be noted that these are *not* hermetically-sealed categories. In particular, the line between utilizing a scientific-sounding vocabulary and developing an alternative science can be hazy at points. Additionally, while deploying a *methodological* or a *worldview* legitimization strategy, proponents will often throw in science-related or technology-related terminology (e.g., Christian Science refers to its members as “scientists”) to enhance their appeal to the prestige of science. And as we have already seen with respect to the example of Vedic physics, a number of different legitimization strategies can be deployed simultaneously.

The easiest and most basic way of appealing to the authority of science is simply to re-label some traditional idea or practice with a term that implies science or technology. For example, when I was a young man I purchased a copy of I. K. Taimni’s *Science of Yoga*, which was nothing more than Patanjali’s *Yoga Sutras* plus an extensive commentary. What appears to constitute the basis for Taimni’s characterization of the *Yoga Sutras* as science is simply that Patanjali’s work represents a systematic approach to the topic which creates the impression of being scientific. In the words of Maharishi Mahesh Yogi, the founder of TM, “systematized knowledge is science.” (Yogi 1966, cited in Lowe 1998) This is not *science* in the English sense of the term. However, the German term for science, *wissenschaft*, is a more general term for any sort of systematic approach to a topic. Thus while Patanjali’s work would *not* qualify as science in the English sense of the word, it *could* qualify as *wissenschaft*. And to people not trained as scientists, it is not

difficult to see how they might regard the systematic approaches of yoga, astrology and the like as meriting the title *science*.

Of course, not every utilization of science-related or technology-related terminology can be chalked up to this kind of confusion. Especially in the New Age milieu, one finds a wide variety of “terminological loans from the physical sciences: energies, frequencies, vibrations, dimensions and, of course, the term ‘science’ itself” being used rhetorically. (Hammer 2004, 236–37) One striking example of this pattern is the Unarius Academy of Science’s utilization of *science* to refer to its spiritual practices—particularly their practice of group past-life therapy—as “the Science.” (Tumminia 2005, 16)

Another, somewhat different example is the multitude of phenomena bearing the label “quantum”—quantum healing, quantum tantra, quantum astrology, quantum nutrition, quantum meditation, quantum magic, quantum tarot, quantum yoga, *et cetera, et cetera*. More often than not, these various ideas and practices provide little or no justification for their use of a term that carries with it the connotations—and thus the prestige—of advanced physics. (Hammer 2001, 271–303) Sometimes, scientific and technological terms are explicitly deployed as metaphors, as in, for example, *The Holographic Universe* (Talbot 1991), though, even as metaphors, they continue to carry the aura of scientific prestige.

A closely related tactic is what Hammer refers to as the “Rhetoric of Rationality.” In addition to claiming that one’s approach is logical, he points out that simply including mathematical calculations in one’s presentation creates the impression that the author’s approach is scientific. As examples of the latter, Hammer surveys various efforts to calculate the date of the apocalypse. (Hammer 2001, 243ff) Another example of this kind of rhetoric is the quasi-scientific discourse about “tests,” “cause and effect,” and the like deployed by Mary Baker Eddy in her discussion of Christian Science healing. (Rapport 2008)

The second and third categories of the above typology were discussed in the introductory sections of this paper.

The fourth category mentioned in the typology is constituted by studies of religions using mainstream scientific methods. The pre-eminent example of this approach is Transcendental Meditation, the purported benefits of which have been the subject of over 600 studies. TM is perhaps the most researched meditative technique of all time. (See Humes, “The Transcendental Meditation Organization and Its Encounter with Science,” pp. 345–370 in this volume.) The TM approach ultimately derives from earlier research on biofeedback,

particularly the approach pioneered by the Greens in the 1970s. (Green & Green 1989) The effects of Buddhist meditation have been the focus of research in more recent years. (See McMahan, "Buddhism as the 'Religion of Science': From Colonial Ceylon to the Laboratories of Harvard," pp. 117–140 in this volume.) Buddhist groups, the TM organization, and other meditation groups have appealed to this sort of scientific research to demonstrate the efficacy of their practices.

A different way in which religions, especially controversial new religious movements (NRMs), seek legitimacy is by actively encouraging social scientific studies of their groups. As Lorne Dawson points out, "Recognizing that the public distrusts the way that cults portray themselves, many NRMs have tried to foster social-scientific interest in their groups in hopes of countering the misinformation and prejudice of the anti-cultists and the media." In other words, "They have used the social sciences to court legitimacy." (Dawson 1998, 8–9) Because critics have accused NRMs of psychologically damaging their members, such groups have been especially keen to have their membership studied by psychologists and psychiatrists. (e.g., Galanter et al. 1979; Levine 1984)

The fifth category of the typology covers what I refer to as alternative and borderline sciences. (These are both emic terms used in the New Age milieu.) By alternative sciences, I have in mind areas of study dismissed by the academic mainstream as pseudo-sciences, from traditional divination practices such as astrology to more recent research areas such as ufology. From the standpoint of mainstream science, the patchwork of concerns that constitutes these sciences comes across as a "cargo cult" appropriation of science: "the external trappings of science are used and invoked, often in an isolated attempt to adapt scientific vocabulary or build pseudo-technical cult objects or perform quasi-rational calculations to buttress specific articles of Esoteric belief." (Hammer 2001, 209)

An aspect of the New Age appropriation of science is that alternative science tends to develop alternative institutions which model themselves on mainstream institutions. "Thus, if it is heterodox science, then like para-psychology, there will tend to be 'colleges' and 'institutes' like the College of Psychic Science and the Institute for Occult Sciences offering quasi-educational courses, lectures, demonstrations and facilities for research." (Campbell 2002, 17 [orig. pub. 1972]) In his important book, *Claiming Knowledge*, Olav Hammer makes a similar observation: "The first generation of parapsychologists emulated the practices of mainstream science, created journals for the

peer-reviewed dissemination of their ideas and affirmed their ties to mainstream values of their times.” (2001, 217) These observations can be extended to other alternative sciences: In more recent decades, ufologists, astrologers, transpersonal psychologists, and past-life therapists, among others, have also created refereed journals and professional societies in imitation of the conventions of mainstream science.

Another type of alternative science is constituted by religious reinterpretations of select areas of mainstream science that appear to contradict the revealed truths found in traditional scriptures. The most familiar representatives of this kind of alternative science are Christian creationism (Tourney 1994; Numbers 2006) and Islamic creationism (Stenberg 1996; Riexinger 2008), both of which aim to reinterpret the evidence for evolution to bring science into alignment with revelation. Another example of this approach is religiously-inspired Mormon archeology, which aims to bring the archeological record into alignment with the *Book of Mormon*. (Givens 2002)

The sixth category in the typology is what Hammer terms “Paratechnology.” I have added this as a separate category simply because it did not seem to fit comfortably into any of the other categories. The phenomena Hammer groups under paratechnology include Kirlian photography, dowsing rods, crystals (as deployed by certain New Age practitioners), and brain machines (e.g., self-monitored bio-feedback devices designed to help one meditate). Though not explicitly mentioned by Hammer, the Scientology E-meter also falls into this category. (Rothstein 2004, 110) Like the use of science-related terms, the use of technological devices conveys the sense that one is taking a scientific approach to spirituality, thus baptizing a particular practice with the legitimacy of science.

Finally, I have placed the “Academic” category in brackets as a way of indicating that an appeal to academic authority is not a purely scientific appeal. In other words, association with academia carries with it an aura of prestige and authority that is largely independent of science. If, for example, an apologist for a particular religion holds a Ph.D. in literature, she will likely be viewed as more credible than an equally competent spokesperson who does not hold an advanced degree—despite the fact that her doctorate is neither in theology nor in one of the sciences.

There are, of course, areas of overlap: the legitimacy associated with academic institutions is in part created by academia’s association with scientific research. But academic authority cannot simply be reduced

to scientific authority, as the case of our hypothetical religious apologist with a Ph.D. demonstrated.⁵

Conclusion

As noted at the beginning of this chapter, appealing to the authority of science as a strategy for supporting the truth claims of religion initially seems counter-intuitive because we have become accustomed to considering how various institutions seek legitimacy by appealing to the authority of religion. However, it is not difficult to see why this inversion has occurred: In a world where diverse religious claims compete with each other, religious apologists seek alternative sources of legitimacy to support the authority of their traditions. Science is a natural choice for this kind of appeal for at least two reasons:

1. Unlike traditional religions, the truths of science appear to be universal—Hindu scientists, Muslim scientists, Christian scientists, et cetera all utilize the same scientific systems.
2. Science addresses many of the questions traditionally regarded as religious—the origins of the cosmos, the nature of the human being, and the like.

Additionally, in the course of the discussion it was noted that we are impressed by the obvious accomplishments of technology, and the prestige science enjoys in contemporary society is based in large part on these accomplishments. We could restate this from a somewhat different perspective by saying that we are impressed by the *power* of science and science's child, technology.

Those of us trained in the History of Religion will recall that classic theorists of religion such as Rudolf Otto and Gerardus van der Leeuw identified *power* as an essential component of humanity's experience of the Sacred. Among other characteristics, the gods evoke our respect—our awe—because they are experienced as *powerful*. So yet another source of the religion-science connection is likely our predisposition

⁵ For a more extended treatment of how religions appeal to academic authority and of how this kind of appeal relates to the appeal to science, refer to Kathinka Frøystad's discussion, "From Analogies to Narrative Entanglement: Invoking Scientific Authority in Indian New Age Spirituality," pp. 41–66 in this volume.

to invest a powerful institution like science with an aura of sacral-ity. Given the multi-faceted nature of this association, it is probably inevitable that members of almost every religion would desire to see their tradition supported by the authority of science—especially in the midst of the present historical period, when all of the comforting old certainties seem problematic and threatened.

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FROM ANALOGIES TO NARRATIVE ENTANGLEMENT: INVOKING SCIENTIFIC AUTHORITY IN INDIAN NEW AGE SPIRITUALITY

KATHINKA FRØYSTAD

It is late afternoon in the tiny library room, and together with a handful of elderly people I sit quietly by a large table, leafing through spiritual magazines and newspapers. Suddenly a voice interrupts the buzz of the ceiling fan: “Do you have Osho Times?” The voice belongs to a retired medical doctor in his late 50s who just dropped by to borrow the latest issues of the Hindi edition of this magazine. His question astonishes me since he has never mentioned Osho—the controversial guru who amalgamated Eastern religion with Western psychoanalysis and sexual freedom—in any of the conversations we have had about religion and spirituality on earlier occasions. When the old widow who volunteers as a librarian registers his loan, I take the opportunity to ask him what he thinks about Osho. He pauses. With a serene look he ultimately replies, “Osho is very scientific”, collects his magazines and leaves.

This minor incident, which occurred in a spiritual centre, Jyoti Ashram,¹ in the North-Indian pilgrim town of Haridwar, was one of numerous instances I witnessed during my ethnographic fieldwork in 2003–2005 in which science was invoked to lend authority to spiritual practices, interests and beliefs. In this chapter I discuss some of the ways in which this occurred in a cross-section of middle-class spiritual and self-development settings in New Delhi and Haridwar in the mid-2000s. I devote particular attention to the forms of legitimacy construction I encountered most frequently: analogies, references to scientific experiments, terminological loans and the use of doctoral titles, the last bordering on a source of legitimacy that is more academic than scientific. I also look into narrative entanglement, which was a more unusual and idiosyncratic way of seeking scientific authority. By prioritizing

¹ Jyoti Ashram is a pseudonym for one of Haridwar’s first non-congregational ashrams, which I anonymize in this and other texts to prevent the residents from identification.

real-life instances of more or less spontaneous claims to scientificity in an Indian setting, I aim to make an anthropological contribution to a multi-disciplinary field of research that up till now has been dominated by textual analysis and case material from the Western hemisphere. Further, by distinguishing the different ways in which scientific legitimacy can be invoked and by theorizing them one by one, I also aim to contribute to my own discipline, social anthropology, where the scant but emerging interest in such matters has tended to produce studies that conflate this manifold phenomenon into a uniform process that allows for analysis within a single analytical framework. The point I want to make is that, unless we become more attentive to the diverse ways in which scientific authority is appealed to in everyday religious contexts, it will be impossible both to trace different cultural and religious 'styles' of scientific legitimacy construction and to identify commonalities in such processes across cultural and religious differences. By outlining the rudiments of a middle-class Hindu style of invocation, this chapter provides a step towards enabling such comparisons.

1. The Interface of Religion and Science in Anthropological Thought

In a recent outline of how anthropologists have treated the relationship between science and religion, Michael Lambek (2006) identifies three main phases of anthropological thinking. In the evolutionist phase in the late 19th century, religion was seen as a rational but erroneous mode of reasoning that would be replaced by science once a society advanced to a more civilized stage (cf. Tylor 2002; Tambiah 1990; Frazer 1996:824). In the modernist phase, which peaked between 1940 and 1960, anthropologists aimed to demonstrate the order, logic, beauty and morality in religious practices which the average Euro-American held to be primitive and backward. This aim united anthropologists as disparate as functionalists, structuralists and cultural particularists. In the present phase, which grew forth in the 1980s, the relation between science and religion has become increasingly blurred. Not only did anthropologists acquire considerable postmodern self-doubt as scientists, others have problematized science as a system of beliefs and authority claims of its own (cf. Latour and Woolgar 1979; Shapin 1994; Cetina 1999). Moreover, the religious convictions subjected to anthropological scrutiny increasingly have come to include those adhered to in industrialized societies and practised by people much like the anthropologists themselves. From the perspective of

non-academic religious practitioners, however, the boundary between science and religion tends to stand firm, which one may glean from the common imagination of science as an infallible truth-detector and of religion as, well, something else. All in all, the blurred phase has given rise to a whole new set of questions, one of which concerns religious constructions of scientific legitimacy.

With respect to ethnography the emerging interest in the construction of scientific legitimacy in religious contexts has already yielded several interesting studies. Lambek's example is Eva Keller's account of Malagasy Seventh-Day Adventists (2005) who seek scientific verification for the biblical account of Creation. The selectiveness of their search, which makes them blind to "what does not fit into the box" (Keller 2005:128), inspires Keller to compare her informants to Kuhn's paradigm-bound scientists, a discussion which dominates her analysis. An example from my own bookshelf is Debbora Battaglia's work on the Raëlian movement (2005). Besides showing how this movement understands the Biblical God—or rather Elohim—actually to have been extraterrestrial scientists who created mankind by using DNA (see also Lewis 2003:99), Battaglia exemplifies the dense technoscientific vocabulary that permeates its meditation seminars as well as its experimentation with human cloning and circulation of science-evoking images, such as the photograph of its founder, Raël, next to a giant DNA model. While Battaglia devotes particular attention to the role of mass media in the construction of scientific legitimacy, her analysis is also suggestive of more original analytical points. A third ethnographic example is James Holston's article (1999) on the Valley of the Dawn movement in Brasília, which believes that mankind is about to come to a dramatic end unless one prepares oneself for a new 'planetary phase'. Though less science-fixated than the Raëlians, the Valley of the Dawn has 'Doctrinator' mediums who are held to be spiritual scientists, employs a rich vocabulary relating to industry and telecommunications and offers 'university degrees' in its religious teachings. Although Holston's argument primarily concerns the movement's mimetic relation to the state and the similar ways in which the state and spiritual movements have come to construct their authority, his ethnography nevertheless confirms the crucial role of science in these truth claims. These studies, along with the many ethnographic works that mention religious invocations of science in passing, make it seem safe to suggest that the construction of scientific legitimacy is a rapidly expanding topic in the anthropology of religion.

In relation to theory, however, the anthropological analysis of scientific legitimacy construction is, in my view, somewhat underdeveloped so far. The analytical concept that recurs through most works of this kind is ‘mimesis’, an ancient Greek word that denotes imitation and re-presentation, and which Michael Taussig has developed further in his writings on cultural copying in contexts of alterity, as when the Cuna Indians prepared wood carvings of European colonial administrators for their healing rituals, believing that such figurines gave them power over those they depicted (Taussig 1993:13). Applied to contexts in which religions invoke scientific authority, Lambek reanalyses Keller’s study of Malagasy Seventh-Day Adventists as an instance of mimesis (Lambek 2006:284). Likewise, Holston draws on the concept of mimesis to discuss the homology between the Valley of the Dawn movement and Brazilian state practices. In the study of medical systems, mimesis is also the main analytical concept in Jean Langford’s discussion of how manufacturers of Ayurvedic medicines imitate the pharmaceutical industry (Langford 1999; 2002). Mimesis, it seems, has become the most common anthropological prism for analysing all sorts of invocations of scientific authority in non-scientific contexts. Though I acknowledge the usefulness of this concept, I see its application as a blanket framework for analysing all kinds of invocations to science as more limiting than enlightening. What I seek to understand in this chapter, for instance, is *how* such invocations are made, which renders it necessary to break down, or deconstruct, the concept of mimesis.² Rather than speaking of ‘modes of mimesis’, however, I mainly apply a Weberian vocabulary, which was attuned to a multiplicity of ways of invoking authority right from its conception (Lewis, this volume), and which underpins the volume that includes this chapter.

Besides employing a Weberian framework, I want to mention two additional analytical strands that inform the following discussion in a more implicit fashion. The first concerns what Langford terms ‘the magical underside’ of science (2002: 155), which refers to the awe, thrill and initial disbelief that people tend to feel when exposed to a groundbreaking technological invention for the first time (cf. Prakash 1992). This approach to scientific invocations resembles Kant’s

² I use the word ‘deconstruction’ in its most simple sense, as an analysis that ‘undoes’, de-constructs and takes apart concepts that occasionally attain axiomatic status (Allison in Derrida 1973: xxxii, n. 1; Johnson 1981), which *mimesis* seems to have done within this field of study.

writings on ‘the mathematical sublime’, which refers to the sensation that arises when one encounters something so overwhelming that one almost finds it unbelievable and which leads to a rapid alteration between incomprehension and intellectual compensation (Crowther 1989; Masco 2004). In this perspective, science ‘works’ as a source of spiritual authority because it is incompletely understood. The second analytical strand concerns the nature of belief. Since the cosmological underpinnings of these movements are supported by scientific crutches, as it were, we are evidently not dealing with beliefs of a firm and unquestionable kind.³ On the contrary, these beliefs seem closer to what Sperber (1987) explains as half-understood ideas and principles that one endorses because the people whom one trusts claim their verity. They also resemble what Campbell (1996) terms ‘half-beliefs’, particularly of the kind that Tuzin (2006) calls ‘Mannoni’s paradox’, whereby one partly believes and partly does not, but certainly would *like* for something to be true (cf. Mannoni 1969). Battaglia also alludes to the space between belief and disbelief, and Taussig (2003) even suggests that scepticism might be a prerequisite for faith, at least in the context of shamanist magic. Whether spiritual invocations of science are explained in terms of belief, magical undersides or the growing dominance of science, we are evidently dealing with situations in which people attempt to bridge the gap between wanting to believe and having a firm conviction through a lay confidence in modern science. Though much remains to be said about why such ‘bridges’ are built, I am mainly concerned here with their architectural styles.

2. *New Age Spirituality in India*

Before I turn to the ethnographic case material, I must give a brief introduction to the spiritual movements that I label New Age. At first sight New Age may seem to be a misnomer as a label for spiritual movements in India, as it primarily signifies a Western phenomenon that has been influenced by selected Hindu, Buddhist and Native-American practices. But as Paul Heelas has pointed out more than

³ My detour into belief is not intended as a resurrection of Geertz’ emphasis on belief in his universal theory of religion (Geertz 1973), which Asad (1993; 1983) criticizes for its Christian bias. It is rather meant as a way to understand the local effort to reconcile perceived epistemological alterity by legitimating one in terms of the other.

a decade ago, New Age has also developed in India, among Indians (Heelas 1996:123)—especially in the urban middle-class segment. In Western contexts, the term of New Age is usually applied to activities that span from meditation and astrology to Reiki healing and tarot-card reading but are united by beliefs in reincarnation, the meaningfulness of all events, the enhancement of bodily flows of energy by various techniques and, not least, the coming of a global spiritual enlightenment that will usher in a new era. These characteristics also apply to Indian contexts, though one should note a few differences: the Indian New Age includes more guru movements, less Native-American influence and a more frequent use of ‘New Age’ as a self-referent. Indeed, when India’s first generic spiritual magazine, *Life Positive*, saw the light of day in 1996, its inaugural issue sported “The Hitch Hikers’ Guide to the New Age” in giant fonts on the cover, and the term of New Age is frequently mentioned in inspirational talks, texts and teachings. However, Indian New Age movements follow their Western counterparts in considering themselves ‘spiritual’ rather than ‘religious’, a distinction which reflects their non-dualist conceptions of God more than it rejects the established order, which is how Heelas and Woodhead (2005) understand this distinction. Thus I also make use of the term ‘spiritual’, though I treat it as a subcategory of religion rather than as its Other, given the wide understanding of ‘religion’ from which my argument departs.

To exemplify the movements and activities that were taking place in India during my fieldwork, let me present a random weekly schedule at the Times Foundation (later renamed The Oneness Centre), a majestic bungalow in the heart of Delhi where spiritual organizations could rent rooms for a nominal fee. From Monday, March 29 to Sunday, April 4, 2004, the following activities were listed. On Monday one could attend a workshop on acupuncture and acupressure given by the Su Jok Association of India and a meeting entitled ‘Counselling for Spiritual Growth’ arranged by the Golden Age Foundation (GAF). On Tuesday there was to be an introductory lecture on Acem meditation, a class in ballroom dancing and a Lakshmi worship arranged by GAF. On Wednesday a representative from the Devagyadham Foundation was to present a talk on palmistry and politics, followed by another Su Jok workshop, a GAF class in chakra meditation and a talk titled ‘Know Thyself for Transformation’ by two women from the Pranam Foundation. On Thursday one could listen to a talk on how ‘Truth Shines in Opposition’ presented by a representative from the

Divya Jyoti Jagriti Sansthan, begin a four-day basic course in breathing techniques as taught by the Art of Living, or attend the third Su Jok workshop, a GAF meditation session or an astrology workshop arranged by Astrology For All. The weekend schedule was even busier. Besides Art of Living's basic course, which continued through the weekend, the Saturday programme included a yoga session by Suryayog Foundation, a Vivekananda Pratikshan Praishad lesson on 'How To Incorporate Pure Yoga in Daily Life', an introductory talk on 'Cosmic Mind Power' by two representatives from World Cosmic Trust and a Kundalini Meditation session instructed by a *swami* from the Osho resort in Pune.⁴ Finally, on Sunday one could attend a second Suriyayog yoga session, a talk on 'The Secret of Managing Personal Relationships' by a representative from Holistic Care, a talk on the Bhagavad Gita by the Vedanta Institute, a certificate course by the Su Jok Association, a Hamsayoga Sangha talk titled 'Achieving Earth Peace Through Self Peace' and lastly a session in dynamic meditation as taught by another representative from the Osho World Foundation.

Though these examples are limited to a single week in a single city, they offer a useful window into the movements and activities that comprise New Age spirituality in India. They also indicate the global connections that mark the Indian New Age movement, with Su Jok originating in Korea and Acem meditation in Norway, the frequent use of English in names and titles (though rarely in the arrangements) and the international orientation of both Osho and the founder of Art of Living, Sri Sri Ravi Shankar. In addition the schedule offered by Times Foundation illustrates a marked continuity with more established forms of Hinduism, which the emphasis on the Bhagavad Gita and Lakshmi suggests. But the continuity was usually skin deep: rituals were often simplified or reinvented, texts and Sanskrit verses reduced to sound-bites, and the mode of organization transformed from *puja* (worship), *pandits* (priests), pilgrimage and committed guru-student relationships into workshops, classes and retreats. These transformations were more than a fad; they may well be the first tokens of a new phase of Hinduism comparable to the Hindu Revivalist movement of the late 19th century. During that period, Hinduism was refashioned

⁴ A *swami* is usually a celibate renunciant monk and teacher, but in the Osho World Foundation the *swami* title requires neither celibacy nor renunciation.

to meet the pressures from Christianity and science, and the Vedanta and the Bhagavad Gita promoted as ‘core’ texts in order to mask its enormous diversity (Bharati 1970; Larson 1975; 1993; Brockington 1997). Today’s transformations are mainly engendered by social mobility, neoliberalism and globalization (limitations of space preclude me from expatiating on these factors here), and include an appropriation of Western modes of organization and interpretations.

A striking continuity from Hindu Revivalism to Indian New Age spirituality concerns the invocations of scientific authority. From the late 19th century onwards, Hindu Revivalists construed Hinduism as an ancient science that anticipated Western science, as when Dayanand Saraswati promoted the Vedas as genuine scientific Hinduism (Prakash 1997) or Hindu scriptures were interpreted as proof that chemistry, airplanes, the theory of relativity and so forth originally were invented in India but had been forgotten in the present chaotic era of Kaliyug.⁵ Such claims are equally common today. When Western New Age influences began to flood into the country in the 1990s, Western ways of appealing to scientific authority merely added to a century-old practice, resulting in invocations of scientific authority that are even more frequent in Indian New Age contexts than in Western ones. The pursuit of scientific authority has been further amplified by the elevated status that modern science has come to enjoy in India. As Prakash (1999) shows, science has played a dual role of being an instrument of empire and a symbol of progress and universal reason ever since colonial times. Following Independence in 1947, the prestige of science got an additional boost by Nehru’s five-year plans, industrial ambition and establishment of world-class institutions of higher learning. During the 1990s and 2000s, when India participated in cutting-edge research, elected a rocket-and-missile scientist as President, and became a global hub for IT outsourcing and medical tourism, the status of science—imagined as hard-core natural sciences conducted by people in lab coats—soared as never before. The mounting status of science, combined with the rapid changes that occurred in the spiritual landscape, helps us to see why science has become a virtually ineluctable source of authority in Indian New Age spirituality.

⁵ For further details, Nandy (1995) and Nanda (2003) are good places to begin, given their opposing viewpoints. See also Meera Nanda, “Madame Blavatsky’s Children: Modern Hindu Encounters with Darwinism,” pp. 279–344 in this volume.

3. *Forms of Scientific Legitimacy Construction*

To illustrate the variety of ways in which Indian spiritual practitioners seek scientific legitimacy, I present ethnographic vignettes from a handful of the movements that were active in Delhi. I also make a brief return to the Jyoti Ashram in Haridwar, where New Age influences were more prevalent than I had expected in this religiously conservative pilgrim town. In addition I draw on books and magazines, mostly gathered from the movements and venues I frequented. *Life Positive* deserves particular mention since it was read by a majority of the spiritual seekers I met in Delhi, and served as a crucial channel of information about workshops, courses, products, movements and new spiritual trends. The first form of scientific legitimacy construction that caught my attention was the use of analogies.

3.1. *Analogies*

‘What the Chinmaya Mission was like?’ Nalini frowned. Nalini was a 36-year-old unmarried woman who had recently spent a whole year in the Chinmaya Mission ashram in Rishikesh. Having shared her impressions with me, she mentioned that the Chinmaya Mission had kept a medical skeleton in the lecture hall of the ashram to demonstrate the frailty of the body and the way the body imprisons the soul. In this way Nalini did not only draw my attention to how the Chinmaya Mission explained the Hindu principle of transmigration to newcomers, she also exemplified the importance of analogies for invoking scientific authority, which I believe is a side-effect of skeletons and other heuristic devices associated with the sciences. Later on Nalini mentioned that, in the vicinity of this ashram, she occasionally met a yogi nicknamed Yogi Protoplasm who used to carry a small microscope in the pocket of his orange robe. When explaining his teachings to strangers he often pulled the microscope out, put a gooey substance on its glass plate, and asked them to look into its eye. When hearing their *arre wahs* (or *wows* in English), he would explain that, just like microbes exist even though we cannot see them with our naked eyes, there is a divine reality beyond what we can perceive with our senses and grasp with our intellect. In this case too the analogy which the microscope helped establish was primarily employed to facilitate the explanation of a basic religious principle. Yet in choosing this particular analogy, which not only invoked biology but also relied on a

technical instrument, the yogi also tapped into the immense credibility that the medical and biological sciences have come to enjoy in India.

For the most part scientific analogies were posited directly in talks or texts, without the use of objects as heuristic devices. To illustrate their textual representation let me quote from a book I bought at the retreat where I first met Nalini. The retreat was arranged by the American Ananda Sangha movement, founded by Swami Kriyananda (born J. Donald Walters), which established an Indian branch in 2003 to bring the meditation techniques of its master, Paramhansa Yogananda, back to India.⁶ In this book John (Jyotish) Novak recounts how his master Paramhansa Yogananda explained the so-called ‘energization exercises’ he recommended prior to meditation:

Paramhansa Yogananda explained that we draw *prana* [life force] indirectly through the food we eat, as well as through oxygen and sunlight. These indirect sources of energy, however, are like the water you put into the battery of your car. When the battery runs down, no amount of water will make it work again. You have to recharge the battery from another source. Similarly, Yogananda explained, our bodies live only indirectly from food, but we live directly from the cosmic energy that flows into our bodies through the medulla oblongata at the base of the brain (Novak 1997:72, translation added.).

Like in the cases of Yogi Protoplasm and the Chinmaya Mission, Yogananda’s analogy between humans and batteries was probably just intended as a pedagogic explanation of why humans need input from a higher source of power. But by choosing an analogy from the realm of technology and science, thereby implicitly likening spiritual principles to the technological principles discovered by scientists, Yogananda’s analogy of a battery also served to invoke scientific authority. In addition to a conflation between spiritual and biological processes, such analogies can give a powerful impression of scientificity.

Similar analogies featured in numerous talks and texts during my fieldwork, such as when God was likened to ultraviolet rays, *prana* to electric currents and energy, and *prana*-enhancing bending exercises to magnetization. Such analogies could also be represented visually, as on the enormous hand-painted signboard I once saw that depicted God as an electric power station and the connection between humans and God as channelled through wires held up by electricity posts. Its

⁶ For further details, see www.anandaindia.org/sangha/index.html or Frøystad (2009).

message seemed clear: God is just as powerful as an electric transformer; human beings can access divine power by ‘plugging in’ to God; God resembles electricity in being real despite being invisible; and scientists will one day discover God just like they once discovered electric power. Again the analogy between spiritual and technological principles had the dual effect of making intangible spiritual beliefs more comprehensible while enhancing their credibility at the same time.

As we know from communication studies, this kind of analogy—metaphorical transfer—may be highly effective in expanding and shaping cognition (see e.g. Gentner, Holyoak, and Kokinov 2001; Thaiss 1978), often completely beyond notice (see e.g. Salmond 1982; Lakoff and Johnson 1980). In India analogies have long been crucial for religious transmission, as Bharati, the Vienna-born Hindu monk who later became a professor of anthropology at Syracuse University, noted during his time as a wandering monk in India in the early 1950s. Bharati frequently gave talks in exchange for food and shelter in the villages and towns he passed on his way, during which he noted that lay Hindus were more easily persuaded by commonsense analogies than by the most well reasoned argument unsupported by a simile (1962:212–3). The analogy that Bharati encountered most often was the Vedantic comparison of how darkness can make people mistake a rope for a snake with the way *maya* (ignorance, illusion) can make people mistake the tangible world for the real reality of the divine. While the rope/snake analogy is still in common use, contemporary spiritual analogies are increasingly drawn from the realm of technology and science. This development is particularly salient in New Age contexts in India, though it also marks more conventional Hindu religious transmission. In both cases scientific analogies serve to appeal to scientific legitimacy in a way that is rooted in an ancient Hindu pedagogy.

Though widespread and effective, analogies do not *always* work. The reason why Nalini told me about the Chinmaya skeleton and Yogi Protoplasm’s microscope in the first place was that she found these analogies too commonsensical. As far as Nalini was concerned, she already accepted transmigration and the danger of *maya* as unquestionable facts. Even if she had needed further persuasion, neither skeletons nor microscopes would have been sufficiently novel to her to produce the intellectual rush of Kantian sublimity. Though analogies constitute a crucial form of scientific authority construction in Indian New Age contexts, they can also fall flat.

3.2. *References to Scientific Experiments*

In her monograph on the Divine Life Society and its transnational production of yoga, Strauss remarks that Indian yoga magazines recount scientific proof of the health benefits of yoga more often than Western yoga magazines do (2005: 116). This resonates with my own impressions, and reflects how often scientific invocations take the shape of references to scientific experiments. The most pronounced example that surfaced during my fieldwork occurred in an Art of Living basic course that I attended in New Delhi. Art of Living works for enhanced quality of life by teaching stress-reduction techniques based on yogic breathing exercises (*pranayama*), and has chapters in more than 140 countries.⁷ The main element in the course was Sudharshan Kriya, an introductory series of breathing techniques. Midway through the course we were given a four-page brochure entitled 'Science of Breath'. Besides suggesting that breathing techniques constitute a science in themselves, the brochure summarizes some scientific experiments on Sudharshan Kriya conducted in India, USA and South Africa. This was the only written material we received for free; everything else had to be purchased. The brochure was authored by Dr Vinod Kochupillai, professor of oncology at the prestigious All India Institute of Medical Sciences (AIIMS) in New Delhi. One of the experiments she summarizes shows how the alpha, beta and theta activity in the brain changes during Sudharshan Kriya, which was illustrated by colour reproductions of EEG pictures from various stages of the breathing procedure. The next experiment presented demonstrates that Sudharshan Kriya reduces the level of blood cortisol and increases the number of antioxidant enzymes, illustrated by four green and purple graphs. There was also a recapitulation of research suggesting that Sudharshan Kriya has a positive influence on heart diseases, the immune system, tobacco cessation, nervousness, depression and vision.

The brochure took great care to separate both significant from non-significant results and published from unpublished work. Having distributed it, the course leader summarized its findings and added a few other positive effects of Sudharshan Kriya that he had learned elsewhere, such as the reduction of serum lactate in the muscles. The sober, matter-of-fact tone of the brochure and its presentation to us

⁷ Source: <http://www.srisri.org/service-organizations>, accessed 4 September 2009.

seemed to render the content credible and trustworthy to the participants. During the breaks the next day there was much small-talk about how the breathing exercises we had been given as homework had induced relaxation and made headaches subside, almost as if the participants had begun to interpret their bodily sensations according to the research summarized in the brochure.

The use of scientific experiments to document the positive effects of spiritual practices goes back to the 1920s. According to Joseph Alter, such experiments were pioneered by Swami Kuvalayananda, who conducted research to determine whether the yogic postures and breathing techniques he promoted lowered the blood pressure and heart rhythm (Alter 2004:34). Alter's main concern is how such experiments conflate yogic philosophy with biomedical thought, as when *prana* is operationalized as oxygen, *prana* channels (*nadis*) as nerves and energy centres (*chakras*) as organs (ibid.: 105–106). Alter also draws our attention to the 'mimetic empiricism' (ibid.: 92) of such experiments. With their firm belief that the effect of yoga can be quantified and measured, he argues, the proponents transform yoga completely from its origin as a religious tradition. Alter's observations hold ample relevance for the research cited in the 'Science of Breath' brochure as well. But I nevertheless contend that, as a modality of invoking scientific authority, the production, distribution and verbal explanation of such experiments, in this case a brochure, are even more significant than the experiments themselves.

Verbal and textual summaries of scientific experiments are not merely neutral mediations and disseminations of research findings; they may also add an appearance of scientificity beyond the research results they report. In the 'Science of Breath' brochure, for instance, it seems to have been more important to make the summarized research 'look scientific' than to make it comprehensible to lay readers. Many graphs were so tiny that their legend was unreadable, thereby making it impossible to decipher what the graphs actually illustrated. And though the legends of the EEG pictures were sufficiently large, they contained medical jargon that was impossible to understand without prior experience in deciphering EEG pictures.⁸ Consequently both the

⁸ The version of the 'Science of Breath' brochure that was used as handouts in this course is not available on the Internet, but a comparable version may be seen at <http://www.artoflivingdwarka.org/research.html>, accessed 4 September 2009.

graphs and the EEG pictures had limited explanatory value beyond producing a visual impression of scientificity, just as Georges (1996) holds that ultrasound tests serve as a technological visualization technique that makes pregnancy controls seem more scientific. It is true that the ‘Science of Breath’ brochure I picked up during one of Sri Sri Ravi Shankar’s introductory lectures in Europe contained text that was more understandable to non-specialists and fewer but larger illustrations.⁹ Nonetheless, even the most sober research summary confirms Art of Living’s strategy of attracting newcomers with references to scientific experiments that assert the positive effects of its breathing techniques. Thus, Art of Living exemplifies how systematic references to scientific experiments serve as a mode not only to invoke, but to claim explicitly scientific authority in spiritual contexts. To be sure, there is no guarantee that such claims will impress the audience, but given Art of Living’s wide following, it seems to be a strategy that has paid off.

3.3. *Terminological Loans*

In one of the few explicit discussions of the various ways in which new religious movements invoke scientific authority that has appeared before the present volume went to press, Olav Hammer (2001) makes particular mention of the borrowing of terms such as ‘energy’, ‘vibrations’, ‘quantum’ and ‘science’. These words were equally common in India—particularly ‘science’, which recurred in every spiritual venue I frequented, including the ashram I mentioned in the opening lines. Book titles also make frequent use of the term of ‘science’. Ananda Sangha, for instance, offered for sale no less than three books with science in the title: Sri Yukteswar Giri’s *The Holy Science* (2003), Paramhansa Yogananda’s *Scientific Healing Affirmations* (2000) and Swami Kriyananda’s *The Art and Science of Raja Yoga* (2003).

‘Quantum’ was also fairly common. Popularized in the spiritual field by the Indian-American physician and author Deepak Chopra—the author of *Quantum Healing* (1990) and other books that were for sale in all the well stocked bookstores in New Delhi—it appeared in expressions such as ‘quantum yoga’ and ‘quantum touch’ by the mid-2000s. The latest terminological loan was ‘alpha’, which regularly appeared

⁹ This brochure is available at www.artofliving.se/pdf/science_breath_brochure.pdf, accessed 4 September 2009.

in advertisements for alpha meditation classes taught by a sari-clad psychologist named Vijayalakshmi. Explaining alpha as the brainwave frequency between seven and 14 cycles per second, the level between sleep and wakefulness that meditation attempts to achieve (Rashid 2004), Vijayalakshmi was almost alone in infusing content into her loanword. In most of the other contexts I observed, these loanwords were neither explained nor redefined, but employed as black-box concepts whose meaning was left hanging.

A terminological loan could also include mathematical operators, which occurred during a one-day workshop arranged by a movement named Healing Rhythms. The workshop had been marketed as a ‘lifestyle retreat’ and took place in an air-conditioned and technologically saturated conference room in the basement of a posh hotel. The movement was spearheaded by a female cardiologist named Neelam Verma who in her profession not only employed biomedical treatment, but also attempted to activate her patients’ mental resources to get themselves better. To this end she had composed a programme that combined simple yogic exercises, light meditation, breathing techniques (*pranayama*) and hand postures (*mudras*) with computer-mediated colour therapy, sacred symmetrical figures (*yantras*), music, a ‘cosmic dance’ and recitals of selected verses (*slokas*) from the Bhagavad Gita (cf. Rajan 2002).

Midway in the workshop she explained the principle behind her teachings as follows. She opened by informing us that the physical body is the part of us that requires energy in the shape of food and air, whereupon she wrote ($E_1 + E_2$) with a marker on a whiteboard. Next, she said that the subtle body refers to our emotional, mental and intellectual condition, while turning around to write ($E_3 + E_4$) on the whiteboard. Then she maintained that the causal body is our psychological attitude, and wrote (E_5) on the whiteboard. The point she was moving towards was that all these ‘bodies’ are lifeless in themselves, but acquire life through the cosmic consciousness, which she represented by writing (E_0) on the whiteboard. Ultimately, she indicated the relative strengths of these energy sources as follows:

$$E_5 < E_4 < E_3 < E_2 < E_1 < E_0$$

Explaining this statement of inequality to us, she held that the cosmic consciousness is the most powerful of all energy sources, which is why it is crucial to link up with it.

There are several features in Dr Verma's explanation that interest me, including her inventive interpretation of the three 'bodies',¹⁰ her conflation of these bodies with the medical and psychological conceptualization of body and mind (cf. Alter 2004) and her presupposition that energy sources are measurable and comparable. But I am here most concerned with her use of mathematical operators, which suggests how deeply terminological loans from the modern sciences penetrate urban middle-class spirituality in India. While each of the three aforementioned features—conflation, measurability and mathematical operators—would have been sufficient to invoke scientific authority in themselves, their simultaneous appearance produced a profound impression of scientificity. Looking around, I saw a woman taking notes almost as frantically as I did, while the other participants nodded seriously, evidently sucking it all in. Though mathematical symbols also appear in Western spiritual contexts,¹¹ the readiness to use them in face-to-face situations surpasses what I have encountered anywhere else.

3.4. *Academic Titles*

That Dr Neelam Verma consistently included her doctoral title when advertising her workshops and courses was yet another way to augment their scientific image. She was by no means alone: anyone with a legitimate doctoral title who taught spirituality or self-development techniques would actively use their title as if it were part of their name. It hardly mattered whether the title indicated a medical background, a PhD status or an honorary doctorate, whether it was granted from a renowned or dubious institution, or whether it had relevance to the teaching or not.

Any doctoral title would do—in India as in the West. This is why the tiny library in the Jyoti Ashram included books by authors such as

¹⁰ A more common explanation holds that the physical body (*sthul sharir*) refers to the material body and outer appearances; the subtle body (*sukshma sharir*) to the subtle, inner and invisible; and the causal body (*karan sharir*) to the desires that causes life (*jiva*) to be born again and again. Though there are many interpretations of these concepts, Verma's version was undoubtedly unorthodox.

¹¹ The poster for the film *What the bleep do we know* is a case in point. The film presents quantum mechanics and neuroscience as converging with the mysticism of JZ Knight/Ramtha, and is marketed by a poster which employs Greek letters and mathematical/statistical symbols in the film title. See <http://www.whatthebleep.com/whatthebleep/>, accessed 4 September 2009.

Dr Bruce Goldberg (*Self-Defence against Psychic Attacks & Evil Spirits*), Dr Brian Weiss (*Many Lives, Many Masters*), Yogiraj Dr Vishwa Pal Jayant (*Anmol Heera*, a Hindi-language book on yoga postures), the aforementioned Deepak Chopra, M.D. (*Quantum Healing: Exploring the Frontiers of Mind/Body Medicine*), Dr H. L. Bansal (*Magnetotherapy: self-help book*) and not least Dr Joseph Murphy, D.R.S., Ph.D. D.D., L.L.D. (*The Power of Your Subconscious Mind*).

Analytically speaking, doctoral titles enhance what Aristotle identified as *ethos*, that is, an appeal to the credibility of the speaker, which is part of his well known delineation of rhetorical styles, along with *logos* (the use of reasoning) and *pathos* (appeal to emotions). Originally *ethos* denoted moral character, intelligence and social standing, and doctoral titles—a later invention—serve as a quality-control of such traits. In Bourdieu's more contemporary vocabulary (1986), a doctoral title represents 'educational capital', that is, an institutionalized form of cultural capital which gives a legal, often state-sanctioned, guarantee for a certain level of knowledge and reasoning.¹² The threshold for questioning someone with an impressive academic title is usually higher than the threshold for questioning a self-taught person (Bourdieu 1986:248), even if the topic in question is far beyond the title-holder's field of expertise, and this explains the use of doctoral titles in spiritual contexts. This use of titles occurs in India and in the West alike, but Indian seekers may also take it further by ascribing doctoral titles to their instructors. During a basic course in Acem meditation in New Delhi, for instance, the Norwegian instructor, Thorbjørn Hobbøl, was repeatedly referred to as *doctor sahab* (Sir doctor), though Hobbøl himself corrected it whenever he could.¹³ This insistence prompts the question of whether the spiritual weakness for doctoral titles merits analysis as an appeal to scientific authority or whether it exemplifies a derivative form of legitimacy that relies on the credibility of academic institutions (cf. the introduction to this volume). Indeed, the list of spiritual movements that have established 'institutes', 'universities' and 'academies'

¹² Bourdieu's concept of 'cultural capital' covers a broad range of non-material resources, including knowledge, manners, tastes and preferences (Bourdieu 1984, 1986; Broady 1991). It is primarily knowledge that is institutionalized as cultural capital, but not only, as Shapin (1994) demonstrates so well.

¹³ Acem is not a spiritual organization, but a secular offshoot of Transcendental Meditation, and embedded in a secular psychological framework rather than in Maharishi Mahesh Yogi's simplification of Vedanta. For further details, see the movement's web page at www.acem.com.

and issue academic-sounding degrees is long, both in India and in the West.¹⁴ While a majority of these institutions employ quality criteria unlikely to pass elsewhere, the doctoral titles I discuss here—except the one ascribed to the Acem instructor—were derived from widely recognized fields of study and academic institutions. Flagged in spiritual settings, these doctorates were evidently meant to suggest that a person's superior knowledge would rub off from his or her scientific background to his or her spiritual teaching, which is why I treat their use as a mode of invoking scientific authority.

An example of how the awe for doctoral titles facilitated spiritual persuasion unfolded during the Monday meetings of the Golden Age Foundation in Delhi. The nucleus of the movement is Kalki Bhagawan, a former South-Indian school director believed to be an incarnation of Kalki, the tenth incarnation of Vishnu (Brockington 1997:66; Paranjape 1997). The name of the movement refers to its aim of establishing a Golden Age by enlightening the whole world by 2012.¹⁵ Its geographical centre lies in the outskirts of Chennai in South India, where it was constructing a huge golden temple, but it also had an active congregation in New Delhi, which gathered at the Times Foundation. Its Monday meetings, which were advertised as 'spiritual counselling' in *The Times of India* and aimed to attract new members, were chaired by one Dr Chakravarty. His doctoral title and professional career were strongly foregrounded during the Monday meetings. The participants never failed to use his title when addressing him, and when he presented himself to newcomers, he always volunteered that he was a professor 'in one of the natural sciences' and supervised doctoral students. His double status as professor and spiritual convener was also displayed on his visiting card, which had one professional and one spiritual side, where even the latter presented him as 'Dr N. V. K. Chakravarty, M.SC. (Tech), Ph. D.' amidst the *om*-sign and the main mantra of the movement.

One of the regular participants was a Tamil man in his late 40s whom I here call Ramamurthy. He attended more meetings than the

¹⁴ Examples from India include Maharishi Mahesh Yogi Vedic University, Mahayog Academy, Bhaktivedanta Institute, Himalayan International Institute of Yoga Science and Philosophy of the USA, and the conferral of master's degrees in Reiki healing.

¹⁵ For further details, please see Bhagavan (2006) and www.experiencefestival.com/a/Year_2012/id/1683, accessed 17 September 2009. To my knowledge no academic work had been published on the Golden Age Foundation by the time this chapter went to press.

others, and always prostrated himself more deeply in front of the giant photograph of Kalki Bhagawan and his wife/consort Amma during the fire sacrifices (*aratis*) that opened and closed the meetings. Initially I mistook him to be one of Bhagawan's staunchest believers. But one Monday when Dr Chakravarty failed to show up, Ramamurthy volunteered that when he went to Kalki Bhagawan's main ashram eight years earlier to receive initiation (*diksha*), he failed to experience the fantastic explosions of colours, sounds and emotions that the other initiates raved about. Till today he had not been granted a single experience of Kalki's power, he lamented, be it emotional change, miracles, or wish-fulfilment. Still, he expressed no doubts about Kalki's power, partly because of the many miracles Kalki Bhagawan was said to have brought about,¹⁶ but above all because he could not distrust Dr Chakravarty: 'Dr Chakravarty is a great scientist, and when *he* has had such experiences, they have to be true', Ramamurthy reasoned.

In addition to illustrating how a doctoral title may augment spiritual persuasion, the case of Ramamurthy also exemplifies the half-belief that characterizes many of the new spiritual movements in India. Though he stated that he did not doubt Kalki's power, his disappointment over not having been able to experience it himself indicates that his faith was not as firm as he wanted it to be. Trapped in half-belief, Dr. Chakravarty's academically rooted trustworthiness gave Ramamurthy the motivation required to remain in the movement and to intensify his worship. One day, Ramamurthy hoped, Kalki's power might eventually reach him too.

3.5. *Narrative Entanglement*

The final way to invoke scientific authority I consider here is more curious than common, but deserves mention since I have not encountered anything like it in former studies on the construction of scientific legitimacy, whether in India or elsewhere. This way of invoking scientific authority consists of a complete intertwining of the scientific and religious pursuits of truth in the way people talk, which is why I term it 'narrative entanglement'. The founder of the Jyoti Ashram in Haridwar—a slim, bearded man in his mid-60s known as Tauji (father's elder brother)—excelled in narrative entanglement, which was

¹⁶ The meetings were replete with testimonies of miracles, some of which may be found in the book *Miracles of Kalki* (Members of the Golden Age Movement 2004).

particularly apparent the night he told me why he had left his successful career as an inventor and businessman to found the Jyoti Ashram.

In the light of a flickering candle, Tauji opened by telling me that he had always been preoccupied with spirituality. In his teens, he said, he had pondered much about what the 'soul' (*atma*), with which we live our many lives, consisted of 'in a scientific sense'. But his main turning point had come when he met his astral guru, a nameless spiritual teacher who was manifest in a subtle body (*sukshma sharir*, see note 10) rather than in a physical body. Their first meeting occurred when Tauji was a college student struggling to finish a laboratory assignment. He had already completed the experiments, but struggled hard with the calculations. The deadline was drawing near, and on one of the last nights he returned to the lab to make a final effort. But no matter how many times he went over the figures, he got the same improbable result. Half an hour past midnight something strange happened, which Tauji described as follows:

A dazzling light came in from the side [Tauji points to his left] and lit up the whole room. Suddenly the blackboard became white, like a white roster. At first I thought I was daydreaming. I opened the door to check if I had fallen asleep and it had become morning, but no, it was still dark and the time was 12.30. Then I heard a voice speaking to me. I was perplexed. The voice said that 'what you believe is the root of the radius ($\sqrt{r}$) is only supposed to be the radius (r)'. It was my astral guru who had shown himself to me. There and then he explained the scientific problem I had been grappling with in the lab. All my lab work was guided and concluded within 1 ½ hour.

Following this encounter, Tauji had maintained regular contact with his astral guru. In the early 1980s the guru had advised him to learn yoga in order to learn how to separate his superconsciousness (*samadhi*) from his other consciousness levels.¹⁷ Once the astral guru was satisfied, the education continued. In 1985 he brought Tauji on a three-year astral travel to study the galaxies and clusters, which gave him insight into the distance between the stars and the conditions of the planet on which the guru lived. Then in 1992, the guru brought him on a 15-minute trip to study the development of the universe, during

¹⁷ *Samadhi* denotes a mental state marked by absolute calm, a withdrawal of the senses and intellectual stillness. In this state all questions are irrelevant, and one feels unity with the divine and everything in one's surroundings. The original intention of yoga was to achieve *samadhi* as a step towards the liberation (*moksha*) from rebirth.

which he even witnessed two stars melting into each other. Usually, however, the guru made do with explaining things verbally, as when one night at 3 a.m. he gave a lecture about electricity—in English and in rhyme.

Tauji's story is interesting for several reasons, but the important point here is what it conveys about invocation of scientific authority in a conversation that opened with his spiritual interests. What I find interesting is how his presentation of his spiritual inclination at once became a presentation of his scientific frame of mind, a contemporaneity that I emphasize by the term 'narrative entanglement'. In addition to underlining the close connection between a scientific and religious pursuit, this concept accentuates the narrative aspect: it is in Tauji's verbal construction of himself (cf. Miller et al. 1990) that this connection becomes manifest. According to Hallowell (1955), one of the characteristics of life-stories and other self-narratives is that they create self-continuity by uniting events that occurred at different points of time. Tauji's case also suggests that self-narratives can create self-continuity by uniting modes of experience that one was brought up to think of as incommensurable.¹⁸ In Tauji's self-narrative these modes of experience were not merely joined but completely entangled, as in a double helix (cf. Tambiah 1990 for a broader application of this metaphor). Indeed, he appeared unable to talk about his spiritual pursuit without bringing in his interest in modern science. Wittingly or not, this made him present himself as a well educated and intellectually updated man whose scientific insight was as crucial for his spiritual knowledge as was the other way around.

Whether or not Tauji's narrative entanglement 'worked' as a mode of constructing scientific legitimacy is a different matter. The ashram residents clearly respected Tauji for being hard-working and knowledgeable—'*mujhse gyani*' (more knowledgeable than me), as a 70-year old woman said. Yet, they were ambivalent to his unconventional religious views and experiences. While some held his expositions to entail scientifically updated reformulations of Hindu principles, others doubted them on the grounds that Tauji's knowledge of the scriptures was meagre, that he hardly knew a word of Sanskrit and that even

¹⁸ The many Indian efforts to reconcile religion with science may be seen as a token of the degree to which these domains of truth-seeking are held to be incommensurable.

his Hindi was dotted with English loanwords. This ambivalent reception reminds us of the contingency of scientific legitimacy construction, which also emerged in the case of Nalini and the skeleton analogy, and which points to the importance of studying this phenomenon through ordinary spiritual seekers as well as through religious leaders and their teachings.

4. *Concluding Remarks*

I could well have moved on to describe additional ways of invoking scientific authority in Indian contexts, such as the rationalization of the purifying *havan* (fire sacrifice) ritual as a way to kill microbes in the air, or the extension of ‘Hindu scriptures described it first’ arguments to plastic surgery and other modern scientific procedures. I omitted these modalities primarily because they were less common in the spiritual movements I frequented than among more conventional Hindus, though the boundary between these groups admittedly is porous. Nonetheless, the invocatory modalities that I elaborated on—analogies, references to scientific experiments, terminological loans, the use of doctoral titles and narrative entanglement—suffice to illustrate some of the most common ways of invoking scientific authority in Indian New Age settings, and one that was rather peculiar. By describing these modalities I have outlined the contours of an Indian style of scientific legitimacy construction that appears to rely more heavily on scientific analogies and references to scientific experiments than the Western ways of constructing a scientific image. But this should not tempt us to overlook the parallels; in regard to terminological loan and the use of doctoral titles only minor differences emerged.

To make such a point it has been necessary to take the step away from reflecting on the various domains from which new religious movements seek legitimacy (see Lewis 2003) and instead to probe the various ways in which they seek legitimacy from the scientific domain, an ambition I share with several other contributors to this volume. Rephrased in the vocabulary that has dominated in the anthropology of religion so far, I have found it essential to move beyond analysing spiritual self-constructions of scientificity as a mimetic relation to deconstructing the variegated modes of mimesis employed towards this end. Put otherwise, it has been imperative to discuss *how* scientific invocations are made in spiritual contexts rather than *why* they are made.

Granted, we can get a reasonably good sense of the variety of ways in which spiritual beliefs and practices are imagined as scientific in the ethnographic descriptions that have begun to emerge. Nonetheless, theorization of these mimetic modalities still lags behind, and it is my hope that this chapter will inspire further work along this line.

Whether we are attentive to modalities or not in our discussions of religious practitioners who depict their beliefs and practices as scientific, any examination into this matter represents a new twist to the way in which the relation between science and religion have been conceptualized through the history of anthropology. The evolutionary stage of Marx, Weber, Durkheim and Frazer has long been obsolete. Also long gone is the modernist stage in which religious systems were portrayed as logical, moral, or beneficial to the society at large. We are now in a stage in which we recognize that the boundary between science and religion is not as clear-cut as it used to be, while we strive to account for how and why the people we study simultaneously separate and reconcile them. Some decades ago a common view in the scholarship of India was that Hindus were remarkably good at subscribing to incommensurable epistemologies without any sense of inconsistency, either because they compartmentalized their thinking (Singer 1968; 1972), or because their thinking was contextual (Ramanujan 1989). If these views seem outdated today, it is not because they were wrong, but because India has changed. Instead of compartmentalizing their scientific and religious thinking, urban middle-class Indians increasingly try to reconcile them—a change amplified by the growing confidence in science, the many spiritual movements that compete for members and the exponential influx of Western New Age influence. If it is true that religious half-belief promotes appeals to scientific authority, which in turn works because science is incompletely understood, the relation between science and religion is a complex one indeed.

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“WE DEMAND BEDROCK KNOWLEDGE”: MODERN SATANISM BETWEEN SECULARIZED ESOTERICISM AND ‘ESOTERICIZED’ SECULARISM¹

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I. *Introduction*

I have conducted what sociologists might call an “unfounded research project.” Much of what I have synthesized in my sometimes overly-scattered pursuits will to many readers appear utterly mad, ridiculous and outrageous. Much is based on the scientific evaluation of others. Perhaps even more will be condemned as having “no known or accredited scientific basis.” Fine. All I know is it works. And if it works, I don’t knock it. (LaVey, 2002 [1971], p. 26)

In *The Satanic Witch* the founder of the Church of Satan, Anton Szandor LaVey, presents “The LaVey Personality Synthesizer”, a simple instrument to ascertain the personality of the witch and potential partners in relation to body mass and shape. The synthesizer is modelled on a clock and is based on impressionistic studies of somatotypes (LaVey, 2002 [1971], p. 25). For example, twelve o’clock is “most male core”, has a V-shaped, hard body and is associated with fire and masculine traits; six o’clock is “most female core”, has a pear-shaped marshmallow body and is coupled with water and feminine traits, while the intellectual three o’clock is a tube, associated with air, and the emotional nine o’clock is apple-shaped and related to earth (ibid., inner covers; cf. pp. 21–73). The diagram is a condensation and visible representation of LaVey’s theory of lesser magic, glamour and manipulation, which in turn rests on his theory of identity and ultimately his conception of Satanism itself. The theory can be found scattered in various books, essays and reading lists, and feeds on the sciences of psychology, social psychology, sociology, etology, biology and theories of visual communication, as well as the ‘occult’ or ‘rejected’ sciences

¹ This article is based on a paper with the same title presented at the international INFORM/CESNUR conference *Twenty Years and More: Research into Minority Religions, New Religious Movements and ‘the New Spirituality’*, April 16th–20th 2008, London School of Economics, Houghton Street, London, UK.

of body analysis, temperaments, the esoteric elemental circle and so forth. Consequently, the Personality Synthesizer and by extension “Laveyan” Satanism could be understood as a blend of scientific and religious discourse. But what does that mean?

A basic framework for studying modern Satanism is Colin Campbell’s imaginative concept of the cultic milieu, grounding the study of the seemingly marginal, alternative or counter-cultural to established orthodoxies in a sociological entity, namely that of an heterogeneous field of beliefs, practices, affiliations, institutions, individuals and networks of communication (Campbell, 1972). Although it has been criticised for an excessive reliance on deviance as a common trait, necessitating a softening of the stark contrast between underground and orthodoxy and the inclusion of popular culture as a mediating factor (Partridge, 2004b), it remains a very fruitful model of modern de-institutionalized religion in western societies.

I have previously classified modern Satanism as a whole in the broad types of rationalist and esoteric Satanism in a satanic sub-milieu of the cultic milieu (Petersen, 2005, 2009a, 2009b); while acknowledging the diffuse and fluent borders of these ideal types, they shine a light on a basic tension, namely the respective appeal to scientific theories, models and terminology versus the appeal to esoteric knowledge, historiography, experiences and vocabulary.² Nevertheless most satanic discourse contains appropriations of and appeals towards both scientific and religious discourse, in effect producing a wide variety of ‘creolizations’ or ‘syncretisms’ on a religion-science axis (Campbell, 1972, pp. 124, 126). Stretched out between the “problem-solving perspective” of the individual seeker, the “enormous diversity of cultural items” and the “pressure to syncretization” arising from “marked tolerance and support” (ibid., pp. 122–123), specific spokespersons and groups walk an ambiguous path between openness and closure *vis-a-vis* this religious ecology (ibid., pp. 121, 128). In order to successfully grasp the complex inclusions and exclusions of ‘religion’, ‘science’ and ‘esotericism’ within and between the plurality of positions, I would suggest seeing the flows in the milieu through processes of syncretization, secularization and

² A final type, reactive Satanism, appeals to Christian stereotypes, popular culture and mimetic acts in a construction of ostensive and mythical Satanism. It is less important in this study.

esoterization, thus highlighting both the ‘how’, ‘what’ and ‘why’ of Satanism, esotericism and science.

After presenting a framework of ‘secularizing the esoteric’ and ‘esotericizing the secular’, this study will first examine Anton LaVey’s Satanism in depth, followed by briefer studies of three formulations of modern Satanism in the satanic milieu, to show how both the sources of authority and the traditions themselves are malleable and strategic. Finally, this investigation is related to the theoretical discussion surrounding the concept of syncretism to further understand the processes and motivations involved. In effect, modern Satanism is both a secularized esotericism and ‘esotericized’ secularism, as satanic actors construct their worldview as discourses with material at-hand in ever-widening relations: to other actors, competing groups, the networks of the satanic and cultic milieus, popular culture and ‘occulture’, and finally hegemonic discourses of society at large.

II. *Secularized Esotericism and ‘Esotericized’ Secularism*

All New Age religion is characterized by the fact that it expresses its criticism of modern western culture by presenting alternatives derived from a secularized esotericism. It adopts from traditional esotericism an emphasis on the primacy of personal religious experience and on this-worldly types of holism (as alternatives to dualism and reductionism), but generally reinterprets esoteric tenets from secularized perspectives. (...) New Age religion cannot be characterized as a return to pre-Enlightenment worldviews but is to be seen as a qualitatively new syncretism of esoteric and secular elements. (Hanegraaff, 1998 [1996], pp. 520–521)

As a first move I will unlock some pertinent dimensions in Wouter J. Hanegraaff’s concept of ‘secularized esotericism’ in order to contextualize the syncretism of the satanic milieu and launch a parallel counter-strategy, namely ‘esotericized secularism’. As we can see from the quote above, Hanegraaff proposes the concept as an explanatory device in his influential analysis of the New Age movement (Hanegraaff, 1998 [1996]). New Age religion broadly rests on cultural criticism as secularized esotericism, marking both continuity and a break with “traditional esotericism” before the Enlightenment; it is a “qualitatively new syncretism”. Hence alternatives are formed on the basis of two broad historical movements, namely occultism and romanticism, both of which are results of the meeting of secularism and esotericism, understood respectively as Enlightenment ideals,

mechanistic science and (later) evolution on the one hand and the holistic “form of thought” described by Antoine Faivre through his six characteristics on the other (*ibid.*, part III, especially pp. 406–410).

In the analysis, he taps into Colin Campbell’s concept of the cultic milieu as a way to conceptualize New Age as a movement (*ibid.*, pp. 14–16, 522), but on the whole the analysis works on the level of the history of ideas. I would suggest we use this link to a sociological model to open up the discussion of secularized esotericism as a *strategic* process. If we do so, it becomes obvious that the heavy reliance on substantives and ‘-isms’ occludes the fact that secularized esotericism is a strategic way of adapting to modernity *for social actors*, something Hanegraaff himself repeatedly states (e.g. *ibid.*, pp. 422, 516; Hanegraaff 1999, pp. 151, 154; 2003, p. 359; 2004, p. 496). Thus secularized esotericism becomes a synchronic concept built on slicing up a diachronic process in order to analyze it, as the cultural critique of the cultic milieu utilizes the dual strategies of ‘secularising’ the esoteric and ‘esotericizing’ the secular when constructing and legitimating tradition.

This reappraisal relates directly to the problematic Weberian survival of ‘disenchantment’ (e.g. Partridge, 2004a, 2004b) and to the wider discussion of the sacred and the secular in secularization theory (concisely summed up in Beckford, 2003). If we differentiate secularization on macro-, meso- and microlevels, here respectively the functional differentiation of society, changes in the religious economy and decline in individual performance and adherence (Dobbelaere, 1989, 2004; cf. Hammer, 2001, pp. 30–31), we can bracket the universal theoretical problems and concentrate on more manageable matters such as the concrete syncretic processes of the cultic milieu and its character as both the *reservoir* of raw materials from which to create religion and the *network* in which to do it.

In turn, this pinpoints the relation between structure and actor, the ready availability of material and the apparently unproblematic crossing of boundaries between sacred and secular in modern religious creativity. On the macro level of functional differentiation, secularization is pointing to a historical fact, namely the differentiation of modern western society and decline of authority of institutionalized religion in the plausibility structures of western societies. However, this assessment must be seen in relation to the micro level, where people are “no less religious today than they were two hundred years ago” (Stuckrad, 2005a, p. 141, n. 149), as well as the meso-level of discourse and

institutions, where they nevertheless *communicate* religion in a different way, through new avenues of legitimacy. A pressing question becomes: how do we conceptualize these flows?

Motivated by an interesting analysis by Cheris Sun-Chin Chan (2000), Christopher Partridge proposes a necessary interrelation between "sacralization of the secular" and "secularization of the sacred" in order to transcend the difficulties inherent in secularization theory in general and Hanegraaff's concept of "disenchanted magic" in particular (Partridge, 2004b, p. 44, 2005, p. 2). Chan states that:

The 'sacralization of the secular' is a process by which the sacred sphere expands its boundary to encompass part of the formerly secular sphere. In parallel with this process is the 'secularization of the sacred,' through which secular elements permeate the sacred world. In a continuum of values between the sacred and the secular, the sacralization process ratifies and sanctifies the originally secular realities. The secular realities, simultaneously, function actively in the sacred cosmos and manifest a secularization dynamic. (Chan, 2000, p. 46)

This is used as a starting point by Christopher Partridge to examine re-enchantment through the hybrid nature of occulture; a term proposed to transcend the subcultural and 'cultic' limitations of Campbell's cultic milieu (Partridge, 2004b, pp. 66–68, 84–85). What is most important for the present discussion is that these conceptual dialectics describe ongoing discursive strategies available in the construction of traditions, as sacred and secular claims reorient the constituents and hence the legitimacy of meaning-making with matters at-hand. In the words of Bruce Lincoln, myths, rituals and classifications are "modes of discourse", usable instruments in the construction, deconstruction and reconstruction of society, a boundary work constantly undertaken by social actors (Lincoln, 1989, 1994, 2006). Social and discursive boundaries between science and religion are constantly challenged and redrawn, although the clashes are very different in the mainstream of orthodox science and on the margins, in the individualized and loosely constrained *bricolage* of the cultic milieu itself.³

Such dialectic models of boundary work can be profitably combined with Max Weber's immensely influential analysis of the legitimation of

³ On the very evocative and useful concept of boundary work, see Cozzens & Gieryn, 1990; Gieryn, 1999. Its use within STSS-studies makes it even more relevant in studies of religion and science. For examples, see Hess, 1993; Rothstein, 2004.

authority (e.g. Weber, 1978, pp. 212–301, 941–1372; 2003, vol. 2, pp. 45–188). Weber himself worked with three ideal types of charismatic, rational-legal and traditional authority according to the specific claims to legitimacy they make; today, this somewhat static model is mirrored in Wouter Hanegraaff's strategies to find 'truth': reason, revelation and gnosis (e.g. Hanegraaff, 2004, p. 492). In contrast, James R. Lewis has tried to extend Weber's original schema into more dynamic legitimation strategies utilized in various combinations—they are *possibilities* of appeal (Lewis, 2003, 2007)—whereas Olav Hammer outlines three major strategies of epistemology in the cultic milieu, namely tradition, scientism and experience (Hammer, 2001), again as an extension of a Weberian framework. The latter model is interesting because it incorporates the dual aspect of concrete tactics, such as narrativization, pattern recognition and imitation, with the more strategic aspect of validity. Thus claims to legitimacy can be framed through age or exotic provenance, through scientific terminology and systematic method, or through the life-story of the experiencing self, a decidedly more discourse-oriented approach to Weber's basic classificatory insight.

I suggest we delineate 'esotericism' and 'esoteric' along the discursive lines advocated by Kocku von Stuckrad and Olav Hammer: As *claims* to absolute knowledge and the *means* to attain this knowledge, seen as a dialectic of the hidden and revealed (Stuckrad, 2005a, p. 10), which again should be related to an initiatory discourse and organization precisely because it is mediated (Hammer, 2004).⁴ 'Secular' and 'secularism', on the other hand, points to claims based on the rationalization of nature, body and psyche and the differentiation of society in the modern West, related to non-religious ideals and practices resulting from the project of modernity (Asad, 2003; Zuckerman, 2008). By understanding the concepts of the secular and the esoteric in a processual and verbal sense as modes of discourse within strategic positions rather than closed and fixed systems of tradition, we can focus on the "religious economy" and the meso-level of formulated discourse, strategies and combinations (Hammer, 2001; Hanegraaff, 2007; Stuckrad, 2003, 2005a, 2005b).

⁴ Although literary esotericism complicates the sociological correlation with structured groups, it is nevertheless involved in social processes in the cultic milieu through response networks and audiences.

Combining the dialectical model of boundary work with legitimation strategies, *secularizing the esoteric* points to the transformation of authority of materials traditionally classified as esoteric (texts, images, discourses, practices etc.) in the light of appeals to secular modes of legitimacy: modern contexts, theories, models or terminologies stemming from psychology, quantum physics, medicine or political science, for example. We can say that a secular and scientific myth suffuses the esoteric structure; it is no longer uniquely connected to esoteric modes of legitimation, but is disembedded and secularized, and thus connected to secular authority for legitimacy. Conversely, *esotericizing the secular* points to the transformation of authority of texts, images, discourses and practices associated with the secular sphere—they too are disembedded, but are now justified through esoteric modes of legitimation, such as claims to absolute knowledge, a secret historiography, personal experiences and initiated vocabularies. Here an esoteric myth permeates the secular narrative.⁵

In addition to this synchronic use, we can also conceptualize the 'sedimentation' of authority over time, as suggested by Gustavo Benavides (Benavides, 2001, p. 498), in ideal types to describe "hegemonic interventions" or attempts at discursive closure of boundaries (Laclau & Mouffe, 2001 [1985]). As I discussed earlier, Campbell's cultic milieu rests on a measure of tolerance and support, thus highlighting both the flow of individuals and information in a vast network. But this aspect is inversely related to the interests of spokespersons and group coherence; when strengthening the group, ties to the milieu weaken and vice versa (Lewis & Lewis, 2009, p. 7). As such, Campbell's science-religion and instrumental-expressive axis (Campbell, 1972, pp. 124, 126) is a valid grid on which to base a typology of modern Satanism, as broader vectors of sedimented claimsmaking within the satanic milieu.⁶

Studies of the Church of Satan, the writings of its High Priest, Anton Szandor LaVey, and the modern offshoots and spokespersons of this tradition has frequently asserted the materialistic, atheistic and (semi-) scientific bias of this strand of modern Satanism (e.g. Alfred, 1976;

⁵ Aside from Christopher Partridge and Cheris Sun-Chin Chan, I am here inspired by Jennifer Porter's brilliant article "Spiritualists, Aliens and UFOs", where she discusses American Spiritualism's dialectics of 'rationalising' the miraculous while simultaneously asserting spiritual truth through embracing the extraterrestrial—in essence a double idealization of science through appropriation and critique (Porter, 1996).

⁶ I will return to Benavides' ideas as well as the concept of syncretism in the theoretical discussion in part V.

Lewis, 2003; Petersen, 2005). Two readings have been made from this assertion. In a more integrative formulation, the Satanism of LaVey is seen as a watered down version of esoteric discourses and practices, or, less provocatively, as a secularized esotericism. In this sense rationalist Satanism in the Laveyan tradition partakes of strategies similar to ‘self religion’ within modern esotericism, New Age religion and the Human Potential Movement (Heelas, 1996, 2002), negotiating between esoteric and mythologized scientific rhetoric in order to legitimize and authenticate itself in the cultic milieu today. In essence it is a squarely modern this-worldly self-deification which aims to actualize, realize or assert the satanic self rather than any transcendent entity. Keywords become detraditionalization and eclecticism in a satanic milieu (Dyrendal, 2004, 2008, 2009; Petersen, 2009a, 2009b).

Other studies, in contrast, emphasize a more radical understanding of the discursive manoeuvres within the Laveyan tradition, stressing the emic othering of spirituality discourses as well. In “Anton LaVey, The Satanic Bible and the Satanist tradition”, James R. Lewis states that

When LaVey founded the Church of Satan in 1966, he grounded Satanism’s legitimacy on a view of human nature shaped by a secularist appropriation of modern science. Unlike Christian Science, Scientology and other groups that claimed to model their approach to spirituality after the *methods* of science, LaVey’s strategy (...) was to base Satanism’s “anti-theology” in a secularist *worldview* derived from natural science. The appeal to a worldview based on “our scientific and technological advances” provided LaVey with an atheistic underpinning for his attacks on “obsolete” Christianity and other forms of supernatural spirituality (he quotes from Barton, 1990, p. 13; Lewis, 2003, p. 105).

In this view rationalist Satanism strongly asserts the differences from mythological Christian and esoteric formulations of Satanism, as well as the broader ‘spiritualities’ of the contemporary West, by affirming a materialistic and secular basis (cf. Dyrendal, 2009; Lap, 2008; Petersen, 2009a). It is not religious or even ‘spiritual’, but a secular philosophy actively distancing itself from more recognizable ‘religious’ competitors in the milieu. Whereas the motivations behind the appropriation of science by religions are normally legitimizing claims that *reinforce* the religious agenda (Lewis, 2007; Rothstein, 2004), in the case of rationalist Satanism the appropriation is *naturalizing* and based

on the critique of a religious worldview: an "Un-religion" (Crabtree, 2002b; Paradise, 2007, p. 150).⁷ Lewis concludes:

In terms of Weber's schema, we would say that LaVey's appeal to human nature (meaning, for LaVey, the Darwinist vision of human nature) was a rational legitimation of authority. In other words, LaVey claimed that Satanism was a legitimate religion because it was rational. As a corollary, traditional religion was irrational (unscientific) and therefore illegitimate (Lewis, 2003, p. 106).

While it is important not to be too overtaken by these rhetorical manoeuvres of the Church, I consider this angle of inquiry fruitful for several reasons. First of all, it can explain why rationalist Satanism is often marginalized in broader studies of modern esotericism and alternative religiosity in the West; it is seemingly considered either too trivial or too philosophical, neither of which is true. Secondly, it highlights some important methodological problems regarding the use of science in religious *bricolage*. The radical angle illustrates a problem with the softer, integrative approach above, namely the need to *respect* the emic formulations of identity. Laveyan Satanism clearly tries to navigate waters similar to other currents and groups in the cultic milieu, but with a different focus and outcome compared with secularized esotericism in a strict sense.

On the other hand, by excluding rationalist Satanism from esotericism, we *accept* the contestatory discourse of LaVey and his successors, which is obviously an interpretative fallacy. Many new religions distance themselves from 'religion' and utilize mythologized science both as ideological content and a basis for legitimation (Hammer, 2001; Hanegraaff, 1999, 2000; Lewis, 2003, 2007; Rothstein, 1996, 2004). In addition, Laveyan Satanism appropriates religious elements as well. Lewis writes:

At the same time, LaVey went beyond contemporary secularism by suggesting the reality of mysterious, "occult" forces—forces he claimed were not supernatural, but were, rather, natural forces that would eventually

⁷ Scientific and scientism generally has two meanings: The religious appropriation of science, the mythologized science 1 of new religions (Hammer, 2001, p. 206), and the belief that science is the ultimate master narrative, mythologized science 2 (Midgley, 1992). I use "naturalizing" for scientism in the latter sense here.

be discovered by science. In his notion of mysterious forces that could be manipulated by the will of the magician, LaVey was really not so far from the mentalistic technology of Christian Science, Scientology, etc. (Lewis, 2003, p. 106).

Consequently rationalist Satanism also utilizes traditional and charismatic legitimation strategies, both in the early phases, when LaVey is actively constructing a satanic tradition, and in the later phases, when the authority of Anton LaVey and *The Satanic Bible* often supplants rational legitimation.

Nevertheless, these ambiguities aside, the sedimented rhetoric of Laveyan Satanism is part of a wider construction of tradition that could be heuristically classified as *esotericized secularism* in the sense that LaVey's project has an anti-religious thrust that attempts to build a tradition on a disenchanted worldview. This is appropriated and radicalized by successors both within the Church of Satan and in splinter groups, thus producing a distinctive esoteric secularism I have called rationalist Satanism. In contrast, other groups falling within the category of esoteric Satanism re-open the boundaries set by LaVey and thus partake in strategies found in the cultic milieu in general. Here it is religious conceptions and practices that set the standard to which science and secular ideals should conform. The end result is a mythologized science legitimating a religious construction of tradition, a *secularized esotericism*.

Let me illustrate this difference through some examples. In the analyses to follow, I have chosen material from a variety of sources (internet sources, movement texts and informal texts) in a time-span from the late 1960s to the present. The central themes will be the concrete use of science and rationality in the selected satanic material and the concurrent legitimation strategies within them that authorize claims of Satanism as a *legitimate* discourse.

III. *The Bedrock Knowledge of the Church of Satan*

Magic requires working in harmony with nature. Bearing that in mind, I can assure you that I have stumbled onto something. Magic works. I would do it whether people attended the Church of Satan and did it with me or not. (Barton, 1990, p. 16; originally from B. Wolfe's *The Devils Avenger*, 1974, p. 98)

Satanism, as LaVey describes the modern philosophy (...) starts as a secular philosophy of rationalism and self-preservation (natural law,

social Darwinism, animal state) and wraps these basically sound ideas in religious trappings to *add* to its appeal. A Satanist enters the supernatural realm by *choice*, with eyes open and hearts clear (...). (Barton, 1990, p. 123)

Broadly speaking, the Church of Satan’s stance towards science and materialism can be synthesised from two currents in Anton LaVey’s writings, succinctly summarized by himself as “Ayn Rand with trappings” (Klein, 1970, p. 20). On the one hand is the critical replacement of God by carnal man in LaVey’s ideological intervention: “a secular philosophy of rationalism and self-preservation (natural law, social Darwinism, animal state)” (Barton, 1990, p. 123). On the other is the magical technology promoted by LaVey, gathered from various esoteric traditions as well as psychotherapy and theatre: “Satanism, realizing the current needs of man, fills the large grey void between religion and psychiatry. The Satanic philosophy *combines* the fundamentals of psychology *and* good, honest emotionalizing, or dogma” (LaVey, 1969, p. 53). The respective strength of these currents changes over time, but they are dialectically related in his thinking as secularizing and esotericizing trends, ultimately negotiating a secular worldview.

Nevertheless, we should discern between content and effect; the “secular philosophy” is a specific use of and appeal to secular and scientific material that becomes a *secularizing* trend when engaging esoteric material; inversely, the “trappings” or use of and appeal to esoteric material becomes an *esotericizing* trend in the application of science. I will examine this complicated chiasm of legitimation and counter-legitimation by first studying the appropriation and use of secular elements and suggest some aspects of ‘esoterization’ involved, before secondly elaborating on the esoteric elements and the concomitant secularization and ‘esoterization’ in more depth.

Secular Elements and the Undercurrent of ‘Esoterization’

A cornerstone in LaVey’s secular philosophy is the view on the human animal. The basic framework of satanic anthropology (and by implication ontology) is summarized in “The Nine Satanic Statements” in *The Satanic Bible* (LaVey, 1969, p. 25). The statements can be divided into three major groups: The first three on “indulgence”, “vital existence” and “undefiled wisdom” present a positive view of the satanic self as a carnal, physical and pragmatic being. Ideals of enjoyment of physical existence (rather than abstinence) and a clear view of this-worldly

truth (rather than pipe-dreams and self-deceit) are thus promoted as the core values of Satanism, echoing Darwinism, Epicureanism and hedonism as well as the iconoclastic philosophies of Friedrich Nietzsche and Ayn Rand (Dyrendal, 2009; Lap, 2008; Lewis, 2009; Mathews, 2009).

Statement four, five and six turn to the ethical dimension through the keywords of “kindness to those who deserve it”, “vengeance” and “responsibility to the responsible”, in essence painting a harsher picture of society and human relations than most competing groups in the Aquarian Age by focusing on justice rather than love. These elements have frequently been described as a social Darwinist or even proto-fascist current in the Church (e.g. Lap, 2008; Lewis, 2009; Mathews, 2009). The final three are explicitly negative in their rejection of the dignity of man, sin and the Christian church. Man is “just another animal”, sins a catalogue for gratification and Christianity (and by extension all religion) is business. Here the antinomian aspect of Satan as adversary comes to the fore in support of the previous six statements, with non-conformity as a core ideal.⁸

This is of course only the barest of scaffolds by which to build a worldview, and the body of LaVey’s work sets out to explain the theses in more detail. A highly influential element is the “Book of Lucifer” in *The Satanic Bible*, lodged in between the dramatic hyperbole of the “Book of Satan” and the magical primers found in the “Book of Belial” and “Leviathan”. This book, subtitled “the Enlightenment” and associated with the element of air, contains twelve essays, based on the “rainbow sheets” produced in the mid-1960s and in circulation in LaVey’s “Magic Circle” and Church of Satan before mass publication in 1969 (Lewis, 2009, p. 48; cf. Aquino, 2009, chapter 5). The twelve texts are mainly in the genre of popular culture criticism, discussing various aspects of being a Satanist and the ailments of modern Christian culture in secular terms.

For example, in “Some Evidence of a New Satanic Age” and “Indulgence...NOT compulsion”, theories of pent-up emotions and the necessity of release (or in the case of sexual fetishes, the acceptance of them as natural), appeals to popular psychology (LaVey, 1969, pp. 53, 81). In “*Wanted!*: God—Dead or Alive”, the picture of the uncaring causal universe and existential man invokes mechanistic

⁸ I return to the formal aspects of and use of Satan in the statements below.

physics (*ibid.*, p. 41), as do the “balancing factor” in nature and the universe that is mentioned as a powerful, impersonal force—behind the anthropomorphism lies a fundamental constant or natural law (*ibid.*, p. 40). What is notable is the fact that the tone, even when discussing esoteric subjects such as satanic names or the history of the Black Mass, is always philosophical and frequently invokes the spectre of biology, sociology and/or psychology. Yet the appeals are unsubstantiated and frequently seem like rhetorical flourishing, and there are no direct references or a bibliography. These can be found in later literature, especially *The Satanic Witch* and the hagiographic volume *The Church of Satan* by Blanche Barton (Barton, 1990, pp. 163–167; LaVey, 2002 [1971], pp. 267–274). On the basis of the literature mentioned, various appeals to philosophy and science, including outright ‘scientification’, can be reconstructed and compared.

Ayn Rand’s Objectivist philosophy is a good place to start. Neither bibliography includes any works by Rand, and although the connection is explicitly stated as mentioned above, it remains an echo, especially through the use of the phrase “rational self-interest” (e.g. in “The Goodguy Badge”, LaVey, 1992, p. 22) and the pragmatic this-worldly orientation of LaVey’s criticism.⁹ The basics of Objectivism as laid out by Rand, namely “objective reality”, “reason”, “self-interest” and “capitalism” (cf. Rand, 1962), become one facet of an anti-idealist and individualist worldview constructed by LaVey in opposition to the undirected mysticism, bad politics and idealist philosophy of the times. Hence LaVey extracts a core of rationalist individualism and the general impetus of ‘getting things done’ which is celebrated in Rand’s works (both fictional and non-fictional); the Satanist, as Howard Roark in *The Fountainhead* (1943) or John Galt in *Atlas Shrugged* (1957), is independent, egoistic, materialistic (in both senses: opposed to idealism as well as greedy), iconoclastic, and decidedly anti-Christian—essentially a productive outsider (eg. Barton, 1990, pp. 29, 68, 111, 122–123). These are definitely ‘Randian’ traits, but not Objectivism as such (cf. Aquino, 2009, Chapter 5 and appendix 11; Lewis, 2003, pp. 113–114; Mathews, 2009, pp. 35–36, 66). What they do is provide a

⁹ This might be because Rand is among “such standards as Ira Levin’s *Rosemary’s Baby* or John Milton’s *Paradise Lost*” that should go unmentioned because of their basic nature (Barton, 1990, pp. 166–167). Michael Aquino writes that her works were cited on circulated reading lists of the early Church (Aquino, 2009, p. 55).

rationalist tone of ‘clearing out the clutter’ to the satanic tradition, a tone that is supported by other philosophical forebears.

One such source for pragmatic ‘doing’, materialism and anti-Christianity is Frederick Nietzsche and his philosophy of Will. Nietzsche is mentioned in the reading list of *The Church of Satan* (Barton, 1990, p. 164) as well as the (now discarded) dedication list in the first *Satanic Bible* (Flowers, 1997, pp. 172–173). Again, although the notions of the *Übermensch* and the herd, master and slave morality, the magical use of Will or subjective individualism and constructive nihilism (to which we return below) are found in LaVey’s work, they remain an undercurrent tied to a general culture critique, a antinomian practice made meaningful by the positive values embraced.¹⁰ More importantly, the ghost of Nietzsche leads us to the first explicitly *scientific* discipline actively used by LaVey, Darwinist biology. Biology has both a metaphorical and an ideological dimension in LaVey’s appropriation—metaphorically as a general underscoring of animality, ideologically as a social, political and ethical interpretation, as in Herbert Spencer’s socio-biology and Thomas Malthus’ social engineering.

The metaphorical aspect can be seen in LaVey’s description of man as a carnal being, recalling the second and seventh statements: “He no longer can view himself in two parts, the carnal and the spiritual, but sees them merge as one, and then to his abysmal horror, discovers that they are only the carnal—AND ALWAYS WERE!” (LaVey, 1969, p. 45) LaVey’s Satanism thus contains a clear biologism anchored in a materialistic understanding of the human animal, strongly opposed to metaphysical notions; children and animals represent the *natural* expression of being (LaVey, 1969, pp. 87–90; cf. Dyrendal, 2009; Lap, 2008, pp. 9–11), and reason and emotion are tied to the very carnality of humanity’s existence (e.g. LaVey, 1969, pp. 64–65). This is bolstered by various references. Charles Darwin is mentioned in *The Satanic Witch*, but curiously only with *The Expressions of the Emotions in Man and in Animals* from 1873 (LaVey, 2002 [1971], p. 267), while other more popular books mentioned are Desmond Morris’ *The Naked Ape* (1967), Hans Brick’s *The Nature of the Beast* (1960) and quite a lot of works on sex, smell, gender and the body—including two books on

¹⁰ See Petersen, 2009a. This is misunderstood by Chris Mathews (2009, pp. 31–33, 72–74, 160–162).

endocrinology (Grollman and Hoskins, both from 1941).¹¹ This 'metaphorical biology' becomes especially important when seen together with LaVey's notions of personality and sexuality, summed up in the Personality Synthesizer, which will be covered shortly.

Regarding the social, political and ethical uses of biology, several critical treatments have traced a misanthropic LaVey and tied it to a social Darwinist current in *The Satanic Bible* and later works (most notably Mathews, 2009). While it is difficult to pinpoint exactly when specific passages have been written (as all books are anthologies of previous material, often published in the Church journal *The Cloven Hoof*), there is definitely a moral and political biologism present from the start, which seems to grow stronger in the late 1970s and 1980s as LaVey's general resentment grows and the Satanic Panic makes life difficult. Both Herbert Spencer and Thomas Malthus are mentioned in the bibliography of *The Church of Satan* (Barton, 1990, pp. 163–164; cf. pp. 59, 82), alongside G. B. Shaw and J. London, for example; social Darwinist stratification and eugenics are also discussed, most notably in the essay "Pentagonal Revisionism: A Five-Point Program" (reproduced in Barton, 1990, pp. 82–89; Barton 1992, pp. 259–260; LaVey, 1992, pp. 93–97), advocating the reinstatement of the Law of the Jungle and ghettoization to support the satanic elite.

In the early works, this Spencer-Malthusian framework is most visible in the "Book of Satan" (LaVey, 1969, pp. 27–35), the "infernal diatribe" associated with the element of fire that introduces *The Satanic Bible*. As has been noted by previous studies, this book is heavily dependent upon Ragnar Redbeard's *Might is Right*, a late-19th century misogynistic, anti-Semitic and social Darwinist manifesto (Aquino, 2009, Chapter 5; Lap, 2008, p. 10; Lewis, 2003, pp. 112–113; Mathews, 2009, pp. 56–57, 64–66); what is equally important, though, is that LaVey removes misogyny and anti-Semitism and strengthens the anti-Christian tone (Gallagher, 2009; cf. Mathews, 2009, p. 65). While not neglecting the darker possibilities of this use of biology, the application of force and moral right to the strong should be seen in relation not to politics, but to the composition of the Bible as well as the activities of the ritual chamber, again clearing out the clutter to realign the

¹¹ As with Ayn Rand, classics such as *On the Origin of Species* (1859) or *The Descent of Man* (1871) must be books the Satanist naturally gravitates towards.

self. Although ostensibly a scientific ethics, its use is dependent upon *esoteric* legitimation (Petersen, [forthcoming]).¹²

To complete the description of LaVey's secular philosophy, two additional scientific disciplines of importance should be mentioned. One is *sociology*, especially of crowd behaviour and public performance. For example, we find references to three books by Erving Goffman and two by Orrin Klapp in *The Satanic Witch* (LaVey, 2002 [1971]); the latter is also in the lost dedication list of *The Satanic Bible* (Flowers, 1997, p. 173). Elias Canetti's *Crowds and Power* (orig. 1960) and aforementioned H. Spencer figure in the bibliography of *The Church of Satan* (Barton, 1990). The other is *psychology*; more biologically based works by Sigmund Freud, Sandor Ferenczy and Wilhelm Reich, as well as somatological personality typologies by Ernst Kretschmer and William H. Sheldon, can be found in *The Satanic Witch* (LaVey, 2002 [1971]) alongside Mortimer Ostow & Ben-Ami Scharfstein's *The Need to Believe* (1954) and Abraham H. Maslow's *Motivation and Personality* (1954), for example. *The Church of Satan* refers to Reich, Freud and Carl G. Jung, as well as Michel Foucault's *Madness and Civilization* (1965) (Barton, 1990), while *The Satanic Rituals* have a brief mention of Thomas Szasz' anti-psychiatric *The Manufacture of Madness* (1970) (LaVey, 1972, p. 16).¹³ Together with biology, these two disciplines figure heavily in the reassessment of Satanism as a scientific philosophy, especially through the ambiguous reframing of magic as a symbolic technology. LaVey's Personality Synthesizer is a good example.

As I described in the introduction, the basic model is a clock coupled with 12 personality types associated with specific body types. These are simplified versions of psychologists Ernst Kretschmer's work on constitutional types (leptosomic, athletic and pyknic) and William H. Sheldon's work on somatotypes (ecto-, meso- and endomorph) (LaVey, 2002 [1971], p. 25; cf. Barton, 1992, pp. 167–168; Lap, 2008,

¹² Contrary to Chris Mathews' argument, modern Satanists *do* cover the whole political spectrum (Lewis, 2001) and they *can* discern between politics and religion (e.g. Shankbone, 2007; Wardinski, 2009). In addition and in strong opposition to Mathews' thesis, *Might is Right* is neither the single most important influence on LaVey nor modern Satanism. An analysis of rationalist Satanism based on the consequences of this book alone neglects a host of facts that indicates a much more selective appropriation of social Darwinism and biology both within the Church of Satan (e.g. Mathews, 2009, pp. 76, 78) and in the satanic milieu (see Crabtree, 2002a; Crabtree, 2002c; O. Wolf, 1999). "Satanism is fascism" remains Mathews' confirmation bias, not a conclusion.

¹³ On references to psychology, see also (Lap, 2008, pp. 9, 11).

p. 11). This in turn is related to a host of lifestyle choices, fetishes and motivations, and is the underlying framework for success as a satanic witch (LaVey, 2002 [1971], pp. 21–73). Behind this practical tool for manipulation and self-reflection are two additional psychological theories developed by LaVey, namely the theory of majority and demonic minority self, and his notions of Erotic Crystallization Inertia (ECI).

The general structure of the self resembles Carl G. Jung's theory of shadow self and Anima and Animus, although this connection is unacknowledged; behind the "outer" layer lurks the demonic minority self, an inversion of both the "apparent" and "true" personalities that are the same (so one "can tell a book by its cover") (ibid., pp. 21–25). Inside the "fat man" is a fat man surrounded by a skinny woman, and the prospective witch should learn to appeal to this meso-level self rather than the core. In addition, she should evaluate herself to be better able to shapeshift into other roles, hence the synthesizer (the opposite on the clock denotes the demonic minority self). The theory of Erotic (or emotional) Crystallization Inertia is alluded to in *The Satanic Witch* (ibid., pp. 143, 180) and further discussed in various essays from the 1970s onwards (e.g. Barton, 1992, pp. 170–171, 229; LaVey, 1992, pp. 72–75; cf. Flowers, 1997, pp. 206–207). It is basically a Freudian or Reichian model of establishing sexual, emotional and aesthetic choices in childhood; pleasure and fulfilment is thus derived from deep-seated psychological structures, and can be exploited by the crafty Satanist, both in the manipulation of others and in the construction of "total environments" and "artificial human companions" for maximum stimulation (LaVey, 1992, pp. 94, 130–139, 1998, pp. 152–154).

If this sounds like self-help psychology, it is because LaVey is very close to Humanistic Psychology (cf. Maslow in the reading list) and the general orientation towards self-actualization (Lap, 2008); he even claims the birthright of the Human Potential Movement (Barton, 1990, pp. 16, 48). In two recent studies by Asbjørn Dyrendal and Amina O. Lap, LaVey's Satanism is presented as a self-spirituality on the secularized and this-worldly edge of the scale between expressivism and utilitarianism (Dyrendal, 2009, pp. 71–72; Lap, 2008, pp. 5, 14), closer to the "prosperity wing" of the Human Potential Movement than the idealism of romantic New Age, for example. Although Dyrendal stress the possibility of an expressive dimension and both keep open the esoteric reading, the specific diagnosis, goal and cure, or in Lap's words, damaged self, satanic self and actualized self, generally follow

materialistic lines and are couched in the language of biology, sociology and psychology. The damage is due to repressive socialization (mainly of a Christian sort); the goal is a healthy ego who indulges in vital existence and personal as well as material success; and the way is through practical means such as liberating self-expression, ritual drama and therapeutic techniques. Both conclude that LaVey's Satanism is anchored in values and practices taking centre stage in contemporary Western countries (Dyrendal, 2009; Lap, 2008).

As we can see in this presentation of secular elements in LaVey's philosophy, they point in four general directions: Individualist philosophy, biology, sociology and psychology. They are also without much explanatory power, as LaVey mainly uses outmoded or "home-grown" science, if science is used explicitly at all; Kretschmer and Sheldon's body types, endocrinology from the 1940s, and Darwinian and Spencerian biology devoid of modern genetics¹⁴ are examples of the first, while the theory of ECI is an example of the second. In the same vein, both atheism and individualism remain undeveloped axioms (Mathews, 2009). This is because it is not the sciences in themselves nor philosophical reasoning that is important, but firstly the 'synonymization' of the faculty of reason and man's inherent carnality with scientific theories, models and vocabulary, and secondly the metaphorical extension of science into a secular worldview, a double scientific strategy (Hammer, 2001, p. 206). LaVey's scientism is taken as fact, even though much of his 'science' is or can be disproven (Davies, 2009; Lap, 2008; Lewis, 2009). What is important is stating a secular, natural, material and rational worldview, not presenting the newest scientific theories. This suggests that something apart from science is playing a part in legitimizing Satanism, namely the esoteric "trappings" or *motivating myth* of modern Satanism to be engaged with "eyes open and hearts clear" (Barton, 1990, p. 123).

As a prolegomena, an instance of the secular philosophy can be singled out as an indication of this motivating myth, namely the view of the self. In the discussion of A. Rand and F. Nietzsche, I suggested that it was the pragmatic and iconoclastic nature of these (very different) philosophies that appealed to LaVey—in both, the 'self-made man' was in evidence. In fact, LaVey is always promoting the *application* of science and philosophy, not useless theorizing. Biology becomes

¹⁴ The DNA model is proposed by Watson and Crick in 1953.

practical anthropology and politics, psychology becomes magical manipulation and liberating therapy and so on. In essence, it is the experience of practical application or *experiential authority* that undergirds LaVeyan scientism—science is true because it resonates with satanic reasoning—which points to esoterization. For example, the development of the Personality Synthesizer is described in this way:

I have conducted what sociologists might call an "unfounded research project." Much of what I have synthesized in my sometimes overly-scattered pursuits will to many readers appear utterly mad, ridiculous and outrageous. Much is based on the scientific evaluation of others. Perhaps even more will be condemned as having "no known or accredited scientific basis." Fine. All I know is it works. And if it works, I don't knock it. (LaVey, 2002 [1971], p. 26)

Rationality here is not merely logic, but 'esoteric empiricism', so to speak, connected to the satanic individuals' understanding of the mechanisms of biological and material nature. This view is supported by LaVey's auto-hagiography, where he is always attracted to practical knowledge and applied science, especially the 'carny' ideal of 'fooling the rubes' and 'getting it done' (Barton, 1990, pp. 33–46; cf. Barton, 1992); in fact, we count at least a dozen books on carnival culture, circus stage magic and the burlesque in the bibliography of *The Satanic Witch* (LaVey, 2002 [1971]). To fully appreciate this, we have to examine the appropriation of esoteric elements.

Esoteric Elements and the Undercurrent of Secularization

In the early period, Satanism is associated with the 'occult explosion' of the late 1960s, especially the witchcraft revival (Alfred, 1976; Freedland, 1972; Klein, 1970; Moody, 1974a, 1974b; Roberts, 1971; Marcello Truzzi, 1971; M. Truzzi, 1972; Marcello Truzzi, 1974a, 1974b). Perusing the early triad of foundational texts, *The Satanic Bible* (1969), *The Compleat Witch* (1970)¹⁵ and *The Satanic Rituals* (1972), as well as the halo of media material arising from popular attention from 1966 onwards, it is obvious that Anton LaVey is involved in heavy borrowing from a variety of esoteric sources. He is also a consummate showman, staging a variety of satanic ceremonies and public appearances while practicing magic, writing books and leading occult seminars. As

¹⁵ Later renamed *The Satanic Witch*.

an indication of his embeddedness in the cultic milieu, a quick glance at the bibliographies used above reveals some usual suspects, such as Maurice Bessy's *Pictorial History of Magic and the Supernatural* (1964),¹⁶ E. A. Wallis Budge's *Amulets and Talismans* (1961), Richard Cavendish' *The Black Arts* (1968), H. Kramer & J. Sprenger's *Malleus Maleficarum* (in the 1948 Montague Summers translation), and L. Pauwels and J. Bergier's *The Morning of the Magicians* (1964) (LaVey, 2002 [1971]). We also find scholarly titles such as Eliot Rose's *A Razor for a Goat* (1962) and Maya Deren's *Divine Horsemen* (1970); in fact, LaVey seems more updated on the literature of the cultic milieu and historical or anthropological research than the natural sciences.

His position changes somewhat after 1970, where "Phase One Satanism" or public blasphemy is discarded for a cabal-like cell structure of "productive misfits" (Barton, 1990, pp. 29, 105, 119), and especially after the schism in 1975, where many esoterically inclined depart the Church to form other groups, such as Michael Aquino's Temple of Set (Petersen, 2009b). This leaves the Church of Satan as more of an atheist ideology of culture criticism and less of a traditional 'satanic' organization; the esoteric activities are privatized and the rhetoric secularized. Nevertheless, both esoteric material and blasphemy lives on in the literature.

Four esoteric elements stand out in LaVey's esoteric *bricolage*: The figure of Satan, a reconstructed genealogy of "anti-morality" or counter-culture, occult terminology and models, and finally the use of magic (cf. Petersen, 2009a; Petersen, 2009b). Satan is frequently used as a symbol or metaphor for the carnal and individual self: "We don't worship Satan, we worship ourselves using the metaphorical representation of the qualities of Satan. Satan is the name used in the Judeo-Christian tradition for that force of individuality and pride within us" (Barton, 1990, p. 71). Satan becomes a psychological and motivational shorthand for "the accuser or the one who advocates free thought and rational alternatives" (ibid.). This is reflected in the *Nine Satanic Statements* discussed earlier. Formally, the statements are consciously mirroring the antitheses from the Sermon on the Mount (Matthew 5,17ff): They are brief, concise propositions of what "Satan represents (...) instead of" something (except in the final statement,

¹⁶ The Baphomet pentagram is apparently taken from this book (P. H. Gilmore, 2005 [2000]).

where "Satan has been"). In this, we see an indication of the *symbolic* nature of Satan as used by LaVey; he *represents* rather than *is*, indicating an atheist take on the Devil that naturalizes and sometimes even dissolves any external being.

On the other hand, Satan is retained in an ambiguous position, as LaVey never closes the door completely on "anomalous phenomena that might actually exist" (Barton, 1992, p. 164). From the anthropomorphic language of the "Book of Satan" ("He has shown himself to be a model of deportment, but now he feels it is time to shout back", LaVey, 1969, p. 29 (cf. Barton, 1990, p. 93)) to the almost deistic "dark force of nature" in several essays ("This powerful force which permeates and balances the universe is far too impersonal to care about the happiness or misery of flesh-and-blood creatures on this ball of dirt upon which we live", (ibid., p. 40, cf. pp. 62, 110)), Satan alludes to the mysterious nature of reality acknowledged from pre-Christian times (ibid., p. 55–63). On the whole, however, we can say that Satan is secularized and used as a representation of internal states, which is then used as an esoteric legitimation, as the self is connected to both a satanic (and even Christian) tradition and Satan as a trope of experiential truth:

I have felt his presence but only as an exteriorized extension of my own potential, as an alter ego or evolved concept that I have been able to exteriorize. With a full awareness, I can communicate with this semblance, this creature, this demon, this personification that I see in the eyes of the symbol of Satan—the Goat of Mendes—as I commune with him before the altar. None of these is anything more than a mirror image of that potential I perceive in myself. (...) Satan is, therefore, an extension of one's psyche or volitional essence, so that the extension can converse and give directives through the self in a way that mere thinking of the self as a single unit cannot. In this way it *does* help to depict in an externalized way the Devil *per se*. The purpose is to have something of an idolatrous, objective nature to commune with. (Fritscher, 2004 [1973], pp. 6–7. Emphases in original)

In the same vein, the forefathers of the "Satanic underground" (e.g. Barton, 1990, pp. 10–12, 59; cf. LaVey, 1969, pp. 99–105) are rewritten as rational iconoclasts or sensual freethinkers. In fact, Satan's association with knowledge, often of a *material* sort (through inversion or absence of Christian virtues) and thus by extension with the natural sciences, makes a Satanist out of any engineer, artist, occultist or philosopher that understands the value of being opposed: F. Rabelais, The Yezidis and Mark Twain are only some of the "de facto" Satanists

that are *made* of the Devil's party (Barton, 1990, pp. 10–12, 70).¹⁷ A parallel strategy is visible in essays such as “Some Evidence of a Satanic Age” and “Some Evidence of a Satanic Age, Part II”, where important advances of secularization are ‘recruited’ into a satanic genealogy, in effect bolstering the authority of Satanism through appropriating social developments (LaVey, 1969, pp. 46–54, 1992, pp. 86–88). This becomes almost megalomaniacal in *The Church of Satan*, where the occult explosion is an effect of LaVey's magical “working” on Walpurgisnacht 1966, instating the Age of Satan and founding the Church, and the popularity of Metal music and self-help psychology are direct consequences of Anton LaVey's “influence of international directions and perspectives” (Barton, 1990, pp. 10, 48, 89).

Regarding occult terminology and models, one such appropriation is the use of the Baphomet or goats-head pentagram within two circles and adorned with Hebrew letters (see the cover of any book by LaVey for an illustration). Whether as a colour-coded necklace, banner or personalized emblem, the symbol is enmeshed in the history and dogma of the satanic underground (P. H. Gilmore, 2005 [2000]) while also psychologically potent; alongside the trapezoid, this geometrical shape can affect human emotion and action (Barton, 1992, pp. 159–167). Similar borrowings are found in the very structure of *The Satanic Bible*, namely the association of books and elements: fire, air, earth and water for Satan, Lucifer, Belial and Leviathan (LaVey, 1969). Although never used explicitly, they give the book a composition resembling a grimoire's while activating elemental and demonological lore, reinforced by demonic names and the “Book of Leviathan's” 19 Enochian Keys (conveniently translated into satanic idiom by LaVey himself) (LaVey, 1969, pp. 57–60, 153–272).

Another example of this reframing of esoteric content is the “Personality Synthesizer” which, in addition to self-help diagnostics such as personality tests and theories of body types, draws on astrological knowledge and imagery, with its 12 points in a circle, elemental values and correspondences, thus actually *feeding upon* or even *working as* authorising discourse through the traditional authority of astrology and the Craft circle of modern Witchcraft. However, this is

¹⁷ The entire book *The Satanic Rituals* can be seen as a comprehensive appropriation of all things satanic in the history of western esotericism, from the Templars to H. P. Lovecraft (LaVey, 1972), playing on their transgressive nature while secularizing their meaning. I will return to this work below.

specifically addressed in the distancing rhetorics of the chapter "Means of Divination", where LaVey advocates the study of astrology mainly for its motivating value in manipulating the "rubes" (LaVey, 2002 [1971], pp. 222–228); of the twelve reasons listed, not one accept the legitimacy of astrology on an emic level. Astrology works, because everyone believes it does, it is modelled on human behaviour and it is embedded in our collective unconscious (*ibid.*).

In sum, all occult elements are heavily secularized and de-traditionalized; their authority is only nominally tied up to a general appeal to the "Left-Hand Path" (eg. Barton, 1990, p. 104; LaVey, 1969, pp. 52, 137, 151). When specifically discussed, they are liable to be disembedded from traditional authority structures and legitimated through aesthetic appeals, the Satanist's personal quest and experience, and/or through rational means. But they are also the material through which the esotericizing of the scientific is mediated; actually, they are retained within a recognizable ritual context, that of magic. Magical practice thus becomes the very nodal point around which LaVey's appeal to scientific authority revolves.

LaVey defines magic as "the change in situations or events in accordance with one's will, which would, using normally acceptable methods, be unchangeable" (LaVey, 1969, p. 110), a clear allusion to Aleister Crowley's famous dictum "The Science and Art of causing Change to occur in conformity with Will" (cf. Flowers, 1997, p. 144). Just as Crowley, LaVey perceives magic as essentially scientific, although "[m]agic is never totally scientifically explainable" (LaVey, 1969, p. 110); on the other hand, he distances himself from Crowley and the esoteric traditions in rejecting much of the literature and practice as "sanctimonious fraud" (*ibid.*, p. 21), exhibiting a general predilection for psychologization found in secularized esotericism (cf. Asprem, 2008, pp. 141–142, 163; Hanegraaff, 2003, pp. 368–371). This generally takes two forms: Psychology, sociology and biology 'as' magic, or the inverse reading of magic 'as' applied psychology etc. While the first framing is fundamentally esotericized secularism, the second form is built on esoteric elements legitimized scientifically.

LaVey operates with two categories of magic: Lesser, or manipulative, and Greater, or ritual magic (LaVey, 1969, p. 111). Lesser magic is of the first type, psychology etc. *as* magic, exemplified by the "Personality Synthesizer" and the insights gained by psychology, biology and sociology. Apart from the brief elucidation in *The Satanic Bible* (*ibid.*, pp. 111–113), it is covered in depth in *The Satanic Witch* (LaVey,

2002 [1971]; cf. Barton, 1992, pp. 167–176) as discussed in the previous section. In the present context of the secularization of magic, an additional appeal is worthy of mention—namely William Mortensen’s *The Command to Look* and the heavy reliance upon his theory of visual composition (Mortensen, 1940 [1937]). Ostensibly a “formula for picture success”, Mortensen’s book describes three phases of creative reflection: The use of imperative patterns to command attention by triggering the fear response (chapter 3 and 4), the use of emotional appeal, here the evocation of sentiments of sex, sentiment and wonder to hold the subject’s interest (chapter 5), and finally the presentation of elements inviting participation to stimulate enjoyment (chapter 6).

The book itself and especially the first two phases are promoted by LaVey as elementary *magical* priming: Through odour, colour and patterns, the satanic witch should “utilize the command to LOOK”; through role-playing sex, sentiment and wonder, the witch should manipulate the unwary (cf. Barton, 1992, pp. 160–161; LaVey, 1969, pp. 111–113). LaVey himself is of course a master of this ‘magical’ work, formed by his extensive experience of human nature and the force of his personality. These universal elements of aesthetics are thus reframed as magical technology, reinforced by the myth of Anton LaVey (Barton, 1990, pp. 33–46; Lewis, 2003, pp. 105–111; Mathews, 2009, p. 47).¹⁸

This reliance on psychologization of esoteric material, intertwining rational and esoteric modes of legitimation, is strengthened in greater magic, discussed at length in the “Book of Belial” and the first part of the “Book of Leviathan” in *The Satanic Bible* (LaVey, 1969, pp. 107–140 and 141–152), the companion volume *The Satanic Rituals* (LaVey, 1972, especially pp. 11–27) and the chapter “How to Perform Satanic Rituals” in *The Church of Satan* (Barton, 1990, pp. 93–113). What is most important in the present context is that greater magic, in contrast to lesser magic, is fundamentally *made of* esoteric lore: The examples provided are all ceremonial in nature, with altar, candles, bells and prescribed roles, Enochian calls and ritual scripts, all of which are *legitimized as* psychological techniques.

The magic of the ritual chamber is presented as an “intellectual decompression” or carefully negotiated transgression: “The formalized

¹⁸ Though not an esoteric writer, William Mortensen was connected to the cultic milieu in California and had an interest in stage magic, psychic phenomena and esoteric subjects—sharing that interest with notables such as Manly Palmer Hall (Sahagun, 2008, p. 57).

beginning and end of the ceremony acts as a dogmatic, anti-intellectual device, the purpose of which is to disassociate the activities and frame of reference of the outside world from that of the ritual chamber, where the whole will must be employed" (LaVey, 1969, p. 120). Whether personal or collective, this "contrived ignorance" and use of ritual pageantry facilitate various ends: the psychodynamic release of or 'acting out' of hang-ups, in case of the "psychodrama" of the "Black Mass" (LaVey, 1972, pp. 31–60) or the "Shibboleth Ritual" (Moody, 1974a, pp. 378–379); the confirmation of biological facts of existence, as in "Das Tierdrama" (LaVey, 1972, pp. 76–105); or the manifestation of Will, as in the three "Conjurations" of Lust, Destruction and Compassion (LaVey, 1969, pp. 114–118, 132–134, 147–152) or "Die Elektrischen Vorspiele" (LaVey, 1972, pp. 106–130).

The usual framework for explaining these technologies are in secular psychological terms: "fantasy world", "objectively enter the subjective state", "psychodrama" etc., taking us back to the congruence with the self-religion of Human Potential movements (Dyrendal, 2009; Lap, 2008). But other frameworks are consistently at play. The psychological strategy is supported by LaVey's frequent appeal to "bio-electricity", straddling the fence between "religion and psychiatry" through the appeal to "adrenal" energy and biology (eg. Barton, 1990, pp. 16, 24, 28; LaVey, 1969, pp. 87, 135; LaVey 1972, p. 107). Ironically, they are also frequently associated with esoteric traditions, doubling their authority; "Das Tierdrama", for example, "was originally performed by the *Order of the Illuminati* (...) by Dieter Hertel in Munich, 31 July 1781" (LaVey, 1972, p. 78), and "Die Elektrischen Vorspiele" is lifted from various Black Orders: "*Vril, Thule, Freunden von Lucifer, Germania, and Ahnenerbe*" (ibid., p. 106). According to context, then, magic can be a manipulation of energies, "honest emotionalizing" or just plain encounter therapy or dramatic performance. Ritual catharsis and magical creation are seen through esoteric terms as Reichian bio-power and through secular frames as constructive self-deception. The statement "magic works" can indeed be read on many levels.

Satanism remains something apart from mere social Darwinism and applied psychology because of this preservation of esoteric material and the very concept of magic; the motivating biological myth of "man the beast" is tempered with another, magical myth, where the materialistic and scientific claims are made *truly satanic*, and thus true, through an appeal to esoteric principles and a satanic tradition.

IV. *The Fate of the Bedrock: Science and Scientism in the Satanic Milieu*

Herein you find will find truth—and fantasy. Each is necessary for the other to exist; but each must be recognized for what it is. (LaVey, 1969, pp. 21–22)

Now, this ambiguity can be interpreted as duplicity on LaVey's part to maximize recruitment and please as many subcultures as possible (a position taken by Mathews, 2009, for example). In this light, the strategy is complementary to the parallel construction of tradition of 'true' Satanists, freethinkers and "de facto"-Satanists found in history as a misunderstood cabal dubbed Satanists by lesser men. In this sense, LaVey's double take is a strategy to swell the ranks both in past and present.¹⁹ But other interpretations are possible. First a genre-dependent one of "relational preaching"; LaVey is speaking to different people at different times and thus clothe the complexities in whatever serves the argument. This interpretation is a less critical version of the former, in that the message must be translated to be grasped. Another possibility is that LaVey is a confused thinker saying whatever comes into mind (this seems to be implied in Mathews' argument).

I would rather interpret LaVey's use of science in light of the ideology itself and the nature of the cultic milieu: LaVey is attempting, as are other spokespersons in the milieu, to bridge the digital dichotomies of science and religion, either-or, in order to present what we might call a synthesis, but better a selection and recoding. When applied to carnal, bedrock knowledge, the apparent inconsistencies dissipate; this strategy is similar to mystical gnosis and the experience argument popular within the milieu, but is crucially connected to a materialist basis:

The essence of Satanism, and Satanic practices, is the integration of apparent opposites. We blend magic and rationality together, without compromising either, in the same way we integrate different aspects of one person into the same body. (Barton, 1990, p. 98)

This is the principle of the "third side" or "satanic alternative" (LaVey, 1998, pp. 29–33), going beyond apparent "irreconcilables" to negotiate both science and esoteric material:

¹⁹ Pointing out a laundry list of notable individuals has the same effect as similar lists of leaders of secret societies or reincarnation 'careers' that legitimizes the group or ideology by both quantity and quality.

You cannot blend mysticism and rationality, no matter how a group may fancy-dance around it. (...) You *can* blend rationality with mystery, magic, ritual and ceremonies—these are completely different things from the “mystical experience.” But, as explained in *The Satanic Bible*, it is a highly conscious act and the separation of the two elements are deliberate and clear. (...) By using all the most effective, evocative techniques at your disposal, by concentrating your entire being to reach your goal, you may very well contact something beyond yourself. But this comes from personal experience, not “faith” or “belief,” and you don’t try to sell this experience to anyone else. (Barton, 1990, pp. 125–126)

In this way, LaVey can appeal to personal experience, magical techniques and scientific reason in one sentence, capping it off with the enigmatic invocation of “truth—and fantasy” to be sorted out by the reader. In the following I will present three brief readings to illustrate how different individuals and groups have interpreted the truths and discarded the fantasies of LaVey, further selecting and recoding cultural material.

Routinizing the Doctor: Peter Gilmore and the Myth of Dr. LaVey

The Church of Satan has always looked for knowledge to science, both Western and Eastern. We call this “Undefined Wisdom,” and this is the ever-deepening understanding of the nature of the beast-called-Man and the Universe in which he exists. We don’t accept faith or mysticism. We demand bedrock knowledge—Understanding—which can come from outward research and observation as well as carnal intuition (P. Gilmore, 1999).

The first example is the Church of Satan, which lost its founder in 1997. Today, in the era of Peter H. Gilmore as Magus and High Priest, the atheistic tone from Anton LaVey has been strengthened. The High Priest usually presents Satanism as “atheism first, Satanism second”; in this sense, Satanism is built on a foundation of skeptical Epicureanism incorporating atheism and materialism and its denial of God into a self-religious affirmation of man’s own godhood (Anonymous, 2010; Shankbone, 2007). The basic ideological resource is Peter Gilmore’s *The Satanic Scriptures*, a collection of essays from a twenty-year span published in 2007 (Gilmore, 2007) which, alongside *The Satanic Bible*, *The Satanic Rituals* and *The Satanic Witch* by LaVey, comes as close to the position of satanic dogma as possible. In addition, Gilmore has intensified the public relations dimension of the Church, often appearing on television and podcast radio, as well as authenticating the documentary

“Inside the Church of Satan” and presiding over the anniversary High Mass on July 6th 2006 in Los Angeles, for example.²⁰

The focus of the contemporary Church of Satan thus continues to be indulgence and gratification combined with rational self-interest and responsibility to the responsible. The door remains open to magic and mysticism, but mainly as a theatrical canopy to a basically secular metaphysics built upon the authority of psychology and the natural sciences. A good example of Gilmore’s rhetorical framing is the document “A Map for the Misdirected”, written in 1999 but continually updated and presented on the organization’s website (P. Gilmore, 1999). In this article, Gilmore tackles nine “significant falsehoods” and offers some magisterial advice to the fledgling Satanist as well as the “pseudo-Satanists”. In terms of the appeal to science and LaVey’s dual legitimization strategy, there are some interesting formulations in the document.

First of all is the ever-present appeal to the authority of “Dr.” LaVey, a widespread practice in the Church that is concurrent with the constant reproduction of the orthodox hagiography seen in Blanche Barton’s two books mentioned earlier (Barton, 1990, 1992; cf. Lewis, 2009; Mathews, 2009). The title itself has unclear origins; Stephen Flowers claims that it is the proper address for the highest degree in the Church, a Magus (a title now claimed by Gilmore without using the “doctor”, apparently) (Flowers, 1997, p. 183), while Barton herself writes that his “closest associates call him “Dr. LaVey”, “Doc”, or “Herr Doktor” as, he says, “a term of affection and respect—much as a circus calliapist or whorehouse pianist was once called ‘Professor.’” (Barton, 1990, p. 45) Be that as it may; the title itself has a powerful rhetorical effect, legitimizing the ideology through a very simple terminological loan. Together with the legitimizing narrative of the LaVey myth of carnival knowledge and application of science, the mythological “Doktor” subsumes rational appeals into the very life-story of the founder, in effect routinizing charisma (Davies, 2009; Lewis, 2009).

Secondly, Gilmore continues LaVey’s open-ended denial of super-naturalism, while retaining the mystery: “Anton LaVey NEVER advocated anything “spiritual,” so disabuse yourselves of this myth. He did advocate

²⁰ See Farren, 2006. A good example of media appearance is the interview on the Hour at <http://www.youtube.com/watch?v=W4SraX4inJw>.

exploration of the supernormal—a very different enterprise" (P. Gilmore, 1999). This ambiguity is extended in the following crucial passage:

The Church of Satan has always looked for knowledge to science, both Western and Eastern. We call this "Undeified Wisdom," and this is the ever-deepening understanding of the nature of the beast-called-Man and the Universe in which he exists. We don't accept faith or mysticism. We demand bedrock knowledge—Understanding—which can come from outward research and observation as well as carnal intuition. (...) From its very beginning, the Church of Satan has been exploring this "undercurrent" wherever it can be traced in all human cultures from all nations and from all periods of history. That rich legacy, created by our kindred, belongs to us to use as we will, regardless of each individual's particular ethnic, racial, or cultural origins. (ibid.)

As with LaVey above, a third position between positivist scientism and outright esotericism is advocated. Gilmore's rationalist Satanism appeals to science as it transcends its boundaries; it is rather an esotericized secularism, harmonizing "carnal intuition" and "research and observation" into "bedrock knowledge" that is both an "undercurrent" reminiscent of *philosophia perennis* (it is even "created by our kindred") and understanding "of the beast-called-Man and the Universe", elsewhere defined in quite secular terms. The duplicity found in LaVey's work is consequently reproduced and even reified in Gilmore's negotiation, borrowing legitimacy from both religion and science as loose folk categories. He even uses the words "personal self-realization" and "proper Satanic nature at birth" alongside the "rich legacy", paradoxically mirroring the very synchronization and distancing techniques used in the cultic milieu itself (Hammer, 2001).

These observations are confirmed when extending the analysis from rationalist Satanism to the satanic milieu as a whole, as some groups vigorously distance themselves from LaVey's and Gilmore's rejection of Manichaeism, Gnostic, mystical or even Christian Satanism and return to these identifiably 'religious' understandings, while others criticise LaVey and the modern Church of Satan's naive and outdated understanding of what science actually is, thus betraying their own criticism of 'bogus' religion. The ambiguity of modern Satanism is thus amply illustrated by the widely divergent rhetorics and orientations of the splinter groups of the Church of Satan and the various new formulations in the satanic milieu. Some return to more traditional esoteric discourses, while others radicalize the demythologization process espoused by LaVey.

Ignoring the Doctor: Tani Jantsang, Phil Marsh and the Satanic Reds

$S = \int_{T=0}^{T=T} (C/T) dT (\dots)$ In nature we SEE one form of this S. The Dark Force “transcends nature” but IN Nature it IS Entropy. (...) So what is this Dark Force in Nature? We know. Now you know. Our ancient words for this? “SAT” is the DARK Itness Itself. Stretching forth after the Big Bang: “TAN” is—2nd and 3rd Laws of Entropy a/k/a Dark Force IN—repeat, IN all Nature, permeating it, motivating it, relentlessly—onto change. (Joe & Marsh, n.d.)

Tani Jantsang and Phil Marsh’s abundant writings both online and in self-published material serves as a good example of a markedly esoteric interpretation of Satanism and science. As with many modern diffuse communities within the cultic milieu of the west, their online faction called the Satanic Reds is driven by a few active individuals serving as spokespersons for a loose affiliation of like-minded individuals—a virtual audience cult (Bainbridge & Stark, 1985). Their website is primarily information-driven and presents scores of texts discussing ideology, practice, conflicts and history under a general umbrella of leftist ambitions and non-dualistic religious Satanism.²¹ Within these texts, we can find an interesting syncretization of religious material and modern scientific theories.

Although the group Satanic Reds was formed around 1997 and took off after the definitive break with the Church of Satan around 2000 (Jantsang & Marsh, n.d.; Mueller, n.d.), the material itself apparently has older roots; Jantsang herself claims association with the Kishites and the Starry Wisdom Sect, small local American assemblies from the 1960s and 1970s combining an assortment of traditions in eclectic *bricolage* (Jantsang & Marsh, n.d.; Mueller, n.d.), of which the Cthulhu Mythos of H. P. Lovecraft and later authors is central. Both this syncretic ambition and the postulated, vague genealogies are related to other Left-Hand Path groups such as the Esoteric Order of Dagon and Societas Selectus Satanas, as well as a complicated relationship with the Church of Satan, making it very difficult to pinpoint actual historical connections.

²¹ <http://www.satanicreds.org/satanicreds/>. I have previously discussed the group in Petersen, 2005, pp. 437–439, on which this analysis is based.

The Dark Doctrines themselves are used by a variety of groups and individuals, as they lend themselves to both poetic readings along rationalist lines and more esoteric interpretations supporting the secularized esotericism found in esoteric Satanism. The texts are frequently very obscure and written in an engaged, but also somewhat incomprehensible style. In addition, the material used spans from Advaita Vedanta and Pythagoreanism over dialectical materialism and Tantra to H. P. Lovecraft and modern physics, demanding a lot from the hapless reader. I have selected a few examples of the use of biology, physics and emanation doctrines that shows that the Satanic Reds strengthens the esoteric aspects through extensive syncretism; the Dark Doctrines are still secularized, but more in tune with other esoteric strands in the cultic milieu.

The basic core of the Dark Doctrines is monistic emanation of "the Flame" from the "Boundless Darkness", connected to the name Satan through an analysis of the Vedanta terms Asat, Sat and Tan, or "being" and "becoming" as well as "one" and "many" (e.g. Jantsang, 2009; Jantsang, n.d.). This esoteric model is then associated with scientific knowledge through terminological parallels that facilitate a transfer of authority (Hammer, 2001, pp. 236–239):

The Cosmos shows design, mathematically precise design. Ergo, it was theorized that there must be an agent or ruler, or force, which creates and maintains all things, as if forming things into a mathematical mold, preserving it for awhile (*coagule*), and then dissolving it (*solve*). This is Brahma. (Jantsang, 2009, p. 250)

Two disciplines seem to have appeal, probably because of their ontological character: biology and physics. In turn, these scientific frameworks are related back to the religious doctrine through the carnal knowledge or mystical gnosis of the feeling Satanist:

If you cannot understand this but at least have a feel for it and always did, then I'd simply say that you are creatively inclined or have "Gnosis" or Knowledge (...), or Dharma, the Tantrik word. Precise mathematical formulations of this process are not necessary for grasping Satanism! But then there are those that can not understand it or feel it in any way and if you are this type, then most of what I am saying here will mean nothing to you despite the fact that your OWN CARNAL BODY IS "LIGHT FORCES PERMEATED BY THE DARK FORCE" and despite the fact that the growth, change and Becoming your carnal body has been doing since you were a zygote was motivated by THE DARK FORCE! One only needs to FEEL! That is what it means to "KNOW the Mystery of Your Being." (Marsh, n.d.)

Popular biological transfers are evolutionary metaphors, such as the “animating Will” and the chain of being (Jantsang, 2009, p. 252), and the appeal to carnality evident in the quote above. Regarding physics, the most common connections are drawn through the concepts of entropy (thermodynamics, quantum organic chemistry), energy (mass-energy equivalency, light forces and dark force) and symmetry (group theory, Big Bang).

In “SATAN—DARK FORCE IN NATURE, and ENTROPY—and an END to this argument”, Dr. Joe and Phil Marsh map equations from chemistry and thermodynamics on to the emanation doctrine in order to illustrate the parallels between the two (see an example at the beginning of this section). This incredibly dense text is significantly dubbed “an END to this argument”, ostensibly unifying science and metaphysics in an unassailable way that resonates with carnal knowledge:

We say the Dark Force TRANSCENDS nature, existed BEFORE the Cosmos (the Cosmos is the only “nature” we happen to know). But, IN Nature, corresponding to a very ancient doctrine, this is ENTROPY. This Dark Force in Nature or Entropy is universally obvious—it is everywhere, LIKE gravity or space or time which we contend with all the time. In SCOPE, entropy is equal to these things. Yet it has to be independently postulated. (Joe & Marsh, n.d.)

When manifested, the Dark Force is the directional motivation behind change and entropy—basically the driving force of evolution. This massive parallelism is supported by other texts, such as Philip Marsh’s “Light Forces (plural) and the Dark Force (singular), but not Dark Forces (plural)”. Again it is the “monistic” elements of modern physics which are selected and aligned in a huge pile-up of examples to drive home the esoteric point:

If the “dualists” could understand anything I have said, they’d be able to see (or at least infer logically) how the light force, and the other forces it became, does not “permeate” the cosmos (as does the Dark Force). The “Light Forces” ARE the cosmos: the light force which emerged in the “Big Bang”—through one symmetry-breaking after another—BECAME your body, the sun, and the forces which act to pull together or push apart particles and massive clumps of matter—all you see and can detect. It is these light forces which ARE the clump of matter which is your desk, the trees, the planet, the sun, yourself. People are correct to regard light as “energy,” but what they seem to have trouble with is that matter and energy are equivalent. So your table is also “light,”

composed of “Light Forces,” but supremely condensed according to the mass-energy equivalency principle ($E = mc^2$). The Light Forces do not “motivate” anything here: they ARE the very substance of the cosmos, but by “substance” you must include many of the non-tangibles of physical theory: space, time, gravity, etc. (Marsh, n.d.)

As should be evident, there are absolutely no reservations attached to the extensive use of mystical material. We are also far from LaVey’s rather vague use of science; actually, psychology seems to play a more limited role in the Dark Doctrines, overshadowed by quantum physics and associational interpretive schemes more akin to philosophical reflection than practical application.

*Defrocking the Doctor: Ole Wolf, Amina Lap, and the Satanic Forum*²²

With regards to “types of Satanism”, I endorse LaVey’s stance: There are no “species” of Satanists anywhere. There are Satanists and there are nuts. Satanists reject the existence of divinity and similar superstition. (...) Pseudoscience and superstitions using scientific terms are not part of Satanism and do not affect Satanism any more than discussions about how many angels can be on a pin head. (Wolf, July 7 2006 from Various., 2006. Translated by the present author)

The Danish group Satanic Forum (Satanisk Forum), formed in 2001 around Amina Lap, Max Schmeling and Ole Wolf, among others, is a good example of rationalist Satanism in the vein of the later Church of Satan, but without the organizational baggage and with a clearer orientation towards “real” science in their scientific rhetoric; hence it can function as an example of radically esoterized secularism. It is conceived as an umbrella organization uniting all Satanists interested in clearing out misconceptions and prejudice, although the actual width of the umbrella has shortened considerably in the later years (Petersen, 2008). The ideological development closely matches the Church of Satan’s—the spokespersons have moved from a more ambiguous early position to a more clearly stated atheistic, sceptical and scientific position today. Similar parallels can be seen in their organizational development; early ambitious experiments with local chapters and a host of activities has given way to a more centralized

²² This section incorporates material from a forthcoming article on Satanism in Denmark to be published by Brill as well as information from Petersen, 2008.

structure around the website and discussion forum complemented with another, private blog. Today, most of the activities are managed by the administrators Wolf and Lap.²³

With regards to ideology and practice, four elements seem to dominate the intellectual territory of the group: LaVey's writings, here chiefly the philosophical and secularizing texts; Tani Jantsang et.al.'s Dark Doctrines, again particularly the scientific material on physics and biology; philosophical material covering Nietzsche, Rand and Schopenhauer (to name a few); and modern science, from sceptical writings and evolutionary biology to religious studies and sociology. In the case of LaVey and Jantsang, the material is viewed with no small ambivalence; on the one hand, they are both seen as ideologues refining Satanism from mere hedonism and anti-Christianity to coherent self-religious positions. In the early stages of the group, frequent references to ninjutsu, the Black Flame and other semi-esoteric topics are made (e.g. wolf, 2001a, 2002):

There is much else to life than cold logic. There is an entire world in the subconsciousness the size of the consciously known world. I appreciate this world, which is confined to the darkness of our minds. If one wishes to understand human motivation in a world focused on thinking and sensing, it is in the forbidden realm of emotion and intuition that one must feel at home.²⁴

On the other hand, both LaVey and Jantsang are charged with mystagogical pretensions; LaVey because of his roots in the cultic milieu and his lack of decisive leadership, which results in the "fascist personality cult" of the modern day Church of Satan (O. Wolf, 2002), and Jantsang because of her idiosyncratic philosophy and volatile personality. An important factor is that while Ole Wolf was active in the online activities leading to the founding of the Satanic Reds (A. O. Lap & wolf, 2003, p. 14), he increasingly underscores a Scandinavian interpretation of 'reds' in "Satanic Reds", which put Satanic Forum

²³ On the discussion forum <http://forum.sataniskforum.dk> as of March 16th 2010, 11775 posts have been logged; Wolf has made 1117 and Amina 2425 posts, that is 3542 posts combined or about 30 percent. The same lopsidedness can be seen in the *Satanic Bulletin* and SFO's media relations. As a curiosity: A measure of public self-reflection can be found in the thread "Where did we go?" ("Hvor blev vi af?") at <http://forum.sataniskforum.dk/viewtopic.php?f=14&t=2212> (in Danish, accessed Nov. 6th 2009).

²⁴ I quote from the English translation of (wolf, 2002) at <http://blog.blazingangles.net/whatsthis/2007/11/seven-eights-of-living.html>.

at odds with the mystical monistic conceptions and radical eclecticism of the Dark Doctrines as well as the social Darwinism of the Church of Satan (Søderlind & Dyrendal, 2009; wolf, 2003).

Aside from this change in *political* and *regional* orientation, Jantsang and LaVey are criticized for their lack of knowledge of science proper and the remnants of faulty thinking found in their works. Thus both philosophy and the sciences are viewed with reverence. Matters such as education (including degrees) and insight into new and pertinent theories or discussions weighs more than personal experience, esoteric initiations and degrees or ritual competence. In the organizational newsletter "The Satanic Bulletin", for example, articles on evolutionary biology, humanistic psychology and neuropsychology frame a satanic take on naturalism and materialism (e.g. de León, 2006; wolf, 2001b). This critique has developed gradually from the early 2000's and has resulted in a very secular and scientific framework of the group through the gradual reification of boundaries to the cultic milieu, putting the 'umbrella organization' at odds with many unaffiliated Satanists whether rationalist, esoteric or reactive.

A good example of this upstaging of science can be found on the group message board, where postmodern and esoteric epistemological claims are repeatedly countered by naturalistic arguments and (post)-positivistic scientism, mainly by the two spokespersons Wolf and Lap, but also by newer members socialized into the rationalist Satanism of the group (Various, 2006). Here the degrees of both Wolf and Lap in Engineering and Religious Studies, respectively, are used as an authorizing discourse mirroring LaVey's carnivalesque 'school of life' and Jantsang and Marsh's carnal gnosis; when rational arguments fail, as they do as the discussion moves from 'science' to 'pseudo-science', other interventions take over. What is clear from the heated debate is that the realist ontology of the spokespersons is strongly at odds with the more esoteric interpretation of quantum physics and evolution promoted by the opposition. This actually short-circuits the discussion, a significant step away from the ambiguity of LaVey or Gilmore and the blatant syncretism of the Satanic Reds.

Another example of scientific legitimation, and one that differs from all the previous groups, are the consistent appeal to religious studies and sociology of religion; this relates to rituals, demographics, demarcation to the cultic milieu and so on, and are solely the province of Amina Lap (e.g. Lap, 2002, 2004, 2006; cf. Lap, 2008, used in the analysis of LaVey). With regards to rituals, for example, a stringent anthropological chain of arguments explain the necessity

of ritual in human society, and hence the use of rituals in an atheistic context, without the need for sacrality or essentialism (Lap, 2004, 2006). Thus Lap strengthens the privatization of rituals available in LaVey's rational rereading of Satanism, positioning a very light version of esotericized secularism as a specific Danish interpretation. In the same way, Lap's analysis of LaVey's early writings, while definitely scholarly sound, are *also* a promotion of her and by extension Satanic Forum's reading of LaVey as decidedly secular (Lap, 2008). In this case, parallels can be drawn to participating pagans or Christian theologians consciously reading tradition in a scholarly light, defusing emic explanations through a reflexive use of Anthropology or Religious Studies.

Today, the main thrust of the organization's ideology could be described as materialistic and rationalist, since their texts solely refer to modern physics, logic, and materialist arguments. Satan is a symbol referring to the act of rebellion as well as to subjective states, but the organization is aggressively atheistic and secular in its rhetoric (Petersen 2008). Now that the Satanic Forum, and especially Ole Wolf and Amina Lap, have produced valid movement texts, the need for LaVey or the Dark Doctrines is less acute:

Natural forces and laws combined have an immense effect that seems much larger than their sum total, and there is no well-described natural law that can express this combined effect. We can only state that the natural laws explain that things happen, and how physical and chemical processes are followed, but they cannot describe how life or our perception of life unfolds. It is this "superset of natural laws" that has no scientific law or description. In principle, I could do with the above explanation, but few people can relate well enough to the knowledge that science has gathered today to understand the combined force of the laws of the universe. A symbol is required instead that effectively communicates this greater whole, enabling people to intuitively grasp the immensity and general mechanisms. I prefer to use Satan as this symbol. (Wolf, 2008)

What in the early phase looked like an emergent synthesis of religious traditions and hard scientism, is now viewed through a strategy of metaphorization; useful, but fictional and poetic.

V. *Concluding Discussion*

[B]oth cultures and languages function largely as fuzzy sets. The same is true of most individuals' faiths; these are constituted by an unstable

repertory of elements—often of a contradictory nature and generally coexisting in a state of tension—subject to constant reinterpretation, negotiation and reformulation according to circumstances. (Benavides, 2001, p. 493)

In the early years, LaVey's rationalist Satanism negotiates the signs of the times: A liberal sexual morality and sense of personal freedom, but also a pro-law enforcement and anti-drugs orientation best described as an anti-hippie sentiment (Alfred, 1976); a sense for the new humanistic psychology and more pragmatic sociology; an anti-Christian and anti-bourgeois need for transgression, often expressed in very bourgeois ways (Moody, 1974a); and a deep immersion in the 'rejected knowledge' of the cultic milieu and carnival culture combined with a strong dislike of the witch, the occultist and other airheads (Petersen, 2009b). From the late 1960s onwards, it is LaVey's definitions and accentuations of Satan, Satanism and Satanic that take over from earlier mythological Christian and literary Romantic definitions as *the* hegemonic interpretation of modern Satanism with new relations to religion, science and ideology (Lewis, 2001, 2009; Petersen, 2009a). Through a selective and creative use of philosophy, biology, psychology and sociology, LaVey appropriates science and rational authority to distance Satanism from the supernaturalism of the cultic milieu while simultaneously appealing to the authority of both science and esotericism. I have called these dual tendencies motivating myths: an appeal to the satanic self, exemplified by LaVey himself as the master narrative, and an appeal to 'man the beast', expressed through appeals to biology and psychology. The myths are simultaneously inversely related to the specific materials; under the scientific reasoning lurks the self, and under the esoteric tradition lurks the carnal psyche.

In this way, LaVey's tension-filled codification of Satanism becomes a cultural product which other satanic actors can pry apart. On the one hand, it provides a familiar secular slant on religion: the secularizing of the esoteric visible in rhetoric of self-realization, magic as applied psychology and experiential authority. On the other, the *actual* use of science in what I have dubbed esotericised secularism serves to differentiate Satanism from other offers in the satanic and cultic marketplace. This is especially true of the early LaVey and the general position of rationalist satanic groups today, and it has in effect split the satanic milieu along secular and esoteric lines. To understand the dynamics involved, we have to move beyond the satanic milieu and into the parent reservoir of the cultic milieu; here, we can relate

specific strategies of satanic esoterization and secularization to wider flows of syncretism.

In “The Politics of Syncretism and the Problem of Defining Gnosticism”, Karen L. King discuss the processes of syncretic amalgamation and appropriation as a subtype of “normal, every-day operations of living (...) referring to the processes of normal, every-day meaning-making in situations of cultures in contact” (King, 2001, p. 469). She continues:

Rather than “borrowing” the traditions of *others*, as it is often claimed, the Sethian Gnostic myth-makers shape their stories out of *their own* at-hand cultural materials. The rhetorical claim to legitimacy for their “way of seeing things”—in their own eyes and those of others—is based precisely on the degree to which they stand (or at least appear to stand) *within* the frame of tradition—not as outsiders or innovators. Their way of seeing things implicitly aims to be persuasive precisely by drawing upon materials that are acknowledged to possess intellectual and cultural authority. (ibid., p. 470. Notes deleted)

Through the metaphor of cooking, King develops this convolution of practice and legitimation into a serviceable methodology in the analysis of mixtures:

(...) the most important concern is not the elements that go in or which were “chosen”—the “selection” is in some sense already a given in terms of local availability. The important thing is the relationships that are creatively established among the ingredients, how they are made, for what occasion, and for whom. (ibid., p. 470)

King exemplifies the operative aspect of “how” through a catalogue of “modes of negotiation”, such as narrative incorporation into an overarching structure,²⁵ selective retelling, allegorical interpretation and identification (ibid., pp. 471–472). In turn, the legitimizing aspect of “why” is elucidated in various “foundational functions” related to the socio-cultural context in order to make a place to stand and to negotiate the hegemonic relations of power (ibid., pp. 474–477).

This understanding is based on Gustavo Benavides’ illuminating discussion of linguistic opportunism. The brute reality of conquest and colonialism highlights the fact that syncretism is connected to cultural and political legitimacy; it should therefore be conceptualized in

²⁵ Reminiscent of Anita Leopold’s concept of “a paradigmatic motif” in a belief system serving as a third element in a religious blend (see Leopold, 2001, p. 417).

relation to circumstance and necessity (Benavides, 2001, 2004). Comparing the invention of tradition with pidgins and creoles that are crossing borders between languages and social networks, syncretism becomes a matter of creating and maintaining religious "dialects" (Benavides, 2004, p. 201), whether these are "imperial" or "subversive" (Benavides, 2001, p. 496). Adopting an almost geological perspective, Benavides sees changes and boundaries as "sedimented generation after generation" (ibid., p. 498), invoking a diachronic perspective on the processes we observe. Continuity and rupture as well as intelligibility become master tropes in the establishment of hierarchies, accommodation to circumstances and access to scarce resources.

Here, the analytical interest of King coincides with that of Benavides. Commenting on the *Apocryphon of John's* mythic "logic of salvation", where "spiritual enlightenment and social critique go hand-in-hand" (King, 2001, p. 473), she states that "[r]esistance is more likely to arise from those who have bought heavily into a society's dominant ideology and feel betrayed than by those who reject the values of their society" (ibid., pp. 473–474). One of the ways this is expressed can be analyzed precisely through syncretism, seen as strategies of appropriation as well as legitimization; in situations of competition, myth-makers tend to think "with those materials that have prestige in the circles in which they move" (ibid., p. 474). This bears directly on the use of science, mythologized or not, in the cultic milieu today. On a broader scale, the following remark of Gustavo Benavides' rings especially true:

In this sense, even the calls for diversity, so common in the United States, presuppose the existence of an umbrella-like American ideology that serves as a common language. In fact, given that the virtues of diversity are extolled within the context of consumption, this most American of passions provides the language into which all the 'diverse' languages can be translated and therefore guarantees the maintenance of intelligibility. (Benavides, 2001, p. 496)

Ideological underpinnings such as *pax Americana*, Protestant Christianity and consumption become part of the circumstances all religion has to negotiate with in the competition for prestigious materials today. Another important contextual element is science itself, especially when reified as *the* purveyor of rationality and secularity in the modern world. Seeking access to the scarce resource of legitimacy, science and secularization become key obstacles.

One possible avenue of analysis has been suggested by Egil Asprem, who proposes the evocative term "programmatic syncretism" in his

analysis of Aleister Crowley's mixture of esotericism and science (Asprem, 2007). This is defined as "a *deliberately syncretistic attitude*, relating cultural data regardless of time and space, but with a *programmatic* basis, always with the aim of improving the sum outcome" (ibid., p. 136). Programmatic syncretism is intimately connected to issues of modernity and the transformations within modern esotericism necessitated by secularization, science and emerging globalization:

Through the processes of modernization a vast corpus of religious and esoteric data from different localities became available to the occult currents. Influenced by the rising sciences, this body of data was also approached in a new way: clinging to modernity's grand narrative of progress through science, occultists consciously applied syncretistic methods in order to reveal the universal truths underlying particular cultural systems, and *improve* the esoteric system they themselves worked with. (ibid., p. 150)

Through disembedding and reembedding of "cultural data", traditional religious discourse is transformed into taxonomic matrices for arranging data in search for the universal behind the particular *as well as* practical systems of legitimization, or in Aleister Crowley's own words: "The method of science, the aim of religion" (ibid., p. 151), a very usable analytics when engaging in the syncretism of the cultic milieu today. It is the openness and scepticism implicit in the 'scientific endeavour' and the methodologies of 'mythological science' that serves to facilitate syncretism and keep the syntheses open, as closure is anathema in these milieus. Thus openness of form and function as well as ideology and practice is reflected in the material produced. We are confronted with a concrete material product encapsulating an ongoing project, to further and improve the magical practices and experiential methodologies of the promoted esoteric system in relation to the user (cf. Asprem, 2008).

Hence syncretism, programmatic or not, is promising when analyzing strategies of appropriation and strategies of legitimization in modern religious creativity, but in order to use the concept, it must be firmly re-embedded in a processual and contextualist framework. Consequently when analyzing the detraditionalized appropriations in the cultic milieu it should be clear that syncretism is an analytical statement based on theory rather than a descriptive or normative one based on empirical judgments. Instead of retaining the concept on the systemic level of culture and cognition in the abstract, I would suggest leaving grand aspects such as brain hardware, cultural exchange and

the meeting of two cultures to focus on everyday practices of syncretism and the resulting "remains" (Leopold, 2001, 2002; Leopold & Jensen, 2004; Martin & Leopold, 2004). In this analytical sense, the concept of syncretism is constructive as a methodological shorthand in the analysis of religious discourses and practices within one milieu as seekers search for workable truths.

Thus, I would use the concept to examine why and how *certain* manifestations of religion at *certain* times and in *certain* places exhibit markedly eclectic use of and appeals to religious and scientific discourse or perform interesting borderline crossings on the level of legitimation and negotiation of power. These should be related to "cross-fields", "beachheads" or "trading zones" facilitating these practices (cf. Fox Keller, 1995, quoting Peter Galison), such as the cultic milieu, serving as both a reservoir of disparate ideas and as a network of communication structures, as well as general tensions and tendencies in the social networks of which they are a part, in our case late modern capitalist societies. This argument can easily coexist with the more general statement that *all* religion has a hybrid character (Shaw & Stewart, 1994), as the concept of syncretism is relegated from a general theoretical role as a master concept (a substance or essence of some religions or religion) to a more analytical role as a descriptor of certain explicit strategic processes.²⁶

In this light, Egil Asprem's paradigmatic example of programmatic syncretism, Aleister Crowley's complicated amalgamation of kabbalah, astrology and other elements of western esotericism with an experimental and classificatory methodology from modernist science, should be considered a rather extreme case on one end of a scale of syncretization in the cultic milieu in general (or the sub-milieu of western esotericism). On the other end of the scale are more impressionistic combinations of science and religion in belief or practice, whether as rhetorical gloss or heuristic techniques. Somewhere in the middle is the eclectic *bricolage* of both practitioners and participants in the cultic milieu today.

In a scientific study of religion concerned with power and the interrelation of systems and actors in time and space it is important to

²⁶ This is comparable to the fate of other master concepts such as secularization, esotericism, ritual, culture and indeed religion: All are made dynamic and adjectival. They are thus still scholarly concepts, but hopefully more able to capture a fluid reality (cf. Appadurai, 1996; Jensen, 2003).

remember that strategies of appropriation and strategies of legitimization, although frequently co-existent, should be analytically separated. In other words the concrete act of religious creativity (Hammer, 2001, p. 43ff), associating this with that or taking something out of one context and reinserting it in another, is different from actually deriving authority *from* this creative product or indeed trying *to* legitimize the creative act itself. The two levels of strategy should not be conflated, even though they rest on a dialectical relationship.

In fact, legitimization has a tendency to lag behind the creative production of the combinations themselves, a fact illustrated by ethnographic accounts, where the reifying ‘dogmatization’ of legitimating discourses producing bounded objects frequently collides with the paradoxes of everyday life and the inconsistencies of practical lived religion on the ground—in short, the fuzziness of human thought and action (Benavides, 2001, 2004). Ideologies and religions are practiced and *activated* rather than lived as totally transparent ‘belief systems’ (Lincoln, 2006).

Structurally speaking, then, a variety of positions are available in the satanic milieu, mirroring the cultic milieu itself. When seen as syncretic processes, we can analyze these positions diachronically and see the different phases of combination and appropriation, or we can observe the conflicts of hegemony in a synchronic analysis, temporarily reifying or ‘dumping’ the processes as ideological sites within the milieu. The use of science as legitimizing tool in claims of authoritative formulations of Satanism, as well as the secular context that is invoked along with it, can thus be integrated in our categorization of rationalist and esoteric Satanism. Both use science in subtly different ways, and both strategies are double-edged swords. One the one hand, the esoterized secularism of the later LaVey and groups such as the Church of Satan and the Satanic Forum relates magic and other “supernormal” occurrences to materialism, secularism and atheism. Magic is applied psychology and sociology with trappings. Life is carnal indulgence. But too much esoterized secularism and you blend into the atheistic, humanistic and general philosophical critique of religion and modernity itself, loosing both the self-religious identity, but also the specific ‘edge’ provided by the term Satanism itself along the way (a fate the Satanic Forum struggles with).

On the other hand, the esotericizing tendencies visible in the early Church of Satan and fully espoused by the Satanic Reds have a much more recognizable use of magic and a more esoteric take on

epistemology and ontology. Magic is part psychology and sociology, but it is tapping into something broader than that. Life is mystical carnality, so to speak. But too much secularized esotericism and you blend back into the cultic milieu from whence you came, loosing the 'satanic identity' along the way. As with magical practice, striking a balance plays an important part in the fine-tuning of secularized esotericism and esotericized secularism to retain the full effect of both Satan and science.

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BUDDHISM AND EAST ASIAN TRADITIONS

BUDDHISM AS THE “RELIGION OF SCIENCE”:
FROM COLONIAL CEYLON TO THE
LABORATORIES OF HARVARD

DAVID L. McMAHAN

Introduction

Recently I was attempting to find photos of Buddhist monastic life in Asia for my classes. Searching under “meditating monk” in the Google image search, I found photographs of ancient Buddha statues and robed monks in lotus position in monasteries and outdoors. And on nearly every page was repeated a uniquely modern variation on this ancient, iconic image, so common throughout the Asian world: that of a maroon-robed monk sitting cross-legged with a net of hundreds of electroencephalography (EEG) sensors attached to his shaved head. The fact that these images came up repeatedly demonstrated that they were included in dozens of articles on the Web. The photos and their accompanying articles convey a combination of cutting-edge science and ancient wisdom that is uniquely attractive to many modern educated people around the world. Indeed recent scientific studies of meditation—in which Buddhist meditators are hooked up to electrodes or put into functional magnetic resonance imagery (fMRI) machines—have attained a level of coverage in the press that neither lab experiments nor Buddhists often achieve by themselves.

Buddhism, in fact, currently enjoys a reputation in the West, and among many in Asia, as a religion uniquely compatible with modern science—and even as a kind of science itself. I would venture to guess that no other major religion has accrued more cultural cachet from engagement with science than has Buddhism. As cutting-edge as the monk meditating in an fMRI machine appears, however, the attempt to understand Buddhism in relation to science is not new. It began in the late nineteenth century in the context of two intertwining cultural crises. One was the crisis, felt in many Asian countries, of vigorous European imperialism and global economic and political hegemony. A number of Buddhist countries were colonized by European nations, and those who weren’t still keenly felt the threat of such domination,

as well as that of the West's overwhelming technological, military, and economic power. The relevant crisis in Europe and North America was what historians have sometimes called the "Victorian crisis of faith," characterized by the loss of traditional forms of faith (usually Christianity) in the West, especially among educated elites, often in the face of scientific theories that seemed to render untenable some of the fundamental elements of Christianity, such as a six-day account of creation, miracles, heaven and hell, and rising from the dead.

The claim that Buddhism is scientific or uniquely compatible with science is rooted in a complex variety of social, political, and doctrinal factors and is a crucial element in how Buddhism has come to occupy a certain intellectual and social space in the modern world. I have argued elsewhere that the challenge Buddhist apologists faced as they began to engage with Western modernity in the late-nineteenth century was to stake Buddhism's claims in between three broad constitutive discourses of modernity: scientific rationalism, Romanticism, and western monotheism (mainly Protestant Christianity) (McMahan 2008). In this essay I will confine myself to exploring the ways in which Buddhists and Buddhist sympathizers have attempted to legitimate Buddhism through allying it with science, creating a "discourse of scientific Buddhism." There have been two main phases of this discourse, one in the late nineteenth and early twentieth centuries and one that began in the latter part of the twentieth century and extends to the present.

The story of Buddhism's relationship with science cannot be reduced solely to the attempt to legitimate Buddhism, but this is certainly a powerful part of how this relationship arose in the nineteenth century, and it continues to be a theme underlying the current scientific studies of Buddhism. Reconfiguring Buddhism as a religion in harmony with science has been a key component of its adaptation to modernity and a source of considerable cultural capital and prestige.¹

¹ Parts of this essay are adapted from McMahan 2004 and McMahan 2008.

*Buddhism and Science 1.0: Colonialism, Christianity, and Occult Science**Scientific Buddhism in the Age of Imperialism*

The World Parliament of Religions, Chicago, 1893, was a seminal event for the modernistic, globalizing phase of Buddhism. Representatives of various Buddhist traditions gathered to launch a new, scientifically inflected vision of the dharma on a global stage. The early formulation of Buddhism as uniquely compatible with science crystallized at the Parliament, where for the first time representatives of all of the major religions presented their traditions to each other and to the world. Anagarika Dharmapala (b. David Hewavitarne, 1864–1933), a Sinhala subject of the British empire who became a fierce opponent of western imperialism and Christian missionization, was perhaps the most famous representative of Buddhism. In his presentation to the Parliament, he translated key Buddhist doctrines into explicitly scientific terms, claiming that the Buddha accepted the “doctrine of evolution as the only true one, with its corollary, the law of cause and effect” (Dharmapala 1965, p. 9). Here he drew upon the *sine qua non* of scientific investigation, causality, and the revolutionary theory of Darwin, claiming them, in effect, for Buddhism. The implication, which would become clearer in his later writings, was that Buddhism had a distinct advantage over Christianity in this respect. It was by no coincidence that he chose to focus on evolution and causality, for both presented conservative versions of Christianity with problems. Darwinian evolution had dealt a severe blow to literal interpretations of the biblical creation story, and scientific views of causality and natural law made problematic the notion of a god who acts in history, circumventing laws that he himself prescribed. Soen Shaku, a Japanese Zen Buddhist representative at the Parliament, also claimed that on the doctrine of causality and other points, “Buddha’s teachings are in exact agreement with the doctrines of modern science” (Soen 1993 [1913], p. 122).

Both Dharmapala and Soen expanded on the general theme of sympathetic nineteenth-century Orientalist scholarship in the West—that Buddhism was a rational, non-mythological, non-superstitious way of life. Orientalist scholars, drawing from the early texts in Pali, began in the late nineteenth century to interpret Buddhism as a rational, humanistic philosophy and ethical psychology offered by a kind-hearted reformist who opposed the mainstream Brahmanical religion, with its oppressive caste system, its priesthood, and its ritualism. Dharmapala and Soen

expanded on these themes, presenting the Buddha as an advocate of many of the tacit truths their western audience of largely progressive Christian intellectuals took for granted: the brotherhood of man, tolerance, compassion, temperance, social activism, rationality—and a respect for science. In developing the last point, they both assimilated the Buddhist doctrine that all things come about through the complex operation of causes and conditions (dependent origination) to modern conceptions of causality, and the traditional doctrine of karmic connections between species in the cycle of life, death, and rebirth to the theory of evolution. In his parliament speech, Dharmapala asserted that Buddhists see the cosmos as “a continuous process unfolding itself in regular order in obedience to natural laws,” in contrast to a chaos kept in check by an external creator (Dharmapala 1965, p. 9). Quoting the poet Sir Edwin Arnold, he affirmed a “close intellectual bond between Buddhism and modern Science”:

When Darwin shows us life passing onward and upward through a series of constantly improving forms toward the Better and the Best, each individual starting in new existence with the records of bygone good and evil stamped deep and ineffaceably from the old ones, what is this again but Buddhist Doctrine of Karma and Dharma? (pp. 19–20).

As for Dharmapala’s strategic reinterpretations of Buddhist doctrine, they must be understood in the context of the British empire’s presence in Ceylon. Dharmapala was well aware of the often paternalistic and derogatory characterizations by Europeans of his religion and his people. European literature of the time frequently described colonized South Asian people as indolent, irrational, and uncivilized. Buddhism was seen as superstitious, incomprehensible, pessimistic, nihilistic, man-made, and in need of supplanting by the revealed and rational gospel of Jesus Christ. Such characterizations incensed Dharmapala, and part of his way of combating them was to invert the rational/irrational, primitive/civilized, scientific/superstitious hierarchies presumed in imperialist and evangelical discourse.

In Christian countries scientists are at work to elevate the masses by scientific methods, while the missionaries that go to Asia are utterly deficient in scientific knowledge, and all they can offer are the myths of Canaan and Galilee which had their origin in the backwash of Arabia...

The message of the Buddha that I bring to you is free from theology, priestcraft, rituals, ceremonies, dogmas, heavens, hells and other theological shibboleths. The Buddha taught to the civilized Aryans of India twenty-five centuries ago a scientific religion containing the highest

individualistic altruistic ethics, a philosophy of life built on psychological mysticism and a cosmology which is in harmony with geology, astronomy, radioactivity and reality (pp. 25, 27).

Packed into these quotations is both adoption of and resistance to western discourses. Tuning his language to the key of progressive Victorian westerners, he plays to their anticlericism and their suspicion of dogmatism and supernatural realities—not to mention Semitic and Arabic peoples—while identifying Buddhism with the "Aryans," individualism, psychology, and science. On his interpretation, the Buddha not only taught a philosophy and way of life compatible with modern science, he had discovered the basic principles of science 2,500 years ago, principles that the Europeans, after languishing in the Dark Ages for centuries, had only recently discovered.

Soen's mission to the U.S. was also a mixture of the political and religious. While he was keen to share the insights of his religion with the West, he was also carrying out the propagation of Buddhism as a part of a wider effort to win prestige for Japan in a world increasingly dominated by the West. His mission was in line with Japanese Buddhist philosopher Inoue Enryō's view that promotion of Buddhism as a unique national product of Japan would demonstrate the nation's high level of civilization and gain the respect of the world, thus securing its continuing freedom from colonization. Here Inoue summarizes the role he hoped Buddhism would play on the world stage: "Everyone knows that we must look to the West to supply models not only for all kinds of commodities and utensils, but also for models of government, law, the military system, education, the physical sciences and technology. However, there is one thing that Japan can transmit to foreign countries and win fame: that thing is Buddhism" (quoted in Snodgrass 2003, p. 131). In contrast to a focus on the "physical sciences and technology," Buddhist modernists would present Buddhism as an "inner science." Crucial to both Dharmapala's and Soen's characterizations of Buddhism as scientific was not only the attempt to legitimate Buddhism for its own sake. The legitimation of Buddhism was part of a wider project to legitimate their respective nations against the threat of western imperialism.

Thus a significant element of the early development of the discourse of scientific Buddhism highlighted elements of Buddhism that could be re-interpreted in light of new scientific findings in a way that demythologized Buddhism, stripping its pre-modern cosmology, heavens and hells, gods and demons of literal significance, or ignoring them

altogether, and then presenting this demythologized version of Buddhism in contrast to a less-than-demythologized version of Christianity. Soen, for example, contrasts a traditional representation of the Christian God with a more his own more naturalistic vision of divinity:

Buddhists do not think that God has any special abode, that his administration of the universe comes from a certain fixed center or headquarters, where he sits in his august throne surrounded by angels and archangels and saints and pious spirits who have been admitted there through his grace.... If we want to see him face to face, we are able to find him in the lilies of the field, in the fowls of the air, in the murmuring mountain stream.... (p. 48).

Indeed for Dharmapala and Soen, the early discourse of scientific Buddhism was inextricably intertwined with its stance in relation to Christianity, particularly in its more conservative forms. While this discourse adopted certain aspects of liberal Protestantism, the rationalistic presentation of Buddhism was also a point-by-point negation of elements of Christianity that nineteenth- and twentieth-century skeptics questioned: Buddhism has no personal god; it presents a universe run by natural law and cause and effect rather than the capricious dictates of a creator; its founder encouraged skeptical questioning and experimentation rather than blind faith; it anticipated recent psychological discoveries in the West rather than embracing simplistic theories of an immaterial soul; its ideas of karma, rebirth, and the continuity of species anticipate, rather than clash with, evolutionary theory; it has no divine incarnation, special revelation, or miracles; it does not stand or fall on the truth of a miraculous return from the dead of a special savior but offers an insight available to all here and now through rigorous observation and experimentation. In this view, Buddhism becomes, in effect, an inverse reflection of what skeptics believed to be problematic about literalist interpretations of Christianity in light of scientific developments and biblical criticism. The extraction of "science-friendly" elements of Buddhism from its broader cultural contexts thus allowed Buddhists and Buddhist sympathizers to stake out a particular ground within the field of tension between two discourses of modernity, scientific naturalism and Christianity.

Buddhism and Science in the West: Crisis of Faith and Occult Science

If the exportation of Buddhism to the West and its presentation as a scientific religion were inextricably intertwined with colonial tensions, another crisis in Europe and North America helped create a space for this presentation: the Victorian crisis of faith.

Paul Carus (1852–1919) is a classic representative of the crisis, as well as of a particular way to overcome it. He had lost his conservative Lutheran faith because he was convinced it could not stand up to the indubitable truths of science. Agonized over the loss, he eventually turned the very instrument that destroyed his faith into a kind of quasi-religion itself. His own speech at the World's Parliament of Religions poignantly hints at the trauma of believing he was damned for his increasing doubts about Christianity. He declared to the audience that he himself had "suffered from the misapplication of religious conservatism. . . . I have experienced in my heart, as a faithful believer, all the curses of infidelity and felt the burning flames of damnation" (1916, p. 34). Out of this desolation, however, Carus came to believe that a new "purified" Christianity could be built. Indeed, from the fragments of his lost faith he constructed a new one the cornerstone of which was the very science that had destroyed the old. He believed that his own experience mirrored the evolution of religion itself, the "dross" of which must be stripped away by the light of reason and science to leave only the gold. The despair entailed in this purging was necessary in order to "learn to appreciate the glory and grandeur of a higher stage of religious evolution" (1916, p. 36). He believed that the world's religions were, like biological entities, evolving and shedding little by little their superstitions and inaccuracies and that science itself was a revelation of God. "The religion of the future cannot be a creed upon which the scientist must turn his back, because it is irreconcilable with the principles of science. Religion must be in perfect accord with science. . . . Science is divine, and the truth of science is a revelation of God. Through science God speaks to us; by science he shows us the glory of his works; and in science he teaches us his will" (1916, p. 20). Not content to leave Christianity behind completely, he came to believe that he could retain its essential truths while jettisoning its dogmatic and mythical elements. His new faith was in a religion not yet fully formed but was emerging through the rise of science and the increasing contact among the world's religions. What was developing from this historical situation, Carus asserted, was a "religion that can

never come into conflict with science, which is based on simple and demonstrable truth” and which is “the goal and aim of all religions” (1892, pp. vi–vii). Carus called it the “Religion of Science.”

Buddhism, Carus came to believe, was the historical tradition that so far best manifested this religion of the future, since it “is a religion which knows of no supernatural revelation, and proclaims doctrines that require no other argument than the ‘come and see’.” Buddhism, he insisted, “is a religion which recognizes no other revelation except the truth that can be proved by science” (1897, p. 114). He drew these conclusions in part from his exposure to Dharmapala and Soen at the Parliament and labored to propagate them widely through his many books and his publishing company, The Open Court. He presented the broad outlines of Buddhism as a religion containing many essentials of Enlightenment rationalism and late nineteenth-century science: karma was natural law translated into the ethical realm; the doctrine of rebirth anticipated the Darwinian understanding of species transforming themselves into other species; the detailed analyses of mind in Buddhist texts were in fundamental agreement with modern psychology; the exhortations of the Buddha to be “lamps unto yourselves,” not blindly believing but verifying his statements experientially, contained the quintessence of the scientific spirit. The essence of the Buddhism relevant to the modern world was, like that which embodied the true spirit of Christianity, whatever could be interpreted as in accord with the current scientific worldview.

Another rather different attempt to draw upon the language and legitimacy of science in promoting Buddhism was that coming from various metaphysical movements of the late nineteenth and early twentieth centuries. Such movements inherited the idea from European Romanticism that the nature of things could be discerned from within and combined this idea with a quasi-scientific vocabulary to construe a “science of mind,” that did not contradict empirical science but surpassed it in its ability to probe the nature of things from within. Theosophists in particular took an interest in Buddhism, especially Henry Steel Olcott, probably the first American to officially become a Buddhist. While Carus stuck to mainstream science in his attempt to ally science with Buddhism, Olcott often resorted to “occult science.” For example, in his influential *The Buddhist Catechism*, he explicitly states that Buddhists “do not believe in miracles,” but, clarifying his position he adds that much of what is commonly understood as miraculous is fully explainable by science—not the positivistic science of his day but

occult science. Human beings do in fact have “latent powers for the production of phenomena commonly called ‘miracles’” but these are “natural, not supernatural” (1881, pp. 119–120). Someone possessing powers to produce miraculous phenomena like those of the *arhats* in early Buddhist literature “can, by manipulating the forces of Nature, produce many wonderful phenomena, i.e., make any scientific experiment he chooses” (1881, pp. 123–24).

In these early contributors to the discourse of scientific Buddhism, we see a number of interwoven factors and agendas: the search for a religion compatible with science in an age characterized by the immense prestige of scientific discourse; the assertion of national cultures of Asia in the face of unparalleled western hegemony; the resistance to colonialism, imperialism, and missionization; the anxiety created by the displacement of religious claims by scientific ones; the attempt to redescribe supernaturalism within the language of science. Each of these figures implicitly acknowledged the virtually unrivaled power of scientific discourse and attempted to reconfigure, demythologize, and revitalize Buddhism by drawing on that power.

Nevertheless, the assertion of thoroughgoing compatibility between Buddhism and the empirical sciences of the time was, it is safe to say, an exaggeration. Buddhism, in fact, contains plenty of what Dharmapala called “priestcraft, rituals, ceremonies, dogmas, heavens, hells,” both in texts and in the tradition as lived by ordinary people. What we now call the “mythical” cosmos of the Buddhist scriptures was for many—and still is for some—a living part of the tradition. It consists of a flat world ringed by perfectly symmetric mountains. Its base is a large body of water in which several islands and the immense Mt. Meru float, and above and below the surface are the various realms of rebirth consisting of various orders of gods, ghosts, and demons. In order to argue that Buddhism, in its essence, was compatible with modern science, these reformers had to demythologize the mythical cosmos, marginalize popular “superstitious” practices, and privilege texts with philosophical and psychological content. The discourse of scientific Buddhism, however, was not just a matter of rhetorical presentation of Buddhism to the West, but was also part of a revitalization movement that spawned new forms of Buddhism, established new norms in Asian Buddhist practice, and incorporated strands of western rationalism, Romanticism, Transcendentalism, and Protestantism (Gombrich and Obeyesekere 1989; Lopez 2002; McMahan 2008).

For spiritually unmoored Victorians, this reformed Buddhism offered the hope of a religion that did not conflict with science. For Asian Buddhists who were colonized or under threat of colonization by the West, it offered a tool by which to assert their own cultural value and critique the colonists' and missionaries' assumption of intellectual and spiritual superiority. Moreover, the extraction and reinterpretation of "science-friendly" elements of Buddhism from its broader cultural contexts allowed Buddhists and Buddhist sympathizers to stake out particular ground among the discourses of modernity, aligning it with the scientific views of the time against the conservative Christian ones and promising a spiritual orientation in step with modern understandings of the world. This interpretation of Buddhism stuck and has continued to shape Buddhist self-understanding today.

It is not, therefore, that that Buddhism as a whole is clearly compatible with modern science; it is rather that the particular path it has taken towards modernization and reinterpretation has reconfigured it in ways that specifically take science into account, and in ways that avoid some of the particular problems that Christianity has had with science. Contrary to some of the claims of modernist Buddhists, Buddhist scriptures in fact *do* contain plenty of miracle stories, mythical cosmologies, heavens and hells, and supernatural beings. But there are also elements of Buddhism that are rigorously analytical and rationalistic, and these are the elements that come forward to encounter modernity and cross-fertilize with many elements of modern thought and practice.²

Buddhism and Science 2.0: Physics, Empiricism, and Neuroscience

Physics and Internal Science

The second phase in the attempt to forge a relationship between Buddhism and modern science began in the mid-to-late twentieth century and continues vigorously at present. The early discourse of scientific Buddhism had asserted wide systemic congruence between Buddhism and science, leaving both ambiguously defined. It made

² For other historical accounts of the early encounter between science and Buddhism, as well as broader discussions of Buddhism and its encounter with the West in the Victorian period, see Almond 1988; Lopez 2008; McMahan 2004, 2008; Tweed 2000; Snodgrass 2003; Verhoeven 1998, 2001.

broad assertions about natural laws, relied on a highly demythologized version of Buddhism, and was inseparable from ideology and political motivations.

The second phase relies less on amorphous generalizations, is less obviously ideologically motivated, and, while it still contains strategies of legitimation left over from phase one, often overlaps with empirical sciences in ways far more precise than that of its early forms. It often still relies on a demythologized view of Buddhism, but many involved in the dialogue are much more deeply informed about the various facets of Buddhism than were some of the earlier (especially western) advocates. The most salient aspects of the recent discourse include (1) comparative studies that liken particular Buddhist philosophical concepts, such as emptiness, dependent origination, and causality to contemporary theories about the physical world, especially quantum physics, and (2) neuroscientific studies of meditation that make use of new technologies of brain imaging.

The attempt to draw explicit parallels between Buddhism and physics began in the 1970's. Fritjof Capra, in *The Tao of Physics: An Exploration of the Parallels Between Modern Physics and Eastern Mysticism*, systematically explored the implications of alleged parallels between "Eastern mysticism," including Buddhism, and quantum physics, a theme that authors continue to explore to the present. More recently books have come out arguing for specifically Buddhist connections to physics that rely on less vague notions of mysticism and contain more nuanced understandings of both Buddhism and physics (e.g., Wallace 1996; Ricard and Thuan 2004; Zajonc and Houshmand 2004).

What has turned out to be more important than physics to the contemporary alliance between Buddhism and science, however, is a focus on meditation. By the mid-twentieth century, the vague notion of the scientific nature of Buddhism was refined to reflect a kind of formula that has become widely repeated to the present: Buddhism—or more specifically, Buddhist meditation—is a kind of "internal" science complementary to empirical or "external" science. The German-born Theravada monk Nyanaponika Thera (born Siegmund Feniger 1901–1994), in 1954, wrote of Buddhist meditation as a "science of mind," and presented the method of "bare attention" as essentially the same as that of the scientist: "unprejudiced receptivity" to things, reduction of the subjective element in judgment, and "deferring judgment until a careful examination of the facts has been made." This, he claimed, is the "genuine spirit of the research worker," though

Buddhist meditation goes beyond “explanation of facts” and a “theoretical *knowledge* of the mind” to an attempt to shape the mind itself (Nyanaponika 1954, p. 42). Another German-born Buddhist and popular author, Lama Govinda (born Ernst Lothar Hoffman, 1898–1985), put it this way: “This common basis [of all schools of Buddhism] rests on experience, that is, on that area where science and mysticism meet. The only difference between those two fields of experience is that the truth of science—being directed toward external objects—is ‘objectively’ provable or, better, demonstrable, whereas mysticism, being directed toward the subject, rests on ‘subjective’ experience” (1989, p. 51). Contemporary *vipassana* meditation teacher S. N. Goenka often refers to *vipassana* as a scientific method of investigating consciousness and claims that the Buddha was not the founder of a “religion” but an intrepid interior explorer who discovered truths about the mind that anticipate truths only recently discovered by scientists and psychologists in the West (Goenka 2007). Both science and Buddhism, according to this approach, are empirical means to establishing truths in their respective realms of investigation.

Often the dyad of internal versus external science implicitly gives privilege to the former. Even in the early twentieth century, the Chinese Buddhist thinker Taixu (T’ai Hsu, 1890–1947) attempted to establish an intimate relationship between Buddhism and science while insisting that Buddhism actually supersedes the physical sciences. The Buddha, he claimed, not only understood the reality depicted by modern science but also saw considerably beyond it. Although science is extremely valuable, he insists, it can only provide partial understanding. The development of a “scientific Buddhism,” therefore, can help to “overcome the incomplete character of Science” (T’ai Hsu 1928, p. 27). While scientific knowledge is partial, the “reality of the Buddhist doctrine is only to be grasped by those who are in the sphere of supreme and universal perception, in which they can behold the true nature of the Universe, but for this they must have attained the wisdom of the Buddha himself, and it is not by the use of science or logic that we can expect to acquire such wisdom” (pp. 47–8). Taixu insisted that Buddhism was the only religion that did not contradict science, yet he also insisted that Buddhism transcended and completed it.

Contemporary scholars, Dharma teachers, and popular writers are usually not quite so bold in their assertions of Buddhist supremacy, yet this general position is still in evidence. Tibetan teacher Dzogchen Ponlop Rinpoche, on his website, writes:

Buddhist spiritual teachings present a genuine science of mind that allows one to uncover...the nature of the mind and the phenomena that our mind experiences. When we say that Buddhism is a "science," we do not mean the dry science of analyzing material things. We are talking about something much deeper. We are talking about going into the depths of the reality of our inner world.... In this sense, Buddhist spirituality is not what is ordinarily meant by the term "religion" (Ponlop).

The theme of Buddhism as an inner science that can serve as a corrective to mainstream "materialistic" sciences has ripened in contemporary Buddhist discourse, in which sentiments such as scholar and advocate Robert Thurman's are common: "Western science can learn a tremendous amount from Buddhism, which I must say, in my opinion, it deeply needs to learn. Buddhism is a good carrier of what in India was called the inner science.... Allowing science to think that everything that it does in relation to material things is reflecting true reality, that only the material counts, has crippled science from looking at the human being as a being with a psychological interior" (Thurman 2003). Elsewhere he calls tantric masters "the quintessential scientists of nonmaterialist civilization" (1994, p. 110). Thurman sees Buddhist inner science as a psychology with "sophisticated methods of software analysis and modification [that] can help with the individual's inner reprogramming.... There is a vast array of mental technologies, modification techniques that enable individuals to incorporate and integrate the improved software" (*ibid.*, p. 64). Thurman admits that the materialist approach of mainstream science has helped humanity develop an excellent understanding of the environment, cured diseases, and improved some conditions of life, but it has also produced unprecedented means of self-destruction (*ibid.*, p. 56). Many contemporary Buddhists, including sympathetic scientists, hope that Buddhist contemplative methods can introduce into scientific disciplines a more balanced, humanizing view of the mind, over against the strictly materialist view of contemporary science, along with its associated social, geopolitical, and environmental consequences.

Some contemporary scholars, scientists, and popular writers characterize Buddhist meditation as a kind of experimental program itself. Jeremy Hayward contends that Buddhist meditation is essentially a scientific endeavor because its findings can be experientially confirmed or refuted by other meditators (1987). Alan Wallace, one of the most productive scholars promoting a relationship between Buddhism and the sciences, details this position further, asserting that Buddhism is

“centrally concerned with causality,” is a “form of naturalism” and, like science, “presents itself as a body of systematic knowledge about the natural world, and it posits a wide array of testable hypotheses and theories concerning the nature of the mind and its relation to the physical environment.” These theories, he asserts, “have allegedly been tested and experientially confirmed numerous times over the past twenty-five hundred years, by means of duplicable meditative techniques” (2003, p. 8). Wallace also asserts that Buddhism is naturalistic, pragmatic, empirical, and concerned with causality rather than metaphysical realities, like other religions (Wallace 2006). What is striking about Wallace’s claims is that he asserts that Buddhist meditators engage in a kind of peer review process, like that of scientists: “Buddhist insights into the nature of the mind and consciousness are presented as genuine discoveries in the scientific sense of the term: they can be replicated by any competent researcher with sufficient prior training” (2003, pp. 8–9). Like scientific experiments, such discoveries derive from “firsthand experience,” and the discoverers’ claims “are subject to peer review by their fellow contemplatives, who may debate the merits or defects of the reported findings” (*ibid.*, p. 9).

The Neuroscientific Turn

Currently the productive edge of discussion of Buddhism in relation to science is in the neuroscientific study of meditation. Such studies began in the 1960’s but often used inexperienced students who were taught meditation in a day and then immediately tested. What distinguishes today’s research is that, first, researchers have begun using “virtuoso” meditators with years of experience and, second, they employ new brain imaging technologies that yield far more sophisticated data than ever before.

In the last two decades, a plethora of research has assessed the effects of meditation on attention, perceptual sensitivity, anxiety, regulation of emotional states, neurophysiological responses to stressful stimuli, immune system functioning, central nervous system activity, and specific neurological structures. Scientists have measured the degree to which meditation produces brainwaves associated with various states of concentration, relaxation, and emotional well-being. They have measured how meditation affects blood flow in various areas of the brain associated with different cognitive functions such as attentiveness, emotional well-being, the processing of sensory information, and

the ability to distinguish between self and other. Some scientists have used meditation studies to help them understand neuroplasticity—the ability of the brain to generate new cells and neural connections associated with changes in emotions, behavior, and perceptions. Studies of meditators suggest, according to their authors, that the brain changes noticeably from regular and prolonged meditation practice. Researchers at Massachusetts General Hospital, for example, used fMRI studies to show that the regions of the brain devoted to attentiveness and the processing of sensory information in very experienced meditators were slightly larger than those of a control group. Richard Davidson, a researcher at the University of Wisconsin, sees studying the brains of advanced meditators as exploring “the far reaches of neuroplasticity” (Goleman 2003, p. 72) and likens meditation to mental exercise—analogous to physical exercise—that can improve not only cognitive functioning but also emotional and social functioning. Researchers have found that meditation may increase immune function, help reverse heart disease, reduce chronic pain, decrease depression and anxiety, and suppress the overproduction of stress hormones. Scientists have studied the effects of various kinds of Buddhist meditation on neural activity in regions of the brain associated with happiness and well-being and the diminishing of very negative emotions like hatred and anger.³

Such research has led to Buddhist meditation (sometimes without being called that) increasingly being taught and practiced in psychotherapist’s office, cardiac wards, schools, and health clubs. They have also increased Buddhism’s cultural cachet considerably, suggesting that, in the midst of continuing battles between science and religion, this might be a tradition in which such conflicts are minimal—that Buddhism might, in fact, be that elusive religion that has no conflict with science.

The above is clearly just a quick sketch of the current research, which I will neither elaborate on nor attempt to evaluate. I am aware that it cannot do justice to the nuances of these studies, but I am not concerned primarily with the studies themselves but with legitimation of Buddhism through science, and this means analyzing some of the cultural significance of these studies, to which I now turn.

³ For examples and accounts of this research, see Austin 1998, 2006; Davidson and Harrington 2001; Goleman 2003; Lutz, Dunne and Davidson 2007; Wallace 2007).

The Promises and Pitfalls of the Buddhist Engagement with Science

Unlike some attempts to legitimate religion through engagement with science, the contemporary discourse of Buddhism and science does not rely on outlandish claims covered by a thin veneer of scientific rhetoric. It is not about crystals, aliens, astral planes, or mythical creation stories. It does not rely on “scientists” with dubious credentials but on researchers at the most respected academic institutions. Its claims have become a matter of scholarly and scientific debate, discussed in the most prestigious academic journals and published in the most respected academic presses. In this sense, the legitimization of Buddhism through engagement with science has succeeded in creating a space in modern academic discourse for Buddhist and quasi-Buddhist positions. Here strategies of legitimation merge with academic argument. Moreover, along with acceptance into the halls of academia, the alliance of Buddhism and science, especially neuroscientific studies of meditation, have gotten phenomenal coverage in the popular press and have contributed immensely to Buddhism’s appeal. What are some of the potential risks and benefits of the Buddhist engagement with science? A number of issues arise, beginning with that of scholarly representation of the Buddhist tradition.

Representation

One objection to the representation of Buddhism as compatible with science, or as scientific itself, is that it involves the distortion of a wide swath of Buddhism in its historical and cultural contexts. I have already touched on aspects of Buddhist cosmology and popular religion clearly at odds with science, so here I will dwell on the representation of Buddhism as a kind of internal science, whose essence is meditation. While most Buddhist traditions consider meditation essential to enlightenment, it is actually not widely practiced among Buddhists and is usually considered the province of specialist monastics. Thus from an anthropological perspective, it is unconvincing to represent meditation as the essence of Buddhism or to reduce Buddhism to meditation, with other elements—prayer, ritual, merit making, divination, etc.—considered incidental cultural accretions.

Further, it is problematic to represent Buddhists who do meditate as performing a kind of open-ended experiment or empirical observation of mental states the results of which are then confirmed or rejected by

other expert meditators. The “discoveries” one is expected to make in meditation are largely prefigured by the doctrines of the tradition. One must indeed discover the truths of the tradition for oneself, but these truths are considered established by the Buddha and other enlightened beings and are seldom considered open to negotiation, except in modern contexts. The Buddha declared that there are five components of personal existence (*skandhas*). Can we imagine the response if a monk in a monastery “discovered”—and corroborated it with his peers—that there are actually six?! Meditation in any traditional context is not simply a wide-open inquiry in which novel individual insights are shared, tested, and debated among practitioners, then added to the canon. To the contrary, individual and novel “discoveries” are generally considered hubristic. The idea that meditation is primarily an instrument of empirical discovery neglects, first, the fact that what is to be “discovered” through meditation are the truths authorized by tradition and, second, the degree to which meditative experiences are shaped by the categories, conventions, expectations, and doctrines of a particular tradition. The corroboration of the insights of different meditators surely has to do with their participation in a shared form of life, the particular doctrines of the tradition, and the categories that shape their experience.⁴

It may help to distinguish between two ideas here. The first is the idea that Buddhist meditation is a mode of open-ended, scientific discovery, which I have claimed is inadequate as a description of its historical and traditional forms. The second, however, is more promising: that Buddhist meditation might in fact be a fascinating *object* of scientific investigation—that the study of meditation might yield productive information about the mind, and that meditation might, in fact, be valuable in psychotherapy, medical treatment, and for personal discovery and insight. There is indeed ample reason to conduct such studies, critique them, and allow scientists to see what contributions meditation can make to human flourishing. Moreover, there is no reason to deny that, in a modern context where meditation has overflowed the

⁴ I am not asserting that individual experience can never transcend such categories in extraordinary moments; just that short of these, individual experiences, insights, discoveries, and ideas are significantly conditioned by the training one receives, the culture one is in, the categories one is given, one’s confidence in the truths of tradition, and the expectations of one’s teachers.

confines of the monastery and even Buddhism *per se*, a person could not experience profound transformative and personal insights through meditation, including ones that do not confirm traditional teachings. It should be noted, though, that this approach takes meditation beyond its traditional uses, which are to lead the practitioner to enlightenment as conceived in the various traditions of Buddhism, which may include release from the cycle of rebirth, the attainment of omniscience, the attainment of the ability to see all of the past and future, etc. Meditation with the goal of personal discovery, open-ended investigation of the mind, and relaxation reflects something new: a hybrid practice that draws together Buddhist ideas, assumptions, and practices with those of the modern West, especially modern psychology. This new hybrid may well be an open-ended mode of inquiry, but scholars should be careful about confusing descriptions of historical and “traditional” forms of Buddhism with these new modalities.

Such confusions could in time undermine the sense of legitimacy they create, and there may well be a danger for the Buddhist tradition itself in tying its fate too closely to the laboratory and linking its legitimacy to the authority of science. If Buddhism is essentially meditation, and meditation comes to be understood primarily as making the brain achieve certain physically observable conditions, then might it someday be seen as an outdated, pre-modern form of something that science has learned to do better through the latest biofeedback machine or attention-enhancing, mood-boosting, performance-improving drug? Here we should be reminded again that meditation is one part of a larger Buddhist way of life, not just a means to decidedly modern life goals like increased productivity or stress relief. It is embedded in systems of attitudes, ethical injunctions, social relationships, values, etc., and cannot be reduced to what sectors of the brain light up on fMRI screens.

It is perhaps concerns like these have contributed to a certain degree of skepticism among Buddhists themselves about legitimating Buddhism through science. Martin Verhoeven, for example, suggests that representing Buddhism as fully compatible with science strips it of much that is unique. Accommodating Buddhism too much to the dominant discourse of modern society may, in fact, rob it of its ability to critique mainstream culture (Verhoeven 2001). He points out a number of Buddhist thinkers, D. T. Suzuki, Walpola Rahula, and Ven. Hsuan Hua, who have cautioned against legitimating Buddhism through science. Rahula, for example, discouraged readers from

“seek[ing] support from science to prove the validity of our religions” (quoted in Verhoeven 2001). Verhoeven in fact sees Buddhism as a potential form of resistance to the dominance of science in every aspect of life, discouraging “the capitulation of religion to scientific positivism; the yielding of almost all competing schemes of values to the scientific juggernaut” (ibid., p. 93).

Nevertheless there is no reason to object to ethically conducted research on willing participants in the Buddhist tradition who wish to share the benefits of meditation with those who may not share this broader way of Buddhist life.⁵ Buddhists like the Dalai Lama, one of the greatest proponents of such research, are surely interested in ways that science can help legitimate certain aspects of Buddhism through scientific research. Yet they also speak of Buddhist contributions to the broader world and clearly see meditation as something that can benefit Buddhists and non-Buddhists. Many cultural and religious practices begin in one context for specific purposes only to migrate beyond that context and be taken up for other reasons. While there is danger of meditation, and Buddhism itself, becoming “over-scientized,” attention to cultural context, nuanced understandings of both Buddhism and particular sciences may mitigate such dangers and allow cross-pollination of discourses that is thoughtful rather than trivial.

Cultural Imperialism

Another issue involving the risks of tying Buddhist claims to legitimacy too closely to its engagement with science is that of the potential for semi-secularized forms of Buddhist modernism, which draw heavily on the rhetorical alliance of Buddhism and science, to become a force of cultural imperialism that could threaten more traditional forms of Buddhism. Scholars have pointed out the fact that Buddhist modernism strips away much of Buddhism as it is actually lived on the ground—the complexity of its social networks, its ethical contexts, its rituals, stories and cosmology. There is concern that a radically denuded “scientific” version of Buddhism embraced by semi-secular elites could supplant Buddhism in its lived contexts in Asia and among Asian diaspora. Indeed, the legitimation of modernist Buddhism among educated elites around the world also constitutes an implicit *de-legitimation* of

⁵ For a brief discussion of ethical issues in studying meditators, see Cabezon 2003.

Buddhism as it is lived among the vast majority of Buddhists, i.e., among those who reverently pray before Buddha images in the Thai temple, who circumambulate Bodhinath stupa in Nepal while chanting invocations of Chenrezig, or who recite scriptural verses for karmic merit in Sri Lanka. Among Buddhist modernists, such things are often viewed as superstitious accretions to a fundamentally rational, personal, meditative—and authentic—tradition. Might this modernist demythologizing of Buddhism be more dangerous to the living tradition, as Bernard Faure suggests, than the Chinese occupation of Tibet (Faure 2008, pp. 104–112; see also Lopez 2008)? I think it is more likely that modernized forms of Buddhism will simply exist as another “school” of Buddhism, or even intertwine with various traditional forms, but are unlikely to colonize all Buddhism everywhere. As it becomes more evident that modernization does not necessarily mean capitulation to all of the tenets of European secularism, traditions everywhere are feeling freer to modernize on their own terms, creating “multiple modernities.”⁶ They combine bits of tradition with bits of western modernity and create new forms of life. At the edges, Buddhism either remains quite traditional (Buddhists in a rural village praying before images and chanting to make karmic merit) or becomes absorbed into western modernism (secular urbanites practicing meditation to help them succeed at work) but in the middle many Buddhists combine tradition and modernity into unique indigenous modernities that modify tradition without destroying it.

The Fourteenth Dalai Lama, for example, is a vigorous participant in and advocate of the dialogue between Buddhism and science. More to the point, he has himself suggested that Buddhism must renounce literal interpretation of doctrines that directly conflict with established scientific conclusions and has asserted that classical Buddhist cosmology is outdated. Yet he still believes in rebirth, oracular divination, and the existence of deities and spirits, and regularly does practices preparing himself to navigate the *bardo*—the realm in between death and rebirth. His considerable engagement with modern science has by no means made him a secular materialist. Moreover, there exist many scientists who are rather traditional Buddhists—as well as Christians Muslims, Hindus, etc.—combining what may seem contradictory religious and scientific ideas and practices in unique combinations. This

⁶ For more on the concept of multiple modernities, see Eisenstadt 2002.

suggests that despite the prestige that scientific attention has brought to Buddhism, the tradition, in toto, is not headed toward becoming the secular, scientific quasi-religion envisioned by nineteenth-century apologists. Rather, in many contexts it will happily draw such legitimating prestige from science while retaining its "unscientific" elements.

Conclusion

The two eras of productive engagement between Buddhism and science—around the turn of the twentieth and twenty-first centuries, respectively—have both been eras of immense scientific productivity as well as ambivalence. The first was one in which positivism was ascendant, with its strident claim that everything could be explained through the sure guide of the scientific method. Revolutionary breakthroughs in biology and geology in this era reconfigured the understanding of the age of the earth and the origins of species. The blows that these gave to literalistic conceptions of Christian doctrine, and the crisis of faith it helped produce, existed in tension with a sense of great promise touted by some that science would lead not only to the greater understanding of the physical world but also to moral progress, enlightenment, and human perfectibility. Buddhists of this era skillfully exploited the fissures between science and Christianity to fill a space that had opened up for a rational religion compatible with science, and they reformed their traditions to fill this space. In this way they were able to draw strategic power from the very science that threatened Christianity.

A century later we are in a period in which science is once again in a productive fury that inspires both hope and fear. In the century that has passed, nuclear weapons, eugenics, and environmental devastation have buried naïve assertions that science and technology are unfailingly benign and that moral and scientific progress go hand-in-hand. And yet the legitimizing power of science is no less powerful today, and the competition among religions to draw from this power is as strong as ever. Today, the "neurological turn" in Buddhism once again taps into a cutting-edge scientific discourse in ways that increase its prestige and legitimacy, portending possibly profound changes in the religion itself.

Scientific rationalism has arguably become the global discourse against which all other discourses must measure themselves. And this leaves many people profoundly ambivalent. Science, like no other force

in human history, has transformed the world in ways wondrous, horrific, and disorienting. Its results have saved millions with vaccines and killed millions with bombs. For many of the world's educated elites—the same population interested in modernized Buddhism—science has demoted humanity from its place at the center of creation, the prime object of attention by a god in whose image we were created, to an apparently accidental plume of conscious matter on a speck in an immense, purposeless universe. Thus the desire naturally arises for an alternative “science” that is unambiguously benevolent, that seeks only ways to increase compassion and peace, and that reinvests the cosmos with meaning and significance without contradicting the findings of science. Combine this with the romantic image of the mysteries of exotic places, the mythology of Shangri-La, the image of the wise Other of modernity who will come forth with saving wisdom from the ancient world while fully comprehending the intricacies of the modern one. I am inclined to think that this is too tall an order for any tradition to fill. It does, however, say something about the role that Buddhism and other non-western traditions are often called upon to play in the modern world, and what the need to press these traditions into such a role might say about that world. The possibility of a Buddhist science re-awakens the idealistic dreams of a century ago that science and religion can, after all, go hand-in-hand. It suggests the hope that, even after neuroscience has exorcised the ghost from the machine, telling us that our consciousness is a matter of neurons and chemicals, that the machine itself can be revived and resacralized, or at least be made happy, compassionate, and capable of elevated states of consciousness. It suggests a new kind of groping toward transcendence, re-envisioned as here and now rather than in another world. It also suggests a nostalgia for what has been lost to the scientific revolutions of recent centuries and a dogged desire to maintain a spiritual vision of a world increasingly described in naturalistic terms.

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FALUN GONG AND SCIENCE: ORIGINS, PSEUDOSCIENCE, AND CHINA'S SCIENTIFIC ESTABLISHMENT

HELEN FARLEY

It seems that any farmer's market or large social gathering will somewhere boast a small stand with a few pamphlets, fronted by gentle people with smiling faces, espousing the health benefits of *Falun Gong* or *Falun Dafa* as it is also known. Practitioners are ready to regale those with an ear to listen personal testimonies of how a set of five meditational exercises were able to transform their lives from being stressful and conflict-ridden to being healthful, peaceful and enriched. The media and the *Falun Gong* media machine have ensured that most are familiar (and outraged) by China's persecution of *Falun Gong* practitioners in China, and yet these same people so passionately opposed to the movement's suppression, remain unaware of what ideologies lie behind this movement; of what makes *Falun Gong* tick. For example, most remain ignorant of the problematic discourse that exists between *Falun Gong* and the scientific community; ironic given that the movement is so heavily reliant on the science of telecommunications to spread its word. This chapter scrutinizes the uneasy relationship between *Falun Gong* and science by examining the emergence of *Falun Gong* from the larger *qigong* movement in the 1990s. *Qigong* itself was a formulated tradition that appeared just before the founding of the People's Republic of China (PRC). The relationship between *qigong* and science is considered, with the latter being both friend and foe to the movement at different times. The nature of this association has to some extent influenced the relationship between science and *Falun Gong*. The chapter concludes with an examination of the ideologies of *Falun Gong* in relation to the contemporary scientific worldview as expressed by its charismatic founder, Li Hongzhi.

Introduction

Falun Gong—literally Great Way of the Wheel or the Dharma Wheel Discipline—first rippled the consciousness of Western media when up to fifteen thousand adherents peacefully surrounded the seat of the

Chinese government at the red-walled Zhongnanhai compound on Sunday 25 April 1999.¹ Mostly middle-aged, many had travelled a considerable distance to be in Beijing. They stood shoulder to shoulder before sitting down to meditate in the lotus position. This show of solidarity was in marked contrast to the noisy student demonstrations of a decade earlier.² The Chinese government was caught off guard but then Premier, Zhu Rongji, met with some of the movement's leaders who protested the official harassment that they had received. Indeed, many of their fellow followers had been arrested in Tianjin, following condemnation of their movement by physicist He Zouxu of the Chinese Academy of the Sciences. He had claimed that *Falun Gong* had been responsible for several deaths and challenged the group's claims to science.³ Undeniably, Li Hongzhi had been very vocal in both his condemnation of contemporary science and in his espousal of an alternative 'scientific' paradigm. In the face of this censure, the group wanted legal status to ensure their protection from regional authorities who often refused them even the right to assemble. They also wanted the ban lifted on their founder's books which they considered scripture.⁴ Three months later, on 22 July 1999, the Chinese Communist Government outlawed the movement.⁵ In response, tens of thousands protested in ten cities including Beijing. Within a week 5000 practitioners had been rounded up, taken away by the police to schools and sports stadiums.⁶ Though most were later released, seventy to a

¹ Benjamin Penny, "The Life and Times of Li Hongzhi: 'Falun Gong' And Religious Biography," *The China Quarterly*, no. 175 (2003): 643; Beatrice Leung, "China and Falun Gong: Party and Societal Relations in the Modern Era," *Journal of Contemporary China* 11, no. 33 (2002): 763, 64; Gareth Fisher, "Resistance and Salvation in Falun Gong: The Promise and Peril of Forbearance," *Nova Religio* 6, no. 2 (2003): 296.

² Danny Schechter, *Falun Gong's Challenge to China: Spiritual Practice or 'Evil Cult'?* (New York: Akashic Books, 2000), 9–10; Julie Ching, "The Falun Gong: Religious and Political Implications," *American Asian Review*, no. 1 January (2001).

³ Schechter, *Falun Gong's Challenge to China: Spiritual Practice or 'Evil Cult'?*, 45; Ching, "The Falun Gong: Religious and Political Implications." In fact, a PhD candidate specialising in theoretical physics at the Chinese Academy of Science died subsequent to developing schizophrenia after practising extreme fasting as part of his *Falun Gong* practice. Hongyan Xiao, "Falun Gong and the Ideological Crisis of the Chinese Communist Party: Marxist Atheism Vs. Vulgar Theism," *East Asia: An International Quarterly* 19, no. 1/2 (2001): 127.

⁴ Ching, "The Falun Gong: Religious and Political Implications."

⁵ Cheris Shun-Ching Chan, "The *Falun Gong* in China: A Sociological Perspective," *The China Quarterly* 179 (2004): 666.

⁶ *Ibid.*

hundred leaders were arrested.⁷ On 1 November 1999, the Steering Committee of the National Peoples' Congress (NPC) passed a law concerning heterodox religion which specifically targeted *Falun Gong*, legitimising the government's first wave of attacks on the movement.⁸

Though *Falun Gong* had appeared as if out of nowhere, in reality it had emerged in 1992 as part of a larger pre-existing *qigong* movement that had reached a peak in the late 1980s, attracting over one hundred million practitioners, more than twenty per cent of the urban population. China was gripped by what was labelled '*qigong fever*' (*qigong re*), a period during which breathing and meditation techniques were disseminated to a degree maybe never before seen in Chinese history.⁹ In order to fully comprehend *Falun Gong*'s difficult relationship with science, it is necessary to consider the movement from which it grew and in a broader context, the status of science in the People's Republic of China.¹⁰

The Emergence of Qigong

The history of medicine in China is set against the backdrop of a romanticism of science; a science that many believed could lead China into prosperous times and hold back the dark dread of superstition. Among an intellectual elite, the notion of protecting a core of traditional culture by surrounding it with a protective shell of Western science and technology had a certain currency towards the end of the nineteenth century.¹¹ Traditional Chinese Medicine (TCM) formed an integral part of this core, yet at this time, there was very little in the way of a standardised Chinese medicine or a medical curriculum which doctors of TCM had to complete before entering practice.¹²

⁷ Ching, "The Falun Gong: Religious and Political Implications."

⁸ Leung, "China and Falun Gong," 761.

⁹ David A. Palmer, *Qigong Fever: Body, Science and Utopia in China*, ed. Christophe Jaffrelot, The Ceri Series in Comparative Politics and International Studies (London: Hurst & Company, 2007), 6.; ———, "Embodying Utopia: Charisma in the Post-Mao Qigong Craze," *Nova Religio* 12, no. 2 (2008): 79.

¹⁰ Craig A. Burdoff, "How Falun Gong Practice Undermines Li Hongzhi's Totalistic Rhetoric," *Nova Religio* 6, no. 6 (2003): 334; Edward Irons, "Falun Gong and the Sectarian Religion Paradigm," *Nova Religio* 6, no. 2 (2003): 248.

¹¹ David Ownby, *Falun Gong and the Future of China* (Oxford: Oxford University Press, 2008), 47.

¹² *Ibid.*, 48.

Furthermore, Chinese medicine was seen to be largely ineffective in terms of disease prevention or for ensuring the well-being of the population at large. For example, it was scant use against the Manchurian plague of 1910 which was only resolved after the intervention of a Western doctor. This dramatic demonstration of the effectiveness of Western medicine and science marked a turning point in China's attitude to Western medical treatment.¹³

The enormous inertia of Chinese culture was seen as the reason that China failed to modernise and consequently, traditional Chinese medicine was ill regarded. Even so, the pace of change was excruciatingly slow. With the collapse of the republican regime in the first two decades of the twentieth century, science gained an importance previously unknown in China. It was viewed as being the only force that could save the country from its enemies and from itself;¹⁴ it was in this context that Western medicine was promoted.¹⁵ The Chinese government saw itself as driving the agenda of modernisation and that agenda was furthered by science but compromised by religion and superstition.¹⁶ The recognition of the efficacy of Western medicine was one thing but the reality of delivering that to a population suspicious of change, under resourced and most still living a rural existence was entirely another. The health of the masses was inadequately serviced by doctors practising Western medicine; there was just one for every 26 000 people.¹⁷

Just a handful of years before the founding of the People's Republic of China in 1949 a group of Communist cadres in the South Hebei Liberated Zone revived an ancient technique that could inexpensively bring health and vitality to the impoverished masses. It consisted of a set of exercises that required simply that a person stand still for thirty minutes every day, controlling the breath, concentrating on the specific acupoints at the centre of the soles of the feet and repeating the simple mantra 'My organs move, my mind is still'. The cadres called this system and other related sitting, lying and stretching excises '*qigong*', literally meaning 'breath training',¹⁸ though the term first appeared in

¹³ Ibid., 49.

¹⁴ Ibid.

¹⁵ Ibid., 48.

¹⁶ Ibid., 8, 47.

¹⁷ Palmer, *Qigong Fever*, 5, 33.; Ownby, *Falun Gong and the Future of China*, 52.

¹⁸ Palmer, *Qigong Fever*, 1.

the medical literature of the Jin Dynasty (265–317 BCE).¹⁹ *Qigong* was thought to facilitate the manipulation of ‘*qi*’, a mysterious energy that is believed to flow through the body and is present in and around matter, that was alluded to in Chinese writing from as early as the fifth century BCE. These techniques were reformulated and institutionalised such that they were removed from their religious and ‘feudal’ contexts.²⁰ PRC healthcare officials would seek out masters and healers throughout the country and press them for their secrets which they would then ‘cleanse’ of feudal language and add to the storehouse of modern Chinese medicine.²¹ The techniques were therefore part of an invented or fabricated tradition that became standardised for use in a modern, secular state. The exercises were described from a purely technical angle and categorised according to a rational schema. Forms that were derived from martial arts became ‘hard forms’ or ‘*ying qigong*’ in contrast to ‘soft forms’ ‘*ruan qigong*’.²² Even so, the practice of *qigong* still had a fundamentally Chinese medical or even a religious or spiritual feel. There was the chanting of mantras. It had to be practised at the same time each day, with the body facing a specific direction; precise postures and techniques were always employed such that the practice of *qigong* still had the feel of a ritual.²³

From 1949 to 1954, traditional Chinese medicine was institutionalised by the state, at the same time modernising its transmission and practice. The first *qigong* clinical research teams worked within the new institutions. Until 1959, focused *qigong* institutions were established and grew rapidly, assisted by a political turn against Western medicine and from the exponential growth in Chinese medicine. The Great Leap Forward, from 1959 to 1961, favoured the large-scale dissemination of *qigong*.²⁴ Still, science remained the ideal and the scientists of the 1950s and early 1960s studied the effects of *qigong* on the progression of various diseases with many experiments performed on *qigong* and *qigong* masters over a period of ten to fifteen years.²⁵ The years 1962 to 1964 saw a decline in activity, largely due to factional politics—

¹⁹ Leung, “China and Falun Gong,” 767.

²⁰ Palmer, *Qigong Fever*, 5; ———, “Embodying Utopia,” 98.

²¹ Ownby, *Falun Gong and the Future of China*, 46.

²² Palmer, *Qigong Fever*, 5.

²³ Ownby, *Falun Gong and the Future of China*, 51.

²⁴ Palmer, *Qigong Fever*, 29.

²⁵ David Ownby, “Transnational China Project Commentary: ‘Falungong as a Cultural Revitalization Movement: An Historian Looks at Contemporary China’”,

its greatest supporters were seen as abusing *qigong* as charlatans²⁶—until *qigong* was banned preceding the Cultural Revolution.²⁷ There was no officially sanctioned *qigong* from 1965 until its rehabilitation in 1978. This popularisation was enabled by Guo Lin—a female artist and cancer victim from Guangdong province—who used *qigong* to cure herself during the 1960s. She subsequently risked persecution by teaching *qigong* to other cancer sufferers in parks within Beijing.²⁸ Her ‘New Qigong Therapy’ inaugurated a novel form of teaching and practice that would be embraced by most *qigong* masters. Guo introduced innovation through group practice in parks; bringing *qigong* out of the medical institutes. Adherents led free collective sessions in public spaces, removing the necessity for traditional masters to give secret initiations or for medical workers to provide one-on-one clinical instruction. Her method brought new excitement to *qigong* at the end of the 1970s and is thought to have significantly contributed to the *qigong* wave of the 1980s.²⁹ The boom swept China as a mass popular religious movement,³⁰ becoming an outlet for a cultural shift from political utopianism to individual empowerment and subjectivity. It was often expressed in religious terms and symbolism within the state.³¹

As already mentioned, science was seen as being essential for building the new China and was considered absolutely essential for modernisation. Scientific discourse facilitated the creation of what became known as ‘real, scientific’ and ‘false, unscientific’ *qigong* as opposite poles of practice.³² The country’s foremost scientist, Qian Xueshen, and the pronouncements of science by bureaucrats and *qigong* masters, led to the intense scientific scrutiny of the value or force of *qigong* practices.³³ Although *qigong* derived its symbolism and much of its language from Chinese religion, it vehemently asserted its scientific and moral superiority over religion.³⁴ Scientists dismissed popular and superstitious

(Rice University: Asian Studies, History and the Center for the Study of Cultures, 2000).

²⁶ Ownby, *Falun Gong and the Future of China*, 55.

²⁷ Palmer, *Qigong Fever*, 29.

²⁸ Ownby, *Falun Gong and the Future of China*, 57.; Palmer, *Qigong Fever*, 46.

²⁹ Palmer, *Qigong Fever*, 46.

³⁰ Ownby, *Falun Gong and the Future of China*, 9.

³¹ Palmer, *Qigong Fever*, 5.

³² Nancy N. Chen, “Healing Sects and Anti-Cult Campaigns,” *The China Quarterly*, no. 174 (2003): 508.

³³ Ibid.

³⁴ Palmer, *Qigong Fever*, 23.

claims about *qigong*, instead relying on the tenets of science to prove its efficacy.³⁵ Unlike the scientists of the 1950s and early 1960s, this generation of scientists focused their attentions on the physical properties of *qi*, rather than on the subjective qualities of healing.³⁶ They were primarily investigating the phenomenon of 'external *qi*' whereby the *qigong* master is said to emit *qi* from his hands and body in the direction of a patient or an object in order to effect a positive change.³⁷ In 1979, Gu Hansen of the Shanghai Institute of Atomic Research, created considerable commotion by announcing that *qi* was actually a measurable physical substance. This soon became accepted by all scientists working on *qigong*.³⁸ Henceforth, *qigong* gained the cache of a genuine science and its adherents were able to ally their efforts with those who sought to modernize China through scientific endeavour.³⁹

Towards the end of the 1970s, China's government had fully embraced scientism as the new creed for the development of the nation. Subsequent to the fall of 'Gang of Four', the new leadership led by Deng Xiaopeng, introduced the novel policy of the 'Four Modernisations' to guide China's development. First came the modernisation of agriculture, then of industry, national defence and finally, of science and technology.⁴⁰ The last of these was seen as being the most important, with the other three being derived from it. On 18 March 1978, a national party congress on the sciences was held, bringing together some 6000 delegates. Ambitious plans for scientific development were unveiled. Defence had been seen as the highest priority in scientific policy since the 1950s and this continued under the new plan but interestingly, key figures in the military science community saw *qigong* as being crucial to directly overcoming material obstacles to attaining those projects. In addition, the government launched the 'patriotic movement for health' in order to increase the health of the population. Because of its low cost, efficacy and simplicity, *qigong* fit well with the campaign.⁴¹ The following year in July, the director of the Ministry of Health's State Administration of Chinese medicine, Lü Bingkui, headed a meeting convened to review scientific reports about

³⁵ Chen, "Healing Sects and Anti-Cult Campaigns," 508.

³⁶ Ibid.

³⁷ Palmer, *Qigong Fever*, 51.

³⁸ Ibid.; Ownby, *Falun Gong and the Future of China*, 58.

³⁹ Ownby, *Falun Gong and the Future of China*, 46.

⁴⁰ Palmer, "Embodying Utopia," 79.

⁴¹ Ownby, *Falun Gong and the Future of China*, 10, 60; Palmer, *Qigong Fever*, 49–50.

qigong. The meeting—which boasted the attendance of the health minister, the State Sports Commission Director, a number of the State Council and some 200 scientists, journalists and other officials—saw the presentation of research about the material nature of external *qi*, *qigong*, paranormal abilities, and on Guo Lin's miraculous cancer cure.⁴² Later that year, the National Association for Science and Technology (NAST) held the first academic conference on *qigong*, calling for rapid assemblage of infrastructure needed for more scientific research on the topic. In September 1981, the All-China Qigong Scientific Research Society became the first national association for *qigong*, a branch of the All-China Society for Chinese Medicine.⁴³ *Qigong* was no longer seen as a branch of Traditional Chinese Medicine but as a separate scientific discipline focussed on the investigation of *qi*.⁴⁴

From the mid-1980s, the practice of *qigong* became associated with the cultivation of 'Extraordinary Powers of the Human Body'—paranormal abilities which included levitation, clairvoyance and ear reading, whereby gifted children could read the characters written on a piece of rolled up paper inserted into their ear canals.⁴⁵ A number of experiments were conducted, apparently showing that after training, between forty and sixty per cent of children could display Extraordinary Powers.⁴⁶ In 1980, the first National Academic Conference on Extraordinary Powers of the Human body was convened by *Ziran* magazine and the term entered the Chinese scientific lexicon. At the conclusion to the conference, the participants concurred that Extraordinary Powers were latent in all humans and that *qigong* facilitated the cultivation of this potential.⁴⁷ *Qigong* fell under greater scientific scrutiny with research being conducted on a number of phenomena including the infra-red thermal imaging of asthmatics' lungs before and after *qigong* practice and the bacterial composition of saliva before and after *qigong* practice.⁴⁸

Other researchers focussed their efforts on trying to reproduce physical *qi*. By the end of 1980, three *qi*-emitting devices had been constructed. Also in that year, three hospitals in Shanghai started using *qigong* anaesthesia whereby *qigong* masters would emit *qi* in place

⁴² Palmer, *Qigong Fever*, 54.; Ownby, *Falun Gong and the Future of China*, 60.

⁴³ Ownby, *Falun Gong and the Future of China*, 61.

⁴⁴ Palmer, *Qigong Fever*, 55.

⁴⁵ *Ibid.*, 59.

⁴⁶ *Ibid.*, 64–65.

⁴⁷ *Ibid.*, 65.

⁴⁸ *Ibid.*, 66.

of traditional anaesthetic methods.⁴⁹ Qian Xuesen, Vice-President of NAST and Vice-Chairman of the National Defence Science and Technology Commission, called for the creation of a new discipline—‘somatic science’—which would incorporate in its agenda, the investigation of ‘Extraordinary Powers’. This also led to the beginning on an academic exchange between Chinese scientists and Western parapsychology researchers.⁵⁰ Even so, there was considerable opposition to the investigation into Extraordinary Powers. For example, in 1981, Zhou Peiyuan, Director of NAST stated he would oppose NAST’s sponsorship of any such research. Finally, by the end of April 1982, the Propaganda Department of the Party Central Committee circulated a memo saying there should be ‘no publicising, no criticism and no controversy’ in the press concerning Extraordinary Powers, and that they were not a priority area of research.⁵¹ An exception was made for the publication of data for scientific purposes but soon, favourable if not unlikely reports abounded in the press.⁵²

In 1986, the China Qigong Science Research Society (CQRS) was founded; a new state-sponsored association hailed as a turning point in the history of *qigong*, and more ambitiously, science.⁵³ Academic conferences on *qigong* and somatic science featured prominently, reinforcing the emergent discipline’s claim to science. Having said that, presenters were not obliged to have any academic credentials and the events frequently featured the *qigong* demonstrations of masters.⁵⁴ Under normal circumstances, those phenomena that had been grouped together as ‘Extraordinary Powers’ would find no place within a rational scientific paradigm; yet by calling them ‘extraordinary’ rather than ‘supernatural’ betrayed a desire to accommodate them within the material universe.⁵⁵ *Qigong* researchers felt that through *qigong*, they had a systematic method for producing Extraordinary Powers that had been documented in a huge corpus of theoretical and technical works spanning some 5000 years. Thus *qigong* was also presented as a Renaissance of Chinese civilisation. Further, it was claimed that Extraordinary Powers had been cultivated by the ancient Chinese who used them to establish

⁴⁹ Ibid., 67.

⁵⁰ Ibid., 68, 69.

⁵¹ Ibid., 71.

⁵² Ibid., 72.

⁵³ Ibid., 75–76.

⁵⁴ Ibid., 79.

⁵⁵ Ibid., 119.

civilisation itself. It was thought that the great masters of myth and legend had in fact been accomplished *qigong* masters. Indeed, Laozi, legendary author of the *Tao Te Ching*, was thought to have followed this route. According to *qigong* advocates, *qigong* was both scientific and grounded in tradition; it was vast enough to encompass the wisdom of the past and the discoveries of the future; it was thought to be more significant even than quantum mechanics and relativity.⁵⁶

By the 1990s, following a period of almost exponential growth, large-scale commercial and cultic groups became evident. Charismatic *qigong* masters rose to prominence with two—*Zhong Gong* and *Falun Gong* boasting enough followers to rival the 70-million-strong Chinese Communist Party (CCP).⁵⁷ For about twenty years until the mid-1990s, in the face of considerable scepticism, *qigong* successfully defined itself and was generally recognised as pertaining to health, science and sports; certainly not religion or superstition.⁵⁸ But by 1991, the scepticism about and the criticisms of *qigong* became too difficult to contain; the Chinese government more vigorously policed *qigong* masters, associated literature and *qigong* organisations, aiming to uncover ‘false’ or ‘unscientific’ *qigong*.⁵⁹ In spite of voluminous amounts of research and justifications, *qigong* science had failed to be unequivocally proven and the much-hoped for synthesis of *qigong* and science failed to materialise.⁶⁰ Practitioners of banned forms were detained and questioned by police.⁶¹ Even so, by 1998, *qigong* affiliations numbered more than 2400.⁶²

The Birth and Substance of Falun Gong

It was amidst these troubled times of disillusion and confusion with *qigong* that *Falun Gong* first made its appearance. The movement’s founder, Li Hongzhi soon distanced *Falun Gong* from *qigong* by affirming that it was not about the accumulation of Extraordinary Powers

⁵⁶ Ibid., 109, 11.

⁵⁷ Ibid., 6.; ———, “Embodying Utopia,” 79.

⁵⁸ Palmer, *Qigong Fever*, 24.

⁵⁹ Ownby, *Falun Gong and the Future of China*, 166; Chen, “Healing Sects and Anti-Cult Campaigns,” 509.

⁶⁰ Palmer, *Qigong Fever*, 219.

⁶¹ Chen, “Healing Sects and Anti-Cult Campaigns,” 509.

⁶² Maria Hsia Chang, *Falun Gong: The End of Days* (New Haven: Yale University Press, 2004), 3.

nor about health, but was only to purify one's heart and realize spiritual salvation.⁶³ Advocates of both *Falun Gong* and *qigong* strenuously claim that the former does not belong to the latter and indeed, Li's movement has its own characteristic traits in terms of practice and ideology which represent a radical break with *qigong*.⁶⁴ Yet *Falun Gong* was founded as a *qigong* method and its first years of growth took place within the fold of that practice.⁶⁵

It can be reasonably argued that *Falun Gong* emerged from the larger *qigong* movement through the 1990s,⁶⁶ but it was officially established in May 1992 by Li Hongzhi, then barely forty years old.⁶⁷ The Chinese regime asserts that Li learned *qigong* exercises in 1988, though *Falun Gong* sources say that he was schooled from the age of eight in those disciplines by various masters from the Taoist and Buddhist traditions.⁶⁸ Wherever the truth lies, Li Hongzhi did travel to Beijing in 1992 to conduct research sessions with a research group at the China Qigong Scientific Research Society. Shortly afterwards, the Falun Gong Research Society was established by Li and his associates: Li Chang, Wang Zhiwen and Yu Changxi. The new society was soon accredited and acknowledged as a branch of the larger organisation, which in turn organised and marketed the *Falun Gong* training sessions.⁶⁹ These sessions were terminated in 1994 when Li left China, officially so that he could devote all of his time to the study of Buddhism. But in all probability his departure had more to do with the mounting opposition *Falun Gong* was attracting within party and government circles.⁷⁰ By the mid-1990s, *Falun Gong* had acquired tens of millions of adherents attracted by its minimal admission criteria,

⁶³ Palmer, *Qigong Fever*, 219.

⁶⁴ Irons, "Sectarian Religion Paradigm," 254; Palmer, *Qigong Fever*, 27–28.

⁶⁵ Palmer, *Qigong Fever*, 28.

⁶⁶ Ownby, "Transnational China Project Commentary: 'Falungong as a Cultural Revitalization Movement: An Historian Looks at Contemporary China'; Penny, 'The Life and Times of Li Hongzhi,'" 644.

⁶⁷ Ching, "The Falun Gong: Religious and Political Implications."

⁶⁸ James Tong, "An Organizational Analysis of the Falun Gong: Structure, Communications, Financing," *The China Quarterly*, no. 171 (2002): 639–40; Penny, "The Life and Times of Li Hongzhi," 648–49.

⁶⁹ Tong, "An Organizational Analysis of the Falun Gong," 640.

⁷⁰ Ownby, *Falun Gong and the Future of China*, 167.

lack of membership fees, simple methods, and Li's promises of health and salvation.⁷¹

Ahead of government persecution, Li Hongzhi finally left China in 1996, establishing himself in New York, from where he directs the movement's operations. His followers believe him to have supernatural powers including the ability to levitate and produce diverse miracles. He cleverly links himself to popular martial arts and fantasy literature and claims to telekinetically insert the *falun* or the 'wheel of the law' into people's abdomens.⁷² As the wheel turns negative energy is expelled and positive energy is accumulated, providing followers with good health and freedom from disease.⁷³ Adherents must keep the wheel turning by regularly practising five meditative exercises.⁷⁴ Even though this wheel cannot be dissected by medical practitioners, *Falun Gong* followers assert that it still exists but in another dimension not readily accessible by those at a lower level.⁷⁵ Li was apparently dismayed by people's fascination with *qi* which achieved prestige through the scientific appraisal of *qigong*. He asserted *qi* was only a lower form of energy and that one should cultivate *gong*, an even higher cosmic power that could be attained only through moral rigour and the practice of *Falun Gong*.⁷⁶ The goal of attaining Extraordinary Powers through *qigong* was seen as base. By way of contrast, *Falun Gong* practitioners could expect to attain one's spiritual nature and salvation from the demonic world of ordinary people.⁷⁷ Though the practice of *Falun Gong* consists of meditational exercises, it is primarily a system of morality.⁷⁸ Physical

⁷¹ Chang, *Falun Gong: The End of Days*, 4.; Irons, "Sectarian Religion Paradigm," 250.

⁷² Li Hongzhi, *Falun Gong*, Revised English ed. (New York: The Universe Publishing Company, 1999), 33; Xiao, "Falun Gong and the Ideological Crisis," 125, 26; Burgdoff, "How Falun Gong Practice Undermines," 335.

⁷³ Fisher, "Resistance and Salvation in Falun Gong," 295; Susan J. Palmer, "From Healing to Protest: Conversion Patterns among the Practitioners of Falun Gong," *Nova Religio* 6, no. 2 (2003): 353.

⁷⁴ Xiao, "Falun Gong and the Ideological Crisis," 125, 26; Burgdoff, "How Falun Gong Practice Undermines," 335.

⁷⁵ Ownby, *Falun Gong and the Future of China*, 91.

⁷⁶ Hongzhi, *Falun Gong*, 5.; Palmer, *Qigong Fever*, 3.; ———, "Embodying Utopia," 86.

⁷⁷ Palmer, *Qigong Fever*, 224.

⁷⁸ Penny, "The Life and Times of Li Hongzhi," 644; Chan, "The *Falun Gong* in China," 676; Susan E. Ackerman, "Falun Dafa and the New Age Movement in Malaysia: Signs of Health, Symbols of Salvation," *Social Compass* 52, no. 2 (2005): 501; Burgdoff, "How Falun Gong Practice Undermines," 336.

transformation is achieved through moral practice.⁷⁹ By way of exercise and meditation, adherents strive to foster the traditional spiritual values of truthfulness, compassion and tolerance.⁸⁰ When sufficiently advanced, the practitioner experiences the supreme nature of the cosmos invigorated from within by the '*falun*' energy.⁸¹ Spiritual elevation is achieved through the elimination of negative karma accrued during this life and previous incarnations, and by the hoarding of virtue.⁸² Even though the earliest *qigong* writings described body postures and indicated techniques, they did not contain moral content.⁸³ In contrast, the writings of Li Hongzhi contain a great deal of moral content to go along with the body technologies.⁸⁴ Even so, the leadership of the movement claims that it is not a religion, but merely promotes spiritual and moral cultivation.⁸⁵ Having said that, it still resembles a religion, being both apocalyptic and millenarian in nature.⁸⁶ Morality is the principle concern of *Falun Gong* and science is the vehicle for that message.⁸⁷

According to the adherents themselves, *Falun Gong* has no temple or official headquarters. There are no formal rituals, and it takes no fees from its adherents who always gather in public.⁸⁸ Apparently, many senior cadres, retired military personnel, and well-known intellectuals had written to Premier Zhu Rongji in support of the group. When the suppression began in 1999, it came from Jiang Zemin, then the CCP's general secretary, who allegedly was disturbed that 'theism' should triumph over 'atheism'. He resolved to act quickly and likened *Falun Gong* to the Solidarity movement that toppled the communist

⁷⁹ Ownby, "Transnational China Project Commentary: 'Falungong as a Cultural Revitalization Movement: An Historian Looks at Contemporary China.'; Richard Madsen, 'Understanding Falun Gong,'" *Current History* 99, no. 638 (2000): 243.

⁸⁰ Hongzhi, *Falun Gong*, 59–61; Madsen, "Understanding Falun Gong," 243.

⁸¹ Leung, "China and Falun Gong," 764.

⁸² Ownby, *Falun Gong and the Future of China*, 93.

⁸³ ———, "Transnational China Project Commentary: 'Falungong as a Cultural Revitalization Movement: An Historian Looks at Contemporary China.'"

⁸⁴ Ibid.

⁸⁵ Ronald C. Keith and Zhiqiu Lin, "The 'Falun Gong Problem': Politics and the Struggle for the Rule of Law in China," *The China Quarterly*, no. 175 (2003): 629–30; Madsen, "Understanding Falun Gong," 243.

⁸⁶ Chang, *Falun Gong: The End of Days*, 59, 60; Burgdoff, "How Falun Gong Practice Undermines," 334.

⁸⁷ Ownby, *Falun Gong and the Future of China*, 101.

⁸⁸ Rebecca Weiner, "Grassroots Conservatism Comes of (New) Age," *Tikkun*, January/February 2000, 11; Tong, "An Organizational Analysis of the Falun Gong," 637; Ackerman, "Falun Dafa and the New Age Movement," 497.

government in Poland.⁸⁹ Wang Zhaoguo, protégé of the late Chinese leader, Deng Xiaoping, described the conflict between the CCP and *Falun Gong* as a clash between ‘Marxist atheism and vulgar theism, between historical materialism and outdated idealism, and between science and evil thought.’⁹⁰

Science and Falun Gong

Falun Gong or *Falun Dafa*, as it is frequently known, is an uneasy amalgam of the diverse constituents of pre-existing traditions primarily Taoism, Buddhism and Chinese folk religion which have been recombined and reformulated into something quite novel.⁹¹ The breathing and meditative aspects of *Falun Gong* can be traced back to the breathing exercises used to increase potency and longevity in Taoism.⁹² Yet, the movement is given a contemporary veneer via references to UFOs and science,⁹³ and by its extensive use of modern technologies such as email and the internet to disperse its message.⁹⁴ Li himself makes explicit his difficult relationship with science; both openly admiring what it has achieved but speaking extensively about its shortcomings and in this way, deftly diffusing any accusations that he is spreading superstition.⁹⁵ Most belief systems do not appeal to science as its foundation, nor do they label science the inferior derivative of religion. However, Li asserts that *Falun Gong* should supplant the existing scientific knowledge embraced by ‘ordinary’ people.⁹⁶ David Ownby has posited that Li has a genuine fascination with modern science and embraces a scientific worldview out of respect for science’s exalted reputation in modern Chinese history.⁹⁷ Even so, Li Hongzhi does not engage scientists in debate at their own level. He is swift to claim victory when scientific

⁸⁹ Ching, “The Falun Gong: Religious and Political Implications”; Ownby, *Falun Gong and the Future of China*, 15; Xiao, “Falun Gong and the Ideological Crisis,” 124.

⁹⁰ Wang Zhaoguo in Xiao, “Falun Gong and the Ideological Crisis,” 124.

⁹¹ Adam Yuet Chau, *Miraculous Response: Doing Popular Religion in Contemporary China* (Stanford: Stanford University Press, 2006), 6; Xiao, “Falun Gong and the Ideological Crisis,” 128, 31; Ackerman, “Falun Dafa and the New Age Movement,” 500.

⁹² Chang, *Falun Gong: The End of Days*, 39.

⁹³ *Ibid.*, 61.

⁹⁴ Leung, “China and Falun Gong,” 782.

⁹⁵ Ownby, *Falun Gong and the Future of China*, 91.

⁹⁶ Deng and Fang, “The Two Tales of Falungong: Radicalism in a Traditional Form.”

⁹⁷ Ownby, *Falun Gong and the Future of China*, 96.

paradigms are challenged. He readily dismisses those who doubt the authenticity of his ideas, claiming instead to focus on those who are ready for his message. His message is explicit: the modern scientific paradigm is contained within and transcended by *Falun Gong*.⁹⁸

It is no coincidence that the first criticisms of *Falun Gong* came from the heart of science itself. In the first sentence of Li Hongzhi's 1995 book *Zhuan Falun*, he claims: 'This is the ultimate science.' In that scripture, the word 'science' appears thirty-eight times. However, Li never follows any scientific principles in his deliberations; frequently distorting scientific facts for his own purposes. Since he is a junior high school graduate lacking any scientific training, it is unsurprising that his 'scientific' teachings are laden with blunders and misconceptions.⁹⁹ In addition, Li is often actively hostile towards science, claiming that it remains ignorant of the real truths that lie behind the universe and warning that all will be lost unless the world turns its collective ear to him.¹⁰⁰ In place of legitimate science, Li promulgates a complex pseudo-science.¹⁰¹ He creates an alternative paradigm where science as we know it is untenable; in contrast, he promises his own approach would represent breakthroughs in physics, geophysics, astrophysics, astronomy, chemistry, history, geography, philosophy, social science and so on.¹⁰²

Unsurprisingly, Li Hongzhi's criticisms of science don't end there. *Falun Gong*'s founder is convinced that the moral decadence of these times will inevitably lead to an apocalypse; according to Li, another in a long line. He refers often to the 'Dharma-ending period' of 'the apocalypse', the 'Great havoc' and the 'end times'. He insists that moral values are deteriorating daily and that civilisation will be annihilated because human beings are no longer 'up to standard'; but fortunately *Falun Dafa* will provide salvation for humankind.¹⁰³ Science is particularly guilty due to its 'faulty understanding of the human

⁹⁸ Ibid., 101.

⁹⁹ Zixian Deng and Shi-min Fang, "The Two Tales of Falungong: Radicalism in a Traditional Form," in *American Family Foundation conference on "Cults and the Millennium"* (Seattle 2000).

¹⁰⁰ Chang, *Falun Gong: The End of Days*, 107.

¹⁰¹ Deng and Fang, "The Two Tales of Falungong: Radicalism in a Traditional Form."

¹⁰² Ibid.

¹⁰³ Chang, *Falun Gong: The End of Days*, 91; Chan, "The *Falun Gong* in China," 676; Irons, "Sectarian Religion Paradigm," 250.

race, nature, and matter,' which in turn has resulted in 'the degeneration of morality in today's human society.'¹⁰⁴ Further, Li claims that scientific advances such as cloning have appeared only since the decline of human morality.¹⁰⁵ Modern science is cast as the enemy of morality. Li defines morality as the distinction between good and evil but as soon as it is talked about, it is labelled as 'superstitious' by science. Science is being used to beat away the virtues of humanity and because science can't prove the existence of gods or of virtue, it is therefore also ignorant of the reality of karmic retribution.¹⁰⁶ Modern science also takes the blame for the mixing of races, allegedly leading each subsequent generation to be inferior to the one that preceded it. Li asserts that each race has its own celestial world; e.g. the white race has Heaven. But now that the races are mixed, the children born of interracial marriages will not have a celestial world. He further claims that East and West were once kept separate by vast deserts, but now science has disabled those obstacles so that the races may mix. Cosmic Law forbids the mixing of races.¹⁰⁷

The arrogance of modern science and the limitations of the scientific paradigm are consistent themes in Li's writings and lectures. His own vision is proffered to replace current scientific understanding. By doing so, he relativises the value of science, implying that the absolute truth that scientists claim is not so absolute after all.¹⁰⁸ He focuses the discourse on the many things that scientists cannot explain, filling these gaps with an alternative account which can generally be considered 'parascientific'; these alternative paradigms are generally poorly received by the scientific community both in China and overseas.¹⁰⁹ Though Li claims that modern science is valid as far as it goes, it is in no way self-reflective, failing to take into account its own failings and limitations or to recognise a superior approach such as that presented by Li. An example of modern science's fallible reasoning would

¹⁰⁴ Li Hongzhi, *Falun Buddha Law: Lectures in the United States* (Hong Kong: Falun Fo Fa Publishing Co., 1999), 83; Chang, *Falun Gong: The End of Days*, 92.

¹⁰⁵ Chang, *Falun Gong: The End of Days*, 93.

¹⁰⁶ Palmer, *Qigong Fever*, 227.

¹⁰⁷ Ibid.

¹⁰⁸ Ownby, *Falun Gong and the Future of China*, 97; ———, "Transnational China Project Commentary: "Falungong as a Cultural Revitalization Movement: An Historian Looks at Contemporary China."

¹⁰⁹ Ownby, "Transnational China Project Commentary: "Falungong as a Cultural Revitalization Movement: An Historian Looks at Contemporary China."; ———, *Falun Gong and the Future of China*, 97.

include its marked failure to take into account the notion of 'levels' or 'dimensions' which exist simultaneously with reality as it is generally known. Instead science is inordinately preoccupied with what is happening on this level.¹¹⁰ Enlightenment entails the traversing of these levels in order to arrive at a more complete understanding. It also permits the neat sidestepping of many of the criticisms of Li's teachings by allowing him the opportunity to claim that he is not understood because his critics are of a lower level.¹¹¹

Most interestingly, Li Hongzhi puts forward extraordinary claims about extra-terrestrials. Science is likened to a religion controlled by a clergy of bachelors, masters, doctors, research fellows and doctors. But according to Li, science is actually propagated by aliens in order to infiltrate human society and control humanity. In an interview appearing in *Time* magazine in 1999, he went as far as describing some of the aliens: 'One type of alien looks like a human but has a nose made of a bone.'¹¹² These aliens are known to abduct humans and use them as pets on their planet. These same aliens supposedly believe that humans have the perfect body, and covet it for themselves. Li also asserted that the aliens were responsible for advances in science and had been moving among us since about 1900. Their intention is to replace humanity with clones.¹¹³ Their 'things' are allegedly injected into the molecules and cells of humans, turning them into slaves of computers and machines.¹¹⁴ In his own words: 'The aliens have introduced modern machinery like computers and airplanes. They started by teaching mankind about modern science, so people believe more and more science, and spiritually, they are controlled. Everyone thinks that scientists invent on their own when in fact their inspiration is manipulated by the aliens. In terms of culture and spirit, they already control man. Mankind cannot live without science.'¹¹⁵ Apparently,

¹¹⁰ Hongzhi, *Falun Gong*, 17–18; Burgdoff, "How Falun Gong Practice Undermines," 392; Ownby, *Falun Gong and the Future of China*, 98–99.

¹¹¹ Irons, "Sectarian Religion Paradigm," 250; Ownby, *Falun Gong and the Future of China*, 99.

¹¹² Hongzhi in David Van Biema and Jaime A. FlorCruz, "The Man with the Qi," *Time*, 10 May 1999.

¹¹³ Ibid.; Weiner, "Grassroots Conservatism Comes of (New) Age," 10; Palmer, *Qigong Fever*, 225.

¹¹⁴ Ibid.

¹¹⁵ Weiner, "Grassroots Conservatism Comes of (New) Age," 10.

each human that is able to use a computer has already been assigned a serial number by the aliens.¹¹⁶

Li also claims that humanity has existed on the planet far longer than previously thought. Our current civilisation is just one of many that have existed; flourishing for a short time before becoming decadent and degenerate prior to being destroyed. Each time, a very few survive to eventually repopulate the planet and begin once more.¹¹⁷ The survivors are transported to another planet by the gods, taking with them their technology so that they could begin again at a relatively technologically developed stage. Furthermore, there are other intelligent beings who are indigenous to their planets, who are continuing to develop and are, in fact, more advanced than we are today. They are able to enter into other dimensions and their spaceships are able to navigate in other time-space continua at unimaginable speeds. However, they are morally undeveloped and their greed and lust have resulted in 'star wars'. We on Earth have so far escaped their attention as we pose no threat but when humankind does become more powerful and threatening, we will not be spared.¹¹⁸

Li Hongzhi attacks scientific consensus in many areas but his tactic remains the same: to exploit holes or weaknesses in scientific argument and then to offer an alternative explanation which involves a less human-centric universe consisting of hierarchically linked levels. Cultivation enables movement through these levels and once achieved, allows a wiser perspective on those that precede it. Naturally enough, Li has already achieved this state and the supernatural powers that go along with it.¹¹⁹

Though Li frequently rejects the findings of modern science—for example, Darwin's theory of evolution is dismissed out of hand—he is more than happy to use the language of science to make his own pseudoscience sound plausible.¹²⁰ He compares the structure of the cosmos to the relationship between elementary particles: 'It is like small particles making up atomic nuclei, atomic nuclei making up atoms, atoms

¹¹⁶ Ibid.

¹¹⁷ Chang, *Falun Gong: The End of Days*, 68; Patsy Rahn, "The Falun Gong: Beyond the Headlines," in *American Family Foundation conference on "Cults and the Millennium"* (Seattle 2000); Burdoff, "How Falun Gong Practice Undermines," 342; Irons, "Sectarian Religion Paradigm," 252.

¹¹⁸ Chang, *Falun Gong: The End of Days*, 70.

¹¹⁹ Ownby, *Falun Gong and the Future of China*, 100–01.

¹²⁰ Weiner, "Grassroots Conservatism Comes of (New) Age," 9.

making up molecules.¹²¹ Those particles which are even smaller are unknown to current science and cannot be considered to be science because science has been developed 'on a wrong basis with flawed understanding.'¹²² According to Li, science remains ignorant of the fact that the origin of matter and consequently, the universe, is water.¹²³ He frequently discusses the idea of the 'primal spirit' (*yuan shen*). In this rendering derived from Taoist belief, the primal spirit is indestructible. In order to demonstrate this, he offers the indestructibility of the body as proof, again using the language of physics. He describes atoms, electrons, and other particles too small for the microscope to see. They are possessed of great energy and so are always in motion. Li claims that post mortem, these elements and their energy persist, such that though the body appears dead in one space, it is alive somewhere else in other dimensions. This is better perceived with the heavenly (third) eye.¹²⁴ Existing physical phenomena are used as proof by Li who uses them to illustrate and support his cosmology. For example, he claims that the hole in the ozone layer over Antarctica was actually opened up by the gods so that the earth's poisoned and polluted air could be ventilated.¹²⁵

The Chinese Government attributes these contentions to Li's superficial and erroneous understanding of science.¹²⁶ Certainly, in the early days of the movement, seventy per cent of the membership of *Falun Gong* in China came from the low income bracket in both urban and rural areas.¹²⁷ In rural areas, most have had only seven years of schooling as compared to eleven years in the cities. These people insufficiently educated to robustly question the claims to science promulgated by Li.¹²⁸ Interestingly, this is in marked contrast to the make-up of Chinese *Falun Gong* practitioners in North America, where a considerable proportion hold a degree and some hold research higher degrees.¹²⁹

¹²¹ Hongzhi, *Falun Buddha Law*, 4–5; Ownby, *Falun Gong and the Future of China*, 93.

¹²² Hongzhi, *Falun Buddha Law*, 44, 51.

¹²³ *Ibid.*, 53–56.

¹²⁴ Ching, "The Falun Gong: Religious and Political Implications."; Chang, *Falun Gong: The End of Days*, 63; Ownby, *Falun Gong and the Future of China*, 122.

¹²⁵ Chang, *Falun Gong: The End of Days*, 64.

¹²⁶ *Ibid.*, 106.

¹²⁷ Leung, "China and Falun Gong," 766.

¹²⁸ Deng and Fang, "The Two Tales of Falungong: Radicalism in a Traditional Form."

¹²⁹ See Susan Palmer and David Ownby, "Field Notes: Falun Dafa Practitioners: A Preliminary Research Report," *Nova Religio* 4, no. 1 (2000); Burgdoff, "How Falun Gong Practice Undermines," 342.

Intriguingly, David Ownby interviewed a number of Chinese adherents of *Falun Gong* now resident in the United States. When questioned about Li's claims in regards to science, they responded by affirming that Li had made science relevant to them by explaining its relationship to existential queries and larger cosmic structures. These people were able to continue their professional activities with a renewed sense of purpose and confidence regarding the ultimate importance of their work and lives.¹³⁰

It is intriguing that even though modern science is seen as the enemy of virtue and is the means by which hostile aliens gain control of humanity via computers, the spread of *Falun Gong* is almost entirely achieved by the use of modern technology.¹³¹ The *New York Times* described China as having 'been caught off guard by a vast, silent, virtually invisible movement (if not exactly a revolution) that came together not on the streets but on the Internet.'¹³² The movement is adept at exploiting modern communications technology, maintaining scores of websites hosting Li's writings and facilitating communication between practitioners. Members also maintain contact with each other by mobile phone, email and the internet.¹³³ Li Hongzhi controls and directs the movement via the telephone, fax and internet.¹³⁴ The group has practitioners in Asia, the USA, UK, Canada, Israel, and Australia all of who are kept informed via the internet.¹³⁵ Similarities have been drawn between Li Hongzhi, directing operations from his base in the United States, and the Ayatullah Khomeini who managed the Iranian Revolution while still in exile in Paris (1964–1978) using modern (at that time) telecommunications.¹³⁶ Similarly, the Church of Scientology maintains contact with its eight million members dispersed across 135 countries using the internet and email.¹³⁷ In a comparable manner, the internet is effectively exploited by *Falun Gong* as a tool for teaching, organising its global membership and for countering the propaganda

¹³⁰ Ownby, *Falun Gong and the Future of China*, 96–97.; Palmer and Ownby, "Falun Dafa Practitioners," 135.

¹³¹ Bell and Boas, "Falun Gong and the Internet," 286.

¹³² Barbara Crossette, "The Internet Changes Dictatorship's Rules," *The New York Times*, 1 August 1999, 41.

¹³³ Chang, *Falun Gong: The End of Days*, 5.

¹³⁴ Schechter, *Falun Gong's Challenge to China: Spiritual Practice or 'Evil Cult'?*, 10; Tong, "An Organizational Analysis of the Falun Gong," 639.

¹³⁵ Chen, "Healing Sects and Anti-Cult Campaigns," 512.

¹³⁶ Leung, "China and Falun Gong," 774.

¹³⁷ *Ibid.*

originated by the Chinese government.¹³⁸ Even though the Chinese government is wary of *Falun Gong*'s use of modern technologies that are difficult to control, it also exploits the affordances of this technology for distributing propaganda and intimidation.¹³⁹

Ownby posits that the reason Li keeps returning to science, is because of the sort of iconic status that science has enjoyed in modern Chinese history. Science was given a special prominence in the social and political discourse of the Chinese Communist Party. In the nineteenth century, science enabled China to fight back against Western political, economic and cultural domination. Paired with twentieth-century democracy, it held the promise of making China a formidable power once more.¹⁴⁰ When democracy lost its shine in the aftermath of two bloody wars and Socialism gained ground, it was in part because the latter was considered to be more scientific.¹⁴¹ Given the privileged position that science has been afforded in China, any large-scale recruitment of Chinese to *Falun Gong* needed to insinuate scientific insight which it repeatedly does.¹⁴²

Conclusion

The real appeal of *Falun Gong* or *Falun Dafa* as it is also known lies in its claims to wed traditional Chinese culture to modern science and beyond, to the science of Li Hongzhi that would supplant the scientific knowledge crudely accrued thus far.¹⁴³ *Falun Gong* did emerge from the larger movement of *qigong* through the 1990s but they differ in important ways. Both have a millenarian structure and the idea of a universal bliss in salvation. *Qigong*'s vision is of a blissful future for humanity but Li Hongzhi tells of an apocalyptic end of the universe with salvation

¹³⁸ Stephen O'Leary, "Falun Gong and the Internet," in *USC Annenberg Online Journalism Review* (Annenberg Center for Education, 2000); Tong, "An Organizational Analysis of the Falun Gong," 639.

¹³⁹ Crossette, "The Internet Changes Dictatorship's Rules," 41; Mark R. Bell and Taylor C. Boas, "Falun Gong and the Internet: Evangelism, Community, and Struggle for Survival," *Nova Religio* 6, no. 2 (2003): 279.

¹⁴⁰ Ownby, "Transnational China Project Commentary: 'Falungong as a Cultural Revitalization Movement: An Historian Looks at Contemporary China.'"

¹⁴¹ Ibid.

¹⁴² ———, *Falun Gong and the Future of China*, 97.

¹⁴³ Ibid., 93.

taking place in another dimension.¹⁴⁴ Body technologies are common to both and yet with *qigong* the path of accomplishment is based on paranormal powers, in *Falun Gong* the way to salvation is via moral and spiritual discipline.¹⁴⁵ Finally, both *qigong* and *Falun Gong* recognise the limits of traditional culture and science; *qigong* strove towards a fusion of the two whereby *Falun Gong* freely uses the terminology of science and tradition, while Li Hongzhi speaks openly of an extra-terrestrial plot lurking behind mainstream science and of ‘demons’ that inhabit decadent religions. *Falun Gong* is offered as a higher law which needs neither science nor tradition yet transcends both.¹⁴⁶

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¹⁴⁴ Palmer, *Qigong Fever*, 239.

¹⁴⁵ Hongzhi, *Falun Gong*, 7.; Palmer, *Qigong Fever*, 239.

¹⁴⁶ Palmer, *Qigong Fever*, 239.

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METAPHORICAL AND METONYMICAL SCIENCE: CONSTRUCTING AUTHORITY IN A JAPANESE NEW RELIGION

CHRISTAL WHELAN

Introduction

There is a commonality to many academic discussions that deal with the relationship between science and religion. Namely, they often take for granted a single historical trajectory, that of Western civilization, and then conflate its applicability to vastly different cultures and peoples. This is often done with an implicit Frazerian assumption of unilineal evolution that progresses in phases from a variety of possible magical modalities through organized religion and finally culminates in our ‘age of science’. Even though the growing literature on “alternate modernities” (Hannerz 1992; Tu 1996; Weller 1999; Eisenstadt 2000; Berger 2002) offers a more realistic interpretive framework of what the contact between diverse cultures actually entails—a selection process rather than whole-scale diffusion and adoption of alien Western cultural forms—scholars outside the social sciences remain less familiar with this approach.

However, contemporary anthropologists (Hannerz 1992) often go to the opposite extreme and overestimate local agency and resistance to alien cultural forms. This, too, tends to misrepresent the situation since agency always functions within a power differential. Disconcerting though it may be, only a limited number of options are usually imaginable from any given social location. The task at hand then is to understand how, why, and under what circumstances peoples in non-Western societies render a Western interpretation of history applicable or relevant to themselves.

Alternate Histories

This study focuses on a Japanese new religion called God Light Association (usually referred to by the acronym GLA). How has this group perceived, confronted, and ultimately absorbed certain elements from a dominant Western historical narrative? According to what criteria

has GLA made its selection, and how did they make the potential conflicts work in their favor to enhance rather than diminish what they value most?

GLA is a religious expression of Japanese civilization at a given moment in time, and represents specifically the country's confrontation with late modernity and globalization. Japanese civilization has its own unique historical trajectory. As the intellectual current of *nihonjinron* or "theories of Japanese uniqueness" indicate, Japanese are both proud and protective of their uniqueness. At times, they may even exaggerate its importance as Dale's critique of the genre has demonstrated (Dale 1986). However, given the historical moments when *nihonjinron* have been strongest (the early Meiji period, the postwar years, and the 1980s,) they can be understood as responses to *gaiatsu* or "foreign pressure" and have served Japan well as a defense mechanism to protect cultural integrity when most endangered.¹

One aspect of Japan's uniqueness that stands in contrast to the "monadic" and monotheistic structure associated with the West is the country's toleration of pluralism and its active fostering of a lavish simultaneity of paradigms or genres. This is equally true in the fields of literature, cuisine, or architecture. I witnessed the same predilection for plurality during my fieldwork on GLA in 2004 during the mandatory interview required of people who wish to join the religion. While filling out the necessary application form, the interviewer asked the applicant what religion she was. When the applicant answered, "I was raised a Catholic and then became a Buddhist but still revere my natal religion", the interviewer asked: "So I should put 'Catholic Buddhist?'" Before waiting for the answer, the interviewer had already begun jotting it down.

This preference for the many is characteristic of Japan's indigenous Shinto tradition that has existed since antiquity on the local level in a plethora of forms. Accordingly, 8,000,000 deities (understood to mean 'uncountable') inhabit the air, forest, mountains, and abide in

¹ In 2003, I witnessed a strong response to globalization in the New Year's Eve sermon of Kiriyaama Seiyu, the founder of Agonshū. He claimed that the problem with the world was its domination by what he called "Christian civilization". He urged members to look at the tangible evidence—the Iraq War, perpetual conflict in the Middle East, and terrorism now unleashed on the whole world. He viewed these as the inevitable outcome of the Christian God—Yaweh—who "is a punishing God." Kiriyaama introduced his intention to end Christian civilization and to enlist his followers to inaugurate a new "Buddhist civilization".

the human heart. In fact, for most of the country's history there was no unitary religious tradition. Buddhism was imported from China in the seventh century via Korea, and found favorable soil in Japan. Not until the nineteenth century did Japan have what Peter Berger has called a "sacred canopy" or a religious monopoly within a given society (Berger 1969). It is hardly an accident that the emergence of Japan's sacred canopy coincided with its encounter with Western powers that forced open the long isolated country for trade and commerce.

The threat of foreign invasion and colonization since the mid-nineteenth century led to many changes. First of all, the country's elite felt degraded for not being modern enough. To be more modern meant emulating the quintessential Other—the West. Modernization, at least initially, was therefore equated with Westernization. Although it has often been argued that during the Meiji period (1868–1912) Western traditions supplanted Japanese ones in many areas—dress, artistic expression, and architecture (Buruma 2003)—this kind of assessment exaggerates the case. Contact with the West has never meant a complete rejection of Japanese culture or historical reinscription although it has entailed significant reconfigurations. After all, the kimono was never abandoned although its role did change, nor were sushi or miso soup ever seriously challenged by meat and potatoes. One now simply finds both on the menu.

During the Meiji period, an artificial state religion was created under the banner of Shinto with the emperor as monarch and chief priest of the new nation. The most effective means of indoctrinating Japanese citizenry into this State Shinto ideology was the Imperial Rescript on Education (1890), a document that was integrated into the educational system along with compulsory attendance at shrines for all students. Schools required the formal reading of the Rescript and treated it with great reverence as "infallible for all ages and true in all places" (Mullins 1993:81). The Japanese educational system became infused with sacred symbols of the imperial family that were then linked to nationalism and its militaristic program.

However, this artificially imposed religion was a symptom of Japan's mimicry of the West; it was an extreme attempt to assimilate its monadic structure. The government that promoted State Shinto actively persecuted or marginalized other Japanese religions: The new religion Ômoto-kyô had its buildings destroyed, and there was a renewed active persecution of Christians during the Meiji period (Whelan 1996). As Japan's first and only "sacred canopy", State Shinto ended only with

the country's devastating defeat in World War II. For the first time in Japan's history, it became an occupied nation from 1945 to 1952 governed under the supreme commander of Allied Powers, General Douglas MacArthur. It also received a new Constitution that separated church and state and rendered the educational system a newly secular enterprise.

Mirror Mirror on the Wall: GLA Confronts America

GLA's founder, Takahashi Shinji (1926–1976), fought in the Pacific War and returned to a nation demoralized and occupied by the victor. Disillusioned, Shinji visited the churches, temples, and shrines of many religions before he founded his own. Unlike many Japanese religious leaders today, Shinji could never afford the luxury of being a full-time religious leader. He worked as the manager of the small-to-medium-sized electronic parts factory that he founded. As a budding religion, GLA began informally in the late 1960s with meetings in Shinji's Tokyo home on Saturday evenings. He was the first religious leader in Japan to give his religion an English name rather than a Japanese one.² This gesture partly signified the cultural and linguistic dominance of the new superpower—the United States—the only foreign power to have occupied Japan in its long history, but it also demonstrated Shinji's recognition that English was the international language of science and commerce. Both science and business have always been integral threads of GLA's own self-presentation. The English name also signified the global aspirations of the new religion.

Shinji's sermons introduced GLA's major themes and initiated its specific rhetorical style. He often expressed a formidable critique of contemporary Japanese society by focusing on its rampant materialism, including also its intellectual and spiritual varieties. For Shinji, Japan's postwar society—a *gakureki shakai* or “credentialing society”—was obsessed with *benkyō* or “study” at the expense of the necessary cultivation of the “heart/mind” (*kokoro*). For moral education was no longer an integral part of the school curriculum as it had been in the Meiji period under State Shinto and up until the end of World War II.

² Worldmate (formerly Cosmomate), a Shinto-derived new religion founded by Fukami Seizan (1951–), and PL Kyōdan (Church of Perfect Liberty), founded by Miki Tokuharu (1871–1938), are the only others with English names.

Indeed, even by the Edo period (1603–1867), Japan had fully absorbed Chinese Neo-Confucian thought with its emphasis on the importance of education and study for the moral education of the individual. This thread had become an inextricable part of the nativist discourse with its revival of interest in Japanese classics and Shinto studies.

From his critique of Japan's affluence based on an intensely educated work force that lacked what he considered a consciously moral dimension, Shinji taught that humans possessed in themselves eternal life as reincarnating souls. He described this in terms of a technological metaphor: the soul as videotape (Whelan 2006:56). He also suggested that it was possible for people to access that hidden dimension in their own hearts/minds.

While GLA professed a largely imaginative return to the fundamentals of three distinct religious traditions—Buddhism, Christianity, and Judaism—the complete authority of the leader, along with the increasingly tight organizational networks and control of information, suggest a covert authoritarian structure. Shinji's tenure as leader lasted only a brief seven years after which his daughter and successor—Keiko—took over the organization. The shift in leadership from father to daughter entailed many changes so that GLA acquired a BC/AD like quality. Keiko's leadership has now spanned three decades during which the initial authoritarian trend has only intensified. GLA is now run like a large corporation with numerous departments and occupies multi-story buildings in every major city in Japan. No overt religious symbols identify the enterprise inside as a religious one.

Born in 1956, Keiko grew up inundated with Western culture, particularly in its American expressions. One of the first things she initiated after assuming leadership of the movement was to flood the monthly publication with Western words in *katakana* (the writing system used for loan words) that were incomprehensible to older members. This tendency eventually had to be curbed lest Keiko alienate a sizable portion of the GLA membership. On the other hand, one of her attractions was, and still remains, precisely the “internationalism” that such a practice evoked.

Keiko never lived in a Japan where the emperor was believed to be a living god. With the exception of Mahatma Gandhi and a few Japanese historical personages, the vast majority of Keiko's cultural heroes or ‘secular saints’ are Westerners—Florence Nightingale, Henri Dunant (founder of the Red Cross), Rachel Carson, Helen Keller, Copernicus, Heinrich Schliemann, Thomas Edison, Oswald Spengler,

Arnold Toynbee, Andrew Carnegie, and Albert Schweitzer. Having studied Western philosophy at Nihon University, Keiko's knowledge of the West appears to be far more comprehensive than her knowledge of Japan. In one of her books, she all but effaces the achievements of Japanese civilization: "Hellenistic civilization, which is one of the important streams for *our* [my italics] civilization today, was composed of Greek culture...these trends continued with the spread of European civilization to other parts of the world to forge what we now know as modern civilization" (Takahashi 1999:14).

European civilization appears to equal modern civilization for Keiko. However, Western cultural inundation and her university major are not the only reasons for GLA's adoption of Western motifs. There is a secondary motivation—an intense competition among Japanese religious groups who vie for recruits. It represents a strategy of one-upmanship in an unending quest for legitimacy in the contemporary context where emblems of the West function as powerful signifiers of modernity. What one group has another will adopt while giving it a new spin. As responses to globalization and critiques and alternatives to established domestic religions, Japanese new religions must somehow establish their authority while responding to changes in the social milieu. Hence, Western motifs have served as major *topoi* for integrating the modern while preserving a Japanese matrix.

This structure is expressed in a need to return to a glorious past and an 'authentic' if not orthodox Japan. In other words, the revival must be accomplished within the framework of modernity. The inclusion of both sacred and secular signifiers of Western civilization within GLA serves this end both symbolically and practically. In terms of the sacred, GLA members often wear a cross although they claim it has no Christian meaning. However, in terms of the secular, the most powerful signifier is Western science with its seemingly (and ironically) 'magical' power to explain the workings of the world. It is frequently invoked as the ultimate arbiter of truth in GLA as in other Japanese new religions. This is partly based on a common misunderstanding of what science actually is and does. Although science can determine what is not true in order to get closer to the truth, it never claims to *know* truth. Indeed, science can never claim to know truth. It merely poses the best humanly possible explanation for what we see in the world around us. In addition, science has great appeal as a congenial analogy for religion. Both religion and science claim that there are 'laws'. A law in science is permanent, that is, true for all times and places on this planet.

The law of gravity works in exactly the same way in Johannesburg as in Katmandu or Tokyo. That status of non-contingency and stability (or universality) is precisely what many people seeking a religion long for. Hence, making the link between religion and science through analogy is a strategy enthusiastically employed by GLA.

To stress GLA's proximity to science, video screenings of Keiko's encounters with a variety of scientists are commonplace at GLA meetings. They dramatize a desired rapprochement between science and religion. A long video clip shown in GLA's Kyoto Terminal³ in April 2004 featured a scientist—Dr. Nozawa Shigeo—a leading practitioner in the field of hydroponics. The video shows the scientist walking with Keiko under his tomato arbor with the plump tomatoes dangling above their heads. He had produced more than 10,000 tomatoes on a stalk with a normal carrying capacity of just 30. Keiko is praising him for having explored the universal life force hidden in plants; all the fruit before them comes from but one small seed. He responds by saying how happy Keiko's recent lecture had made him. This sunny encounter under a tomato arbor is a visual suggestion that science and religion are actually one complementary enterprise.

In the same vein, Western people are also important tropes in legitimizing GLA as a religion because they come from the civilization that spawned the science paradigm so important as a signifier of modernity. They are filmed or photographed whenever possible and appear in GLA's videos and monthly magazines for the aura of internationalism and the authority and credibility their mere presence lends to the religious enterprise. During the course of my research, I watched a video in which two colleagues of mine—German researchers of religion—appeared. Filmed in the lobby at a GLA meeting in Tokyo, they were shown in front of a table of GLA books and videos in animated conversation in a way to suggest the dawning of a global audience.

GLA emerged at the cusp of Japan's peak postwar economic growth and in the midst of an unprecedented period of affluence and hedonism. In this secular climate, the role of a new religious leader required legitimization not only through religious talent but also through secular qualifications. According to such criteria, many leaders of recent new

³ "Terminal" is the word used for the GLA's main Kyoto office located behind the Kyoto train station.

religions in Japan are either successful authors or aspiring ones since they must make explicit their function in the wider society through bestsellers or at least big-sellers where they can also profess their therapeutic potency and promise to others of productivity enhancement.⁴ Shinji's books were big if not bestsellers and his works are still widely known. Keiko's books are a key item in GLA's missionary work: A member gives a non-member a book as a gift and then follows up with a phone call asking questions about how the recipient liked the book.

Camouflage or the Secular Front

GLA cultivates the secular appearance of a corporation whose structure represents the central economic institution of modern capitalist society. Indeed, as mentioned above, from the outside GLA appears to be a secular organization. It holds its costly seminars in hotel ballrooms and convention centers. These events are for personal development—a way to discover what hinders people from fulfilling their potential. As expensive as any professional development seminar, participants dress in business suits and attend poster sessions that focus on members' workplaces. There are many forms to fill out, and computer areas for personality testing. These are very important aspects that closely link GLA to the corporate affiliations of other new religions that seek to offer therapy and success. This format is popular precisely because it exploits the aura of efficiency associated with business meetings and combines it with the aura of the academic seminar.

In this secular setting its leader and followers transmit religious messages as the conversion narrative of one of its members whom I will call Yasuhirô confirms. Invited to join a business-owners' study group sponsored by GLA (an organization he had never heard of before), this ambitious businessman (who was responsible for introducing Pachinko or pinball machines to Japan from Korea) grew increasingly perplexed by the lack of discussion about business at these *business* meetings. By the time he learned that GLA was a religion, he had already formed bonds with others in the group and was disinclined to quit the organization. As a retiree, he now works as a full-time volunteer for GLA.

⁴ Agonshû's leader, Kiriya Sei'yû, is a best-selling author as is Kôfuku no Kagaku's leader Okawa Ryûhō.

One of the reasons for GLA's camouflage is not only the greater prestige of science and business enterprises in contemporary Japan (or in the contemporary world generally), but also the enduring stigma of belonging to a new religion in Japan. Keiko's conversation on stage with a Self Defense Forces (SDF) officer—Mr. Umehara—dramatizes this ongoing problem.⁵ The theme of Mr. Umehara's narrative was fear. He had been living in fear for a long time lest someone at work find out that he belonged to a new religion. He told the audience: "I realized I had developed a certain phrase of habit, 'What will they say if I say I am involved in such an organization [a new religion]?' I used to try to speak to the person [his superior] about the seminar, but I withdrew after he called a meeting and said, 'There are people here who are involved in missionary work.'"

Mr. Umehara feared that he would be transferred to a distant office for his religious involvement. He had "written a script" in his head based on this fear. "What would happen if he [Umehara's boss] said: 'Are you involved in a religion?'" Finally, Mr. Umehara decided to face his fear directly. Keiko asked him: "What kind of feeling was this? You are involved in this kind of organization—religion? You imagined this over and over." Mr. Umehara said: "Even if they say it, well, it's the truth. I am involved. Then I felt relieved. Yes, I am allowed to be involved in such noble work." Mr. Umehara and Keiko's encounter ended with his sobbing on stage interrupted only by a few brief glosolalic utterances more typical of the emotional expressivity of GLA members during Shinji's era.

Metonym and Metaphor

Metonym is a figure of speech in which a part of something is chosen to represent the whole. To be effective, the part must be characteristic of the whole and easy to recognize. An understanding of the part-whole relationship must also be instantaneous otherwise the part will simply appear as a meaningless fragment. When skillfully employed, the part or attribute of an object immediately conjures up the whole

⁵ The typical format at GLA meetings is Keiko's dialogue on stage with a member whose problem she helped to solve. They relive off stage the problem in conversation. Viewers often identify strongly with the problems and experience catharsis as evidenced by the number of people in the audience who cry during these sessions.

object much as in a cognitive scheme without ever having to name it explicitly.⁶

In view of this, a school, a research institute, or a university can all be used metonymically to stand for the whole secular enterprise of knowledge or science in contemporary society. In semiotic terms, the signifier is the university or school and the signified is science. GLA is a master of the metonym. By not invoking science directly by name, the use of metonym preserves decorum and modesty in a society where these qualities are highly valued.⁷

GLA also uses metaphor. The master metaphor of GLA is that it is a school or even a whole alternative educational system re-infused with the sacred. Towards this end, GLA has established five ‘schools’: The *Hosshin Daigaku* (University of Full Heart/Mind), *Furonchia Kareji* (Frontier College), the *Seinen Juku* (Youth Academy), the *Kokoro no Kango Gakkô* (Mindful Caregiver’s School), and the Kakehashi Seminar (Bridge Seminar).

The first, the Hosshin University, holds one large meeting a year. Its seminars are for those sixty-years-old and over. Although it is fairly common practice in Japan for religions with economical means to establish universities or primary and secondary schools (Sôka Gakkai, Shingon, True Pure Land, and Shinto all have universities, and Kôfuku no Kagaku will open its first in 2013),⁸ but GLA’s university is not an actual place. It is a metaphor. The use of the word ‘university’ is evocative. It is meant to suggest that a person’s senior years are the time for development; seniors should study life rather than succumb to the degraded social expectation to retire from it. People of this age group are at the height of their powers with skills, experience, and knowledge accumulated over a lifetime.

⁶ See Naomi Quinn’s work (Quinn 2005) and (Strauss and Quinn 1997) on cognitive schemes and their analysis.

⁷ This does not imply that direct invocations of science are never made. Other Japanese New Religions do invoke science directly such as Okawa Ryûhō who named his religion Kôfuku no Kagaku (now translated as “Happy Science”, but formerly translated as the “Institute for the Research in Human Happiness”), or the late Chino Yuko who reinvented and renamed her religion “Chino Shôhō” (Chino True Word) as “Pana Wave Laboratory”.

⁸ The prospective opening date for the university—Kôfuku no Kagaku Daigaku (Happy Science University) is 2013, but Kôfuku no Kagaku Gakuen (Happy Science Academy), a middle-school and high-school will open in 2010; they are accepting their first students this spring (personal communication, June 24, 2008).

The metaphor has an additional appeal for this particular age group. According to GLA officials, many of the people of this generation may have wanted to study at a university but never had the opportunity because of the disruption caused by the Pacific War and the subsequent economic constraints that rendered that dream implausible. Although these ‘university students’ enter this ‘institution’ together, each one will graduate separately, for here graduation stands as a euphemism for death.

Therefore, the study and preparation in this university are designed to prepare each soul to complete its task on earth so that it will not have to return again. The Hosshin University meets a total of three times a year with the stated aim of helping its ‘students of life’ to “deepen the self” (*jiko no shinka*) and to “establish harmony in the world” (*sekai no chōwa*). This sector also runs the “Hosshin Caravan”, a video van that travels to the homes of bed-ridden ‘university students’. The videos they watch are not feature entertainment films but those of Keiko’s lectures.

At the Hosshin University’s seventeenth matriculation ceremony held in Osaka in April 2004, new students dressed in traditional hakama or kimono. The keynote address given by a Tokyo official stressed that there were many universities in the world but that this one was definitely one of a kind, having as its sole aim *jūnsei no tamashii o satoru daigaku* or “a university for awakening the life of the soul.” His speech was followed by a roll-call.

The visiting official reminded the seniors that from ages 60 to 70 there is a lot of work to do in the world, and from 70 to 80 there is still a great deal that needs to be done. The 71 newly enrolled ‘students’ were asked to come forward to receive their black notebooks. One man dressed in a traditional indigo-dyed kimono returned to his seat with his new notebook and hugged it tightly over his chest. His back and shoulders shook from silent weeping. In the front of the room, two young women wearing white gloves took away the raised lacquered trays with the remaining black notebooks, and a reception followed.

The second “school”, the Frontier College (almost always written in English) was designed for men from ages 30 to 59, but enrollment was later opened to working-women as well since this college focuses on career issues, and problems in the workplace, especially troublesome human relations there. Some 1,495 people participated in the March 2004 seminar with a handful coming from the U.S. and the Philippines.

It was at this seminar that Mr. Umehara told his narrative of fear of employment demotion if he were to reveal his involvement in a new religion.

The third group, the *Seinen Juku* (Youth Academy), is a seminar for males and females from middle school to age thirty-five. This group gathers more often than any of the other groups—four times a year. However, that does not imply any great fervor among GLA youth but seems to be a strategy to increase the chances that everyone will be able to attend at least one meeting. Among the members in this category, there are so-called “senior youths”—those from age thirty to thirty-five. In addition, those thirty and over, if they are also working people, qualify as Frontier College participants as well. Therefore, young people who can afford it attend both seminars. The alleged purpose of the youth seminar is to *mirai o tuskuru* or “construct the future”, and *jônetsu o kakeru* or “engender enthusiasm”.

A female member of the Youth Academy, who worked with mentally retarded people by day and participated in GLA’s ongoing Genesis Project (a weekly study group in all GLA chapters across the country) in the evening, spoke voluntarily in a private conversation about education in Japan. Born and raised in Kyoto, she had never left Japan and confided that people in her generation were raised to think that studying hard would lead to happiness.⁹ Therefore, they had studied hard even though many had little aptitude and in fact did not succeed. But *benkyô* or “study” was a pervasive value in Japan. Finally, people in her generation had realized that studying did not lead to happiness even for those who did succeed. “That was the lesson of Aum”¹⁰ she said.

⁹ The informant discussed also the current problem of *hikikomori*, a pathology that affects people of her generation. *Hikikomori* is a culture-bound illness that currently afflicts approximately one million Japanese. The typical *hikikomori* is a young male, lethargic and uncommunicative, who has resorted to shutting himself up in his bedroom for a period of years. The precursor to the state is often “school refusal.” Many causes have been attributed—TV, computers, video games, and school bullying. It appears to be a mute rebellion in response to a structural change in society without the necessary tools to inhabit an increasingly globalized Japan. *Hikikomori* is the shadow image of the industrious salaryman.

¹⁰ She is referring to the Aum Affair, when the core members of the New Religion, Aum Shinrikyô released deadly sarin gas on the Tokyo subway in March 2005. What appeared to shock Japanese people beyond the deed itself was that the group’s core members were all graduates of Japan’s most elite universities.

The fourth group, the *Kokoro no Kango Gakkô* (Mindful Caregiver's School) is a seminar for women ages 30 to 59—mothers, daughters, and wives—who are all defined as “caregivers.” Some women who attend the Frontier College also attend this seminar as it is yet another aspect of their role as women. In 2004, a total of 1,600 women participated in that seminar. Among them were 24 foreigners from the U.S., Korea, and Brazil.

The fifth subgroup, the *Kakehashi* Seminar (Bridge Seminar), is for children or what GLA calls its *charenjingu einjerusu* “challenging angels”—boys and girls from third grade to juniors in high school. Formerly called “Bambi's School”, its new name *kakehashi* or “bridge” is supposed to evoke images of bridges between the child and others, the child and his own life, the child and nature, and the child and the universe. In addition, the bridge is meant to connect the child in the present with the past and future.

At the August of 2004 seminar, 620 people from all over Japan registered with twenty children having come from abroad. Two of them were sisters born in Germany but of Japanese heritage who spoke scant Japanese. The children numbered 249, and their parents numbered 371 (104 fathers and 267 mothers). However, the actual number in attendance was 6,004. The size of the group attests to the seriousness with which GLA members take their service requirement. Many from the youth group in particular had assumed mentoring roles in relation to the children. Others came to do service in the kitchen, work on the media crews, or in other logistical groups such as umbrella distributors in the event of a sudden downpour.

Each year the Kakehashi Seminar culminates in a theatrical performance. The Youth Academy students serve as the actors and actresses and the Challenging Angels are the target audience. In 2004, they performed *The Wizard of Oz*, a significant departure from the usual historical topics chosen such as the Meiji Restoration or the life of Mahatma Gandhi and the Indian Independence Movement. Having mentioned to an official that Dorothy's “ruby slippers” were actually kept in the Smithsonian Institution in Washington, D.C., he announced that to the audience on the last day of the seminar, evidently enhancing the prestige of the production.

Another dimension of GLA's focus on ‘education’ is the set of seminars called the TL *Ningen Kôza* (Total Human Life Lectures). Commencing in 1992, these seminars have been quite popular among GLA's professionals and the organization claims that some 350,000

members have participated in the series. Such a large number suggests repeaters rather than first-time participants. The TL seminars focus on seven professional areas with study groups that meet at different times during the year. The professional categories are: business, medicine, education, science, law, art, and drama. These seminars attract many through claims that professionals who have participated have “challenged themselves” and developed new ways of doing management, medicine, or education based on TL Human Principles.

The basis of these Principles is that people in the present age have lost sight of the bonds that should link them to other human beings, to society, to nature, and to their soul’s deepest aspiration. These bonds must be re-incorporated into the way they behave in their professions. A potential irony here is that involvement in GLA with its intense demand for commitment and participation will also attenuate some of those bonds since most members’ elective social lives revolve exclusively around other members. When members cultivate relationships with non-members it is less out of respect for them and their elective choices than as potential converts to GLA.

Since only members can attend these seminars, some people in GLA have confided that the only reason that they joined GLA in the first place was in order to attend these professional development seminars. Once inside the organization, they felt compelled to a more intense involvement. For this reason, the seminars operate as a functional equivalent of pilgrimage sites in other religions—open to “pilgrims” loosely constructed, but tending to serve as an entrance point for deeper involvement. In fact, some GLA members said that from a position of no religious belief they had become believers in *shimi* or “divine truth.”

At the TL meetings one often finds the most intense commingling of science and religion as the following demonstrates. One man spoke of his “miracle” the previous year concerning his mother and daughter. His mother was seriously ill. She had a tumor in her neck. The audience was shown a video of the mother and granddaughter. In the video Keiko put her hand on the woman’s stomach while placing one of the woman’s hands over her own [Keiko’s] heart. The narrator said that Sensei (or “Teacher”, the title used most often when referring to Keiko) gave this woman her life back so that she could restore her relationship with her granddaughter.

At the end of the video Dr. Hashimoto, a TL physician, was shown walking with the now cured patient. Then he appeared in the auditorium in person walking on stage to offer his scientific testimony. He

reported that the liver cancer on the left and the main artery and sub-artery were clogged with cancer. His patient had developed abdominal dropsy. After receiving “light” from Sensei her tumor had disappeared. He then showed us a numerical chart to support his conclusions and claimed that three days after the light from Sensei the woman did not require her cancer medicine anymore. “I have observed her energy rotating within,” he said. “I feel I received light in my life by witnessing this. I realized I had also fallen into nihilism” [prior to witnessing this event]. Following in the wake of these scientific pronouncements, GLA’s manager came on stage with a triumphant expression on his face and announced to his audience: “We have seen and heard so many miracles today.”

Structural Dynamics

As discussed above, GLA has five age and/or occupational cohorts—its ‘schools’—for whom one or more specially tailored annual seminars exist. In this way, GLA targets its lectures and activities for very specific audiences. Participation for each seminar costs from 45,000–56,000-yen (\$450.00–\$560.00). While these fees may be considerable investments for members, officials present coming up with the sum in order to participate as a worthy challenge.

In a spirit of conspicuous consumption, members may also boast about how many seminars they have been able to attend. But for some, the fees actually act as a deterrent to full participation in the organization. This situation of being ‘in’ yet excluded leaves many members with a sense of continual frustration that subtly suggests to them that they will never be good enough. One member lamented to me that she wanted to attend some of the seminars that season, but had already attended the Youth Seminar and could not afford to attend others. Despite this situation, it does not seem to hamper the organization since this deficiency seems to motivate people to work even harder.

Thus, being a GLA member grants a person only the possibility of attending the seminars, but being an active participant requires a substantial financial investment that includes domestic transportation expenses often across the whole country and fees for staying in expensive hotels where the events are held. GLA seems to allow for various intensities of participation from simply attending an occasional lecture

by Keiko and receiving the monthly magazine to near full-time volunteerism. For this reason, one can see an occasional Buddhist priest or nun in uniform at the larger lectures.

Joining GLA is as simple as signing up and making a down payment. The neophyte is not *yet* expected to believe anything. One has joined in order to *manabi* or “study” with others. The aura of secular freedom implied by an educational enterprise is expressed in the lack of any overt religious rituals that might scare off many Japanese who fear “cults” and “religious scams.” But GLA did not always portray itself as a bureaucratized alternative educational organization. It originated as a response to an impinging globalization. It also represented a reaction against the irrelevant theodicy of the Buddhist establishment. For the latter legitimized suffering through advocating physical and emotional asceticism, but was unable to address the deeper problems of meaning and selfhood that increasingly preoccupied Japanese people in a more intensely globalized world. For the great mass of people, established Buddhism was perceived as a highly bureaucratized religion often parodied as living off a lucrative funeral industry. The term most often used to describe this aspect of the Buddhist establishment was *nama kusai* or “smelling of flesh.”

For religions such as GLA, therapy is a far more immediate need in contemporary Japan than saving the world. That self-transformation takes priority is evident in GLA’s motto: “Change yourself and change the world.” Given the uncertainty of the direction of change in a globalized world, one measure of success of new religions rests in their capacity to be fluid and adaptable. The most sweeping change in GLA itself occurred when leadership moved from Shinji to Keiko. From a critique of the Japanese educational system, GLA itself became a school, a university, an entire alternative educational system attempting to re-infuse secular education not only with a religious perspective but also give it a living deity as leader.

The use of an extended educational metaphor—Hosshin University, Frontier College, Mindful Caregivers’ School, Youth Academy, the Bridge Seminar and the TL Seminars—permeates the organization of GLA. This metaphor provides the illusion that everyone who participates is legitimately occupied with schoolwork. Above all, they are certainly not experimenting with a new religion. In an educationally obsessed society, the appeal of this academic aura within a religious organization should not be underestimated. Two things are occurring here. Japan’s obsession with education (drawing from a deeply rooted

Confucian ethic) provides the metaphor and the metonym ties educational institutions to the government and state that promote a scientific and secular worldview associated with the West. The linkage is enhanced and reinforced by ample use of the English language and by including photos or video clips of Westerners in GLA media products.

GLA is also presenting an alternative educational system in order to satisfy a tangible longing for an education from which many have been excluded in the intensely structured and stratified exam system that tracks individuals from kindergarten age and determines the course of their lives and careers. From this stifling system GLA has created another system in a kind of parallel universe that perhaps can only exist in contemporary Japan within a religious framework.

Indeed, the success of an organization like GLA presupposes just this kind of educational hierarchy and exclusion. Very few members have the liberal educational background that would allow them to see how much of what is taught as *shinri* or “divine truth” is derivative and at times simple plagiarism. In its systems and techniques, GLA exploits the lack of formal knowledge in the Japanese populace, particularly a basic knowledge of psychology in its Western form, but also in its Japanese varieties. After all, few members with whom I spoke were familiar with Naikan either, a form of Japanese indigenous psychotherapy (itself a secularized form of meditation derived from a branch of True Pure Land Buddhism) (Reynolds 1980, 1983). Nevertheless, they were employing its technique.

Much of the content of what GLA calls *shinri* consists of basic principles of Western psychology and sociology. The personality types are based on a combination of Jungian types and the Four Humors formulated in classical Greece and revived during the Western Renaissance. However, certainly no religion, least of all a syncretistic one, is required to cite its sources, yet the educational aura generates certain kinds of ethical expectations and trust based on the extraordinary status of education in the larger society permeated with Confucian value orientation. These expectations cannot really be met when everything is presented as the direct revelation of Takahashi Keiko.

Conclusions

Sociologist of religion, Shimazono Susumu, who has studied new religions in both Japan and the West, has argued that New Age religion expresses a structural change in contemporary culture itself in which

education and instruction are no longer reserved for elites, but now open to the masses. He views this as a completion of a turn away from pure book knowledge and towards a new paradigm that prefers experiential knowledge. Within this new paradigm, education now requires engagement due to the increasing influence of electric media—cinema, television, pop music, and the Internet—on the modes of human perception (Shimazono 1991). This, in turn, has formed a new standard for the commercialization of knowledge in which education is now largely perceived as a matter of selection and taste—a commodity that must compete for a place in the marketplace.

Two distinct processes seem to be at work here. On the one hand, marketers of religion such as GLA are adopting education for its prestige value in order to add value to their spiritual products. In so doing, they generate educational simulacra or popularizations of education. Other new religions such as Christian Science have employed science for similar purposes. Through the metaphor of education, GLA evokes government structures that buttress science. In this way, science is subtly expressed through the filter of metonym.

On the other hand, educational institutions in the society at large are not unaffected by these popularizations and indeed have to compete with them since their own value has been relativized by an open knowledge market. This generates critiques of religions such as GLA for being purveyors of superficial rather than substantial knowledge. A symptom of this situation may be found in the pressure in contemporary academic institutions for professors to ‘market’ their courses through trendy descriptions. Faced with a system of student evaluations and the reality of canceled courses, they too must become popularizers. Purveyors of old knowledge are swept into the current in which they are asked to entertain rather than teach. Therefore, GLA may be seen to mirror a much larger social process—a paradigm shift in what constitutes knowledge itself and a struggle to re-animate secular education with religious values that are Japanese in orientation.

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“WHEN SCIENCE FICTION BECOMES SCIENCE FACT”: THE ROLE OF SCIENCE, SCIENCE FICTION, AND TECHNOLOGY IN AUM SHINRIKYO

MARTIN REPP

*Introduction*¹

In order to understand the subject of this study better, a brief review of its historical background may be helpful. With the modernization of Japan since the Meiji Period 1868–1912), new Western sciences and technology were introduced on a grand scale.² With the heliocentric cosmology and Darwin’s Evolution theory, for example, these kinds of natural sciences challenged the traditional worldviews and practices of Japanese religions. As in Europe and elsewhere, modern sciences caused a split, or contradiction, between traditional faith and knowledge in Japan. Hence, after having learned this kind of thinking from their Western teachers, Japanese natural scientists began to emphasize the incompatibility of science and religion, as well as to criticize religion in the name of rational sciences. (Cf. Stalker 2008: 10 f). Moreover, an important part of the Meiji government policy was to eradicate “superstition” in religious practices in order to transform Japan into a modern nation. (Ketelaar 1990: 51) Following this academic and political criticism of religion, the notion of the incompatibility of science and religion was introduced into the curricula of Japanese schools, and thus helped to form the thinking of Japanese people until today. However, since the Meiji Period, a number of individuals and groups became concerned with the problem of the incompatibility of science and religion, and attempted to respond to this challenge in different ways.

¹ Japanese words in this article are not romanized with macrons on vowels for technical reasons. Japanese names are written according to the Asian order (first family name, then personal name) except of quotations from English publications. If not indicated otherwise, Japanese texts are translated by the author.

² Between ca.1630 and 1880, European sciences had been introduced via the Dutch trade, but this reception was controlled by the government. Access to “Dutch learning” (*rangaku*) was limited only to few selected scholars and did not play a significant role in public discourse. For the development of sciences and related foreign influences in pre-modern Japan, see Sugimoto and Swain 1989 and Nakayama 1983.

First, Buddhist scholars began to deal with the dichotomization of knowledge and faith as early as the Meiji period. This kind of response consisted mostly in theoretical attempts to explain that the respective religious teachings, such as traditional Buddhist cosmology, conformed perfectly with modern sciences. This kind of Buddhist discourse continued in one way or another until the present day.³

Following the Meiji Period, a second type of response emerged when some intellectuals tried to harmonize the rational and irrational by investigating occult phenomena via scientific means. For example, a group of intellectuals around Motora Yujiro, the first professor of psychology at Tokyo Imperial University, experimented with telepathy, telekinesis, channeling, etc. in order to understand such phenomena in a rational way.⁴ These and other intellectuals⁵ began an alternative tradition in Japan to deal experimentally with the problem of science and religion, especially spiritualism. This practical approach is located somewhere on the borderline between the two, whereby the tendency towards the occult side of religion frequently prevails.⁶ Scientists would call such an approach “pseudo-scientific.”⁷

This evaluation may also be applied to a third type of response which was developed by some Japanese new religions since the middle of the 20th century, especially by those belonging to the Mahikari group.⁸ They tried to harmonize religion and science through experiments and attempts at scientific explanations, for example, of healing (*jorei*, purification of the spirit) through “divine light” energy (*mahikari*).

³ See, for example, Nishitani (1982: 46 ff) and Takeda 2005.

⁴ Nozaki 2009: 168. These practices were popular in 19th century England and America, and had been introduced to Japan also in the Meiji Period.

⁵ See Picone 1998: 222–225.

⁶ Today, such an approach can be observed in Japan, for example, in popular TV programs dealing with the spirits of dead people by employing special cameras.

⁷ For this reason, a student of Motora lost his job at Tokyo Imperial University. (Nozaki 2009: 168)

⁸ These are Sekai Kyusei-kyo (World Messianity, also called MOA), Sekai Mahikari Bunmei Kyodan, and Sukyo Mahikari. The founder of Sekai Kyusei-kyo, Okada Mokichi, stated: “Johrei is the most advanced scientific method to date: it is no exaggeration to say that it will become the basis for medicine in the twenty-first century.” (Sekai Kyusei Kyo International Headquarters, no date; cf. Okada 1984: 105–111) For Sukyo Mahikari, see for example Tebecis (1982), who is the head of the Australian branch, and has a Ph.D. in neurophysiology. He writes in his book about the “ideal union of religion and science” and the search “from human science to divine science.” (Tebeis 1982: 1 ff and 287 ff) See also the “Foreword” by the biochemist Z. Yoshizawa.

These types of approach to the problem of religion and Western style sciences in Japan continued in one way or another until the present. They constitute the basic context for this study of Aum Shinrikyo, which belongs to the youngest generation of Japan's new religions.⁹

Aum Shinrikyo

Aum Shinrikyo (henceforth abbreviated as Aum) is a new religious group in Japan, which became worldwide known because its leaders were accused and convicted for the poison gas attack in Tokyo's subways March 20, 1995. Aum members had also committed a number of other crimes, such as abduction and murder. Hence, media and academic narratives of these incidents have drawn a pretty negative picture of this group.¹⁰ However, one should avoid projecting later developments of this group anachronistically onto its beginnings, such as claiming that the "nature" of this group was violent from its beginning.

Aum was founded in 1984 as a small group of young Yoga practitioners gathering around a man called Matsumoto Chizuo who later took the name Asahara Shoko.¹¹ Over the years, the group steadily grew and further developed its religious orientation. In addition to Yoga, Theravada Buddhism and Mahayana Buddhism, Tibetan Esoteric Buddhism, the apocalyptic thinking of Nostradamus, et cetera, were successively incorporated into its teachings and practices. Besides its lay membership, Aum introduced a celibate and communal order of monks and nuns that became the primary reason for the initial conflicts with various groups in the larger society. In 1989 it received official

⁹ For the first generation of Japanese new religions (established before or during the Meiji Period), such as Oomoto-kyo and Tenrikyo, the problem of the tension between religion and science did not seem to play a significant role. (For Oomoto-kyo, see Stalker 2008: 10 f, 106 f, 159) Among those of the second generation, the afore mentioned Sekai Kyusei-kyo (MOA), which split from Oomoto-kyo, took up this subject apparently because of its healing and purification practice (*jorei*) posed the problem of the compatibility with modern medicine. This becomes clear in comparison with another group of the second generation of new religions, the lay Buddhist groups Rissho Kosei-kai and Soka Gakkai. Since their teaching is based on the Lotus Sutra and does not include any practice which collides with modern worldviews, no major conflict with sciences arose. Therefore, attempts to harmonize their modern Buddhism with sciences is limited to a theoretical discourse (like that of traditional Buddhism since the Meiji Period).

¹⁰ For the latter see, for example, Shimazono 1995 and Reader 2000.

¹¹ For a more detailed account of Aum and the Aum incident, see Repp 2005.

legal recognition as a “religious body” which grants tax breaks and other advantages. Aum continued to establish centers at various places in Japan, as well as in New York and Russia. It also founded business enterprises for computer sales, cheap restaurants, acquisitions of large quantities of chemicals and other purposes. By 1995, the group had about 1,000 celibate members and 10,000 lay followers in Japan, and around 30,000 believers in Russia. Immediately after the poison gas attack on Tokyo’s subways in March 1995, most of its leaders and a number of followers were put on trial for this and other crimes.

In the following study I will investigate the introduction of science and technology in Aum Shinrikyo, its attempts to theoretically harmonize science with religion, technical applications in religious practice, the religious purpose of science and technology, the role of science fiction, and the costs and consequences of using science and technology.

The Introduction of Science and Technology

Mass media frequently observed with surprise how many “bright young people,” especially from the fields of science and technology, had entered Aum. Apparently, for the Japanese who were taught the incompatibility of religion and science, such a membership did not fit into the traditional image of religion. As mentioned before, Aum started out as a group of young Yoga practitioners who during the subsequent developments of doctrine and practice aimed at attaining religious liberation (*gedatsu*) or awakening (*satori*). For achieving such goal, acquiring “supranatural power” (*chonoryoku*) through meditation and ascetic practices was considered necessary. Asahara first became known in Japan’s New Age scene 1985 through the journal *Twilight Zone* when it published a picture showing him levitating during Yoga practice. This picture is printed also on the cover of one of his early books which bears the characteristic title *Chonoryoku himitsu no kaihatsu-ho* (1986), or “Secret method to develop supranatural powers.” *Chonoryoku* is here explained as a kind of power which transcends the bounds of normal humanity and which “science cannot explain.” (Asahara 1991a: 2) In this early publication, we find the popular notion of an incompatibility, or contradiction, between religion and science, whereby religion is seen as something superior which transcends sciences.

Some time later, however, we observe that Aum took a twist in its development when it began to affirm and to embrace sciences, as

well as modern technology. In Aum publications, pictures of the followers practicing peacefully Yoga in natural environs were gradually replaced by depictions of members wearing headgear with electrodes to stimulate the brain, or others being connected with medico-technical instruments during intensive meditation practice in order to measure its impact scientifically. How did this change from natural forms of practice to a “scientific” approach to meditation occur? According to personal information from a former Aum member of the early period, it was Murai Hideo (ca. 1959–1995) who triggered this scientific and technical turn in the group’s development. Murai had studied at the Physics Department of Osaka University, and in graduate school he specialized on astrophysics. (The Japan Times 1995: 13) Then he worked at the research facilities of Kobe Steel Ltd. During this time he read Asahara’s books, and when he participated in an Aum meditation course, he said his experience felt as if he had transcended time and space like the seagull Jonathan Livingston in Richard Bach’s famous novel. (Ibid.) In 1987, at the age of 28 years, he quit his job, became an Aum member and soon took the monastic vow. (Aum Press 1995: cover text).

Attempts to Harmonize Science and Religion in Theory

In the same year Murai entered the group, Aum published the first article of a series titled “Treat the truth scientifically” (*Shinri o kagaku suru*) in its monthly journal *Mahayana* (No. 4: 70–71; October 1987). The title of the first article was “The process of the creation of the universe” (*Uchu sosei no puroseshu*). The series was continued in this journal until the November 1988 issue. The articles were written by an Aum member with the pen name “Oumushutain.” “Oumushutain” is the Japanese pronunciation of “Aum” and “stein” which derives from the combination of “Aum” + “(Ein-)stein.” (Personal information from an Aum member) The author’s real name was Murai Hideo. (Cf. Aum Press 1995: 188–255) This pen name expresses Murai’s self consciousness; after all, he was said to have had an IQ of nearly 200, that is more than that of Einstein.¹²

¹² See the articles “Target Kobe” and “The story’s tale” in *JT Weekly* July 1, 1995; for other important articles on Murai see also *JT Weekly* April 29, 1995, and May 27, 1995.

In the first article of the series "Treat the truth scientifically," the author claims that Aum Shinrikyo with its "Yoga theory" can actually prove the astrophysical "Big Bang theory" (*Mahayana* No. 4: 70), at this time the prevalent hypothesis for explaining the genesis of the universe through high energy light. The author's claim is based on what he considers similarities between the Yoga and the scientific models of the universe. Whereas Aum's "Yoga theory" posits a three-layered model of the universe consisting of the "phenomenal world," the "astral world" and the "causal world,"¹³ the Big Bang theory teaches a threefold model of the "material universe," the "universe of highly energetic particles," and the "universe of light." (*Mahayana* Nr. 5: 97) Both models are depicted in the form of a pyramid, with the respective first dimension placed on the bottom, the second in the middle layer, and the third on the top. The author believes that the universe contains "divine elements" which form the "information of the whole universe"; in other words, it contains a "huge databank." And since modern science and technology treat light as information, the author concludes that the scientific theory of the genesis of the universe and the Yoga theory not only match each other, but are essentially "one and the same" (*itchi suru*).¹⁴

Another Aum member, Otaki Toshinari, later authored a series of articles called "Thorough academic verification: True religion is science!" in Aum's journal *Vajrayana Sacca* (No. 1 August 1994).¹⁵ This author also claims that the methods of Aum Shinrikyo ("Aum teaching of truth") and those applied by the sciences conform with each other. He sees science as characterized by its logical character (*ronri-sei*) (sc. through the three aspects of cause, condition and result of a phenomenon), its objectivity (*kyakkan-sei*), and in the fact that it provides

¹³ This model seems to combine the Buddhist cosmology of the phenomena and the dimension of karmic causes with the concept of an astral world which, according to information by an Aum member, originally derives from Theosophy. Theosophy was introduced to Japan in the late 19th century. The idea of the astral world plays also a role in other new religions in Japan, such as Sukyo Mahikari. (Cf. Davis 1980: 34 f, 65)

¹⁴ *Mahayana* No. 4: 71. The problem with Murai's attempted "proof" is that analogies or similarities between two heterogeneous matters do not necessarily prove that they are compatible with each other, or are even the same.

¹⁵ *Vajrayana Sacca* No. 1: 122–125. This journal succeeded *Mahayana*. The new title reflects Aum's doctrinal shift from Mahayana Buddhism to Tantric or Esoteric Buddhism. The series on science was published in this journal until No. 12 (July 1995), with the exception of No. 9 in April 1995, the month after the poison gas attack in Tokyo and the subsequent police raids of the Aum facilities.

factual proof (*jissho-sei*). By the latter, he signifies the scientific method of theory (hypothesis), test and verification or proof. These three steps, he says, are shared by Aum's own methodology. On the other hand, Otaki proceeds to argue that natural sciences are contained in the category of the Buddhist or Yoga theory, are used for testing and measuring the results of meditation, and are practically applied as tools for salvation. (*Vajrayana Sacca* No. 1: 123) Therefore, he concludes, the methods of Aum and those of natural sciences agree with each other. (*Vajrayana Sacca* No. 1: 125) Hence, he calls such a union of religion and science a "true religion" (*honmono no shukyo*). (*Vajrayana Sacca* No. 3: 155).

One can imagine how such harmonization attempts may affect young people who had been educated in school and at the university by the theory of the complete difference, or even the contradiction, between religion and science. This is also true for intellectuals of Murai's type, who were suffering because of the split between professional career in the field of sciences and personal belief. Otaki's attempt to unify religion and sciences is particularly directed against "materialism" (*Vajrayana Sacca* No. 6: 162 and No. 12: 128–137) which does not acknowledge the dimensions religious people believe in.

Similarly, in a discussion following a talk at Shinshu University in November 1991,¹⁶ Asahara criticized mainline science for separating itself from what he calls "spiritual science" (*seishin kagaku*).¹⁷ In the subsequent discussion, Murai Hideo made the distinction between "spiritual science" (*seishin-teki na kagaku*) and "material(istic) science" (*bussuitsu-teki na kagaku*). (Asahara 1995a: 36) The notion of a dichotomy between "spiritual" and "material(istic)" derives from a discourse which had developed in Japan since the Meiji Period. (Ketelaar 1990: 165)

Another author writing about the relationship between religion and science was Joyu Fumihiro. He had studied at the prestigious Waseda University and graduated with a masters on artificial intelligence. Then, soon after being employed as an engineer at Japan's National Space Development Agency, he quit his promising career, entered Aum, and became monk. Later he assumed leadership of the Russian Aum

¹⁶ Around this time, Asahara gave a number of talks at universities in Japan in order to attract new followers.

¹⁷ Asahara 1995a: 35. He does not explain this term here. The subtitle of his English book *Supreme Initiation* (Asahara 1988) is *An Empirical Spiritual Science for the Supreme Truth*. This word reminds of medieval scholastic theology which pursued simultaneously studies of theology and natural sciences before the modern dichotomization. A quotation by Murai (Aum Press 1995: 178) cited below indicates this background. The term could be taken also from contemporary New Age terminology.

branch, which grew rapidly.¹⁸ In 1991, Joyu wrote an article titled “Science of truth: Treat the truth scientifically” (*Shinri no kagaku: Shinri o kagaku suru*) in which he dealt with near-death experiences (*rinji taiken*). (*Enjoy Happiness* No. 9, September 1991) Here he acknowledges the work of Western scientists, such as Elisabeth Kubler-Ross, but he also suggests that this subject should be researched in Japan scientifically more than it was done until then.¹⁹ According to Joyu, Aum intended to conduct scientific research on subjects such as transmigration (or reincarnation, *umare kawari*), the world after death, the heaven of the Bible, and the heavenly world (*tenkai*) of Yoga scriptures. (*Enjoy Happiness* No. 9: 42–47) Whereas traditional modern science excludes these topics from its research, according to Joyu such religious subjects—as part of the “truth”—need to be treated scientifically as well in order to overcome the split between religion and science.

Applying Science and Technology in Religious Practice

Joyu Fumihiko belonged to those Aum members who performed the difficult practice of “underground samadhi” in an airtight container buried in the soil. He underwent this practice in November 1991. (*Shinri* Nos. 4 and 5) As in the cases of other practitioners, the data of Joyu’s body and physical reactions to mental practice were recorded by medico-technical instruments in order to prove scientifically the “supernatural” or “miraculous powers” achieved through such extreme meditation exercises. In line with the aforementioned plan to research reincarnation and the heavenly world, Aum intended to provide scientific proof for liberation (*gedatsu*) from the cycle of birth and death in order to attain certainty that it is a “proof for the truth” and that “Aum is the truth.”²⁰ One of Aum’s objectives of such samadhi tests was to “prove scientifically the state of consciousness of supreme liberation.”²¹

¹⁸ In 1995, the Russian branch was claimed to have had ca. 30,000 members. When in March 1995 the police investigation of Aum in Japan started, Joyu was called back in order to become Aum’s highly skilled spokesman during such critical time.

¹⁹ For the theme of *post mortem* experience, see also *Vajrayana Sacca* No. 12 (July 1995).

²⁰ *Shinri* No. 5: 30–32. For a report, including illustrations and tables of collected data, see also Oumu Shuppan Koho Henshu-bu 1992.

²¹ *Ningen shinka Happiness* No. 3: 10; December 1993. Another article in this magazine under the same title “Truth & Science” claims that “The existence of chakra (is) proven!!” (*Ningen shinka Happiness* No. 3: 22).

Another follower performed the "underwater air-tight samadhi" in a water-proof container in October 1989. A report states that during this exercise he held his breath under water for approximately 15 minutes. (*Mahayana* No. 27: 8–15) This so-called "scientific samadhi," Aum claimed, set a new world record. A documentation of this samadhi states: "The record tells the proof of the power of the one who has achieved liberation." Those were the "data which provide factual proof for the miracle."²² "Miracles," traditionally denied by modern sciences, become here subject of scientific research.

The Purposes of Science in Religious Service

In a talk at Moscow University in March 1992, Asahara spoke about the meditation in an airtight chamber, the measuring of the oxygen consumption, and the increase of carbon dioxide. He claimed that the results prove that the practitioner's breathing ceased completely for two to twelve hours, depending on the case. In other words, the samadhi experience could be scientifically proven. Asahara then reflects as follows:

Why are we doing these things? We cannot provide enough data to persuade others if we depend simply on the experiences of meditators in debates where some say that life after death exists and others say not, where both affirmation and negation exist. Since the meditation of our existence is to lead all people to absolute freedom, happiness and joy, we wish to persuade all souls by providing scientific verification. Though, we may be able to lead only some souls at the beginning, Aum Shinrikyo would like to ask Russian scientists and others to provide scientific data of the internal experiences my disciples and I have had. This will be used to spread the gospel of the kingdom, namely the teachings of the world of god and goddesses throughout Russia and Japan, and finally throughout the world.²³

Asahara explains that scientific research should prove that Aum's teaching and practice is true, and that "objective data" provided by scientific research should convince non-believers to join Aum. Hence, science is

²² Asahara 1991b: 30 f. This publication provides a report together with illustrations and tables of collected data.

²³ *Monthly Truth* No. 15: 29; May 1994. Words like "soul" and "gospel of the kingdom" indicate that Asahara adapted his language here to the Russian audience.

taken into the service of religious proselytization.²⁴ Asahara also mentions another problem when stating that relying on the experience of meditators can be disputed. Therefore, the traditional way of giving witness to one's religious experiences is not a sound method for convincing other people. In other words, religious experience is "subjective" (that is, unreliable); however, science with its factual proofs is claimed to be "objective," and therefore scientific verification is the best tool for proselytization.²⁵

Murai Hideo also voices a similar opinion in an interview titled "The contact point between religion and science. The reason for Aum Shinrikyo to carry out science."²⁶ Here he described the relationship between religion and sciences in the following way. In present day Japan, religion and science are seen as "completely separate" from each other, but this was not so with the great scientists in the West. (Aum Press 1995: 178) Murai claims that what is written in the Buddhist sutras is "extremely scientific." Whereas religion pursues "absolute truth," sciences investigate the "laws of the universe." However, these laws are completely contained in the absolute truth. The methods of both approaches are very similar. Like the sciences, religion follows the methodological steps of stating a hypothesis, formulating a theory, conducting tests and then achieving verification. (Ibid.) According to Murai (Aum Press 1995: 179), if not based on a scientific standpoint, religion cannot develop "objectively." In other words, he counters the modern criticism of religion as being purely "subjective" by demanding that religion base itself on scientific research. Whereas religious truth *contains* scientific truth, religion needs to be *based* on science in order to avoid such fundamental criticism. From here derives the great importance which such Aum members attribute to science. However, Murai argues, religion also achieves certain objectivity through its own internal processes. (See further below) Then the question arises as of how these two forms of objectivity relate to each other. Using (Zen-)

²⁴ Even though scientists outside Aum would not accept such a task, this issue hints at the basic problem that sciences all too often were put in the service of ulterior aims, such as political ideologies or economic strategies.

²⁵ Aum acknowledges also another possibility to attain objective certainty for one's subjective religious experience in case one relies on scriptures. (*Vajrayana Sacca* No. 2: 121)

²⁶ *Shukyo to kagaku no setten. Oumu Shinrikyo ga kagaku suru ryu*, in: Aum Press 1995: 177–187.

Buddhist language, Murai states: "For pursuing sciences, it is necessary to cultivate religious practice to acquire >the power to see things as they are<." (Aum Press 1995: 179) If heart and mind are restless, exterior things cannot be perceived as they really are. (Aum Press 1995: 179 f) Owing to religious practice, particularly meditation, the heart becomes quiet and the consciousness becomes clear. When the breath stops, Murai says, human desire (*bonno*), the fundamental problem of humankind, also ceases and the state of samadhi is attained. (Aum Press 1995: 182) Here, in the state of "selflessness" (*muga*), a kind of objectivity is achieved which corresponds with the acclaimed objectivity of science.

Science, Science Fiction, and "Science Fact"

Just as the scientist Murai was intrigued by the miraculous world of religion, he was also fascinated by the wondrous world of science fiction. In the aforementioned interview, "The contact point between religion and science," Murai seriously expressed his desire to build a "time machine" and an "almighty creative machine." (Aum Press 1995: 185 f) These notions derive from the science fiction literature of which the graduate student Murai had read a lot. (*JT Weekly* May 27, 1995) In the same line, Murai was fascinated by the idea of breaking through the limits of time and space, as it is envisioned in one of his favorite novels, *Jonathan Livingston Seagull* by Richard Bach. As mentioned above, after an intensive meditation period he claimed to have actually experienced such a breakthrough. (The Japan Times 1995: 13; Aum Mat Studio 1995: 63 ff).

Such science fiction ideas touch on two critical issues, namely the fine line between science and science fiction, and the transition from theoretical science to applied technology. There were always inventors and geniuses in the history of science and technology who had utopian ideas, such as ideas about the ability of humans to fly freely in the sky, and in the end succeeded in putting such ideas into reality. Asahara (1995b: 266) formulated this issue as the process where "*science fiction becomes science fact*." (Emphasis by author) The Aum scientists apparently moved freely between these different fields, or dimensions, of religion, science fiction, science, and technology, and combined them in various ways. One example is the combination of the apocalyptic notion of Armageddon and the science fiction novel *Foundation*. Shortly

before being murdered on April 24, 1995, Murai said in an interview that he had read much science fiction when he was graduate student. He mentioned especially Isaac Asimov's *Foundation* series (published since 1951). Since Asahara had predicted Armageddon, Aum saw its task of preserving civilization for the period after this catastrophe.²⁷ According to Murai, Aum's huge stockpile of chemicals was part of this plan.²⁸

During a press conference at the Foreign Correspondents' Club of Japan in April 1995, Murai and Joyu claimed that the Kobe Earthquake in January 1995 was triggered by a secret magnetic earthquake machine made in America. The idea of an earthquake machine also derives from a science fiction story, but the attending journalists did not seem to be aware of this background. (*JT Weekly* May 27, 1995) Japanese mass media treated Aum's suspicion of an earthquake weapon as another crazy idea among the many which the group had. Journalists of *The Japan Times Weekly* (July 1, 1995), however, researched Aum's claim and published the results. The headline of the frontpage reads: "Telegeodynamics—How to trigger a quake and change the earth's climate. Hideo Murai revealed it. Bernard Eastlund patented it. Nikola Tesla designed it."²⁹ Nikola Tesla had conducted research on the possibilities of manipulating the magnetic field of the earth. Some of the Aum scientists even travelled to the former Yugoslavia in order to collect material on Tesla's research.

Aum scientists also attempted to develop concrete strategies for members to survive Armageddon, which also consisted of combinations of religion, science and technology. Aum scientists had already measured a reduction of oxygen consumption during samadhi practice. They claimed to possess a "scientific verification of the reduction and the cessation of the oxygen consumption." (Asahara 1995b: 128 f) From here, practical conclusions were drawn for survival strategies during Armageddon. The following conversation between Asahara and his two top aids, Hayakawa Kiyohide and Murai Hideo,³⁰ throws

²⁷ Allusions to this and related ideas of the *Foundation* series can be found in Asahara 1995b: 20, 71, 136, 188, 280 f, and Asahara 1995c: 262 f.

²⁸ Caldwell 1995b, cf. 1995a.

²⁹ *JT Weekly* July 1, 1995. In the meantime it became known that the Russian military also tested underground atomic explosions for the use of earthquake weapons. (*Der Spiegel* No. 43 (1996): 208)

³⁰ This trio constituted the Aum leadership of this time: Asahara was the religious leader (guru) and coordinator, Murai was the scientific brain, and Hayakawa was in

some light on Aum's way of combining science, technology and religion.³¹

Murai: "When a living body containing little or no oxygen is exposed to radioactivity, it suffers little or no damage. Therefore, if we can reduce the oxygen intake by spiritual practice, or if we can create what is called a state of no oxygen consumption by stopping respiration through samadhi, we might be able to avoid severe damage to our bodies, even if we are bathed in radioactivity."

Asahara objects: "Well, an experiment would be dangerous, so it is hard to prove it. We can only say that there is a probability of not getting harmed by practicing the truth."

Hayakawa (however) asserts pragmatically: "Master, the shelter is airtight. When the actual attack starts, the shelter will be completely sealed. There should be only about 2.5 cubic meters of air per person, which only lasts a few hours under normal breathing. But when the rates of respiration and metabolism are decreased through practicing the truth, we will be able to survive longer. Two people can survive on the oxygen of one."

Asahara then concludes: "In short, you first reduce the number of breaths by the practice of pranayama [control of breath]. Then you will be able to maintain your composure even if your oxygen intake decreases. Ultimately you will attain the 'state of no oxygen,' in other words, samadhi." (Asahara 1995b: 127, 131)

Aum's image of the scenario of a final global war was a combination of the Western apocalyptic notion of Armageddon and the Buddhist concept of a decisive battle with infidels during which Buddhists would prevail in the end. The latter derives from an 11th century Indian scripture dealing with Muslim invaders who threatened to destroy Buddhism.³² Aum brought both beliefs up-to-date through the late 20th century idea of a "coming war" between Japan and America.³³

charge for Aum's business enterprises. Whereas Hayakawa was the most practical and down-to-earth thinking "manager," Murai rather seemed to be the pure and idealistic scientist. Their different characters can be seen also in the following conversation.

³¹ It is published in the book *Disaster Approaches the Land of the Rising Sun* (Asahara 1995b) The Japanese original *Hi'izure kuni, wazawai chikashi* was first printed on March 11, 1995, shortly before the poison gas attack on the subways (March 20) and the first police raids of the Aum two days later.

³² The scripture *Kalacakra-tantra* (The wheel of time tantra) tries to gain Hindu support for the fight against Muslims invading the country. For an introduction and translation of some passages, see Newman 1995. In fact, Buddhism disappeared from India mainly due to the Muslim invasion.

³³ This idea derives from resentments caused by Japan's defeat 1945 in WW II, and from the economic frictions between both countries later in the 1980/90s. Aum

Aum perceived such a war as essentially a war between Buddhism and Christianity, in other words, between Buddhism and materialism.³⁴ As early as the Meiji Period, Christianity was perceived as an alien religion which injected the ills of Western materialism into the “spiritual” civilization of Japan. (Cf. Ketelaar 1990: 165 f) Asahara stated: “Now, what will happen after the final war? According to the...prediction of Khamtul Rinpoche, the battle will end with the triumph of Rudra Chakrin,³⁵ then the entire world will change into Buddhist countries.” (Asahara 1995b: 131)

Aum publications show that its scientists were well informed about various forms of modern warfare. (Cf. Asahara 1995b) Interest in warfare has to be understood in the context of Aum’s claim that it suffered repeated attacks at its facilities. Relevant documents were published, such as pictures of helicopters and airplanes flying at low altitude over their compounds. (Cf. Asahara 1995b: 95, 98 f) Japanese media and scholars have treated these claims psychologically, as a “persecution complex” and the like. Such statements, however, remain assumptions as long as Aum’s claims have not been properly investigated. In any case, Aum members felt real threats against their group. In such a context, the previous dialogue as well as the following quotations from *Disaster Approaches the Land of the Rising Sun* have to be understood:

The protection from plasma weapons... is to generate plasma from one’s own body. *This sounds like science fiction, but it is true.* Amazingly, the practitioners of Aum Shinrikyo can generate and emit electric fields from their bodies. There was an experiment which measured these electric fields. (Asahara 1995b: 182; italics added by author)

And: “The last resort to surviving an attack from this ‘ultimate’ [plasma] weapon is to do the correct practice.” (Asahara 1995b: 184) Asahara (1995b: 185) then summarizes the defense measurements against various forms of attack as follows:

referred also to the American book *The Coming War with Japan* by George Friedman and Meredith Lebard (1991). (Cf. *Vajrayana Sacca* No. 1: 74 f)

³⁴ Asahara 1995b: 268, 306. As for the enemy of “materialism,” which Aum shares with other religions in Japan, see also the quotations above in the section “Attempts to harmonize science and religion in theory.”

³⁵ Khamtul Rinpoche is a Tibetan lama of the 20th century, and Rudra Cakrin is the fictional Buddhist king who defeats the infidels.

When gases are sprayed on us, we have to make cleaners to eliminate them.³⁶ If microwaves are pointed at us, we have to make a protective wire netting. If lasers are used, we have to make protective equipment against them. It is definitely a war. And we should not limit ourselves to physical protection. We must also develop this into a struggle of widening the circle of salvation, and finally save all the living beings on earth.³⁷

The Costs of Scientific Theories and Technical Experiments

One incident related to a "homemade submarine" shall illustrate possible costs of Aum's specific combination of religious practice, scientific theory, technical application, and a touch of science fiction. The story's background is very likely Aum's search for possibilities of surviving a "final war."³⁸ An article of the newspaper *Asahi Evening News* (October 21, 1997) reports the following story:

A former member of Aum Shinrikyo described cult leaders as absurd on Monday and said that their incompetence nearly killed him in a bungled experiment involving a homemade submarine. Satoru Hashimoto, 30, is standing trial at the Tokyo District Court on murder charges in connection with the sarin nerve gas attack in Matsumoto, Nagano Prefecture.... Hashimoto said he was trapped in the small submarine when it sank about five meters into the water after the crane that was holding the vessel flipped over in November 1991. He was rescued by divers not related to the cult, Hashimoto said. Cult leaders wanted to take photographs of the submarine with Hashimoto aboard for a monthly magazine published by the cult, he said. The submarine was manufactured by chief scientist Hideo Murai, who was fatally stabbed in April 1995, and others. It was made of a steel drum can and was capped with an acrylic board. The cover was held in place by glue and

³⁶ Since Aum felt attacked by poison gas, its technicians actually developed such a special filter device called "cosmo cleaner." Its name derives from an animated film in which spaceships returning to earth first have to be purified in a "cosmo cleaner." (Personal information by an Aum member who was in charge for maintenance of such filters being installed at windows of Aum facilities. See also Asahara 1995b: 152)

³⁷ Statements like these, which are abundant in Aum literature of the last years until March 1995, express a self-protective and survivalist attitude. There are no hints for the intention to actively bringing about Armageddon, starting a war, or taking aggressive countermeasures for a possible attack, as police and Japanese mass media make it belief.

³⁸ In *Disaster Approaches the Land of the Rising Sun*, we read: "The only perfect means of defending ourselves is to build a city under water, or take refuge in a submarine." (Asahara 1995b: 192)

bolts, Hashimoto said. Hashimoto initially refused to get in because he doubted the submarine's seaworthiness, he said. But he finally agreed after the senior members insisted that the submarine was safe because it was attached to the crane, Hashimoto said. After the near-disaster, Hashimoto said he returned to cult facilities in Kamikuishiki, Yamanashi prefecture, where he complained to Aum Shinrikyo founder Chizuo Matsumoto about the 'silly' attempt. Matsumoto, who has been indicted on a series of murder charges, told Hashimoto that his negative attitude led to the failure, Hashimoto said. Murai said he would ask Hashimoto to test a device to walk underwater, Hashimoto said. Hashimoto said he could not bear the absurd words of Murai and Matsumoto, who is also known as Shoko Asahara.

This test-drive illustrates that the basic method which Aum scientists followed was that of "trial and error." Errors demand considerable sacrifices. This indicates also the dark side of science and technology which is often hidden from the public. Moreover, science and technology also provide tools for murder. In the case of Aum, according to Japanese courts, chemists on the staff of Aum's "Science and Technology Ministry" produced the poison gas spread in Matsumoto and Tokyo which injured and killed many people.³⁹ Apparently, the combination of Asahara's leadership, Hayakawa's logistic skills, Murai's scientific knowledge, and the work of chemists among its believers, made it possible that the tragic Aum incident occurred in the singular way it did.

Some Conclusions

Aum became involved in science and technology more than any other religious group in contemporary Japan. There is one new religion which includes the word "science" (*kagaku*) into its name, Kofuku no Kagaku (Science of Happiness), and which was a rival to Aum during some time.⁴⁰ However, to my knowledge, this group did not engage in theoretical deliberations and practical experiments in the field of sciences.

³⁹ The poison gas attack in the city of Matsumoto in June 1994 killed seven persons and injured 147. The poison gas attack in Tokyo in March 1995 killed twelve persons and injured about 4,000. It should be mentioned, however, that there are doubts whether Aum had the technical ability to produce and spread poison gas.

⁴⁰ Apart from the very different teaching and practice, one important difference between both groups can be seen in their membership. Whereas Aum followers were mainly young people from the alternative scene (*Aussteiger*, drop outs) of society, Kofuku no Kagaku mostly attracted young successful people from the business world. Put in

With respect to science and technology, Aum stands out as unique among the numerous religious groups in contemporary Japan.

Science and technology played a crucial role in the development of Aum's teaching and practice. In concrete terms we have observed the following: First, by trying to harmonize science with its own religion, Aum members attempted to overcome the traditional dichotomy between both. Then this blend was employed for proselytizing young people from outside the group. In such a "harmonized" form, science and technology was put in the service of verifying the truth of "Aum teaching (or religion) of truth" (Aum Shinrikyo). Next, science and technology were used in strategies to secure their own protection from hostile outside attacks. Moreover, both were planned to be employed for surviving the final cataclysm, Armageddon. Science and technology were expected to save not only Aum believers in such a catastrophic event, but to contribute to nothing less than the salvation of humankind and the whole world.

At the same time, however, the science and technology approach estranged Aum members more and more from "naturally" performed religious practices as well as from the rest of society. Moreover, both factors eventually played a fatal role in various acts of violence. Aum members used poison gas for murder and attempted murder of opponents, but also of many other unrelated people.⁴¹

Aum's engagement with science and technology shows that it stands in the two traditions mentioned in the first section of this article, the theoretical and experimental approaches, which had developed among religions in Japan since the Meiji Period. Moreover, its endeavors also demonstrate that it is a very "modern religion." In this respect, it is probably the most modern religious group in contemporary Japan. However, it is not "post-modern" in the sense of having overcome an optimistic *Wissenschaftsgläubigkeit* (naive believe in sciences) by recognizing the limits as well as the terrible costs and consequences of modern science and technology. In this respect Aum mirrors the optimistic view of science and technology held in contemporary Japanese society.

simple terms, Aum was rather something like an "*Aussteiger* religion," whereas Kofuku no Kagaku may be called a "yuppie religion."

⁴¹ For an analysis of the factors which led Aum members to commit violent acts, see Repp: forthcoming. Scientific know-how and technical skills provided the means for such crimes, but the motives and reasons did not have to do much with both.

In the end, the theme “religion and science in the case of Aum Shinrikyo” probably boils down to a personal matter, the person of Murai Hideo. Who was he, the gifted young scientist in search of harmony between science and religion, in pursuit of his own salvation, the break-through of the limits of time and space? The media used to call him “Aum’s chief scientist.” Asahara, acknowledging Murais’s gifts, gave him the “holy name” Manjushri Mitra Taishi (Great Teacher Manjushri; Manjushri is the Bodhisattva of wisdom). He hoped that Murai would become the “supreme wisdom” (*chie dai’ichi*) throughout the universe. (*Mahayana* No. 18: 88; February 1989) In 1994, when Aum established “ministries” and other quasi-government offices in its organization, Murai became the head of Aum’s so-called “Science and Technology Ministry” which later was blamed for developing and producing stimulant drugs and poison gas. After one of the last interviews which Murai gave before he was murdered, Thomas Caldwell asked in an article titled “An Encounter with Murai”: “Was he a cold-hearted killer or a strange mixture of scientist and mystic?” (*JT Weekly* April 29, 1995) Yoichi Shimatsu (1995), an investigative journalist with science background, fittingly wrote in his article “A Faustian Bargain”: “Murai was a contemporary Dr. Faust, who was so intent on discovery that he never recognized the personal prize of his deal with Mephistopheles.”—One wonders how long such old, and apparently universal, patterns of “deals” with the dark side of science and technology will continue to be repeated in human history.

Abbreviations

JT *Japan Times*
 JT Weekly *Japan Times Weekly*

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SOUTH ASIAN TRADITIONS

VIVEKANANDA AND THE SCIENTIFIC LEGITIMATION OF ADVAITA VEDĀNTA

C. MACKENZIE BROWN

In the summer of 1889, a young Bengali college graduate and son of an attorney of the Calcutta High Court was going through a series of extreme personal crises. Torn between vexatious family obligations following the death of his father a few years earlier and his own spiritual yearnings, the one-time aspiring lawyer wrote to a Sanskrit pandit in Benares seeking guidance. Outlining his various financial and legal difficulties, including a lawsuit over the family residence, that had hindered his spiritual progress, he was still able to proclaim: “I have not lost faith in a benign Providence—nor am I going ever to lose it—my faith in the [Vedic] scriptures is unshaken” (Vivekananda 2003, *The Complete Works of Swami Vivekananda* 6:206; hereafter cited as CW).

Just a month and a half later, however, in another letter to the same pandit, the disturbed young man posed a series of questions that belie any such spiritual certitude. He questioned, among other things, the very foundation of Vedic authority, asking how one could accept the traditional basis for the Vedas’ affirmation of God’s existence, as it was founded only on their own self-proclamation that they were divine revelation—a proof of authenticity based merely on circular reasoning. Even more relevant for our purposes, he also wondered how one could trust the acknowledged, traditional teachers who claimed knowledge of the highest truths when they held utterly mistaken views about the physical world and were ignorant of simple astronomical truths. In his own words to the pandit:

According to the Nyaya [school of logicians], ‘Shabda [revealed word] or Veda (the criterion of truth), is the word of those who have realised the highest’; so the Rishis [Vedic seers] as such are omniscient. Then how are they proved, according to the Surya-siddhanta [an ancient Hindu astronomical treatise], to be ignorant of such simple astronomical truths? How can we accept their intelligence as the refuge to ferry us across the ocean of transmigratory existence, seeing that they speak of the earth as triangular, of the serpent Vasuki as the support of the earth and so on? (CW 6:212)

In these anguished queries we see epitomized the dilemma faced by many a contemporary spiritual seeker confronted by the findings of science that threaten to undermine sanctified certainties and to delegitimize ancient sources of revealed knowledge. In the young Bengali doubter's case, it was not the latest scientific discoveries but those of ancient Hindu astronomy that challenged traditional authority. The challenge posed by ancient astronomy, however, is dwarfed in many ways by that posed by modern science with its built-in scepticism and methodological insistence on empirical verification, coupled with such potentially corrosive theories as Darwinian evolution.

Yet just four years later, in a speech to an international audience at the World's Parliament of Religions in Chicago, the same Bengali questioner, his personal doubts apparently resolved, lauded "the high spiritual flights of the Vedanta philosophy, of which the latest discoveries of science seem like echoes". He went on to commend the Vedas as "the accumulated treasury of spiritual laws discovered by different persons in different times", likening these spiritual laws to the law of gravitation (CW 1.6–7). The discoverers of the former were the Vedic seers. The Vedas, taken as spiritual laws rather than as books, are thus eternal, and the Vedic seers perfected beings—their omniscience, or at least wisdom, no longer questioned.¹

The consilience between the eternal Vedas and modern science, the Bengali delegate proclaimed, goes beyond a mere vague parallelism of spiritual and natural laws, for the Vedas teach truths even about the physical world that science is just now confirming. "The Vedas", he declared, "teach us that creation is without beginning or end". He immediately noted, "Science is said to have proved that the sum total of cosmic energy is always the same", signifying that there could never have been "a time when nothing existed"—a pointed critique of the Christian doctrine of *creatio ex nihilo*, as well as the notion of an extra-cosmic creator god (CW 1:7).² And he argued that just as the universe is eternal, so also is the perfect and infinite human soul. He indicated that the idea of the rebirth of the soul, its "evolving up

¹ For brief discussions of Vivekananda's notion of the Vedas as revealing spiritual laws parallel to natural laws, see Richard Hughes Seager (1995) and Kay Koppedrayar (1995). See also the comments of James R. Lewis (2010) in this same volume, regarding the notion of "spiritual laws" and their derivation from the laws of classical physics.

² On Vivekananda's critique of the notion of *creatio ex nihilo* and its relation to his Advaita perspective on karma, see George M. Williams (1986) and Koppedrayar (1995).

and reverting back” in life after life according to its good and bad actions, is simply a manifestation of the “uncompromising current of cause and effect”, a “law of Nature” (CW 1:10). Yet by knowing the Ancient One that stands at the head of all such natural laws, a person may escape the interminable round of birth and death. For all of us are Children of God, divinities on earth, not sinners. Indeed, he proclaimed with yet another jab at the Christians, it is a sin to call such noble beings sinners. He rejoiced that modern science, including especially the notion of evolution, would help elucidate the ancient Hindu teachings. Conflating evolution with the non-dualist or Advaitic idea that the whole universe is simply a manifestation (*vivarta*) of the one ultimate reality known as Brahman, he affirmed: “Manifestation, and not creation, is the word of science today, and the Hindu is only glad that what he has been cherishing in his bosom for ages is going to be taught in more forcible language, and with further light from the latest conclusions of science” (CW 1:15).

In such manner did this brash Bengali, now known to the world as Swami Vivekananda (1863–1902), propound the thoroughly scientific nature of Advaita Vedānta, a characteristic he insisted was lacking in other major religions. He further set apart Advaita as seeking “direct and demonstrative evidence” through personal experience to verify spiritual truths (CW 1:9).³ In stressing this scientific, evidenced-based nature of Advaita, he concluded: “Unity in variety is the plan of nature, and the Hindu [that is, the Advaitin] has recognised it. Every other religion lays down certain fixed dogmas, and tries to force society to adopt them” (CW 1:17). The implication was clear: Advaita, not Christianity, was destined to bring about a spiritual renewal of the world—a message made explicit in later lectures the Swami delivered during his stay in the West following the close of the Parliament. It was not a message that the organizers of the Parliament, Protestant Christians for the most part, had anticipated or welcomed, as we shall see.

Vivekananda’s appeal to science in defence of Hindu religious thought, and specifically of Advaita Vedānta, reflects a significant

³ Vivekananda’s claim regarding such direct experience of spiritual truths was an important part of his appeal to his later American followers, a claim made by other Hindu transplants from India. Catherine Wessinger (1995, p. 173) makes this point in noting that the Vedānta movement of Vivekananda shares with the later Self-Realization Fellowship of Yogananda the assurance “that the individual can have direct experience of ultimate reality”, thereby providing an alternative to Christian modes of religious experience.

aspect of his own personal spiritual struggles involving deep-seated doubts about traditional norms of religious authority. Let us then inquire into why an appeal to science was so attractive to this spiritual aspirant in the first place, and how he came to reconcile the competing authorities of religion and science. This essay will look at his own changing religious perspectives and commitments prior to his first visit to the West in 1893, as well as the concomitant development of his conceptions of religion and science, and their interrelationship. The maturing of Vivekananda's thought is deeply rooted in the colonial culture of Bengali society in the late nineteenth century and points to the importance of his responses to and modifications of the various intellectual currents streaming into India from Europe. Especially important in this regard are the ideas of Herbert Spencer and the Theosophists. At the same time, his assimilation of European ideas led to the reinterpretation of his own indigenous traditions, and especially to the scientizing of Vedānta. In this context, we shall return to the World's Parliament of Religions and an examination of the role of science both for Vivekananda and for other members—Asian and Western—of this great international congress of religions. The essay will continue with a systematic examination of the diverse rhetorical strategies that Vivekananda eventually developed to provide a scientific legitimation of Advaita, and will conclude with consideration of his understanding of “science”.

The Crisis of Religious Authority in a Colonial Context

Vivekananda's youthful spiritual quandary was in part the reflection and amplification of a broad crisis of religious authority in the nineteenth-century West. The crisis was the culmination of many intellectual and modernizing developments: increasing rationalism, the rise of historical criticism of scripture, scientific advances and an emerging charisma surrounding all things scientific, and finally secularizing propensities abetted by ever-greater awareness of the religiously pluralistic state of humankind. The growing awareness of religious pluralism in the West was an inevitable consequence of the European colonial enterprise, while colonialism at the same time served to export important elements of the modernist crisis into the colonized countries of Asia (Koppedrayar 2004; Seager 1995). The crisis was amplified in certain respects in Asia, for unlike the encounter of European Christianity with the various aspects of modernity such as modern science, many

of which grew out of Christian culture itself, Asians were confronted with a largely alien world view with roots outside their own cultural and religious traditions, and which frequently arrived at the point of a canon.

In the Indian context, Hindus recognized that the British imperialist domination of India was due in large part to the superior military technology of the West made possible by modern science. Hindu intellectuals like Rammohan Roy (1772?–1833) early recognized the potential benefits of modern science for improving the material life of Indians. But as the nineteenth century wore on, many Indian intellectuals became increasingly apprehensive about what they perceived as the motivation underlying the scientific enterprise in the West: the drive for economic and political domination of other cultures, especially when coupled with materialist assumptions that seemed to undermine all morality. Exacerbating the tension was the accelerating tendency of the British Raj throughout the nineteenth century to escalate its intervention in the cultural and religious affairs of Indians, happily assisted by Protestant missionaries who on occasion were all too willing to ridicule and denounce all Hindu practices and beliefs.

At the same time, the missionaries often provided Indians with an English education that made available a vast array of western literary, historical, philosophical, and theological writings, along with basic knowledge of the natural sciences. Such education was highly sought after by the Indian social elites, even if only to advance their own career prospects for working in the British administration. And despite frequent tensions, warm relations at times could develop between Christian teachers and their Hindu students. Vivekananda, for instance, became quite fond of his Scottish teacher, William Hastie, while attending the Presidency and Scottish Church Colleges in Calcutta in the early 1880s (French 1993). Vivekananda's response to Christianity in the end was an ambivalent one. He availed himself of the education he received from the Christians to develop one of the major Hindu critiques of Christianity, and of modernism in general, assimilating them safely into an overarching Advaitic framework that has come to be known as Neo-Advaita or Neo-Vedānta.⁴ The western

⁴ As Wessinger (1995, p. 174) observes: "Bengalis played a leading role in the wider Hindu renaissance, producing what can be termed the Bengali 'Neo-Vedantic renaissance,' the attempt on the part of men educated in British-run schools to reconcile rationalism, science, and Christianity with their own diverse Hindu heritage".

education he received both deepened his personal spiritual crisis and, eventually, suggested the means for resolving it.

The Roots of Vivekananda's Intellectual Crisis

It was during his college years that Vivekananda's doubts about his traditional religious upbringing began to assert themselves with force. His mother was a liberal but pious Vaiṣṇava from whom he had learned the traditional mythology and rituals of Chaitanya devotionalism. But counteracting such childhood conditioning was his father's commitment to social advancement and material success, leaving Vivekananda torn between the pursuit of a prestigious legal career in government and a quest for spiritual truth that would entail renunciation of worldly comforts and riches.⁵

Vivekananda's adolescent scepticism was intensified in college by his exposure to western philosophy, and in particular to the writings of Auguste Comte, John Stuart Mill, David Hume, and Herbert Spencer. Mill and Hume especially challenged the whole idea of a personal god responsible for designing a world so filled with misery. Vivekananda was unable to comprehend how an omnipotent and all-benevolent God could allow such suffering in the world as he himself had observed and personally experienced when not able to feed his impoverished family after the death of his father in 1884. Accordingly, he eventually came to reject his early childhood faith in a personal God (Raychaudhuri 1988; Kopf 1979; Williams 1974). Hume's scepticism and Spencer's principle of the Unknowable further led him to despair of ever attaining certain knowledge of ultimate reality.

About the time that Vivekananda entered Presidency College in 1880, he became a member of the liberal and social-reform minded branch of the Brahmo Samaj under the leadership of Keshab Chandra Sen (1838–1884). Sen's optimistic theism and incorporation of traditional Chaitanya devotional elements into the Samaj organization were initially inviting to the young college student seeking some sort of spiritual sustenance, but the creditability of a personal god was quickly undermined by Hume and Mill. Nonetheless, Sen's message of religious toleration and universalism, combined with an emphasis

⁵ For a brief summary of the many changes in Vivekananda's religious views over the course of his life, see Williams (1986). For an extended account, see Williams (1974).

on social reform and respect for modern science, had a lasting allure for Vivekananda. Particularly appealing was Sen's harmonization of religion and science, and his notion that just as there is unity in multiplicity among the religions of the world, science too seeks for a similar unity: "The Darwins and Huxleys, the Tyndalls and Spencers of modern times are all engaged in the work of unification. They find many species, many forces, and they try to reduce them to one" (Sen 1901, p. 406). This idea of a shared quest for unity, especially Spencer's elaboration of this ideal as we shall see, was to become a key notion later for Vivekananda in his reconciliation of Advaita and modern science. Sen also claimed that the traditional Hindu doctrine of the ten major incarnations of the God Viṣṇu anticipated the modern theory of organic evolution (Brown 2007). The idea of Hindu priority in the discovery of various modern scientific theories, as seen in Vivekananda's speeches at the World's Parliament of Religions, was to become an important refrain in his apologetics for Hinduism.

A growing restlessness with book-learning throughout his college years and an increasing desire for immediate, experiential validation of truth led him to seek desperately for someone who could assuage his many doubts, who had certain insight into ultimate truth, in short, someone who had seen God directly. This desire for empirical verification of God's existence, according to William W. Emilsen (1984, p. 200), was inspired by Vivekananda's reading of the British Empiricists and the French Positivist, Auguste Comte, taking to heart their "dictum that all knowledge was dependent on sense-experience". Vivekananda asked various religious leaders and teachers avowing belief in God if they had actually seen God, including the revered Brahmo leader Debendranath Tagore, but they all said no (Williams 1974; Eastern and Western Disciples 1949). It was his friend and teacher Hastie who first directed Vivekananda to visit an illiterate local priest, Ramakrishna, a man who claimed to have had direct experience of God. At first, Vivekananda was repulsed by Ramakrishna's endorsement of image-worship, and also was affronted by Ramakrishna's Advaitic notion that the individual soul was identical with the Creator of the universe, regarding such a view as nothing but atheism (Anon. 1948). Yet the young seeker was intrigued by the priest's simple and earnest assertion that he had actually seen God, and he eventually became Ramakrishna's disciple.

With Ramakrishna's passing away in 1886, Vivekananda took the formal step of renunciation, having delayed this act until after his master's death at the latter's request. But the new monk was bereft of a

guiding hand, and his spiritual longings remained unfulfilled. Failing to attain direct experience of God himself, with his doubts and insecurity intensifying, he went on a quest to find a new guru (Williams 1974). His search prompted him in 1889 to write the Benares pandit, referred to earlier, asking for spiritual advice, and specifically how to deal with the scientific ignorance of the supposedly omniscient ancient Vedic seers. The pandit's initial response was "to give up arguing and disputing" (CW 6:214). This reply provided some consolation according to Vivekananda himself, perhaps because it echoed similar advice from his former master, Ramakrishna. In a discussion with Ramakrishna and one of the other disciples, for instance, Vivekananda had once questioned whether incarnations of God are necessary to instruct human beings, since God can teach us directly within our own hearts. Vivekananda in frustration had finally expostulated, "If God is Infinity, how can He have parts? What did Hamilton say? What were the views of Herbert Spencer, of Tyndall, of Huxley?" (M. 1942, p. 733). Afterwards, the master admonished his argumentative protégé: "As long as a man argues about God, he has not realized Him. You two were arguing. I didn't like it" (M. 1942, p. 735). Around this time Vivekananda also found considerable inspiration in the Christian classic of ascetic devotionism, *The Imitation of Christ*, with its message that God reveals himself to men of faith and humility, and its admonition that "all reason and all natural effort must follow faith without further questioning" (Thomas 1955, p. 236).⁶

The Benares pandit, despite his advice to Vivekananda to abandon philosophical argumentation, apparently sensed that Vivekananda needed something more to assuage his intellectual doubts. In any case, the pandit soon sent Vivekananda a pamphlet containing some of his reflections on the relation of Advaita to science, reflections that were to resonate deeply with the young monk's thinking. He wrote back to the pandit: "A kind of scientific Advaitism has been spreading in Europe ever since the theory of conservation of energy was discovered, but all that is Parinamavada, evolution by real modification. It is good you have shown the difference between this and Shankara's Vivartavada (progressive manifestation by unreal superimposition)" (CW 6:215). The notion of "evolution by real modification", or *pariṇāma*,

⁶ Later in his life, Vivekananda became somewhat disillusioned with Christianity, a change in assessment that Hal French (1993) attributes to the Swami's experiences at the World's Parliament of Religions.

refers to the classical Sāṃkhyan theory of evolution of all physical elements, gross and subtle, including the mind, from primordial matter, Prakṛti. Vivekananda's response suggests that by this time he had become more receptive to Śaṅkara's Advaita, that all this world of duality is merely a delusory manifestation of the one single supreme Consciousness that is Brahman. We may recall that in his speech on Hinduism at the World's Parliament of Religions, he had contrasted the idea of manifestation with creation, and invoked the law of the conservation of energy to confirm his claim that Advaita was thoroughly scientific in its outlook.

What is especially significant in Vivekananda's reply to the pandit is his implied identification of Sāṃkhyan material evolution with modern naturalistic evolution, and the subordination of these to Śaṅkara's Vivartavāda or spiritual manifestation. What we see here is the basic foundation for Vivekananda's assimilation of modern evolutionary ideas into a traditional Advaitin epistemological framework that posits two levels of truth, the absolute and the relative. For Vivekananda, Darwinism simply represents the lesser truth of physical, organic evolution, a truth already known to the ancient Sāṃkhyan sages, while the Vedāntic seers like Śaṅkara had realized the higher evolutionary truth of spiritual manifestation that transcends modern science.⁷ The truths and apparent certainty of modern science could not be ignored, but by assimilating them into the traditional hierarchical framework of Advaita, they could be rendered harmless, and even harnessed to the spiritual quest. In this hierarchical formula Vivekananda found the resolution of his intellectual and spiritual crises.

The law of the conservation of energy and evolutionary theory were two of the most important aspects of modern science that caught the attention of the struggling Bengali youth. These two, especially evolutionary theory as Vivekananda understood it, were critical to his

⁷ Williams comments on this passage, noting that its basic significance is Vivekananda's use of the word *evolution* that he was to use a few years later in his addresses at the World Parliament of Religions. Williams claims that in these latter speeches "the distinction between pariṇāmavāda and vivartavāda was not maintained, but rather the antiquity of the Hindu concept of evolution as recently verified by modern science was presented" (1974, 46). Vivekananda at the Parliament may not have bothered to call attention to the notion of "apparent evolution" and its contrast with "real evolution", but he certainly did not forget the distinction between the two types of evolution and at times emphasized the importance of the contrast, as he did in many of his later speeches and writings on Māyā, cosmogony, evolution, and Advaita.

eventual conception of the nature of modern science and its relation to religion. At this point, let us turn to the sources for his ideas regarding the nature and meaning of evolution, and of modern science as a whole, as he absorbed these ideas during his college days in the midst of his intellectual and spiritual crises.

Glimmerings of a Resolution: Herbert Spencer's First Principles

We have seen that Vivekananda's exposure to the writings of Hume, Mill, and Spencer had helped to dismantle his naïve childhood theism, leading him to "a settled philosophical scepticism" (Eastern and Western Disciples 1949, p. 77). At the same time, they seem to have provided him with critical interpretive strategies for resolving his philosophical quandaries, especially with regards to the tensions in his own mind regarding the relative authority of religion and science. Perhaps the most important of these philosophers for Vivekananda's developing world view was Herbert Spencer. In his *First Principles*, Spencer lays out several key ideas constantly reiterated in Vivekananda's later lectures and writings, although with significant modifications in line with the Swami's later Vedāntic perspective. Several broad and interrelated notions in *First Principles* seem to have been especially stimulating to Vivekananda: the idea of the Unknowable, the ultimate harmony between science and religion, the unity of nature, the conservation of energy, the indestructibility of matter, and the laws of evolution and dissolution. Let us look at each of these more closely, and then examine the ways in which they were assimilated and transformed by the Swami.

Spencer defined the Unknowable as the underlying reality of the universe, beyond rational comprehension, embracing the material as well as the spiritual, and which both religion and science are seeking. It is this ultimate truth which gives to both religion and science their warrant, and which reveals their final harmony, for both point to the same absolute reality. In Spencer's words (1958, p. 36), "Science and Religion express opposite sides of the same fact—the one its near or visible side, and the other its remote or invisible side". This fundamental verity, accordingly, underlies all forms of religion, however degraded the concrete beliefs of a given religion may be. But within all religions, however opposed some of their beliefs, there is usually something in common, some general and abstract truth or postulate. And being derived from a great variety of experiences in different

cultures, such a postulate “ranks next in certainty to the postulates of exact science” (Spencer 1958, p. 24). Accordingly, specific religious beliefs of disparate religions are to be respected, for while they may hide the abstract and absolute truth, on the relative level they render the abstract more appreciable.

In parallel manner with regards to science, according to Spencer, inquiry into the individual sciences reveals ever more general laws or principles that unite all known facts and more special laws. Thus, the scientific truth that can unite Science and Religion is that fact or reality from which all the different sciences diverge, their common root in the Unknowable. However, despite the great scientific strides in discovering the general laws of nature, Spencer maintained that science has only attained a partially unified knowledge. Matter, motion, and force remain independent entities and are but symbols of the Unknown Reality, which remains forever beyond human comprehension. Likewise, religion can only point to but not attain knowledge of that Unknowable mystery. As Spencer (1958, pp. 59–60) concludes: “If Religion and Science are to be reconciled, the basis of reconciliation must be this deepest, widest, and most certain of all facts—that the Power which the Universe manifests to us is utterly inscrutable”.

While for Spencer the Unknowable in itself is an inscrutable mystery, it can be known indirectly through its manifestations in nature, the Knowable. Investigation of the Knowable reveals the unity of nature both in the uniformity of natural law (the general principles mentioned above) and in the unity of forces and matter. Science has discovered this uniformity of natural law throughout the universe, recognizing that the laws governing the astronomical realm also apply in the geologic or terrestrial, the organic, the psychological, and the super-organic (the social and cultural) realms. The unity of matter is manifest in the fact that the entire universe, from the celestial to the organic to the human, is constituted of the same fundamental particles of matter, which can never be destroyed but only redistributed or transformed by the eternal force in its various forms acting upon them. The indestructibility of matter—thoroughly demonstrated by chemists, physicists, and physiologists—is now a commonplace to science. Spencer (1958, pp. 177–78) emphasizes that this discovery militates against the primitive, magical superstition “that by some potent spell Matter can be called out of nonentity, and can be made non-existent”, a view he says that still pervades “current theology”. The unity of forces is seen in the equivalence of heat, magnetic, electrical, and light

energies, culminating in the law of the conservation of energy, what Spencer preferred to call the persistence of force. This persistence of force is the dynamic principle which unifies motion and matter and underlies their complex interactions. It is manifested in the law of evolution.

Spencer's conception of evolution was developed prior to the publication of Darwin's *On the Origin of Species*, and was quite distinct. In accord with his notion of the uniformity of natural law throughout the universe, *First Principles* according to Spencer himself (1958, p. 6) "deals with Evolution at large—Inorganic, Organic, and Super-organic—in terms of Matter and Motion; and touches but briefly on those particular processes so luminously exhibited by Mr. Darwin". Only sparingly does Spencer refer to Darwin's idea of natural selection, granting it some validity in facilitating the transformation of species, but regarding it as not essential for his own evolutionary theories. Spencer preferred a more Lamarckian explanation relying on inheritance of acquired characteristics produced by modification of habits brought about by changes in the environment. Thus, from Spencer's perspective, organic evolution like inorganic was ultimately due to the inherent instability of originally homogenous entities—from cells to species—when subjected to varying external forces, a manifestation of matter in motion due to the perseverance of force.⁸

The various evolutionary processes at work in the universe, according to Spencer, eventually lead to equilibrium when the forces of attraction and repulsion are in balance, as seen in the stable state of the solar system. Similarly in the organic realm, as species become adapted to new circumstances, they achieve "a balanced state", and by inference, Spencer (1958, pp. 510–11) goes on to claim, "there is a gradual advance toward harmony between man's mental nature and the conditions of his existence". He concludes (1958, p. 511) "that Evolution can end only in the establishment of the greatest perfection and the most complete happiness".

Spencer frequently juxtaposes with evolution the reverse process of disintegration or dissolution, proposing that evolution is part of an ongoing process of cyclic change. In this context, he actually preferred the term involution for evolution, indicating thereby the passage of matter from the imperceptible to the perceptible, from the uniform

⁸ Spencer discusses his views on the mechanisms of transformation in sections 152 and 159 of *First Principles*.

to the multiform, from the simple to the complex, from confusion to order, followed by the gradual reversal of these processes and eventual dissolution. Inexorably evolution with all its final perfection and happiness must begin to unravel, to advance towards complete quiescence, a Universal Death. But is such an end of indefinite continuation? Spencer speculates that Universal Death will be followed by Universal Life. The rhythmic changes resulting from the coexistent forces of repulsion and attraction that we see in the life and death of individuals and species must apply, in Spencer's reasoning, to the universe at large. Thus, there will be over immeasurable periods of time "alternate eras of Evolution and Dissolution" (Spencer 1958, p. 529).

Vivekananda assimilated into his mature philosophy all of these major Spencerian themes, and he paid tribute to Spencer on at least one occasion, although framed in terms of his Advaita apologetic. In a lecture delivered in Los Angeles near the end of 1899, he declared: "The most wonderful speculations are formed in modern science.... When Herbert Spencer's voice says that the same life welling up in the plant is the life welling up in the individual, the Indian religion has found a voice in the nineteenth century" (CW 9:504).⁹

Vivekananda was thus clearly attracted to Spencer's pronouncements on the unity of nature, from the cosmic to the atomic to the organic. As he proclaimed:

If it be true that nature is uniform throughout, if it be true... that the same method under which a small grain of sand is created, works in creating the gigantic suns and stars and all this universe, if it be true that the whole of this universe is built on exactly the same plan as the atom, if it be true that the same law prevails throughout the universe, then, as it has been said in the Vedas, "Knowing one lump of clay we know the nature of all the clay that is in the universe". Take up a little plant and study its life, and we know the universe as it is. If we know one grain of sand, we understand the secret of the whole universe. (CW 2:204-05)

Vivekananda went on to infer from this, in Spencerian fashion, that everything is nearly the same at the beginning and the end. That is, a mountain comes from sand and returns to it, a river comes from vapour and returns to it, plant life comes from seed and returns to it, human life from human germs and returns to those germs, just as the universe

⁹ See Dermot Killingley (1990, 162), who states: "We should not forget that Spencer, who certainly influenced him [Vivekananda] also joined evolution with monism by tracing the whole process to an ultimate being which he called the Unknowable".

with its stars and planets comes from a nebulous state and returns to it—in sum, the grosser comes from the finer and merges back into it. Thus, destruction of the gross is only a return to the cause, and the effect is not different from the cause, a truth the Swami proclaimed that was discovered by the sage Kapila thousands of years ago.

It was almost inevitable, then, that Vivekananda saw Spencer's emphasis on the universal law of evolution as scientific validation of ancient Hindu truths. It is little wonder that Vivekananda, prior to his first trip to the West had already argued that "the Vedas should be studied through the eye-glass of evolution" (CW 6:103). Coming from this perspective, the Swami asserted that "the modern law of evolution" that explains everything "from inside"—that is, by internal self-transformation—is simply the Hindu notion of *satkārya* (that effects are latent in their causes), which governs all evolutionary processes (CW 1:371–72). "The whole meaning of evolution", Vivekananda insisted, "is simply that the nature of a thing is reproduced, that the effect is nothing but the cause in another form, that all the potentialities of the effect were present in the cause, that the whole of creation is but an evolution and not a creation" (CW 1:372).

Such views bolstered his confidence in critiquing the religion of the British rulers of India. As we have seen in Vivekananda's speeches at the World's Parliament of Religions, he duly appreciated Spencer's insistence that science and evolutionary theory militate against the claim that something can be created out of nothing—a clear rejection of the Christian dogma of *creatio ex nihilo*. This latter doctrine, being peculiar to Christianity and other primitive and superstitious religions, for the Swami, then, does not belong to the common core of truth that, according to Spencer, underlies all religions.

Especially appealing to Vivekananda was Spencer's insistence that science and religion are simply two sides, the visible and the hidden, of the same ultimate fact. Equally appealing was Spencer's corollary that this ultimate fact, the Unknowable, embraces the material as well as the spiritual—that underlying both is some common root, some absolute unity. As the Swami declared at the World's Parliament of Religions: "Science has proved to me that physical individuality is a delusion, that really my body is one little continuously changing body in an unbroken ocean of matter, and Advaitam (unity) is the necessary conclusion with my other counterpart, Soul" (CW 1:14). And as he declared elsewhere, the Advaita ideal of unity "is alike the goal of science and religion" (CW 3:5). He further elaborates:

This [unity] is the goal, the end towards which the universe is rushing. Every atom is trying to go and join itself to the next atom. Atoms after atoms combine, making huge balls, the earths, the suns, the moons, the stars, the planets. They in their turn, are trying to rush towards each other, and at last, we know that the whole universe, mental and material, will be fused into one. (CW 6:5)¹⁰

In this effusion over the Advaitic goal of unity encompassing the physical and the spiritual, it is not entirely clear what has happened here to Spencer's repulsive forces. At the same time, the Swami viewed Spencer's stress on the cyclic nature of evolution and dissolution as resonating with the traditional Hindu theory of the eternal succession of cosmic ages or Yugas.

Despite the many Spencerian themes that Vivekananda found so attractive, he was uneasy with Spencer's emphasis on the visible and scientific side. As Vivienne Baumfield (1998, p. 205) notes: "Vivekananda does make one major adjustment to Spencer's theory; in effect he turns it on its head. For although Spencer saw religion and science as inter-dependent, he did so because religion would culminate in science, whereas for Vivekananda science would culminate in religion". In fact, Vivekananda, was dissatisfied with several aspects of Spencer's philosophy.

Spencer Surpassed: The Advaitic Resolution

Vivekananda's discontent with Spencer's philosophy as a whole, we may suppose, begins with the latter's treatment of the ultimate reality underlying all manifestation. Spencer's Unknowable may be unknown to western philosophers and scientists, according to Vivekananda, but it is not unknown to the Vedic seers. Vivekananda insisted that "in Hinduism we pass from truth to truth—from a lower truth to a higher truth" (CW 6:103). In further clarification, he proclaimed: "What is Spencer's unknowable? It is our Maya. Western philosophers are afraid

¹⁰ Elsewhere, Vivekananda indicates that the one motive force for everything in the universe is love (Vivekananda 2:354). Such modes of thinking became commonplace among Vivekananda's disciples. For instance, his early follower and imitator Swami Ramatirtha expounds: "What is Gravitation? Here is the Earth attracting the moon. Here is the Sun attracting the Earth. Here are the planets attracting each other—'universal love,' here is the law of affinity, one atom attracting the other" (1930–1932, 6:211). Ramatirtha also proclaims that love in its different modes appears as magnetism, electricity, light, heat, and sound (1930–1932, 5.182; cf. 4:193).

of the unknowable, but our philosophers have taken a big jump into the unknown, and they have conquered” (CW 6:104). Vivekananda agreed with Spencer that the ultimate is beyond reason and direct empirical verification, but it is accessible to supra-rational consciousness that is found in accomplished yogis and saints. As he declared at the World’s Parliament of Religions with reference to the Hindu avoidance of dogmatism in contrast to other religions:

The Hindu does not want to live upon words and theories. If there are existences beyond the ordinary sensuous existence, he wants to come face to face with them. If there is a soul in him which is not matter, if there is an all-merciful universal Soul, he will go to Him direct.... So the best proof a Hindu sage gives about the soul, about God, is—“I have seen the soul; I have seen God”.... The Hindu religion does not consist in struggles and attempts to believe a certain doctrine or dogma, but in realising—not in believing, but in being and becoming. (CW 1:13)¹¹

While there is no explicit reference to Ramakrishna in Vivekananda’s recorded speeches at the Parliament (French 1993), the allure of his former master’s experience of God-realization reverberates in these words.

An important consequence of the western philosophers’ and scientists’ fear of the Unknowable is that their analysis of reality as a whole is limited, from Vivekananda’s perspective. Science, in its current state of development, he claims, is only pointing to or tending towards the goal already realized by the Vedic sages. This limitation the Swami makes clear in his various summaries of Vedāntic cosmology. Referring to the recent scientific discoveries of the unity of forces and the unity of matter, he equates these with the Vedāntic concepts of *prāṇa*, vital force or vital breath, and *ākāśa*, primal or subtle matter. But modern science has failed to find a higher unity encompassing both—recall Spencer’s statement that modern science is only a partially unified knowledge, with force, motion, and matter remaining

¹¹ Meera Nanda (2003, p. 70) comments on this passage, seeing it as epitomizing the basic epistemological approach underlying the contemporary quest of “Vedic scientists”. Such a message also had considerable resonance with Vivekananda’s American audience. As Wessinger (1995, p. 181) observes: “An important attraction of Neo-Vedanta for Americans is its compatibility with science. Vivekananda addressed Americans at a time when scientific discoveries and theories had dealt severe blows to traditional Judeo-Christian theism and biblical authority. Vivekananda’s addresses, and those of the swamis after him, were peppered with references to scientific data”.

independent entities. Vivekananda presses the superiority of Advaita for its fully unified knowledge:

There is the unity of force, Prana, there is the unity of matter, called Akasha. Is there any unity to be found among them again? Can they be melted into one? Our modern science is mute here, it has not yet found its way out; and if it is doing so, just as it has been slowly finding the same old Prana and the same ancient Akasha, it will have to move along the same lines [as the Upaniṣads and Advaita]. (CW 3:400)

As Vivekananda points out, according to the Sāṃkhya both *prāṇa*, and *ākāśa* can be resolved into a higher unity, the “Cosmic Mind” (Mahat), which is merely a manifestation of the Primordial Nature (Prakṛti) (CW 1:360). But while the Sāṃkhya poses a separate and distinct Spirit (Puruṣa), Advaita rejects this radical dualism, insisting that Spirit and Nature are ultimately one, call it Ātman, Brahman, or God, constituting the most universal of all generalizations. By the process of *vivarta*, of apparent manifestation like that of a snake appearing in a rope, the universe becomes manifest: “according to the Advaitists proper, the followers of Shankaracharya, the whole universe is the apparent evolution of God” (CW 1:363).

While science may be mute on the ultimate unity of matter and spirit, nonetheless, Vivekananda insists that modern science is constantly proving that “we are one—mentally, spiritually, and physically.... This oneness is the one fact that is being proved every day by modern science” (CW 1:373). Accordingly, the Swami concludes: “Thus we see that the religion of the Vedanta can satisfy the demands of the scientific world, by referring it to the highest generalisation and to the law of evolution” (CW 1:374).

Vivekananda was also not entirely satisfied with Spencer’s treatment of evolution. Like Spencer, he was unwilling to grant natural selection a comprehensive and robust role in the evolutionary process, preferring the Lamarckian notion (although not explicitly acknowledged as such) of the inheritance of acquired characteristics.¹² But whereas Lamarck and Spencer had emphasized the transformation of species in response to changes in the environment, Vivekananda stressed the internal cause of transformation, the inner desire of an organism to protect or improve itself. He illustrated this point with the example of a fish that, desiring to escape its predators in the sea, evolves wings and

¹² See Killingley (1995) for a discussion of the Lamarckian traces in Vivekananda.

transforms into a bird. He concludes: "Change is always subjective. All through evolution you find that the conquest of nature comes by change in the subject" (CW 2:137). Transformation for the Swami is thus due to a change in consciousness, rather than to the differential impact of external forces acting on homogenous bodies of matter.

But for Vivekananda, even this revised version of Lamarckian and Spencerian evolution remains problematic, for accumulating and compounding acquired characteristics would seem to benefit primarily only successive generations and not the original organism, and to be confined to purely physical transformation. Lamarck, like Spencer, from the Swami's perspective, provides no means for meaningful individual evolution. Vivekananda was adamant that only on the assumption of karma and rebirth can there be real (spiritual) evolution of the individual, although he makes one slight exception. As in the example of a fish, the transformation of one's body into a higher life form, even a divine form, can take place in the same lifetime if one has acquired sufficient spiritual merit, as Vivekananda makes clear in his commentary on the *Yoga Sūtras* (4:1) of Patañjali. Such species change and spiritual evolution, however, more often happens through the normal course of rebirth.

Such spiritual evolution for Vivekananda requires a prior spiritual involution, in accord with the law of the conservation of energy. Thus, the consciousness-energy we see manifesting itself ever more fully in the sequence of organic beings through which an individual soul transmigrates can only be a re-emergence of some original consciousness itself. As Vivekananda colourfully put it:

We admit that the amoeba goes higher and higher until it becomes a Buddha; we admit that, but we are at the same time as much certain that you cannot get an amount of work out of a machine unless you have put it in in some shape or other. The sum total of the energy remains the same, whatever the forms it may take. If you want a mass of energy at one end, you have got to put it in at the other end; it may be in another form, but the amount of energy that should be produced out of it must be the same. Therefore, if a Buddha is the one end of the change, the very amoeba must have been the Buddha also. If the Buddha is the evolved amoeba, the amoeba was the involved Buddha also. (CW 3:407)¹³

¹³ Killingley (1995) comments on this passage in some depth, contrasting it with the linear notion of Darwinian evolution.

It is from this perspective that Vivekananda seeks to refute the claim of Darwinian evolutionists that intelligence has only gradually evolved or emerged from matter over millions of years. And herein also lies the true telos of the evolutionary process:

In the end we will find the perfect man, so in the beginning it must have been the same. Therefore, the protoplasm was the involution of the highest intelligence. You may not see it but that involved intelligence is what is uncoiling itself until it becomes manifested in the most perfect man. That can be mathematically demonstrated. (CW 2:208–09)

That highest intelligence manifest in an enlightened being like the Buddha is ultimately none other than the infinite consciousness that is Brahman, or God. As Vivekananda concludes:

The sum total of the intelligence displayed in the universe must therefore be the involved universal intelligence unfolding itself, and this universal intelligence is what we call God, from whom we come and to whom we return.... Call it by any other name, you cannot deny that in the beginning there is that infinite cosmic intelligence. (CW 5:256)

Spencer had suggested using the term *involution* as the antithesis to the opposite but complementary process of dissolution, and thus as approximate synonym for physical evolution itself. Such a conception of involution for Vivekananda, however, misses the spiritual mark.

Spencer clearly provided Vivekananda with a preliminary framework for resolving the tensions between religion and science. But Spencer's insistence on the inscrutable nature of ultimate reality and his general focusing on scientific rather than religious explanations of the universe left Vivekananda—ever seeking the direct vision of God—spiritually unfulfilled. Spencer's scientific commentary, however, evoked in Vivekananda's mind the traditional teachings of the ancient Advaita Vedānta. Yet as we have seen, Vivekananda with his theistic background was initially quite cool towards Advaita, rejecting it as atheistic. Perhaps the influence of his master Ramakrishna was instrumental in his conversion, but it is quite possible that there was another important influence, coming from the West, that prodded him into the monistic path of Advaita.

Possible Roots of the Advaitic Resolution: The Theosophical Solution

This other probable influence on Vivekananda, although not explicitly acknowledged by him, was that of Theosophy and its primary founder,

the Russian-born Helena Petrovna Blavatsky. Theosophy represents one of various late nineteenth-century responses to the scientific challenges that were then bearing upon traditional Christian beliefs and biblical authority. And to those disillusioned with conventional moral norms and ideals, it offered an alternative spiritual path in apparent harmony with modern science and promising direct experience of a higher reality. Further, Blavatsky had modelled many of her mystical ideas after the teachings of Advaita Vedānta. Thus Theosophy, with its critique of traditional creedal formulations of Christianity, along with its exuberant tribute to the wisdom of the ancient Hindus, would have had considerable appeal to the young Vivekananda. It may well have been through his association with the Brahmo Samaj that he first encountered their teachings. In any case, the fundamental principles of Theosophy resonated in significant ways with those of Spencer, but also resolved the issues in his *First Principles* that Vivekananda found so unsatisfactory.

Blavatsky in the Proem of her *The Secret Doctrine* noted three fundamental principles of Theosophy (Sellon and Weber 1992). These were, first, an affirmation of an eternal, immutable Principle entirely transcending human conception, and referred to as the Absolute or the supreme Brahman; second, an affirmation of the eternity of the universe which undergoes an endless cycling of manifestation and disappearance; and third, the identity of the universal soul with the individual soul, which undergoes the process of reincarnation in accord with the law of karma. In addition to these basic principles, Blavatsky affirmed that while the ultimate reality lies beyond human reason, it can be known intuitively within ourselves, as it is present therein. By this means, one can avoid blind belief, accepting no dogma, and discover truth on one's own, notions resonating with Vivekananda's quest to experience God directly.

Another Theosophical idea relevant to our investigation is its evolutionary theory: the beginning of a cosmic cycle is initiated by the involution of consciousness into matter instigating the diversification of material forms and the development of diversity from unity. Evolution on the biological level is the growth of the involved, and therefore somewhat hidden, consciousness from mineral to plant to animal to human levels of existence, and beyond to the supra-human. It is a process that is activated not by merely mechanical and physical forces but rather unfolds "from within out" (Sellon and Weber 1992, p. 322). This unfolding is the re-manifestation of the involved consciousness.

The goal of evolution is the full realization of unity in diversity, or in different terms, the realization of the true and highest Self. With that realization the original consciousness prior to its involution is reclaimed. Vivekananda utilized just such a notion of spiritual involution, with its emphasis on the descent of consciousness into matter and its gradual re-emergence, rather than Spencer's notion of material involution that focused on the increasing integration and complexity of matter.

Also significant for Vivekananda was Blavatsky's claim that the sages of ancient India had discovered the truth of evolution, along with other modern scientific theories, long ages ago. As she wrote in *Isis Unveiled* (1877, pt. 1, p. 620):

Beside the discoverers of geometry and algebra, the constructors of human speech, the parents of philosophy, the primal expounders of religion, the adepts in psychological and physical science, how even the greatest of our biologists and theologians seem dwarfed! Name to us any modern discovery, and we venture to say, that Indian history need not long be searched before the prototype will be found of record. Here we are with the transit of science half accomplished, and all our ideas in process of readjustment to the theories of force-correlation, natural selection, atomic polarity, and evolution.

She went on specifically to mention that the ancient Hindu sage Manu had written about the evolution of life on Earth perhaps some ten thousand years before Christ. Keshab was likely inspired by Blavatsky's notion that the traditional ten avatars of Viṣṇu anticipated Darwinian evolution, but this specific example had no attraction for Vivekananda. Nonetheless, the Swami rejoiced to find other Western intellectuals attesting to India's priority regarding the discovery of evolution. For instance, he noted in a letter to an American disciple in the summer of 1894 the opinion of the great Sanskritist Monier Monier-Williams: "Indeed, the Hindus were Spinozists 2,000 years before the birth of Spinoza, Darwinians centuries before the birth of Darwin, and evolutionists centuries before the doctrine of evolution had been accepted by the Huxleys of our time, and before any word like evolution existed in any language of the world" (CW 9:25). In due time, Vivekananda proclaimed the true discoverer of evolution, both spiritual and physical, to be the author of the *Yōga Sūtras*, Patañjali.

Of particular interest here with regards to Blavatsky's view of evolution is her critique of Spencer. She begins by observing (1888, vol. 1, Proem, p. 12n):

It is curious to notice how, in the evolutionary cycles of ideas, ancient thought seems to be reflected in modern speculation. Had Mr. Herbert Spencer read and studied ancient Hindu philosophers when he wrote a certain passage in his "First Principles" (p. 482), or is it an independent flash of inner perception that made him say half correctly, half incorrectly, "motion as well as matter, being fixed in quantity (?), it would seem that the change in the distribution of Matter which Motion effects, coming to a limit in whichever direction it is carried (?), the indestructible Motion thereupon necessitates a reverse distribution.

Blavatsky goes on to quote the remainder of Spencer's paragraph in which he concludes that the alternating predominance of attractive and repulsive forces result in "alternate eras of Evolution and dissolution". Thus, Blavatsky already noted the problem with Spencer's physicalist interpretation of involution/evolution that Vivekananda also found problematic.

Vivekananda's attitude towards the Theosophists was ambivalent. At times Vivekananda praised the good work that the Theosophical Society had done for India, and singled out Annie Besant, one of Blavatsky's successors as head of the Society, and William Q. Judge, one of the original founders with Blavatsky and Colonel Henry Olcott of the Society, and later the General Secretary of the American Section, for their good intentions. But the Swami was put off by their belief in the infamous divine masters or "Mahatmas" who supposedly revealed the truths of the universe. Vivekananda saw this as nothing but charlatanry,¹⁴ and he came to feel that the Theosophists in America had viciously undermined his mission to the West during his first trip to attend the World's Parliament of Religions (CW 3:207–10). He thus could write years later that "Theosophy is the best serum we know of, whose injection never fails to develop the queer moths finding lodgment in some brains attempting to pass muster as sound" (CW 4:317). After insisting that he did not wish to disparage their good work, he goes on to say: "The only help the religion of the Hindus got from the Theosophists in the West was not a ready field, but years of uphill work, necessitated by Theosophical slight-of-hand methods" (CW4:318). He particularly resented the idea that Theosophy had something of religious value to offer the Hindus, who had already suffered sufficient degradation from the "importing of almost everything else", insisting

¹⁴ For Keshab Chandra Sen's similar response to the Theosophists, see C. Mackenzie Brown (2007, p. 436).

that Hindus had no need of the teachings “of dead ghosts of Russians and Americans” (CW 4:318). It is hardly surprising that Vivekananda provides no explicit acknowledgement of any indebtedness on his part to their mystical-evolutionary ideas.¹⁵

By the time Vivekananda left for America, he had built up a number of strategies for reconciling science and religion and for affirming the scientific nature of Advaita. These strategies were clearly developed in conversation with various strands of Western thought, and he continued to elaborate upon them as he became more familiar with the latest European and American ideas during his extended period in the West following the Parliament, as in his sharpening critique of the ethics of modern science and western evolutionary ideas (Killingley 1998). At the same time, he plunged further into the study of his native traditions, for instance developing his interpretation of evolution in the *Yoga Sūtras* apparently while undertaking a commentary on that work in the winter of 1895–96 in New York (Killingley 1990).

It is essential to note that Vivekananda was not alone among Asians in developing strategies in defence of diverse Asian religious traditions, a fact not surprising given the expanding influence of European thought around the world during the nineteenth century. As Richard Hughes Seager (1995, p. 96) points out:

The global dissemination of a stock of general ideas and sentiments in the decades before the Parliament meant that a similarity of outlook existed among many delegates, despite the fact that their religious world-views were formed in very different cultures and their aspirations were often expressed in incompatible theologies and philosophies.

Included in this common stock of ideas were the liberal values of “egalitarianism, the authority of science, the inspirational qualities of religion, universalistic ambitions and aspirations, and toleration” (Seager 1995, p. 96). The World’s Parliament of Religions nicely illustrates the emergence of these significant, global intellectual and theological trends.

¹⁵ For a detailed account of Vivekananda’s stormy relationship with the Theosophists and his final rejection of them, see William W. Emilsen (1984). In the end, Vivekananda came to feel that the Theosophists “were more dangerous to India than the Brahmo Samaj, more dangerous even than the Christian missionaries. Like them, Theosophy was an imported religion, but worse than them, it was anti-rational and consequently anti-Hindu” (Emilsen 1984, p. 216).

The Asians at the World's Parliament of Religions and the Occidental Strategy

The declamations of Vivekananda at the World's Parliament of Religions regarding the scientific nature and religious superiority of Advaita Vedānta must have been unsettling to the Christian organizers of the Parliament.¹⁶ They had shared a general sense that the congress would serve to show the superiority of Christianity in all regards, even while demonstrating the glimmerings or anticipations of Christian truths present in the "heathen" religions. As the Rev. John Henry Barrows (1893, vol. 1, p. 3), chairman of the Parliament, proclaimed in his two volume account of the proceedings of the congress, it was "Religion" or "faith in a Divine Power", that lay behind the achievements of the arts and literature of the past, including the "Hindu literature with its marvelous and mystical developments". This Divine Power, for Barrows, was clearly the Christian God. He went on to assert that the "Religion of Christ" had led to many of the great social, moral, and scientific achievements of modern civilization. And while noting that "the white light of Heaven"—by which he meant the Religion of Christ—had been fragmented into many colors by "the prisms of men", the Parliament was "to change this many-colored radiance back into the white light of heavenly truth". As he made even clearer a few pages later on (1893, vol. 1, p. 28), "We believe that Christianity is to supplant all other religions, because it contains all the truth there is in them and much besides, revealing a redeeming God". Accordingly, "Christian America", in Barrows' view (1893, vol. 1, p. 28), had invited the spiritual leaders from around the world to the Parliament, "her Grand Festival of Peace", so that "those who have the full light of the cross should bear brotherly hearts towards all who grope in a dimmer illumination".¹⁷ But for Vivekananda, the light of truth was thoroughly Advaitic and not Christian.

¹⁶ Richard Hughes Seager (1995, p. 177) notes: "In the minds of its organizers, the assembly was officially sanctioned by a theology derived from, alternatively, the Protestant, Christian, or Judeo-Christian traditions, which dovetailed neatly with a generic form of western, modern, liberal theism". On the cross-purposes of the parliament, see Seager (1995, pp. xvi–xviii). See also James E. Ketelaar (1991) and Koppedrayar (2004).

¹⁷ These statements in Barrow's chapter on the world's response to the idea of the Parliament are quoted from an address of his to the Christian Endeavor Convention in New York in 1892. They are quoted and discussed by Ketelaar (1991).

Provocative as the Swami's speeches may have been to many Christians in the audience as well as on the speakers' platform, they were not the eccentric remarks of an isolated individual. Rather, Vivekananda was representative of a rising group of Asian intellectuals "inspired by liberal ideals and conversant with western ways, but also deeply convinced of the validity of their traditions and determined to carve out a place for them in the emerging global ecumene" (Seager 1995, p. 108).¹⁸ In various ways, these Asians embodied an emerging Occidental strategy that sought "to defeat the Occident at its own game in its own terms" (Ketelaar 1991, p. 38). Seager (1995, p. 113) describes this Occidental strategy as "a wholesale adoption of the liberal spirit and a selective appropriation of Christianity, only to place it at the service of chastening the West, describing a vision of rising Asia, and generating universalistic religious discourses rooted in the traditions of the East". In different but colourful words, Narsingha P. Sil (1997, p. 155) refers to this strategy as "a dramatic reversal of the concept of 'white man's burden' into that of a 'brown man's burden'". Important elements of this strategy were the claim that the East was the origin of science (as well as all other important aspects of culture,) and the use of science to critique a Christianity increasingly in conflict with "the emerging scientification of knowledge" (Ketelaar 1991, p. 42). The strategic Occidental appeal to science characterized not only Vivekananda's addresses, but also those of his fellow Advaitin, Manilal N. D'vivedi from Bombay, as well as those of the Buddhist delegates from Ceylon and Japan.

Like many other Asians at the Parliament, D'vivedi disparaged the idea of a personal creator god standing outside of nature.¹⁹ He saw

¹⁸ Cf. Robert S. Ellwood (1987, pp. 20–21): "...it must be noted that the parliament's spokesmen for Asian religions tended to be devotees of their own traditions who were at the same time persons of Western education and modern ideas. They were characteristically reform-minded men eager both to bring their own religions in line with what they perceived to be the most up-to-date scientific and moral thought, and to present them to Westerners as wholly compatible with that thought".

¹⁹ For a comparison of D'vivedi's and Vivekananda's presentations at the World's Parliament of Religions, see Indira Chowdhuri-Sengupta (1998). She argues that D'vivedi's schematic presentation of Hinduism with its attention to accuracy of interpretation regarding details "reduced the scope of Hinduism as a universal religion" (1998, p. 25), in contrast to Vivekananda's that emphasized the universal principles of the tradition. I see some truth to this claim, but note that both men adopted similar strategies in their appeals to modern science. Chowdhuri-Sengupta herself (1998, p. 24) notes that "D'vivedi's strategy consisted of playing off science against the

this conception of God as a primitive, anthropomorphic attempt “to understand the unknown”, in contrast to the “ultimate satisfaction of reason and emotion... in the realization of that universal essence which is the All” (D’vivedi 1893b, p. 318). He challenged the credibility of the Bible, admonishing Christians that the biblical chronology of 6,000 years for all of world history is untenable in the light of modern physical science (1893b, p. 316). By contrast, D’vivedi (1893b, p. 327) argued that the traditional Hindu cyclical view of time with its vast eons as given in the sacred texts of the *Purāṇas* “is amply corroborated by modern geological and astronomical researches”. D’vivedi (1893b, p. 327), however, immediately went on to question the truth of Darwinian evolution: “The theory of Simian descent is confronted in the *Purāṇas* with a theory more in accord with reason and experience”.

In a separate paper prepared to answer questions submitted to him from the audience, D’vivedi attempted, among other things, to clarify his views on evolution. He asserted that Advaita accepts “any theory of evolution” so long as it does not violate the fundamental idea of the non-dualist philosophy (D’vivedi 1893a, p. 334). Of course, that is a major qualification. D’vivedi (1893a, p. 334) insisted that the Absolute (Brahman), “in order to realize itself, sets up against itself the relative, and duality thus produced leads to evolution”. But this conception of evolution involves a distinctly non-Darwinian, mystical understanding of evolution, as seen in D’vivedi’s explanation that the various subtle, mental, and material stages of evolution from primordial nature (*Prakṛti*) are merely magical manifestations of the Absolute, which remains the silent witness of the whole panorama. Each soul manifests its original or inherent nature, resulting in the various grades of life and intelligence. Humans themselves have evolved from their prototypes, the ancient ancestors thought to have lived on the moon. Finally, the goal of evolution and destiny of human life is the realization of oneness with the Absolute, at which point one is free, immortal, and has no more “connection with evolution” (D’vivedi 1893a, p. 336). Except for its greater use of the technical vocabulary and concepts of orthodox Advaita, D’vivedi’s account of spiritual evolution is quite similar to Vivekananda’s more western-accommodating explanation.

superior claims forwarded for Christianity in India”, which of course is exactly what Vivekananda did as well.

The Buddhist delegates made similar rational and scientific appeals in support of their traditional teachings. The Ceylonese Buddhist representative, Anagarika Dharmapala, was founder of the reform-minded Maha Bodhi Society committed to uniting “northern and southern Buddhists to check Christian advances in the East” (Seager 1995, p. 109). He was also one of several English-speaking Buddhists in Ceylon who were members of the Theosophical Society. These Buddhist Theosophists were quite familiar with the writings of Colonel Olcott, and many of them, along with Olcott, contributed articles to the journal, *The Buddhist: The Organ of the Southern Church of Buddhism*, begun in 1888. In an 1892 essay for the journal, Olcott had written that Buddhism was a “scientific religion” unlike Christianity, a message readily taken up by Dharmapala (Bartholomeusz 1993, pp. 237–38). In preparing for the Parliament, Dharmapala was aided in composing his speeches by the converted Dutch Buddhist and fellow Theosophist, A. E. Buultjens. In responding to the various questions posed by the Parliament programme, their answers stressed the “rational qualities” of Buddhism and “its affinities with science” (Bartholomeusz 1993, p. 239).

These themes are clearly reflected in Dharmapala’s major address at the Parliament, “The World’s Debt to Buddha”. He declaimed: “The bark of theological dualism is drifting into danger. The fundamental principles of evolution and monism are being accepted by the thoughtful. The crude conceptions of anthropomorphic deism are being relegated into the limbo of oblivion” (Dharmapala 1894, p. 380). In his rejection of theism he conjoined the law of cause and effect with the theory of evolution: “In the sense of a supreme Creator, Buddha says that there is no such being, accepting the doctrine of evolution as the only true one, with the corollary, the law of cause and effect. . . . The teachings of the Buddha on evolution are clear and expansive” (Dharmapala 1894, p. 382).

To clarify his view of evolution, Dharmapala quoted a definition of the theory from a biography of Darwin which emphasized the unfolding of the cosmos as a continuous process obedient to natural laws and reflecting the rearrangement of the original elements in accord with their own inherent energies unsupervised by any external intelligent power. Dharmapala (1894, p. 382) concluded: “I have used the above definition of evolution . . . as it beautifully expresses the generalized idea of Buddhism”. Yet like Vivekananda and D’vivedi, he hesitated in accepting a full-blown Darwinian explanation for the origin of human beings, noting that Buddhists “do not postulate that man’s evolution

began from the protoplasmic stage”, adding that Buddhists are constrained from asking questions about the origins of life (Dharmapala 1894, p. 382). The disciples of the Buddha are to focus not on origins, but the goal of life, which Dharmapala (1893, p. 873) explains is to break free from the cycle of birth and death, “the vortex of evolution”, at which point “[e]ternal changefulness in evolution becomes eternal rest”.²⁰ He concluded (1893, 2, 878) by reiterating the basic harmony between Buddhism and science:

Finally, if we gather up all the results of modern research, and look away from the best literature to the largest discovery in physics and the latest word in biology, what is the conclusion—the high and joyous conclusion—forced upon the mind, if not that which renders true Buddhism so glad and so hopeful?... Buddhism is a scientific religion, inasmuch as it earnestly enjoins that nothing whatever be accepted on faith. Buddha has said that nothing should be believed merely because it is said. Buddhism is tantamount to a knowledge of other sciences.

Change “Buddhism” to “Advaita” in the preceding quotation and we have a concise summary of Vivekananda’s views, not surprising given the penetration of Theosophical ideology into both Hindu and Buddhist circles in India and Ceylon in the late nineteenth century.

The five members of the Japanese Buddhist delegation “came to Chicago prepared to engage the West in both a common quest for religious unity and a duel” (Seager 1995, p. 109).²¹ The Japanese interpreted the Christian West at the end of the nineteenth century as undergoing a major religious crisis in which the social and spiritual developments of the West in the preceding centuries were being undermined by contemporary advancements in science and the accompanying increase in wealth. From this perspective, Buddhism, not Christianity, would be the revolutionary spiritual leader in the twentieth century and would serve to “bring about the spiritualization of science” (Ketelaar 1993, pp. 292–93). For the Japanese, Christianity, being unable to combat “the ills of material progress” and even contributing “to the West’s ‘slavery to its own material wealth’”, had convened the Parliament in

²⁰ Somewhat different versions of Dharmapala’s address are given in the Barrow’s and Hanson’s editions, some long passages being deleted in Hanson’s, while sometimes corresponding passages are less clear in Barrow’s. Accordingly, I have used whichever edition makes the points I am illustrating most succinctly and lucidly.

²¹ Ketelaar (1991, p. 44) observes that many of the Asian representatives looked upon their inclusion in the Parliament as “an invitation to a religious duel”.

order to seek from the East answers to the crisis that it was incapable of handling (Ketelaar 1993, p. 293). It was in this cultural context that the Japanese Buddhists arrived in Chicago.

Shaku Sōen, one of the Buddhist delegates from Japan, was a member of the Maha Bodhi Society and of the Theosophical Society. James Edward Ketelaar (1993, pp. 295n) notes the repute of Colonel Olcott in Japan “particularly among Buddhists concerned with the ongoing, and often emotional, debate between Christianity and Buddhism during this period”. Ketelaar attributes Olcott’s popularity to his high regard for Buddhist teachings and his rather derisive attitude towards Protestantism. At the Parliament Shaku presented a paper entitled “The Law of Cause and Effect, as Taught by Buddha”. According to Ketelaar (1993, pp. 273–74), the essay “in Japanese is a precise and well-handled technical exposition of the Buddhist doctrine of co-dependent origination”, but as presented in English at the Parliament, “the terms used in Chicago, taken directly from language current to contemporary Theosophical discourse, served better in the production of an image of Buddhism as quaint and approximate than as the dynamic and socially viable force the Japanese Buddhists hoped to present”.²²

Nonetheless, the rational and scientific superiority of Buddhism to Christianity (and other religions generally) was an implicit theme throughout Shaku’s speech. Shaku portrayed the Buddha as the discoverer of the first truth of the universe, the law of cause and effect. It is an eternal law and applies to all phenomena, governing growth and decay: “Just as the clock moves by itself without any intervention of any external force, so is the progress of the universe” (Shaku 1893: p. 831). The law also governs human fortune and morality, not just present and future, but also past. Shaku thus subsumed the notion of karma and rebirth, spanning past, present, and future lives, under this law of nature. Buddha was not the creator but the first discoverer of this law. And who, Shaku (1893, p. 831) asked in his concluding remarks, can find fault with the Buddha, the discoverer of this “first truth of the universe, who has saved and will save by his noble teaching, the millions

²² See also Ketelaar (1991, p. 49), where he expands on “the Buddhists’ practice of borrowing language current to contemporary Theosophical discourse for the translation of central concepts”. Ketelaar (1991, pp. 49–50) further notes: “Shaku Sōen, for one, seemed rather enamored with the possibilities inherent in Theosophy... and made special note of the sole panel at the Parliament dealing with related issues”.

and millions of the falling human beings?" Such was his challenge to the Christians.²³

We come full circle when we turn to the presentation of the Theosophists at the Parliament. Shaku's equation of the law of cause and effect with karma and reincarnation was echoed in William Q. Judge's address. We may recall that Vivekananda had a favourable impression of Judge, considering him "the best representative the Theosophists ever had" (CW 3:210). In his summary of Theosophical teachings Judge (1893, p. 1518) explained:

Theosophy postulates an eternal principle called the unknown, which can never be cognized except through its manifestations....It periodically and eternally manifests itself and recedes again from manifestation. In this ebb and flow evolution proceeds and itself is the progress of that manifestation. The perceived universe is the manifestation of this unknown, including spirit and matter, for theosophy holds that those are but the two opposite poles of the one unknown principle.

Evident here is the influence of Spencer. Judge (1893, p. 1518) further elaborated that the universe is "the product of evolution" guided "by intelligent perfected beings from older evolutions", while man is "the flower of evolution". He goes on (1893, p. 1520) to clarify that the eternal human spirit-mind-soul is "intimately concerned in evolution, dominated by the law of cause and effect", resulting in differences of character and capacity that can only be explained by reincarnation.

Such appeals to science and reason to confirm traditional authority on the part of the Asians and their Theosophist allies should not, in themselves, have been shocking to Western members of the audience—many of the Christian speakers did the same. For instance, William Dawson (1893), a Canadian geologist with strong theological inclinations, argued that there was no conflict between science and Christianity, even while rejecting the philosophy of evolution for its failure to note the distinct rational and moral nature of humankind. He insisted (1893, p. 943) that science, with its law of cause and effect governing all phenomena, points back to a prime cause, to a personal

²³ Ellwood (1987, p. 15) notes the frequent emphasis by western apologists for Eastern traditions, and by western-educated Eastern pundits addressing western audiences, on "the unique compatibility of the ancient faiths with the modern scientific outlook". He cites in particular both Vivekananda and Shaku as illustrative of the Asian stress on "the empirical, rational, nontheistic, and nonfideistic character of such concepts as karma and universal oneness".

Creator, so that “science merges into rational theism”. Indeed, “the uniformity and universality of natural laws” points to a single law-giver, so that “science tends to be not only theistic, but monotheistic” (Dawson 1893, p. 943). The Scottish theologian A. B. Bruce (1893) accepted evolution without reservation, seeing in evolution a purposeful process that affirms the meaning of the universe as created by God for the moral and spiritual ends to be realized in man. For Bruce (1893, p. 941), evolution points to the upward trend of the universe, installing man at the summit, with all creation striving to bring forth man in his fullness, not just “man the savage”, but “man the civilized, man the completely Christianized”. Thomas Dwight (1893), professor of anatomy at Harvard Medical School, accepting evolution of the body but not of the soul, rejected any evolutionary system that allows only for naturalistic causation, as that would undermine all morality. Further, Dwight saw science and reason as confirming such biblical ideas as the fallen nature of man, dismissing the notion that the cause of evil is the persistence of animal passions in man. Henry Drummond (1893), a Scottish evangelical, insisted that evolution only enriched the Christian doctrine of creation, as evolution is simply God’s method of creation, and that evolution even demands a theory of creation. Unlike Dwight, Drummond saw in evolution the suggestion that sin may be a relic of our animal past.

For the Parliament organizers, then, the main surprise regarding the Asians’ appeal to the broad ideas of science was not that the modern men of Asia were using strategies similar to those of many Christians in defence of religion, but that they were using those strategies to confirm non-Christian truth—an exemplification of the Occidentalist strategy that reversed the Orientalist approach of the Parliament’s hosts. When it was all over, however, it is unclear how much the organizers understood of the religious, cultural, and historical significance of all they had heard.²⁴ Many at least remained steeped in the mythology of a triumphant liberal Protestant Christianity. Thus, in the preface to his account of the Parliament proceedings written just two months after the commencement of the Parliament, Barrows (1893, p. ix) enthused that “the Oriental reader will discover in these volumes the source

²⁴ The deafness and blindness to other religious messages was not confined to the Christians, of course. As Ketelaar (1991, p. 50) observes regarding the Buddhist delegation, “The invited Buddhists, like the hosting Christians, saw and heard precisely what they desired”.

and strength of that simple faith in Divine Fatherhood and Human Brotherhood, which, embodied in an Asiatic Peasant who was the Son of God...is clasping the globe with bands of heavenly light".²⁵

Ironically, among the original objects proposed for the Parliament was the goal, "To indicate the impregnable foundations of Theism..." (Barrows 1893, p. 18). Yet the Hindus, Buddhists, Theosophists and other representatives of Asian religions had often exploited science specifically to reject the idea of a personal creator god and to disprove such fundamental Christian assumptions as *creatio ex nihilo*, while at the same time promoting the idea of a transpersonal, non-theistic and non-dual Absolute in total harmony with modern science. In commenting on the frustration of the organizers' quest for unity and harmony, Seager (1995, xxix) highlights the parochial, ethnocentric, and hegemonic intentions of the Christians: in brief, the quest "failed because the God of the organizers of the Parliament turned out not to be quite the same as the Gods of the Asians". Vivekananda also sensed that the organizers had failed in their goals. As Hal French (1993, 49) notes: "Vivekananda later felt that most Christian participation was on the basis that Christianity would clearly vindicate its superiority in the marketplace, and in this, he judged, they were largely disappointed".

As for the effect of the Parliament on Vivekananda's thinking about his own Hindu roots, Kay Koppedrayar (2004, pp. 7–8) comments on the way in which he adapted his speeches to the Protestant North American "expectations of good religion", including "its potential for universality, its rationality, its salvific strengths". She then concludes (2004, p. 8) that "[b]y using the preoccupations of the event's organizers to broker what he was saying and by using imagery to appeal to the audience he was addressing, he was also reformulating Hindu thought". This process of reformulating Hindu thought, including the scientizing of the tradition, as we have seen, began for Vivekananda many years before his performance at the World's Parliament of Religions. The Parliament reveals that the process was shared by other religious thinkers around the world confronted with the challenges posed by modern science—and for the non-Christian Asians, the additional challenges presented by European imperialism and Christian missionary agendas.

²⁵ And as Narasingha P. Sil (1997, p. 166) notes: "Neither President Bonney nor Chairman Barrows ever recognized the alleged world conquest that Vivekananda and his enthusiastic admirers and devotees were proclaiming proudly and loudly".

Vivekananda's appeal to science can be fully understood only in this larger global context.

An Overview of Vivekananda's Rhetorical Strategies

The sociologist of religion Eileen Barker (1986, p. 143) has noted that "especially in societies which are experiencing both secularism and religious pluralism, [it is not surprising] that they should turn to science with *both* fearful suspicion *and* a desperate trust". While her comment was made in responding to the late-twentieth-century phenomenon of international conferences on religion and science sponsored by New Religious Movements, it is applicable, with some qualifications, to the Indian colonial situation of a century earlier. To be sure, ambivalence towards modern science has grown in the last few decades of the twentieth century with the development of devastatingly destructive military technologies and concerns about environmental degradation. Yet even in the late nineteenth century among thinkers like Vivekananda, despite the great charismatic appeal enjoyed by science at the time, a degree of ambivalence is present, especially with regards to its facilitation of colonial domination, combined with the general ethical implications of modern science in alliance with its naturalistic assumptions.²⁶

The ambivalence towards modern science helps to explain the diversity of strategic uses of science and the appeals to its authority in the service of traditional spiritualities. These traditional views, as we have noted, are often greatly reinterpreted. Such reinterpretation clearly characterizes Vivekananda's reformulation of Śaṅkara's Advaita Vedānta, commonly subsumed now under the rubric of Neo-Vedānta.²⁷ This Neo-Vedānta, institutionalized in the world-wide Ramakrishna Mission that Vivekananda founded, constitutes essentially a New Religious Movement. Barker (1986, p. 143) points to a number of salient and often interconnected approaches towards science among such New Religious Movements aiming at the common goal of world peace and harmony:

²⁶ See, for instance, Tapan Raychaudhuri (1988, p. 200), on Vivekananda's contemporary Bankimchandra Chattopadhyay, who had come to see science as "a monster stinking of human blood and bedecked with weapons of destruction".

²⁷ As noted by Carl T. Jackson (1994, p. 74): "Though the Vedanta message presented in the West by the Ramakrishna movement clearly drew deeply from the well of classical Hinduism, it also diverged sharply from Hindu orthodoxy. The movement's positive view of science offers one of the best indications of its nontraditionalism".

The relationships that are assumed to exist between science and religion are complicated and frequently contradictory. Sometimes science is invoked to prove, justify, support, or merely give permission for the truth claims of a particular ideology; sometimes it is used to disprove or to question the ideological presupposition of others; frequently science is vilified as the demon that is responsible for secularism, materialism, and the horrors of modern military technology; but it is almost invariably a demon that is respected, and it is commonly assumed that ‘proper use’ of science would bring about a better (more enlightened or more spiritual) world of peace.

In Barker’s summary we can see three basic rhetorical strategies regarding modern science in legitimating traditional religious perspectives. All three were articulated and mobilized by Vivekananda over a century ago in the elaboration and defence of his Neo-Vedānta.²⁸ First is the scientizing of the tradition: using the vocabulary and concepts of modern science to claim that sacred texts are scientific treatises. In this approach, scripture and modern science are used reciprocally: not only do the sacred texts anticipate modern science, but modern science confirms the truth of the ancient teachings. Thus, Vivekananda regards ancient ideas like *ākāśa* (ether) and *prāṇa* (vital breath or force) as identical with the modern concepts of matter and energy, and the traditional theory of *satkārya* (effects are latent in the cause) with the laws of conservation of energy and matter. He also finds a basic consonance between yogic transmutation of organic bodies and modern evolution. At times he simply selects random “empirical facts” to confirm traditional teachings, as in his citation of the supposed correlation between the decrease of number of animals in the world and a corresponding increase in human population as evidence for the transmigration of souls from animal to

²⁸ Koppedrayer (2004, p. 20) sees Vivekananda’s “use of the language of science” as one of four rhetorical strategies he used to win over his American audience in his speech on Hinduism at the Parliament. The other three include the “borrowing of Christian imagery”, the coining of “hybrid expressions”, and the “use of abstract and inclusive language”. With specific regard to the use of the language of science, Koppedrayer (2004, p. 20) summarizes:

Reference to scientific laws and principles appear quite frequently in the opening paragraphs of his speech. Vivekananda offers parallels between scientific principles and Vedic teachings. He makes the claim, and reiterates it in several configurations, that the earliest impulses of Hinduism embody scientific understanding. He borrows expressions from science to explain Hindu ideas, and he uses a language of proof and verification to emphasize the superior insights of Hindu thought.

My own analysis of Vivekananda’s strategies utilizes Koppedrayer’s insights and places them into Barker’s framework.

human form (CW 1:400). More broadly, he sees in the ideal of unity, both of process and of substance, a fundamental congruence between modern science and Advaita.

The second basic rhetorical strategy is the disparagement of other religions as unscientific—a disparagement in tension with his call for tolerance and mutual respect among religions. With Vivekananda we see two general types of critique of Christianity. On the one hand, he portrays Christianity historically as anti-science. For instance, in his lengthy essay comparing the East and the West, he proclaims:

Whatever heights of progress Europe has attained, every one of them has been gained by its revolt against Christianity—by its rising against the Gospel. If Christianity had its old paramount sway in Europe today, it would have lighted the fire of the Inquisition against such modern scientists as Pasteur and Koch, and burnt Darwin and others of his school at the stake. (CW 5:533)

On the other, as we have seen in some detail, he offers a philosophical and rational refutation, on supposedly scientific grounds, of specific Christian beliefs, including especially its dogma of *creatio ex nihilo* and its creationist claims on behalf of an extra-cosmic designer. For Vivekananda, evolution and the law of the conservation of energy were “dealing death blows to all sorts of crude theologies” (CW 3:111). His rejection of extra-cosmic, theistic, supernatural causation is simply a corollary of his scientized Advaitic ideal of unity in process and substance.

The third strategy, involving a moral and epistemological critique of modern science, entails the spiritualizing of science. On the moral side, natural science is seen as undermining traditional values and encouraging selfish and immoral behaviour. In Vivekananda’s case, we see this especially in his response to Darwinian evolution and the ideas of competition, sexual selection, and survival of the fittest. Such teachings, he argues, give justification to the most brutal tyranny, a “license to be wicked”, and a program of eugenics (CW 5:278). It provides an excuse to unprincipled men “to kill out all [supposedly] wicked and incompetent persons” according to arbitrary personal preferences, and encourages an unbridled quest for sexual gratification (CW 1:292–93). Darwinism gives play only to ruthless individual selfishness and the drive for acquisition, while Advaita, with its insistence on the essential unity of all beings, provides the only rational foundation for unselfishness and renunciation of individual aggrandizement. Thus, modern evolutionary theory, in itself, is ethically unsound and incomplete unless it is supplemented with traditional Hindu yogic notions of spiritual evolution. Darwinian

evolutionary science thus must be spiritualized, taken up into the higher science of Vedānta, the science of the soul and of universal love. In different words, the sciences of the outer world must be complemented by those of the inner, in which sciences the Hindus have excelled for millennia and still far surpass the West.

This spiritualization of science most crucially, especially from an epistemological standpoint, involves a radical reinterpretation of scientific methodology. On the one hand, modern science is critiqued for its limited assumptions and scope, dealing only with a physical reality as revealed by our limited senses which are incompetent for discerning the truths of a higher reality. The resulting blindness, according to Vivekananda, leads to “so-called scientific popery” and the unquestioning acceptance of whatever “the popes of modern science” ask us to believe, regardless of how incredible (CW 9:212). On the other, Vivekananda homologizes the Vedāntic notion of experience with scientific empiricism.²⁹ The science of Vedānta, or yoga, he explains, involves direct experiential confirmation of the highest truths, by means of yogic intuition or perception.³⁰ Such yogic means of knowledge are capable of uncovering both spiritual truths regarding the nature of ultimate reality, and physical truths about the empirical world, without the need for telescopes or microscopes (CW 2:445). Yogic perception is thus, according to Vivekananda, thoroughly empirical and undogmatic like all true science, but without the limitations dogging naturalistic science.

²⁹ Cf. Meera Nanda (2003, p. 95), where she sees “establishing a relationship of homology, or likeness, between scientific empiricism and the Vedāntic view of experience and reason” as one of the major defenses of contemporary advocates of Vedic science. This homology clearly goes back to Vivekananda in his speech on Hinduism at the World’s Parliament of Religions. As Koppedraayer (2004, p. 21) remarks regarding that speech, “Here, Vivekananda is also implying that the fundamental configuration of Hindu thought is empirical, even if that has gone unrecognized, and that there is no difference between Hindu religious thought and scientific thought, except, perhaps, that Hindu science developed first”.

³⁰ Sil (1997, p. 158) notes: “In his work of reconstruction, he [Vivekananda] was influenced by the Brahmo Samaj which had devalued *Śruti* [revelation] as well by the scientific methods. . . . The Swami’s de-emphasis of *Śruti*, that is, his debunking of intellectual method, chimed very well with his Master’s [Ramakrishna’s] anti-intellectual stance. Yet he sought to posit a process of attaining *Brahmajñāna* [knowledge of the Ultimate] that he felt had satisfied the demands of science, the leading intellectual force of his day”.

The spiritualization of science in Vivekananda's writings is in many ways a reformulation of the traditional Advaitic notion of two levels of truth, the ordinary or mundane, and the transcendental or mystical, mentioned earlier. Modern science in this epistemological hierarchy is simply the mundane science, safely contained within the all-comprehending expanse of the higher Vedāntic science. At this point, it is worth stepping back from the particular strategies of Vivekananda in his defence of tradition and look to his general understanding of what science is, an understanding that undergirds and informs his various strategies.

Conclusion:

*Vivekananda's Understanding of "Science" in His Reconciliation of
Science and Religion*

Regarding Vivekananda's understanding of science, as Anantanand Rambachan (1987) points out, the Swami does not give any clear or systematic formulation but only general and somewhat vague characterizations frequently repeated in various contexts. His concept of science is quite broad and inclusive. For instance, Vivekananda sometimes refers to the traditional paths to God of *bhakti yoga* and *karma yoga* as the sciences of love and work respectively. Vivekananda developed a notion of science that he could easily reconcile with religion, religion and science being for him simply "two sides of the same quest for truth" (Rambachan 1987, p. 284).

Rambachan points to two key ideas in Vivekananda's attempt to link science and religion. The first of these is the quest for unity, the search for "the one out of which the manifold is being manifested" (Rambachan 1987, p. 285). This quest, the Swami claims, is shared by the two enterprises. But as Rambachan notes, science cannot be defined simply in terms of such a general aim, for it is also characterized by its specific methodology. The second key point, relating to method, concerns Vivekananda's use of "the concept of science to refer to any rational system which proposes a goal and outlines a 'practical' method for its accomplishment" (Rambachan 1987, p. 285). Again, Rambachan is dubious. The equation of science with whatever is "internally consistent and practical" strikes him as "a loose application of the term" (Rambachan 1987, p. 285). Rambachan suggests such systems are rational rather than scientific.

Rambachan thus stresses the critical issue of scientific method, with clear implications for Vivekananda's homologizing of yogic experience with scientific empiricism.

While there is much philosophical debate about what modern science is, there is a general consensus that it is constituted by more than simply a body of facts or knowledge. It is also a set of concepts and, perhaps most importantly, a particular method or set of methods for discovering new knowledge that constantly results in the revision of concepts. Again, while there is controversy over exactly what constitutes scientific methodology, there is broad agreement that it utilizes systematic observation, quantification, experimentation, empirical verification, and the sceptical questioning of traditional authority and opinion—even if such scepticism is sometimes submerged under a consensus of scientific opinion regarding well-established, repeatedly verified, findings and theories.

The Sanskrit equivalent for the term *science* most commonly put forth by contemporary Hindu apologists and harmonizers is *vidyā*, and is frequently used to refer to traditional bodies of knowledge that include spiritual “sciences” such as *ātma-vidyā* (science of the Self) and *brahma-vidyā* (science of Ultimate Reality) which encompass *sarva-vidyā* (all sciences).³¹ But as Wilhelm Halbfass (1988, p. 186) points out, traditional understandings of *vidyā* are not easily reconciled with the modern notion of science and its methodology, for “the traditionalistic tendency to regard all ‘sciences’ (*vidyā*) as timeless, all-inclusive configurations of knowledge is incompatible with the ideas of progress and an open-ended empirical accumulation of knowledge”.

The traditionalistic idea of the sciences as timeless and complete “branches of learning” (Halbfass 1998, 393) underlies much of Vivekananda's rhetorical use of the term *science* as a practical method for ascertaining truth. It rests in large part on the homologizing of yogic experience with scientific empiricism and experimentation. But Halbfass (1988, p. 393) points out significant differences between such yogic experiencing and scientific empiricism, for the experiential path of the supposedly omniscient founders of the spiritual traditions do

³¹ Vivekananda's follower Swami Mukhyananda (1998, p. 19) illustrates this view nicely, with a supportive quotation from the *Muṇḍaka Upaniṣad*: “It [Vedānta] is Spiritual Science, encompassing all sciences (*Brahma-vidyā Sarva-vidyā Pratishṭhā—Muṇḍaka Upaniṣad* Li.I). It is metaphysics, philosophy, axiology, epistemology, cosmology, religion, ethics, science, and psychology—all in one”.

not contain an “‘empiricist’ openness for future additions or corrections”, but only a call to reconfirm objective truths already discovered. Nonetheless, as Halbfass (1988, p. 401) goes on to note:

“Experience” seems to refer to a category transcending the dichotomies of science and religion, the rational and the irrational. It promises a reconciliation of the ancient and the modern. It appeals to the modern fascination with science, but rejects its commitment to objectification and quantification. It is a device of reinterpretation and cultural self-affirmation, which serves to defend the Indian tradition against charges of mysticism and irrationalism.

Vivekananda’s appeal to modern science in defence of Vedāntic science and a scientized Advaita is fully understandable, especially within his colonial context, even if today it seems to many observers like myself less than compelling. Only when the notion of experience itself, ordinary or yogic, is critically examined in light of the fact that all experience is socially conditioned and interpreted can the spiritual insights of ancient India enter into a more fruitful dialogue with modern science. Within the Hindu traditions themselves one can find such cautions regarding the trustworthiness of yogic perception, as in Rāmānuja’s warning that such perception is still based on the “reproduction of objects perceived previously, and does not therefore rank as an instrument of knowledge...” (quoted in Halbfass 1988, p. 393). It remains to be seen whether the later followers of Vivekananda’s scientized Advaita will take such cautions as Rāmānuja’s seriously.

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INVERTED ORIENTALISM, VEDIC SCIENCE, AND THE MODERN WORLD: BHAKTIVEDANTA AND THE INTERNATIONAL SOCIETY FOR KRISHNA CONSCIOUSNESS

BENJAMIN E. ZELLER

Background

They dance ecstatically in the street, a kaleidoscope of saffron robes, white *dotis*, and multicoloured *saris* accompanied by the clash of cymbals and reverberation of drums. They sell translations of the Bhagavad Gita and other sacred Indian texts, often in airports or public parks, and entice visitors with offers of free succulent vegetarian feasts. They are the Hare Krishnas, members of the International Society for Krishna Consciousness (ISKCON). And while the vivid images and memories of their dancing, book ministry, and food distribution are all correct, they miss an important aspect of the Hare Krishna movement. Though born from the hippie counterculture of the United States of America in the mid-1960s, and spread throughout the world during the turbulent decade that followed, the roots of ISKCON derive from its founder's experience in colonial India, and one must read the Hare Krishna's engagement with the West and Western culture through that lens.

Few outside the Hare Krishna movement realize that the nature of science and its relationship to the religious message that ISKCON offered operated at the centre of the group's theological agenda. In the written advertisement that he brought with him as he first sailed to America, the movement's founder, A. C. Bhaktivedanta Swami Prabhupada (1896–1977), declared ISKCON's mission as spreading “all over the world for scientific knowledge of God”. Later, Bhaktivedanta published a set of his essays under the title *The Science of Self-Realization*, (Reprinted in 1979b) and he discussed science in many of his lectures, lessons, articles, and commentaries. A set of his lectures, published as *Life Comes from Life* focused exclusively on the topic of science. (1979a) Bhaktivedanta's disciples followed in his footsteps, authoring dozens of articles in ISKCON's official organ *Back to Godhead* that treated the topic of science, as well as considered the subject in their own lectures

and teaching materials. One such disciple, Svarupa Damodara dasa, even published a book-length treatment of science and its relation to ISKCON's religious worldview, *The Scientific Basis of Krishna Consciousness*. (1974) In addition, the group discussed science in countless pamphlets, brochures, and posters, making the topic of science a common one throughout the movement's ephemera. There can be little doubt that science occupied an important part of Bhaktivedanta's, and subsequently ISKCON's, religious world.¹

Yet Bhaktivedanta and his ISKCON disciples represented science in a distinct, even peculiar, manner. For Bhaktivedanta and his movement, 'science' meant two things. First, it meant the science of the post-Enlightenment West, characterized by its methodological empiricism and insistence on naturalistic explanations. Bhaktivedanta and his movement criticized science in this form due to both of these characteristics, as well as called into question the moral value of science and scientists in the West. Yet the movement adopted a second view of science, that which they called Vedic science, or the ancient science of Krishna Consciousness. As I explore in greater detail here, this second formulation of science represented a completely alternative scientific paradigm, to use the language of Thomas Kuhn (1970) Vedic science rejected empiricism and instead valued the teachings of sacred texts. It rejected materialistic explanations, and instead offered spiritual ones. Yet in calling Vedic science a science, and in identifying ISKCON with that Vedic science, Bhaktivedanta attempted to solidify a sense of legitimacy. As I argue here, the kernel of ISKCON's engagement with science emerged from Bhaktivedanta's attempt to seize the mantle of the authority of science and deploy it to legitimize and support his inchoate new religious movement. However his approach to science cannot be understood apart from his own experience in India and his encounter with colonialism and the modern Western scientific system that colonialism introduced to India.

The future A. C. Bhaktivedanta Swami Prabhupada was born September 1, 1896 with the given name Abhay Charan De into an

¹ This chapter focuses on Swami A. C. Bhaktivedanta Prabhupada, the founder of ISKCON, but is drawn from my larger study. For greater attention to the place of science in the work of Bhaktivedanta's disciples, please see Zeller, B. E., 2010. *Prophets and Protons: New Religious Movements and Science in Late Twentieth-Century America*. New York: New York University Press.

India on the cusp of modernization. Though British colonial authorities had established a technological infrastructure to link India's major administrative centres and cities, for most Indians like Abhay, Western science and technology remained distant. As historian Claude Markovitz has noted, "[u]p to 1905, modern Indian industry was more or less limited to the textile sector, both cotton and jute. From then onwards, partly under the influence of the *swadeshi* [nativist] movement, industrial diversification began to crystallize, essentially through Indian initiatives". (2002, p. 439) Indeed the first decades of the twentieth century witnessed the emergence of a burgeoning export market for jute, tea, and opium, as well as massive expansion of factories and domestic production and consumption of steel. Importantly, utilities such as electricity and telegraph slowly penetrated rural India and the older areas of the cities outside of the centres of colonial power.

The advent of electricification personally impressed the young Abhay. ISKCON chronicler Satsvarupa dasa Goswami wrote of his movement's founder's early experience that

Abhay turned ten the same year the rails were laid for the electric tram on Harrison Road [on which he lived]. He watched the workers lay the tracks, and when he first saw the trolley car's rod touching the overhead wire, it amazed him. He daydreamed of getting a stick, touching the wire himself, and running along by electricity. Although electric power was new in Calcutta and not widespread (only the wealthy could afford it in their homes), along with the electric tram came new electric streetlights—carbon-arc lamps—replacing the old gaslights. Abhay and his friends used to go down the street looking on the ground for the old, used carbon tips, which the maintenance man would leave behind. (Satsvarupa dasa Goswami 1980, p. 16)

Electricity enamoured Abhay Charan De while a child, but as an adult ISKCON's founder took a far dimmer view of Western science and technology, looking to both as tainted by materialism and scepticism.

In addition to witnessing the spread of Western technological infrastructure through the colonial endeavour, the future ISKCON founder also experienced it through his education. Like many other middle-class high-caste Hindus, Abhay Charan De attended a colonial college, in his case from 1916–1920 at the prestigious Scottish Church College of Calcutta. Known for excellent scholarship, traditional British education, as well as a centre of Bengali intellectualism, it was the alma mater of both Swami Vivekananda (1863–1902) and Paramahansa Yogananda (1893–1952), Bengali religious reformers

who had preceded Bhaktivedanta in missionizing the West. While at Scottish Church College, Abhay studied the history, literature, and science of the West, learning first-hand of the culture that he would later preach against. Yet he also inculcated a respect for modern science and technology, graduating with a degree in chemistry, which he utilized after graduation in the pharmaceutical industry.

Despite his encounter with the West through the means of colonial education, the religion of his childhood, Gaudiya Vaishnavism, truly captivated Abhay Charan De. A *bhakti* (devotional) sect of Hinduism dedicated to the exclusive worship of the Hindu God Krishna, Gaudiya Vaishnavism grew out of the fifteenth and sixteenth century revival led by Chaitanya (1486–1533), whom the sect considers an *avatar*, or incarnation, of the divine. Chaitanya championed an ecstatic or emotional form of worship, including communal song and public displays of devotion. He also deemphasized caste distinctions and social class. But before it reached Abhay Charan De, another set of reformers within Gaudiya Vaishnavism had turned their attention to the tradition, namely the nineteenth-century Bengali reformers who reacted to both British colonialism and the modernization of India. These reformers argued that in light of the encounter with the West, Indian Hinduism needed to adapt to modern sensibilities, which included theological as well as social transformation. In doing so, reformers such as Ram Mohan Roy (1772–1833) and Ramakrishna (1836–1886) argued that the religion of India could match that of Britain in its sophistication and value. As Thomas J. Hopkins argues, “[b]oth symbolically and practically, these Western-educated intellectuals were affirming in the late nineteenth century a new message: that Hindus had little to learn from the West in terms of spirituality, whereas everyone—themselves included—had much to learn from Hindu spiritual masters”. (1989, p. 47) Indian scholar Amiya P. Sen has persuasively argued that Bengal served as the centre of a new wave of Indian “culture builders” who sought to develop a native Indian culture predicated on a modern Hindu sensibility. (1993) Such culture-builders looked to transform Indian society, but to do so using the tools of its traditional religion, Hinduism. Those reformers within Gaudiya Vaishnavism, namely Bhaktivinoda Thakur (1838–1914) and Abhay Charan De’s own spiritual master, Bhaktisiddhanta Sarasvati (1874–1937) argued that the monotheism and social egalitarianism of the Gaudiya tradition enabled it to meet the challenges and needs of the modern world.

Bhaktivinoda Thakur’s work “to rationalize Gaudiya Vaishnavism and bring it into the modern age”, as Jan Brzezinski categorized it,

serves as a backdrop to Bhaktivedanta. (2004, p. 80) In addition to working in the British colonial administration, Bhaktivinoda Thakur wrote and translated nearly one hundred texts and commentaries on Gaudiya Vaishnava themes, all with the intention of showing their rationalistic sensibilities and compatibilities with modern life. Later, his son Bhaktisiddhanta Sarasvati produced his own materials, emphasizing not only Gaudiya Vaishnavism's compatibility with modernity, but its universality and social openness. Abhay Charan De met Bhaktisiddhanta in 1922 during the height of the elder Gaudiya teacher's work, and became his student a decade later.

Because of his fluency in English, Abhay—who was soon granted the name Bhaktivedanta in recognition of his gifts—focused his religious work on English-language preaching and publishing. He gave his first public English sermon in February 1935 to a receptive audience of fellow disciples of Bhaktisiddhanta, offering a message that challenged Western material culture and upheld what he considered traditional Vaishnava spirituality. He declared, “the darkness of the present age is not due to lack of material advancement, but that we have lost the clue to our spiritual advancement which is the prime necessity of human life and the criterion of the highest type of civilization. Throwing of bombs from aeroplanes is no advancement of civilization from the primitive, uncivilized way of dropping big stones on the heads of the enemies from the tops of hills. . . . [W]hile others were yet in the womb in historical oblivion, the sages of India had developed a different kind of civilization which enables us to know ourselves. They had discovered that we are not at all material entities, but that we are spiritual, permanent, and non-destructible servants of the Absolute”. (Reprinted in Satsvarupa dasa Goswami 1980, p. 84) This brief sermon presages the central themes of Bhaktivedanta's later engagement with science: a conflict between ancient Indian spirituality and modern Western materialism and a distinction between the advancement of material and spiritual existence.

Easy Journey to Other Planets

Bhaktivedanta's guru Bhaktisiddhanta responded to his disciple's English-language preaching with approval, and suggested to the future founder of ISKCON that he focus on disseminating the Gaudiya Vaishnava message to an English-speaking audience. Bhaktivedanta immediately set out to do so, beginning with translating the central

texts of the tradition, and eventually publishing English-language pamphlets, newsletters, and booklets on devotion to Krishna. Notably, he founded a Gaudiya Vaishnava periodical he titled *Back to Godhead*, which he published irregularly from February 1944 until April 1960. Many of the articles pertained to science, though science would assume its most notable position in a two-article series published at the end of the periodical's run in 1960.

Shortly before these articles appeared, Bhaktivedanta had composed a short book that portrayed Gaudiya Vaishnavism as an alternative science. Titled *Easy Journey to Other Planets*, the book described Gaudiya religion as a spiritual science that offered more value than its materialistic counterpart, and was written in response to the sudden increase in astronomy, exploration of the solar system, and space travel that immediately followed the launch of *Sputnik*, the Soviet satellite that in 1957 became the first human-constructed object to orbit the Earth. Unable to secure funds to print the book itself, Bhaktivedanta instead published sections of it as two instalments in the February 20 and April 5, 1960 issues of *Back to Godhead*, though he later managed to print it as a booklet as well. (1960c) A. C. Bhaktivedanta and later ISKCON's editors revised the book several times, reissuing it in 1970 and 1972 with numerous changes and additions.² From its first iteration, however, *Easy Journey to Other Planets* represented the obverse of Bhaktivedanta's rejection of Western science. If the science practiced in the West and by Western-oriented Indians represented wrong-headedness, then the science that his own movement promulgated, a spiritually-oriented science, offered the light of knowledge. "Godhead is Light, Nescience is darkness. Where there is Godhead there is no Nescience", trumpeted the masthead of each of *Back to Godhead*'s issues. *Easy Journey to Other Planets* explained the meaning of the masthead's slogan.

The first instalment, "Anti-Material World or the Kingdom of Godhead Now recognized by progressive science", which later became

² A complete analysis and history of subsequent editions of this book would require extensive coverage. In the editions that Bhaktivedanta's American movement published, the text includes a new preface, extended material in both its chapters, and revisions to account for scientific errors in Bhaktivedanta's original treatment as well as new scientific discoveries. Bhaktivedanta Swami, A. C., 1970b. *Easy Journey to Other Planets, by Practice of Supreme Yoga*. Boston: ISKCON Press, Bhaktivedanta Swami, A. C., 1972a. *Easy Journey to Other Planets, by Practice of Supreme Yoga*. New York: Bhaktivedanta Book Trust, Bhaktivedanta Swami, A. C., 1985. *Easy Journey to Other Planets, by Practice of Supreme Yoga*. Los Angeles: Bhaktivedanta Book Trust.

the first chapter of *Easy Journey*, began on a mixed note. “Modern materialistic science has discovered [an] anti-material world which was so long unknown to the wranglers of gross-materialism”. (Bhaktivedanta Swami 1960a, p. 1) On the one hand, scientists had achieved a remarkable discovery to which Bhaktivedanta granted them credit, but on the other hand the scientific endeavour remained that of wrangling over gross material, hardly a compliment to scientific methodologies or subject matters. The article continued by quoting a news article from the *Times of India* which explained that two American scientists had recently received the Nobel Prize for discovering the antiproton. In a phrasing that Bhaktivedanta would seize upon as the foundation of his article and book, the *Times* reported “[a]ccording to one of the fundamental assumptions of the new theory, there may exist another world or an antiworld built up of anti-matter. This anti (material) world would consist of atoms and sub-atoms particles [*sic*]³ spinning in reverse-orbits to those of the world we know. If these two worlds would ever clash, they would both be annihilated in one blinding flash”. (Bhaktivedanta Swami 1960a, p. 1)

The article’s description of anti-matter followed the scientific thinking of the day, including its speculation of possible anti-worlds. Scientists in the 1930s had discovered anti-electrons, or positrons, and the work on antiprotons followed in a similar vein. The mutual destruction of antimatter and matter likewise had been conclusively demonstrated by the 1950s. By the late twentieth century, the use of antimatter became routine—most hospitals by the end of millennium used antimatter based Positron Emission Topography machines, or PET scanners, as diagnostic tools, and every major sub-atomic physics research station created and destroyed antimatter as part of their routine experiments. However, during the 1950s antimatter was new and unknown. Scientists and science fiction authors alike wondered what qualities antimatter might possess and what its reality might show about the universe. They conjectured alternative universes and antimatter worlds, topics which fifty years later fell on the boundary of mainstream science and science fiction. Swami Bhaktivedanta seized upon the scientific discovery of the anti-material world as an analogous concept to the Gaudiya Vaishnava belief in the non-material

³ It is unclear if Bhaktivedanta misquoted “sub-atoms” instead of “sub-atomic” or if he merely repeated the error from the original *Times of India* article.

world, or spiritual world, in which Krishna lives, from which souls emerge, and to which they eventually return. “Exactly like the material atoms, the anti-material atoms also create the anti-material world with all its paraphernalia... Everything there is a living principle and the Supreme Personality in that region, of anti-material world is God Himself”. (Bhaktivedanta Swami 1960a, p. 2)

The swami and future founder of ISKCON developed several arguments in response to what he considered the discovery by Western materialistic scientists of the spiritual world. First, what science had only lately and imperfectly discovered, Gaudiya Vaishnava tradition and scriptures had revealed centuries or even eons ago. Second, where science and his own religion disagreed, science was incorrect. Third, the Krishna-centred Gaudiya Vaishnava religion tendered an alternative spiritual or theistic science that offered vastly more and better knowledge. Lurking behind these arguments, the author challenged but implicitly recognized the tremendous legitimacy and power of science and the modern scientific establishment. As James R. Lewis has argued, for many new religious movements (NRMs), rhetorical appeals to the authority of science offers powerful legitimation strategy. As Lewis explained, since “the general populace accorded science and science’s child, technology, a level of respect and prestige enjoyed by few other social institutions... any religious that claimed its approach was in some way *scientific* drew on the prestige and perceived legitimacy of natural science”. (2003, p. 93) Though Lewis wrote of the view of science in North American, the same phenomenon existed in India. By appealing to science, and even defining his religious approach as a fundamentally scientific one, the future founder of ISKCON positioned himself and his theology as rationalistic, universal, and legitimate.

Although Bhaktivedanta applauded the scientific discovery of anti-matter and its conjecture of an anti-material world, he insisted that the scientific breakthrough merely confirmed what Gaudiya Vaishnavism and its sacred texts had long upheld as truth. In a representative statement, he wrote that “[t]he scientists have discovered that there are two forms of matter but the same thing is described more perfectly in the Bhagwat Geeta [Bhagavad Gita] as two forms of energy”. (Bhaktivedanta Swami 1960a, p. 1) Hindu religious beliefs about the nature of the universe offered two advantages over modern scientific ones, Bhaktivedanta explained: they more completely, or perfectly, described reality, and they predated the scientific discoveries. The author spent much of the first instalment of *Easy Journey* explaining this more perfect understanding. The anti-material force, he wrote,

exists within material bodies and possesses qualities of eternity, indestructibility, sentience, and the ability to transcend the material world. Science might one day discover these same qualities of antimatter, but Vaishnava tradition could explain them now. Further, his tradition had recognized the existence of antimatter and the anti-material world long before modern science did—in fact before modern science existed at all.

Bhaktivedanta rooted his defence of the antiquity of Vaishnava knowledge in his assessment of the Vedas, the ancient scriptures that form the historical and religious basis of Hinduism. Scholars and Hindus disagree amongst themselves over the dating, origin, and even contents of the Vedas. A minimalist camp of academics and practitioners accepting only the oldest texts, while another camp permits the commentaries, expansions, and devotional texts which followed in the Vedic tradition. Many Hindus consider the Vedas timeless truths, and scholars have failed to reach a consensus on their dating. Most scholars date the Vedas as four thousand years old (composed around 2000 BCE) for the oldest texts in the collection, to as recent as 500 BCE for the newer texts. Other scholars see the Vedas as possibly twice as old, reaching into the Indian Bronze Age or even earlier as an oral tradition. As Edwin Bryant has argued, positions on the contents, origins, and dates of the Vedic canon possesses potent political power. Those who take an inclusive view of their contents and an ancient perspective on their origins tend to adopt a view of ancient Indian Vedic culture as a glorious golden age, and therefore present-day Hinduism as the heir and successor to that era. (Bryant 2001; Bryant and Patton 2005)

Bhaktivedanta envisioned the Vedas and Vedic culture as incredibly ancient, reaching back millions of years, and therefore understood the movement he founded as the bearer of scientific truths that dated back eons. Hence, he explained in the “Anti-Material World” article of the *Easy Journey* text:

Long long before the discovery of the principles of anti-matter particles or the anti-matter world, the subject matter was delineated in the pages of the Bhagwat Geeta [and] the principles of the Bhagwat Geeta was spoken by the Personality of Godhead long long before or at least 400,000,000 forty scores of year before. Modern science has just very late discovered partial truth inculcated in the Bhagwat Geeta. (Bhaktivedanta Swami 1960a, pp. 2–3)

Modern scientists might have discovered some limited knowledge of antimatter, but the Vaishnava tradition not only had more perfect data, but older data as well, in the Vedas and other scriptural sources.

ISKCON would build its alternative science on just this Vedic foundation, envisioning itself as offering a science predicated on ancient Vedic truths that predated anything Western materialistic science might offer.

Bhaktivedanta stressed a second point in the article, that when science and religion disagreed, particularly when science and Vaishnava religion disagreed, science must cede its ground. He specifically rejected the theory that if the antimaterial and material world clashed, “they both would be annihilated in one blinding flash”, as the *Times of India* article explained. More broadly, Bhaktivedanta disputed the finding that matter and anti-matter destroy one another on contact. The future ISKCON founder’s reasons for disputing the scientists depended on his reading of Vaishnava scriptures, namely the Bhagavad Gita. He explained, quoting his own translation of the text, “We think therefore that the theory of annihilation of both the worlds is wrong in conception. This is further explained in the Bhagwat Geeta as follows: ‘The finest and immeasurable anti-material particle is always indestructible, permanent and eternal’”. (Bhaktivedanta Swami 1960a, p. 2) The anti-material particles existed within human beings, he explained, and in fact their presence allowed bodies to become alive and grow. At the death of the body, the indestructible “anti-material particle leaves the unworkable old body and takes up another material body”. (Bhaktivedanta Swami 1960a, p. 1) Hence, antimatter neither appears nor disappears, not exists continuously and eternally. As evidence, Bhaktivedanta cited Vaishnava texts, indicating that since the scientific notion of the destructibility of antimatter clearly conflicted with scriptural authorities, the scientists’ position was erroneous. “Full details of the anti-material world can be known only from the infallible sources of liberated authority”, he explained, meaning either a guru or one of the Vaishnava sacred texts. (Bhaktivedanta Swami 1960a, p. 3) Since the texts indicated that antimatter must exist eternally, science must cede this fact as established.

One must note that Bhaktivedanta incorrectly understood the nature of antimatter, conflating the antiprotons and positrons that science discovered, both of which follow roughly analogous laws as normal protons and electrons, with the non-material elements of spirit or souls that his own tradition, and many other religions, upheld. Antiprotons do in fact annihilate themselves when they contact protons, and antimatter exists only ephemerally and unstably, since it quickly destructs when surrounded by the matter that makes up our known universe.

Antimatter as defined by science does not naturally exist within human bodies and if it did in any measurable quantities, it would cause severe internal injury, as it would immediately annihilate itself along with an equal amount of matter. Bhaktivedanta had, after reading of the scientific discovery of anti-matter, equated it with the *jīva*, or non-material soul that Vedic sources declare immortal, eternal, and responsible, because it left a dying body for a new one during reincarnation. Bhaktivedanta said as much in the article, when he wrote that anti-matter equated to the “superior form of energy” described by Hindu scriptures, which in turn he noted, was “called by the name ‘Jīva’ or the living force”. (Bhaktivedanta Swami 1960a, p. 1) The later editions of *Easy Journey to Other Planets* corrected Bhaktivedanta’s oversight, noting that he could accept the notion that antimatter and matter destroyed one another “only within the limited scientific definition of antimatter”. (Bhaktivedanta Swami 1972a)

Wishing to demonstrate that Gaudiya Vaishnavism offered an alternative spiritual or theistic science to modern science, Bhaktivedanta sought to directly compare the scientist’s anti-matter to his own tradition’s non-matter. He developed this argument of Vaishnavism as an alternative science in greater depth in the second part of *Easy Journey to Other Planets*, published as “Variety of Planetary System” in the April 5, 1960 issue of *Back to Godhead*. But the first instalment hinted at the representation of Gaudiya Vaishnavism as offering, or perhaps being, an alternative science to Western materialistic science. Referring to Vaishnava devotees as “students of theistic science”, he noted a difference in scientific methods. Whereas Western scientists prioritized their senses and experimentation, the theistic scientist “of this age gathers knowledge from the disciplic successional line of Arjuna [of the Bhagavad Gita] so that without troubling himself in the matter of materialistic research work such transcendentalists acquire the truths of matters and anti-matters in the most perfect way and save time and botherations unlike the gross materialist”. (Bhaktivedanta Swami 1960a, p. 3) That is, Gaudiya Vaishnavism offered an alternative scientific method, one that rejected empiricism and instead emphasized study of the revealed truths of its own texts. Such an approach to science so obviously differed from mainstream Western science that it entailed replacing the latter with a new, Krishna-centred, science. In the West, ISKCON would assume this position.

What the first article implied the second article stated outright: Gaudiya Vaishnava science, what the Hare Krishnas would later

call “Vedic science”, must replace the mainstream science under which Western nations operated and the British colonial authorities had brought to India. The article began by emphasizing the futility of science. Alluding to *Sputnik* and the newly inaugurated space race between the United States and the Soviet Union, Bhaktivedanta wrote that “the attempt to get into the orbit of the Moon, the Sun, or the Mars, as they are anxious to get into these particular planets, will be completely a futile endeavour of man on account of different atmosphere prevailing in those planets which are described in the ‘Brahma Samhita’ as *Vibhuti Bhinnam* [variagated features]”. (Bhaktivedanta Swami 1960d, p. 1) The Vedic scriptures describe the universe as containing innumerable, perhaps infinite planets, each of which contains a type of life most suitable to that planet, i.e. possessing variegated features appropriate to its habitat. On the basis of that information, Bhaktivedanta insisted that any human attempt to materially explore foreign planets would fail. Because human beings possessed Earth-specific features, our species must remain anchored to our own planet. “The sputniks or the so-called man-made planets made of mechanical arrangements will never be able to carry human beings in the inter-planetary outer space”, he concluded on the basis of scriptural evidence. (Bhaktivedanta Swami 1960d, p. 2)

Rather than pursue such futile explorations, Bhaktivedanta encouraged readers and scientists to accept what he elsewhere called “transcendental science”, i.e. Vedic science or the science of Gaudiya Vaishnava religion. In his other treatments of science in *Back to Godhead*, this science primarily existed as an adjective, describing forms of Vaishnava devotionism or learning. In “Variety of Planetary Systems”, Bhaktivedanta specified what such a science entailed. Rather than laboratory or other material methods, transcendental science employed “yogic systems” as a means to gather knowledge. In fact, he described two yogic systems within this alternative science, the first a materialistic one that allowed yogis to project their consciousness to other planets, the second a devotional one that caused the soul to leave the body upon death and journey to one of the material or anti-material planets. He offered both as evidence of the Gaudiya Vaishnava alternative to modern science.

The first of these options, materialistic yoga, Bhaktivedanta reserved for materialists, i.e. scientists, who would like to personally explore other planets without resorting to mechanical contrivances such as human-constructed satellites. He explained, “one can transfer himself

in the other planets, not by means of playful sputniks which are simply childish entertainments but by psychological effects and learning the art of transferring the soul by mystic powers. The yoga system... is a materialistic art of controlling such air which can be placed by practice of yoga from the stomach to the navel, from the chest to collarbones, from collarbones to the eyeballs and from the eyeballs to cerebellum. And from the cerebellum the expert yogi can convey his own soul to any planet he desires". (Bhaktivedanta Swami 1960d, p. 2) Vastly simpler and cheaper than other forms of space exploration, Bhaktivedanta offered what he called the materialistic yogic system as an alternative approach to the scientific study of the cosmos, a more perfect and more ancient method, as he insisted in the first of the *Easy Journey* articles. After mastering the science of yogic travel, a person could visit as many material planets as one wished, including the Moon, the Sun, Mars, or the thousands of other inhabited planets that Bhaktivedanta proclaimed the Vedas described.

Yet "the best plan of life", Bhaktivedanta insisted, "is to prepare oneself for going back definitely to the spiritual sky", that is to engage in the non-material yoga of devotional service in an attempt to permanently journey to the non-material world of Krishna. (Bhaktivedanta Swami 1960d, p. 2) Here the author linked the second of his articles to the first. Non-material ("anti-matter") planets awaited in the non-material, or spiritual sky, which one might achieve through devotion to Krishna, the Supreme Personality, or God. At this point Bhaktivedanta proffered the ultimate alternative to Western science. Whereas the scientists who discovered the antiprotons focused exclusively on this-worldly experiments and knowledge, transcendental science, as Bhaktivedanta called it, offered the chance to escape from the material world and, in the words of his periodical, go back to Godhead. He concluded his second instalment of *Easy Journey to Other Planets* by explaining that the desire to journey to the non-material planets, "[w]hen such desires are conducted in relation with the Kingdom of God, is called divine or devotional service which is discussed also in this issue". (Bhaktivedanta Swami 1960d, p. 2) Turning the page, the reader could find Bhaktivedanta's translation of a classic Gaudiya Vaishnava text, one that detailed the "transcendental science," as the swami translated it, of Krishna's earthly and heavenly activities. (Bhaktivedanta Swami 1960b, pp. 3–4)

Assessing as a whole Bhaktivedanta's two part article series that derived from *Easy Journey to Other Planets*, the author clearly attempted

to harness the cultural legitimacy and power of science in order to defend and promulgate Gaudiya Vaishnavism, a constant that reoccurred throughout the history of the Hare Krishna movement. Even while rejecting science as impotent, immoral, incorrect, or partial, Bhaktivedanta recognized that his readers appreciated science as progressive means of acquiring knowledge, one that colonial Indian culture, like the British society it emulated, accepted as legitimate and admired as factual and truthful. Each of the articles began with citations of modern, Western scientists. The first detailed the Nobel-winning American physicists' work on antimatter, and the second directly quoted three Russian natural scientists, astronomer Boris Vorontsov-Veljanino, botanist Vladimir Alpatov, and chemist Nikolai Zhironov, all of whom Bhaktivedanta cited as "Doctor" (or its abbreviated form). Each of the quotes supported Bhaktivedanta's argument that the cosmos contained millions of planets that supported different forms of life. Bhaktivedanta first cited as proof-texts, in other words, not the Vedas or the Bhagavad Gita, but quotes from members of the Russian Academy of Sciences, an institution then held in high international regard because of the success of the Soviet *Sputnik*. Only then, after establishing as scientifically legitimate the view of the existence of multiple life-bearing planets, did the future founder of ISKCON turn to his own sect's reasons for accepting these beliefs, namely its scriptural statements. The first article's use of scientific evidence in support of antimatter followed a similar pattern. Here Bhaktivedanta reversed what he had earlier declared the ideal methodology, that of rooting knowledge in scripture, because he recognized mainstream scientific evidence would more effectively convince his readers. He utilized science as a legitimating rhetorical device.

Swami Bhaktivedanta and Science in the West

Given his own guru's charge to him to spread Krishna Consciousness to English speakers, Bhaktivedanta did not remain in India. In 1965, Bhaktivedanta sailed for the United States of America, and arrived in New York City (after a brief stop in Boston, Massachusetts) on Sept. 17, 1965. Though he had initially expected to reach out to the best-educated Americans of higher social status, instead Bhaktivedanta found a receptive audience in Manhattan of hippies, aging beatniks, dropouts, and other members of the American counterculture. A charismatic speaker,

as well as the bearer of what seemed to the hippies as an exotic yet authentic spiritual tradition, over the next two years the swami attracted the attention of hundreds of these young men and women. With the aid of several dozen young devotees, Bhaktivedanta was able to secure a storefront on the Lower East Side, near the heart of the thriving New York counterculture. There he lectured on the nature of Krishna and his worship, disseminated free Vaishnava literature, conducted worship, and worked on translating the sacred texts at the centre of the Gaudiya school into English. On July 13, 1966, Bhaktivedanta incorporated the International Society for Krishna Consciousness as a non-profit organization in New York State.

ISKCON grew quickly under the guidance of the energetic swami and his North American converts, and experienced its heyday in the West during the mid 1970s, especially before 1977 when its founder and leader Swami A. C. Bhaktivedanta died. The movement planted centres through North America and later the globe, witnessed sizable numerical growth, founded a publishing division, and achieved notable publicity (not all of it good, of course). The Hare Krishna movement's general approach to science during the 1970s, the final decade of its founder's life, represented a vocal and strident position firmly opposed to the dominant paradigms of Western science. At the same time, however, ISKCON attempted to legitimate itself and its positions through science, following a pattern in keeping with what James R. Lewis has described as a "rational appeal" as a legitimating strategy. (2003, p. 14) Both efforts operated under the umbrella attitude within ISKCON that the movement itself possessed the best, truest, oldest, most perfect science, and that the group must take as its mission the need to supplant the West's, particularly America's, scientific establishment.

Much of the impetus behind ISKCON's engagement with science followed from its founder. Like the ISKCON movement more broadly, during this era he made a concerted effort to delineate why the Hare Krishnas offered a better alternative scientific paradigm than that of normative Western science. Therefore he both defended ISKCON as a science, and attacked Western science as in need of replacement, focusing particularly on the scientific establishment of the United States, the centre of his growing movement. The swami's personal correspondences, lectures, and conversations continued to indicate these positions. Of the over thirteen hundred taped conversations between Bhaktivedanta and his disciples or news reporters, ISKCON's leader

mentioned science or scientists over three thousand times, doing so in the majority of conversations. Likewise, he discussed science or scientists in hundreds of the lectures he presented to devotees and the public, over five hundred times during just his lectures on the Bhagavad Gita.⁴ He reserved his clearest discussion of science however for the numerous articles he published in ISKCON's official organ *Back to Godhead*, and a series of structured conversations on science with his students in 1973, published posthumously in 1979.

Swami A. C. Bhaktivedanta's articles illuminate most consistently his approach to science. Of the dozens of articles he contributed to *Back to Godhead*, he focused on science in nine of those he wrote between 1970 and his death in 1977.⁵ The first of these, "An Ancient Science for Modern America," published in the seventh issue of 1970, was also the first of Bhaktivedanta's articles in the new North American-published run of *Back to Godhead* to invoke science in its title. The reigning motif of this article described ISKCON as more scientific and therefore better than its two leading competitors: the material science of the West, and the unscientific religion of Christianity. Repeating the same critique that he had offered two decades earlier in the first issues of *Back to Godhead*, Bhaktivedanta dismissed Western science as ultimately fruitless. Using technology as a metaphor, he explained that "[t]echnology is good, for technology has produced [the] microphone,

⁴ These numbers cover the period from 1970–1977 only. Of the thirteen hundred and fifteen recorded conversations between Bhaktivedanta and members of his movement or outsiders, he mentioned science or scientists three thousand six hundred and nineteen times. He mentioned the topics five hundred and eighteen times during his lectures on the Bhagavad-Gita. The Bhaktivedanta Archives, Ed. 2003. *The Bhaktivedanta Vedabase (Version 2003.1)*. Sandy Ridge, N.C.: The Bhaktivedanta Archives.

⁵ *Back to Godhead* published fifty-six articles listing Bhaktivedanta as author during this period. However the journal also published numerous other articles, based on his lectures and interviews, which are substantially the product of Bhaktivedanta. The nine that I have considered here are those that most directly consider science: Bhaktivedanta Swami, A. C., 1970a. "An Ancient Science for Modern America." *Back to Godhead* 1(38): 4–8, Bhaktivedanta Swami, A. C., 1972b. "The Search for the Divine." *Back to Godhead* 1(49): 3–11, Bhaktivedanta Swami, A. C., 1974b. "The Tiny World of Modern Science." *Back to Godhead* 1(61): 3–9, Bhaktivedanta Swami, A. C., 1974a. "Perfect Questions, Perfect Answers." *Back to Godhead* 1(63): 3–8, Bhaktivedanta Swami, A. C., 1975. "Life Comes from Life." *Back to Godhead* 10(12): 4–9, Bhaktivedanta Swami, A. C., 1976b. "Summer Session." *Back to Godhead* 11(10): 16–22, Bhaktivedanta Swami, A. C., 1976a. "Reincarnation and Beyond." *Back to Godhead* 11(12): 5–9, Bhaktivedanta Swami, A. C., 1977a. "Beyond Animal Technology." *Back to Godhead* 12(5): 4–7, Bhaktivedanta Swami, A. C., 1977b. "Sri Prabhupada Speaks Out." *Back to Godhead* 12(10): 16.

but don't forget the real technology of life, how to understand God, how to love God. That is real technology. The other technology will be finished as soon as this body is finished". (Bhaktivedanta Swami 1970a, p. 5) Material technology, like material science, represented impermanence and the worldly concerns of those trapped in material consciousness. Krishna Consciousness, Bhaktivedanta insisted, transcended such mundane concerns. Devotion to God as taught by ISKCON, or *bhakti*, he declared the "highest technology", eternal and absolute. Adopting a hierarchal educational metaphor that his college-aged readers could surely grasp, he explained that "those who are actually interested in the science of God will find ample opportunity in this Kṛṣṇa⁶ consciousness movement... This is a postgraduate study of higher consciousness or God consciousness". (Bhaktivedanta Swami 1970a, p. 5) Undergraduates might study mechanical engineering or biology, but ISKCON offered a Ph.D. in the Divine.

However, in a move that marked the author's new orientation towards reaching Western, primarily American converts, he directed the main thrust of the article not against science, but Christianity, which the swami recognized as the movement's greatest competitor. Bhaktivedanta bluntly declared the religion of Christianity inferior to Krishna Consciousness. Whereas he rooted Krishna Consciousness in the ancient sciences of India and portrayed it as a postgraduate education in higher consciousness, Bhaktivedanta implied Christianity was far more remedial. "The Christian religion was taught in a different time", he explained. "Now people are more advanced in education. And it was preached in a desert: the people were not very prosperous at that time. So they have some description of God. But *Vedānta* [the Vedic corpus] was compiled under different circumstances for a different audience and with a different view. *Vedānta* means to know God". The circumstances of the Vedas, Bhaktivedanta explained, were "very nice", "lofty", and "not like nowadays", instead characterized by the highest moral, scientific, and spiritual development. "We can hardly imagine what class of men was present at that time", Bhaktivedanta summarized. (Bhaktivedanta Swami 1970a, p. 5) Hence the swami concluded that Krishna Consciousness, with its roots in the Vedas, offered

⁶ In 1970, ISKCON changed their transliteration standards, shifting from spelling "Kṛṣṇa" to "Kṛṣṇa." From this point forward, ISKCON used diacritical transliterations rather than standard roman-script transliterations. I have omitted diacritical marks in this chapter.

the most scientific approach to solving the problems of individuals and the world. Materialistic American science focused on the wrong problems, and Christianity “is not a complete science for modern America. But Kṛṣṇa consciousness”, he insisted, “is complete”. (Bhaktivedanta Swami 1970a, p. 5) The remainder of the article defended the Vedas as both ancient (152,650,000 years old) and complete, and explained the need for people to accept the Vaiṣṇava approach to devotion, bhakti, in order to have a relationship with God. Bhaktivedanta ended the article by explaining “[t]his is the way, this Vedic knowledge which is Kṛṣṇa consciousness. It is an ancient science which is eternally new. Modern America has reached a stage of civilization where it is ready to ask important questions. This science, as always, is ready with answers”. (Bhaktivedanta Swami 1970a, p. 8)

None of this, of course, represented a radical departure from Bhaktivedanta’s earlier statements on science. As Abhay Charan De, he had published that Krishna Consciousness represented the best in science and that modern people ought to accept it as such. However, Bhaktivedanta had now specialized the message for America, and by extension the broader West. First, he targeted both Christianity and material science as competitors, in effect recognizing the Christian assumptions and backgrounds of his potential converts. Whereas in India he had included the Quran and Bible as valid and valuable scriptures, in America he attempted to differentiate the Krishnas from their Christian competitors by disparaging the Bible as “nonsense scripture” and “manufactured”. (Bhaktivedanta Swami 2003h) Because he envisioned Christianity as a competitor, he devalued it and its scriptures. He also emphasized what he regarded as Christianity’s unscientific nature.

One reason for this is that Bhaktivedanta assumed that American society had a certain scientific nature, one to which he sought to appeal. America, he declared, boasted high technology and a scientific approach to life, as opposed to Indian civilization, which he characterized as essentially spiritual. “Indians are trying to imitate the Western technological, economic developments, but the people are not fit for that purpose. They are by nature Kṛṣṇa conscious”, he explained. (Bhaktivedanta Swami 1970a, p. 6) He proposed that Indians ought to remain Krishna Conscious and that Americans, who naturally oriented themselves towards science, could emulate the Indian example. Here the Indian swami reproduced a form of configuring Asia

and its relation to the West that Edward Said termed Orientalism. Orientalism, Said explained, assumes and affirms a manichean distinction between Orient and Occident, configuring the two as polar opposites. Europeans looked to the Orient as “the other”, and saw it in all that they had rejected during the Enlightenment (irrationalism, stagnation, authoritarianism, emotionalism). Europe became Europe by differentiating itself from the Orient, argued Said, and continues to contrast itself with the oriental “other” in order to confirm its own superior identity. (Said 1978) Richard King extended Said’s argument to the specific realm of religion, demonstrating that European scholars and other intellectuals used religion to create and sustain a division particularly between Europe and Asia. Focusing on India, King argued that British colonial administrators and later scholars envisioned India as the inverse of Europe. “Thus the West is liberal, egalitarian, secular and modern, whereas Indian culture is authoritarian, hierarchical, religious and traditional”, he explained. In the case of Western observers, King generalized, “the West has portrayed itself as superior in its possession of the former qualities while Indian culture has been seen as inferior in so far as it exhibits the latter”. (King 1999) Religion separated the two societies, such Westerners declared, with the Occident segregating religion into the private and rational sphere where they insisted it belonged, and the Orient integrating its irrational and emotional religion into the whole of social life.

Bhaktivedanta accepted the Orientalist dualism of Western/scientific/secular vs. Indian/spiritual/religious, but inverted the conventional valuation of the manichean poles, insisting that the latter categories merited higher consideration than the former. Such Orientalist assumptions explain Bhaktivedanta’s attempt to repackage ISKCON as a science, since he envisioned the West as inherently scientific and India as inherently spiritual. If the West valued science, Bhaktivedanta and his movement would speak scientifically, but with the intent of bringing the spiritual heart of India, as they considered it, to the Occident. This position indicates why Bhaktivedanta continued to emphasize the scientific nature of ISKCON while simultaneously accepting and even amplifying the anti-scientific approaches that the countercultural members of ISKCON brought with them. He believed that Americans listened to and respected science and consequently spoke to them in that language, even if the content of his message explicitly rejected American scientific norms.

Portraying Krishna Consciousness as a science while simultaneously rejecting the Western scientific establishment and norms characterized much of Bhaktivedanta's work in the United States. The swami's 1972 article "The Search for the Divine", demonstrated both those approaches. In it he insisted that his movement represented a legitimate science that deserved attention and even financial support from the government and cultural elites, as well as minimized the value and import of mainstream Western science. The article developed out of a conversation between Bhaktivedanta and Columbia instructor and graduate student of religion Paul Valliere. Questions of religion and science predominated much of their talk.⁷ Bhaktivedanta began the conversation by minimizing the abilities of Western science. "The other day we were talking with a scientist. We came to this conclusion: that the big scientists are simply observing the laws of nature. The laws of nature are very stringent. For example, there is death. Everyone will die. One cannot check death, however great a scientist he may be. By the laws of nature one becomes old. By scientific advancement they cannot stop this.... The same failure is there". (Bhaktivedanta Swami 1972b, p. 3) Scientists, Bhaktivedanta argued, could only describe nature, not affect it. Having prefigured scientists and Western science as impotent, a topic to which he would return toward the end of the conversation, Bhaktivedanta next described the "perfect knowledge" of the Vedas, and then the need for every person to accept a *guru*, or teacher, steeped in Vedic knowledge. Finally Bhaktivedanta returned to the idea of science. "So this is a very important scientific movement. I therefore request learned scholars like you—government officials, scientists, philosophers—to study this. It is for them that we have written so many books. Not only that...it is not that we are simply chanting and dancing. If you are a philosopher, if you are a scholar, if you are a scientist, we can give you food for thought in a scientific, philosophical, scholarly way. My only request is that all the leaders of society come forward, study this movement and take to it. That will be beneficial. We don't ask that they do so blindly, just as one follows some type of faith or religion blindly and after some time gives it up. No". (Bhaktivedanta Swami 1972b, p. 6)

⁷ As of 2007, Paul E. Valliere currently serves as Professor of Religion and McGregor Professor of the Humanities at Butler University (Indianapolis, Indiana).

Within this brief statement, Bhaktivedanta attempted to defend the scientific nature of ISKCON in several ways. First, he argued that his movement emphasized literary study, not merely ecstatic dance and worship. Officials, scientists, and philosophers—occupations that correspond to the highest Hindu castes, Brahmins (intellectuals) and Kshatriyas (administrators)—would find in ISKCON a truly scholarly movement, he insisted. Further, and crucial to Bhaktivedanta's positioning of the Hare Krishna movement, ISKCON did not require "blind faith". Unlike "some time of faith" that a person might follow, ISKCON provided evidence. Hence Bhaktivedanta insisted that "this Kṛṣṇa consciousness movement is the genuine scientific movement which everyone should take". (Bhaktivedanta Swami 1972b, p. 7) Unlike other religions, its leader and founder insisted, ISKCON did not require faith and therefore offered universal value. Instead, it offered (unspecified) direct benefits that any person could recognize. Having assumed that Americans appreciated science and scientific reasoning, which he took to mean the need for proof, Bhaktivedanta configured ISKCON as the ideal religion of the future: a scientific religion of results and evidence, not faith. He also demonstrated his inverted Orientalist assumption about the nature of Westerners. As Occidentals, they sought scientific, rationalistic, evidence-based reasoning, the swami assumed. Bhaktivedanta provided this to them.

When speaking with North American and European academics, professionals, and other elites, Bhaktivedanta repeated this claim, that ISKCON represented a universal science. *Back to Godhead* printed a set of interviews that the Hare Krishna leader gave to such figures during the summer of 1976, and in the majority of them, he spoke at length about ISKCON as a science and made repetitive claims as to its universality. To George Gullen, President of Wayne State University in Detroit, he explained that "[t]his Kṛṣṇa consciousness is not sectarian; it is a science for the whole human society". (Bhaktivedanta Swami 1976b, p. 17) Therefore, the swami urged, teachers ought to present it in public schools. A week later to a state representative in Michigan he repeated the same claim, that "everything should be understood scientifically. We should study what God is and how we should put our faith and trust Him. Kṛṣṇa consciousness teaches this science of God. The government should cooperate with us in teaching the people the science of God". (Bhaktivedanta Swami 1976b, p. 18) Again, Bhaktivedanta emphasized the universality of ISKCON, deemphasized its status as a religion, and offered the movement as a science. In

identifying ISKCON as a science, Bhaktivedanta not only responded to what he assumed were Americans' innate scientific natures, but also positioned ISKCON as possessing the universal and non-sectarian qualities of science.

Later, the same article included an interview with a journalist for the *Toronto Sun*. In this conversation, Bhaktivedanta made explicit what he has only implied elsewhere: Krishna Consciousness was far more scientific than religious, the latter of which he accepted as a characteristic of ISKCON only grudgingly. "I understand that your movement is an extension of the Hindu religion?", asked the reporter. "No, that is not correct", answered the swami. "You will not even find the word *Hindu* in the Vedic scriptures. Real religion, or *dharma*, is not a kind of faith. It is the eternal characteristic of all living entities. It is compared to a chemical composition". (Bhaktivedanta Swami 1976b, p. 19) Bhaktivedanta of course correctly noted that the term Hinduism originated in post-Vedic times, though a more complete answer would have indicated that European comparative religionists had popularized the term to describe the collection of Indian religious systems of which Bhaktivedanta's Gaudiya Vaishnavism certainly belonged. Yet the ISKCON founder concerned himself with situating the Hare Krishnas as something other than a conventional religion. Although unable to deny that ISKCON qualified as a religion, and Hinduism specifically, he set it apart as a "real religion", which he hastened to explain did not require faith. It resembled chemistry, he explained, and not Hinduism. A few minutes later he admitted to the journalist that "[i]t is also a religion, but not a man-made religion.... [But] we are giving the real spiritual facts. We do not bluff by saying 'Meditate and become God'. Krsna consciousness is the science of how to understand God". (Bhaktivedanta Swami 1976b, p. 20) Bhaktivedanta's statements declared ISKCON as both a bona fide religion but also a movement possessing the legitimacy of a science, an view that clearly positioned ISKCON to have a broader appeal. Yet Bhaktivedanta's distancing from Hinduism also reveals a continuing current in his thought, namely an anti-colonial sentiment. Concurrent with the swami's work in North America, Hindu nationalists in India were attempting to redefine their religion as Sanatana Dharma, "eternal truth". This native label rejected what its champions considered the foreign imposition of "Hinduism" onto their religion. In defining ISKCON as Dharma rather than Hinduism and declaring it an eternal truth, Bhaktivedanta paralleled the position of the Hindu nationalists of his

homeland, even as he was careful not to offend his North American audience.

Life Comes from Life

As Bhaktivedanta aged he began to pass leadership roles on to the senior members of ISKCON. Often, these members joined him for the guru's long morning walks, discussing pertinent issues for the International Society for Krishna Consciousness, as well as issues of theology. One such set of conversations, which took place between April 16 and May 17, 1973, then again from December 2 to December 10, 1973, turned to the issue of science and its relation to ISKCON. The disciples joining their guru on these walks tape-recorded the exchanges, and later produced a set of seventeen transcripts. A short excerpt appeared in *Back to Godhead* two years later as "Life Comes From Life," and in a more complete form four years after that when his disciples published the edited conversations as *Life Comes From Life*. (Bhaktivedanta Swami 1975; Bhaktivedanta Swami 1979a) In these conversations the elder guru focused on the topic of the origin of life, arguing vehemently against scientific theories of life originating from non-living organic chemicals. But more broadly, in his final extended conversations on science Bhaktivedanta made clear that his movement must reject Western science and scientists, and cleave to its own Vedic approach to science.

Unlike the inverted Orientalism that Bhaktivedanta manifested in his earlier work, in the conversations with his devotees he focused exclusively on ISKCON and Western science as each offering alternative scientific models. Often the swami did not elaborate on the reasons behind the differences between the two scientific paradigms. For example, in a representative exchange that began his October 18 conversations, the swami stated, "Even on the sun there are living entities. What is the opinion of the scientists? [Disciple: 'They say that there is no life there'.] That is nonsense". (International Society for Krishna Consciousness 1977, p. 1) Here Bhaktivedanta states what he considers a timeless Vedic truth, ascertains that Western scientists possess a different view, and dismissed them without further argument. Though one might read this dismissal as mere uninformed disagreement, an important perspective underlies Bhaktivedanta's (admittedly uncharitable) dismissal of Western science. His own Vedic

science relied on what Hindus call *śruti*, received knowledge transmitted through bona fide ancient scriptures. Such knowledge, such as the Vedic stories of beings living on the sun, Bhaktivedanta considered reliable. The Western scientific model depended on empiricism and materialist naturalism, and as such Bhaktivedanta considered the entire paradigm suspect.

As far back as Bhaktivedanta's "Easy Journey to Other Planets" articles and booklet, the swami had attacked Western science as unreliable because it followed an empirical approach, rather than one grounded in the Vedic texts. In the "Life Comes From Life" conversations, the ISKCON leader and his followers explicitly and frequently specified empiricism as the root cause of science's problems and the reason for the superiority of the science of Krishna Consciousness, which rested on what to them was the irrefutability of the Vedas. Much of this developed during the conversation, though the book's editors contributed as well, revealing both Bhaktivedanta's intentions as well as how his disciples received the pronouncements. For example during the May 14, 1973 conversation, Bhaktivedanta explained "[b]ut you cannot observe, your rascal eyes are so imperfect, you cannot observe so many things. That does not mean science. Why don't you admit your imperfectional senses? You first of all admit the imperfectional senses. You cannot see. You cannot experience.... First of all, admit that you're the most imperfect". (Bhaktivedanta Swami 2003g) Bhaktivedanta's followers took this pronouncement against empiricism as a defence of the value of the Vedic texts in contrast to the unreliability of science, as demonstrated by the published redaction of the conversation: "[t]heir eyes are so imperfect that they cannot observe many, many, things. Their ignorance does not make the *Bhagavad-Gita* unscientific. Why don't the scientists admit the imperfection of their senses? They must first admit the imperfection of their senses". (Bhaktivedanta Swami 1979a) By inserting a defence of the *Bhagavad Gita* into Bhaktivedanta's words the editors followed their guru's lead, calling for scientists to rely on Vedic texts rather than empiricism. Empiricism valued experience over textual evidence, and therefore the Hare Krishnas rejected it.

Though empiricism worried ISKCON's leaders, they more often turned to discussions of scientific arrogance. For Bhaktivedanta and his disciples, Western science's insistence on its own preeminence on matters of knowledge represented not only a threat, but an insult. Particularly, scientists' refusals to accept Vedic textual evidence and

their insistence on the value of empiricism and human cognition offended the Hare Krishna leaders. During the *Life Comes from Life conversations* Bhaktivedanta and his disciples called scientists thieves, demons, animals, rascals, and asses, among other terms of reprobation. (Bhaktivedanta Swami 2003a; Bhaktivedanta Swami 2003g; Bhaktivedanta Swami 2003d) A recognition of a fundamental difference in scientific paradigms existed beneath this acrimony, since the Western scientific paradigm precluded scientists from taking seriously the positions of ISKCON, and vice versa. At times this reality exasperated Bhaktivedanta, as during the April 28 conversation. Putting one of his disciples in the role of scientist, he confronted science in the second person. “Vedas says: ‘Here is the original cause’, you won’t take it... Veda means knowledge, perfect knowledge. But when gives you [*sic*]: ‘Here is the original cause’. You won’t take. You shall stick to your imperfect knowledge. This is your disease”. (Bhaktivedanta Swami 2003c) Scientific obstinacy, particularly scientists’ refusals to accept textual rather than empirical evidence, infuriated Bhaktivedanta and his ISKCON devotees.

Elsewhere, both the swami and his disciples engaged in name-calling. In a representative exchange from one of the first morning walks, the guru and his disciples objected to scientists’ unwillingness to accept the idea of a creator or law-giver behind the natural laws. This obstinacy, they insisted, stole the credit for the natural world from Krishna.

Bhaktivedanta: You [scientists] cannot produce even a grass by biological chemistry. You cannot do anything. Still you are claiming: “It is produced of chemistry, biology”. What is this nonsense? Nobody questions?

Karandhara [a disciple]: Even it’s produced by chemistry, there’s laws...

Bhaktivedanta: Eh?

Karandhara: There’s laws to those chemical reactions. They never consider who makes the laws?

Bhaktivedanta: Then? What is this? As soon as there is law, it must be considered that somebody made the law.

Karandhara: It’s just a thief’s mentality.

Bhaktivedanta: Eh?

Karandhara: If a thief comes on something valuable, he does not think who owns this. He simply thinks how he’ll steal it.

Bhaktivedanta: That is thief’s business.

Karandhara: Yes.

Bhaktivedanta: So they are all thieves. (Bhaktivedanta Swami 2003a)

Though scientific refusal to consider spiritual causes clearly concerned Bhaktivedanta and his disciples, he held the greatest opprobrium for

Western scientists whom the swami considered to have literally “played God.” Scientists who experiment on non-living material, hoping to create life, and those who defend theories of the origin of life from non-living organic chemicals trespassed onto the sacred ground of Krishna, Bhaktivedanta insisted. For these scientists the normally soft-spoken swami reserved his harshest words, and some of the few cases of his call for what one witness called “physical violence of a most unpleasant type”. (Wolf-Rottkay 1975) Bhaktivedanta called for those scientists who uphold non-spiritual theories for the origin of life to be “kicked in the face with boots”, a statement he sometimes amplified with even stronger violent language. (Bhaktivedanta Swami 2003a; Bhaktivedanta Swami 2003b; Bhaktivedanta Swami 2003f; Bhaktivedanta Swami 2003i; Bhaktivedanta Swami 2003d; Bhaktivedanta Swami 2003e) Though none of the swami’s disciples took his instructions literally, such fiery words reveal the degree of tension that Bhaktivedanta felt between ISKCON and the empiricist, naturalistic methodologies of mainstream Western scientists.

Conclusion

By all accounts, A. C. Bhaktivedanta Swami Prabhupada was a kind and generous soul who devotees and non-devotees alike respected as a solid and honest thinker. How then can one explain this same ordinarily-reserved elder monk engaging in such *ad hominem* attacks on his opponents, dismissing them as thieves and rascals, and insinuating a desire to cause them grave physical harm? The best explanation is that Bhaktivedanta recognized the ultimate incompatibility between the two scientific paradigms at play in the “Life Comes From Life” conversations. His own Vedic scientific paradigm assumed the verifiability and reliability of ancient Indian texts and the line of spiritual teachers, whereas the Western scientific paradigm valued empiricism and deductive methods. The Vedic paradigm assumed a spiritual world, the Western paradigm excluded such a position from its consideration. After decades of butting his head against the opposing model, hoping to enact what Thomas Kuhn has called a paradigm shift, Bhaktivedanta’s final conversations on science revealed the tremendous frustration that the elder religious teacher must surely have felt.

Ultimately, Bhaktivedanta’s inverted Orientalism backfired. Though he assumed correctly that science operated at the heart of the West’s

self-understanding and that Westerners sought scientific and technological solutions to problems, his assumption that India's innate spiritual heritage would naturally win over the West clearly failed to materialize. Bhaktivedanta's first successful encounter with Westerners in New York were with countercultural hippies who had rejected the mainstream institutions of the West, namely family, education, science, and the Western religions of Christianity and Judaism. Such countercultural critics of the West accepted Bhaktivedanta's message of the fusion of Indian spirituality and the language of Western science. Yet broader segments of the population had less interest in challenging the underlying foundation of Western society, and as such ISKCON failed to spread outside a highly limited population. Bhaktivedanta's frustrated calls for kicking the heads of chemists and biologists must be read as part of his failed struggle to introduce Krishna Consciousness to the highest levels of Western society.

Yet one must not focus on the swami's final frustrating engagements with science. Throughout his career and the movement that he founded, Bhaktivedanta and ISKCON engaged in a creative attempt to redefine science in keeping with what they regarded as Vedic norms. From Abhay Charan De's first attempts to recast the discovery of positrons as evidence for the nature of the eternal nature of Krishna and the soul, to his articles in the American publication of *Back to Godhead*, Bhaktivedanta struggled to portray science as a supporter for Vaishnavism, and Vaishnavism itself as the ultimate science. In doing so, A. C. Bhaktivedanta Swami Prabhupada and the International Society for Krishna Consciousness revealed the tremendous global power of science, and the draw it continues to exert as a source of cultural legitimation.

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MADAME BLAVATSKY'S CHILDREN:
MODERN HINDU ENCOUNTERS WITH DARWINISM

MEERA NANDA

Occultists and Theosophists believe thoroughly in the doctrine of Evolution as given out by Kapila and Manu...

Helena Blavatsky

The moderns have their evolution, and so have the Yogis. But I think that the Yogis' explanation of evolution is the better one.

Swami Vivekananda

Those who have one foot in the scientific and the other in the religious domain risk losing their foothold in both.

Wouter Hanegraaff

Introduction: Theosophy and Modern Vedic Evolutionism

There is an advertisement on Indian TV for Rajnigandha *pan masala*,¹ that goes like this: A bespectacled young Indian man in a tweed coat is shown sitting in a classroom where a professor with an exaggerated American drawl is writing some rather complicated looking mathematical equations on the chalk board. The young Indian is looking bored and doodling on his notepad. With more than a hint of racism about "you Indians," the professor calls upon the young Indian, who walks up to the board, and without a moment's hesitation, solves the mathematical problem. The American classroom breaks into loud cheers, and the young Indian takes a bow. The image of a packet of Rajnigandha appears on the screen with the following voice over in Hindi: "We already knew the answer. But to wait for the right question is our

¹ *Pan masala* is a mixture of areca nut and flavored spices, with or without tobacco, which is wrapped inside betel leaves. Chewing spiced betel leaves is extremely popular all over South Asia.

tradition.” The advertisement ends with a jingle: “with Rajnigandha in your mouth, the world is at your feet.”

Wittingly or not, the advertisement for the humble *pan masala* captures one of the dominant features of how modern Indians see themselves, namely, that their ancient Hindu tradition has the right answers to the kind of questions that modern natural sciences have asked, or will ask in the future. It is commonplace to hear well-educated and well-meaning Hindus claim with complete sincerity that while the Bible and the Koran demand a blind leap of faith from their followers, Hindu philosophy has no dogmas whatsoever and demands nothing more than reason and experience.² Modern Indians grow up in a cultural milieu saturated with what can best be described as Hindu scientism which actively and purposefully repositions the metaphysical beliefs of Hinduism—karma, punarjanam (rebirth), Atman (the spirit, or consciousness), prana (vital energy), yoga, doshas (humors) etc.—in relation to the mainstream of biological and physical sciences (notably evolutionary theory and quantum physics).³ Dominant cultural institutions of modern India actively cultivate the idea that Hinduism is the universal religion of the modern world because it is most compatible with the methods and findings of modern science. This belief in the innate modernity and superior scientificity of Hindu traditions has become a part of the commonsense of the elites who often tend to ascribe India’s success in information technology and its rising status in world affairs to their Hindu heritage (Nanda 2009).

One piece of evidence that is often trotted out in support of the scientific nature of Hinduism is the theory of evolution. Indians are fond of comparing themselves favorably against the supposedly irrational and anti-science Christians in America and elsewhere who they see as always fighting against teaching Darwin’s theory of evolution in

² This observation is based upon informal conversations with some of the most highly educated scientists, social scientists, economists and other academicians in New Delhi, Bangalore and Mumbai.

³ “Hindu scientism” follows from Olav Hammer’s definition of scientism (2004, p. 206) as:

active positioning of one’s own claims in relation to the manifestation of any academic scientific discipline, including but not limited to, the use of technical devices, scientific terminology, mathematical calculations, theories, references and stylistic features, without, however, the use of methods generally approved within the scientific community and without subsequent social acceptance of these manifestations by the mainstream of the scientific community through e.g. peer reviewed publications in academic journals.

schools. This positive self-perception is justified, at least among Hindu expatriates living in the United States. A 2009 Pew Research Center poll found that 80 percent of Hindus in the United States, as compared to 58 percent of Catholics, 51 percent of mainline Protestants and 45 percent of Muslims agreed that “evolution is the best explanation for the origins of human life on earth.” Only the American Buddhists at 81 percent were slightly ahead of American Hindus. Corresponding data for Hindus in India are not available.

But when one goes behind these numbers to ask what Hindus actually mean when they say that they support the theory of evolution, the story gets more complicated. It becomes evident from reading the writings of professional Hindu gurus and philosophers, following the blogs and discussing the matter with Indian friends that by “evolution” they don’t mean necessarily Darwinism. Darwin’s naturalistic explanation of evolution plays a vanishing small part, if any at all, in their understanding of how species evolve. Instead, the vast majority of them subscribe to a view that has been dubbed “Modern Vedic Evolutionism” or MVE, by Mackenzie Brown (2009). Modern Vedic Evolutionism, as Brown defines it, combines ambivalence toward *and* acceptance of Darwinism. The standard sequence of biological species that modern biologists have inferred from the fossil records spanning long stretches of time, is accepted as a “lower-level truth” already known to ancient Hindu sages who are said to have “surpassed” it in favor of the “higher” truth of spiritual evolution. This limited and ambivalent “yes” to the physical evidence for evolution, but not to the Darwinian explanation for it, as Brown correctly points out (2009, pp. 7–8) “has considerable appeal to contemporary Hindus desiring some sort of rapprochement between tradition and modern science.” But, as Brown continues, “the easy allure of this approach works to conceal the fundamental tensions between them.”

There are two components of MVE which give an appearance of reconciliation between tradition and modern science, while allowing the traditional explanations of the origin and evolution of living species to hold sway without any challenge from Darwinism. The first simply lays down a priority claim. It asserts that Hinduism is not only in accord with the idea of evolution, but that Hindu sages actually discovered evolution long before Darwin. What is the evolutionary theory that Indian sages are supposed to have discovered nearly two millennia (give or take a few centuries) before Darwin? The first most widely cited “theory” is the cyclic, karma-driven manifestation of life-forms

that already exist as ideal forms in the Absolute Consciousness, or Brahman as taught by the Upanishads, the *Bhagavad Gita* and the philosophical school called Sankhya. The other is the myth of *Dashavatara* which describes the ten incarnations of God Vishnu from the lower end of life-form (a fish) to the highest God that is yet to come.⁴ (These theories will be examined in details later).

What immediately stands out about these theories is how deeply and fundamentally they *contradict* Darwin. While Darwinian theory explains evolution of species by descent from a common ancestor by genetic modification, Hindu teachings assume spirit or consciousness to be the primary force of evolution. Does it not follow, therefore, that one can't believe in the Hindu views of evolution and, in the same breath, claim to be in accord with scientific—i.e., Darwinian—understanding of evolution?

Yet, it is a safe bet that a vast majority of those who subscribe to the Modern Vedic Evolutionism will deny any such contradiction: they will hold both to be true. This is where the second feature of Hindu evolutionism—namely, hierarchies of truth—comes in handy. It holds that Darwin's natural selection and survival of the fittest only explains the “merely material” aspects of evolution, while Vedic Evolutionism

⁴ The relative importance given to these “theories” varies. His Divinity Swami Prakashananda Saraswati, the head of the Texas-based Vedic Foundation and the author of the web-based *Encyclopedia of Authentic Hinduism* is strenuously opposed to interpreting Vishnu's incarnations as a parable of evolutionary theory, calling it “intellectual dirt” collected by the “Hindu mind.” But the Swami supports the Hindu teachings about creation and evolution in which all souls get a chance to realize God as being perfectly compatible with modern physics. Others, like M. K. Vinod writing for a popular Indian website www.Sulekha.com complains that while Darwin is considered scientific, the Hindu idea of avataric evolution is treated as just a story. Then there are others like S. K. Balasubramanian, a Ph.D. from Indian Institute of Science who writes for *Tatva*, “an International Online Magazine for Hindu Youth” who hold on to both models of Hindu evolution.

Here is how one letter writer responded to Richard Dawkins' essay “Dawkins on Darwin” that was posted last year on the website of *Outlook* to mark the 200th anniversary of Darwin's birth and the 150th anniversary of the publication of *On the Origin of Species*: “I am not writing this because I am a Hindu. But it is only the Hindu religion which has a scientific explanation of evolution of man through “Dashavtara” the ten stages from Matsya, Kurma, Varaha, Narasimha etc. till the perfect man. Hindu religion beautifully divided the scientific part for the learned, but imaginary stories for the uninitiated. There is no quarrel between the two thinkings [sic]. Semitic religions being intolerant toward anything other than ‘One Book, One Prophet’ syndrome can only be unreasonable in their attitude towards Darwinian thinking.” See “The Gospel according to Darwin” on <http://blogs.Outlookindia.com>.

“goes beyond” the merely material to the “higher” spiritual level of existence. Darwinism is not rejected but simply folded, like a pleat in a sari, into the many-sided and complex worldview of Hinduism where it does not perform any real explanatory function. Consigning Darwin to the “merely material” may look like Stephen Jay Gould’s famous “two magesteria” argument that separates the empirical knowledge of the natural realm from faith in the divine. But MVE does not allow for a clean separation: as we will see in this essay, spiritual forces are considered immanent in nature where they commingle with natural mechanisms, and divine knowledge always ends up getting conflated with empiricism of a mystical kind. Thus, most Hindus who answer in affirmative when asked if they believe in theory of evolution are actually quite comfortable with reincarnation of karma-bearing soul as the cause of evolution of species which supposedly takes place in cycles of growth and decline, each lasting for billions of years.

Both components of MVE have a well-established pedigree dating back to the 19th and early-20th century writings of well-known Hindu reformers including the Brahmo reformer Keshub Chunder Sen (1838–1884) and the great popularizer of Vedanta in the West and the founder of Ramakrishna Mission, Swami Vivekananda (1863–1902). (This essay will examine the evolution of Vedic evolutionism in the writings of these two founding fathers of MVE). The ideas of the 19th century pioneers were further embellished by the nationalist-turned-mystic, Sri Aurobindo (1872–1950) and the philosopher-turned-president of India, Servapalli Radhakrishnan (1888–1975).

In recent years, two seemingly post-modern “Vedic Intelligent Design” (VID) theories have made their appearance. The first comes from Michael Cremo, an ISKCON (International Society of Krishna Consciousness) member who specializes in scientific themes. He offers his theory of “human devolution” as the “Vedic alternative to Darwin’s theory.” Cremo seeks to turn the modern evolutionary theory on its head and proclaim that “human beings are not modified apes who rose on this planet by a process of physical evolution. Instead, we are fallen angels who came to this planet by a process of devolution from spiritual forms that pre-existed in another dimension” (Cremo 2003, p. 8). Humans and species lower on the scale all “devolve,” or come down, from the supreme conscious being (Lord Krishna), when the spark of consciousness in them takes different forms that are decided by the “intelligently guided genetic engineering” involving *bija* (lit. seeds) that sprout in the Godhead and direct the DNA to differentiate into

different cells, tissues and eventually species. The other so-called “non-Biblical intelligent design” theory has come from none other than the popular self-help guru, Deepak Chopra (2005). Chopra proposes an alternative to intelligent design which makes intelligence, or consciousness, an inherent component of all matter which allows that “in some mysterious way Nature knows what it is doing.” This consciousness “precedes the Big Bang” but continues to exist undiminished, “in photons, which seem to be the carriers of all information in the universe.”⁵ These Vedic intelligent design theories are relatively recent, and their impact on the popular Indian thinking remains to be seen. As they openly challenge Darwinism and join forces with intelligent design creationists in the United States, rather than quietly incorporate Darwin into the Hindu worldview as MVE does, they may put off those Hindus who take pride in their faith being in accord with mainstream science.⁶ Yet, there is sufficient overlap between VID and MVE: elements of “devolution” (or “involution”) and intelligent design are present in the older and widely accepted MVE as well.⁷

The burden of this essay is to show that the defenders of Modern Vedic Evolutionism are the children of Madame Blavatsky, the famous or notorious (to some) occultist who, along with Colonel Henry Steel Olcott and others founded the Theosophical Society in New York 1875 and moved it to India in 1879. The entire repertoire of intellectual arguments used to dress up traditional Hindu cosmology in the scientific costume of progressive evolutionism was created and popularized originally by Mme Blavatsky and her fellow Theosophists. Hindu reformers of the so-called Indian Renaissance of the 19th century used

⁵ This idea of animated, intelligent photons is not very different from the idea of “spiritons” put forth by ISKCON followers. A “spiriton” is described as the “fundamental spiritual particle (called atman in Vedantic terminology)” that all life forms carry over and above the electrons, protons and other elementary particles that make up the atom. See T. D. Singh (2005).

⁶ On ISKCON’s support for introducing intelligent design creationism in American schools, see Nanda, 2006.

⁷ Mackenzie Brown (2009) classifies Cremo’s human devolution theory under the rubric of “Modern Vedic Creationism.” He is obviously drawing a parallel with Christian creationists. But since it is not a creator but consciousness that is the agent of evolution in all theories of Vedic evolution, it is more accurate to classify Cremo and Chopra as proposing Vedic Intelligent Design theories. Moreover, they cannot be described as occupying the “other end of the spectrum” from Modern Vedic Evolutionism, as the latter also presupposes spirit or consciousness as the ultimate agent of natural evolution.

the template provided by the Theosophists to trim and refashion traditional Hindu doctrines to meet the challenge of the modern world.

But there is another twist to the story. Theosophical ideas about modern science and evolution that the Indian reformers ended up adopting were themselves a product of a marriage between Hinduism and Western esoteric traditions. The two were joined together by the common thread of “emanationism,” the philosophy that teaches that the entire cosmos emanates from, or is a manifestation of, a single spiritual source. Blavatsky did not discover this philosophy through Hinduism. She came to it through her deep and long-standing engagement with the idealistic strain in Western thought going back to Plotinus (205–206, CE), a pagan teacher who studied in Alexandria and taught in Rome and who is supposed to have been deeply influenced by Indian philosophies at that time.⁸ Blavatsky’s genius was to combine Neoplatonism with Darwinian evolution and “update” both with Hindu ideas of karma and rebirth, cycles of emanation (*Manvantras*) and dissolution (*pralay*), *avatars* or incarnations, and *yugas*, the enormously long periods of time. Not knowing Sanskrit or Pali, and not being a systematic student of Eastern religions, Blavatsky picked up a smattering of these ideas and fitted them into the Western esoteric worldview.

Thus, this essay will argue, that while Theosophy is Western occultism in a Hindu dress, Modern Vedic Evolutionism is Hinduism in a Theosophical dress. Or to put it another way, modern theosophy and modern Hinduism have co-evolved by providing intellectual justifications for each other.⁹ There is one big difference, however. Theosophists and Orientalists turned to Hinduism in a spirit of *self-critique* of the dominant traditions of their own societies, namely, Christianity and the mechanistic worldview of modern science. The Indian appropriation of West’s self-critique in the light of Asian philosophy, however, was sparked by the spirit of *self-assertion* of national pride and Hindu superiority. In the West, appropriation of Hindu ideas played a subversive role vis-à-vis Christianity, while in India the same ideas fuelled

⁸ According to Thomas McEvilley (2002, p. 549), it is possible that “Plotinus could have a quite detailed and not inadequate knowledge of Upanishadic doctrines” in third century Alexandria, and therefore it is “virtually certain” that he had some contact with Indian ideas.

⁹ “Theosophy” and “Theosophists” with a capital T will refer to the society founded by Blavatsky and her inner circle, while theosophy in lower case will refer to the historical tradition of religious illumination and gnosis in the West.

a sense of Hindu triumphalism which continues to feed a *jagat-guru* (world-guru) complex even today.¹⁰

The complex interplay between Theosophy and Hinduism is an illustration of the recent theory of secularization of esotericism put forward in the path-breaking writings of Antoine Faivre (1994) and Wouter Hanegraaff (1998, 2003). Modern Vedic Evolutionism, to use Faivre and Hanegraaff's terms, is an instance of the secularization of the *Eastern* esoteric tradition, just as Theosophy and its descendent, the New Age, represent secularization of the *Western* esoteric tradition. The aim of this essay is to lay bare the shared history of these two secularizations.¹¹

While much has been written about the political contributions of Theosophists to India's struggle for independence, a general sense of amnesia prevails when it comes to acknowledging their intellectual contributions to neo-Hinduism. It is well recognized, that many of the early Indian supporters of Indian National Congress were Theosophists, including the founding member, A. O. Hume, and Annie Besant, the fiery advocate of Home Rule who was elected the president of the Indian National Congress in 1917. While its influence was felt all across India, Theosophy was especially influential in the south where it won the allegiance of influential nationalists. Most famously, Mahatma Gandhi was deeply influenced by the writings of Blavatsky and Annie Besant and retained a life-long interest in Theosophy. (See Bevir, 2000, 2003 and Heimsath, 1964 for details).

In the *intellectual* realm, however, the contributions of Theosophy have gone largely unacknowledged.¹² Mahatma Gandhi's open admiration of Theosophy as "Hinduism at its best" (Fischer 1951, p. 469) is hard to find among other nationalists. None of the founding figures

¹⁰ I have explored this theme in Nanda 2009a, and 2009b.

¹¹ In his influential *New Age Religion and Western Culture*, Hanegraaff wrote that "investigation of precisely these transformations—broadly put, the secularization of esotericism—should be a top priority of academic study of esotericism and New Religious Movements. Unfortunately, however, such research has hardly begun" (1996: 407). This essay takes this challenge with seriousness it deserves.

¹² Theosophy has met a similar fate in the neighboring Sri Lanka as well. There, too, Henry Steel Olcott, who took it as his life's work to restore "true" Buddhism to the Buddhist countries of Asia, is celebrated as a national hero and immortalized in numerous statues and postage stamps. But neo-Buddhist intellectuals, including his best known disciple, Anagarika Dharmapala, began to distance themselves from the teachings of Theosophy. For details on the history of Theosophy in Sri Lanka, see Donald Lopez Jr. (2008), David McMahan (2004) and Stephen Prothero (1995).

of neo-Hinduism acknowledge any intellectual debt whatsoever to Blavatsky or anyone else associated with the Theosophical Society. On the contrary, if they mention Madame Blavatsky at all, they only do so to mock her as a charlatan and a fraud who was trying to sell a new-fangled American pseudo-religion to Indians. The reasons for this disdain are many and complex. They range from the bad aura of cheap magic tricks that Blavatsky had engaged in to show off her connections with the Hiamlayan “Masters,” and the resentment Hindu reformers felt at the prospect of a foreigners presuming to teach Hinduism to Hindus.¹³ In addition, the more elite Western Orientalists and Sanskrit scholars did not look kindly at the Theosophists who lacked university degrees and were mostly self-taught. Influential “Traditionalist” intellectuals who looked to India for Vedanta-perennialism, including René Guenon, Julius Evola and Mircea Eliade did not share Theosophy’s enthusiasm to express classical religious ideas in scientistic and evolutionary terms: indeed, they sternly condemned this tendency as a “pseudo-initiation,” a corruption of the Tradition (Sedgwick, 2004).¹⁴ Max Muller, the famed Sanskritist, characterized Madame Blavatsky as a “clever, wild and excitable girl” who did not know any Sanskrit or Pali and had become interested in Indian philosophy “through the dark mists of imperfect translations” (quoted from Lopez 2008, p. 178). It is fair to conclude with Elizabeth de Michelis that scholarly studies of East-West encounter have consistently maintained an “esoteric myopia” (2005, 9).

One sign of this myopia is that it is simply forgotten that it was Blavatsky who first began to interpret classical Hindu ideas about karma, rebirth and avatar-hood in evolutionary terms, treating them as causal mechanisms of biological-spiritual evolution of living beings. It is not recognized that among all the Western Orientalists and Romantics who descended on India in the 18th and 19th centuries,

¹³ One of the best—and first hand—descriptions of Blavatsky’s tragic-comic doings in India is provided by J. N. Farquhar (1915). For the low opinion neo-Hindu reformers held the Theosophists in, see William Emilsen (1984)

¹⁴ According to Harry Oldmeadow (2004, p. 193), René Guénon, who moved in the inner circles of the French theosophical lodges and occultist circles during the early 20th century, indicted Blavatsky and her band of Theosophists for presenting a “synthetic mish-mash of distorted and heterogeneous elements forced into a false unity, devoid of any authentic metaphysical framework. They were vulnerable to scientistic ideologies of the day and inevitably fell prey to the intellectual confusions rampant in Europe. Theosophy is nothing but a tissue of gross errors, made still worse by methods of the lowest charlatanism.”

Theosophists were the most scientific. This was an age when most other lovers of Indian wisdom either saw the Vedic age as the innocent childhood or infancy of human civilization (as was the case with Max Muller), or as a fount of spiritual wisdom alone (as was the case with American Transcendentalists). The theosophists broke with this romantic Indophilia and saw the Vedic texts as sources of scientific knowledge about the physical universe. This stemmed from their enthusiasm to reconcile ancient wisdom with modern science. Theosophists saw themselves as doing for the spirit world what Newton had done for the natural world, that is, to establish the “law of spirit-intercourse and to prove the immortality of man’s soul” with the same level of scientific evidence and mathematical certainty that Newtonian science had established (Prothero, 1993:203). Indeed, Blavatsky expressed this agenda clearly in her *Isis Unveiled* where she wrote: “The aim of the founders [of the Theosophical Society] is to experiment practically in the occult powers of nature” (quoted from Goodrick-Clarke 2008, p. 218).

This essay will focus on the shared scientism of Theosophy and modern Hinduism, using their views on evolutionary theory as an example. In this, this essay builds upon but goes beyond the recent writings of other scholars. One of the most sustained attempts—the only one of its kind—to examine the overlap between the Western esoteric milieu and Vivekananda’s interpretation of Patanjali’s *Yoga Sutras* is by Elizabeth de Michelis (2005). Mark Bevir (2000, 2003, 1994), Peter van der Veer (2001) and Mark Singleton (2007) also hint at the similarities between neo-Hinduism and Theosophy. Recent essays by MacKenzie Brown (2007a, 2007b) show clearly that the doctrines of “avataric evolution” that are popular among modern Hindus were first enunciated by Blavatsky. But while Brown limits the overlap to avataric evolution, this essay looks at two other elements of MVE, namely, the idea of “involution” and the evolutionary interpretations of the doctrine of karma.¹⁵

The two opening sections of this essay are meant to provide the necessary theoretical and historical background for the rest of the story. The rest of the essay moves between the cultic milieu in the 19th century America that gave birth to Theosophy and the emergence of neo-Hinduism in India in the same period. The cross currents of ideas

¹⁵ In his more recent writings, Brown, in “Vivekananda and the Scientific Legitimation of Advaita Vedānta,” pp. 207–248 (in this volume), does include involution as one of the ideas that originated with the Theosophists.

and influences between the two contexts, as they relate to evolutionary ideas, is examined at length.

The Western Esoteric Tradition, Hinduism, and Secularization

The idea of studying the connections between secularization of Hinduism and Western esoteric traditions naturally invites the question: what makes any tradition “esoteric”? What does Hinduism have in common with the esoteric tradition in the West?

Until very recently, most scholars of religion and cultures looked at anything esoteric in its popular meaning as something mysterious that involved a play of occult or hidden powers as in magic, alchemy, astrology, numerology, spirit communications and the like. Such “dark arts” were treated as examples of rejected knowledge which had somehow managed to survive into the modern age of scientific rationalism. Only gradually historians of ideas began to understand esotericism as a distinct worldview which has influenced the development of philosophical, scientific and religious ideas through history. While many influential historians have contributed to the new appreciation of the internal coherence of esotericism, it is the recent work by Antoine Faivre in the Sorbonne in Paris and Wouter Hanegraff in the University of Amsterdam that has sparked a new scholarly interest in the subject.

In this model, esotericism emerges as a distinct “form of thought” which serves as the “second pole of human soul, i.e., the mythic capacity” that balances the first pole, namely, rational thought (Faivre 1994, p. 6). This “second pole” is also described as the “third current” of Western thought, the other two being institutionalized Christianity and institutionalized science after it broke free from Christianity. The idea is that an inner core of spirituality lies hidden behind the outer surfaces touched by the other two traditions and that the knowledge of this truer, deeper and hidden spirituality has been kept alive by secret traditions throughout history (Hanegraff 2000, p. 292). As a form of thought, it is characterized essentially by its “holistic or monistic worldview that sees the material and the non-material aspects of the worlds as a unity” (Goodrick-Clarke 2008, p. 13). It has endured through history—and continues to thrive in the modern, scientific era—as a “counter-force against the mechanistic worldview and against a science based upon wholly secular (naturalistic) principles...[the esoteric worldview is

characterized by] a desire for a new cosmology that can assimilate the discovery of nature without sacrificing the dimension of the sacred” (Hanegraff 1998, p. 388, 396).

Faivre (1994, pp. 10–15) identifies six characteristics of the esoteric worldview, four of them primary or essential, and to the other two secondary or contingent: correspondences or analogies between the macro and the microcosm; belief that the world of nature is animated by a living energy or a soul; ability to see the hidden correspondences and to mediate between the realm of the spirits and the realm of humans and nature; the experience of undergoing a spiritual transformation; the tendency to see commonalities between all traditions with a belief that they all spring from a common Tradition, or perennial philosophy; and finally, an extended and disciplined period of initiation with a qualified master or a guru.¹⁶

Even though Faivre does not claim to have defined the parameters of a universal esoteric mode of thought and insists that his description applies strictly to the western tradition,¹⁷ it is difficult not to notice how closely its components resemble the mainstream of classical Hindu tradition. All the six features of esotericism delineated by Faivre are amply present in the mainstream of Hinduism.

Hinduism is famously non-dogmatic and nearly every kind of belief about God and the cosmos can be found in its vast repertoire. Yet, there is a unity underlying the diversity. This unity lies in a belief in a non-dualist, holistic cosmos in which there are no sharp divisions between the vital principle, or the soul-stuff and matter: the divine, conceived as the all-pervading consciousness (Brahman, or alternatively prana, or shakti) ensouls all beings and non-beings, down to the smallest atom. (This is the second principle of a living cosmos in Faivre’s list). The supreme operative law—dharma—of this animated universe is that the spiritual, the social and the material realms follow the same cyclical law of karma and rebirth, or as Robert Zaehner (1962, p. 5) put it, “the individual soul as microcosm is governed by the same law of cause and effect as the macrocosm.”

¹⁶ For well-articulated elaborations of these features, see Goodrick-Clarke (2008, pp. 8–10) and Wouter Hanegraff (1996, pp. 396–401).

¹⁷ “In the Far East and in other cultural terrains, esotericism does not even have its own status [apart from the dominant religion, as it is in the West]. To be perfectly clear, it would be difficult to understand what a “universal esotericism” might be” Faivre (1994, p. 6).

With Brahman serving as the *élan vital* that animates and connects all elements traversing the macrocosm, the realm of the gods (*adhidevata*), the mesocosm, the realm of rituals (*adhiyajna*) and the microcosm, the self (*adhyatama*), Hinduism has carried the first and the third elements of esotericism described by Faivre—namely, the tendency to create correspondences and to manipulate them—to the most extreme level. Indeed, as the noted scholar of the Vedic tradition, Brian Smith, has observed, finding “resemblances” between the macro-, meso- and microcosm constitutes the episteme, or the “philosophical center around which all Vedic thought revolves” (1989, p. 47). This episteme of finding connections or analogies between apparently unconnected things is not a symptom of overactive imagination of ancient Vedic priests, but rather serves as the basis of Vedic rituals or yagnas. The analogical or correspondence thinking is not limited to the orthodox Vedic texts and rituals, but continues to serve as the basis of astrology and allied divination methods which are widely practiced in India. Indeed, it is fair to say with Axel Michaels that “establishment of identity by equating it with something else” has become the dominant “Identificatory Habitus” of modern India which allows modern Indians to accept different, even contradictory ideas, as “all the same” (Michaels 1998, p. 7).

One could go on invoking a host of authoritative sources to demonstrate the parallels between the Western esoteric tradition and the mainstream of Hinduism. But it would not be necessary since partisans from both sides already take the overlap between the two traditions for granted. As we will see below, Hinduism attracted a host of Romantic movements from the West precisely because it was seen as affirming the lost Tradition when the world was still whole, in the sense that laws of nature and the laws of God had not yet separated. The fact that the more profound truths of the Vedas had been kept a secret by the priestly class which alone had the knowledge of the hidden correspondences, made Hinduism look even more appealing to those seeking secret spiritual knowledge that was lost in post-Enlightenment West. For their part Hindus, right up to the present time, recognize a kinship with the esoteric and Gnostic currents in the West—including the New Age and neo-pagan movements, some of which have New Right and Islamophobic tendencies (Nanda, 2009b).

The difference between Western esotericism and Hinduism’s spiritual monism lies not so much in their fundamental assumptions about God and nature, as in their relationship with the dominant tradition.

In the West, the esoteric tradition gradually became marginal to Christianity, but spiritual monism has always defined the very heart of Hinduism. There is no philosophical school (save for the materialist school of Carvakas) and no sect within the Hindu faith that denies the basic idea of the material world and its beings as a manifestation of an all-pervading, disembodied consciousness.

The gradual marginalization of the esoteric worldview from the mainstream of Christianity in the West brings us to the unique style of secularization of the esoteric episteme. The history of esotericism in the West is intimately intertwined with its gradual separation from the official Christian doctrine as the latter began to be secularized starting with the faint stirrings in the Renaissance. Through much of the Judaeo-Christian tradition, esoteric ideas remained intertwined with the official teachings of the Church as a part of the historical residue of its Greco-Roman and Roman-Egyptian inheritance in the form of Gnosticism, Hermetic magic and pagan Neoplatonism. After the Renaissance's re-discovery of Aristotelian thought starting around the 12th century, and the gradual rise of natural sciences which did away with angelic realms and other supernatural explanations, the original continuity between the spiritually meaningful world and physical world was broken. As the Christian theology cast off the magical inheritance of Neoplatonism, these traditions emerged as autonomous traditions in their own right, strengthened by the impact of Neoplatonic and Hermetic revivals of the later 15th century. Thus, even though its component ideas go back to the Hellenic and Egyptian civilizations, a self-conscious, well-defined tradition of esotericism was born only at around 1500 as a by-product of the process of secularization.

To the surprise and chagrin of rationalists, esoteric ideas and practices involving magic, astrology and other occult arts have not declined with the growing disenchantment or secularization of the world. On the contrary, they (like organized religions) have undergone a profound transformation which has allowed them to adapt to the secular world they find themselves in. Just as the Renaissance generation of magicians and alchemists felt compelled to defend their practices as natural magic against the Christian accusations of demonic magic, modern currents of esotericism have learned to legitimize their worldview—if not their practices¹⁸—as being compatible with a secular and disenchanted world

¹⁸ Occultist and New Age practices continue to celebrate the idea of participation in a hidden and “higher” plane of reality: according to Hanegraff (2003), these

ruled by the mechanical cause-and-effect as understood by modern sciences.

Here, some currents in the Western esoteric tradition have been more open to making accommodations with the secular world and modern science than others. Post-Enlightenment movements like Swedenborgianism, Mesmerism, spiritualism and Theosophy belong to the *Occultist stream* which has been more open to adapting to the secular world: these groups, to paraphrase Wouter Hanegraff (1996, p. 423), accept, with varying degrees of resignation or enthusiasm, the disenchanted world which no longer harbors an element of irreducible mystery. The *Romantic stream*, made up of Traditionalist seekers of Perennial Philosophy and American Transcendentalism rejects such compromises with the modern scientific *Zeitgeist*. Romanticism, to quote Hanegraff (1996, p. 423), attempts to “re-enchant the world and bring back mystery driven away by the “coldness” of the new science and its attendant worldview.”

The two intellectual movements of interest to us in this essay, namely, Blavatsky's theosophy and neo-Hinduism, fall in the category of modern occultism as defined by Hanegraff: both of them are open, and indeed eager to make adjustments with modern world. They have devised a unique adaptive strategy that fits in well with their unified (though hierarchical) ontology and analogical epistemology: they accept naturalistic aspects of modern science but declare them to be valid only at the “lower” level of “mere” matter, while they draw analogies between selected areas of modern science and their own belief in the existence of spirit-stuff as the animating force holding the world together. The net result of these legitimating strategies is “an ambivalent worldview consisting of intermingled elements of correspondences and causality, or, ... a qualitative new syncretism of esoteric and secular elements” (Hanegraaff 1998, pp. 409, 521). Thus, while they continue to argue in terms of invisible “higher” realms of the spirit—none of which has any evidential support that can be backed by a rigorous scientific method—they explain these spiritual realms by drawing parallels or analogies with “subtle energies,” harmonies and karmic cause-and-effects lying latent in nature itself. This “profound, but selective modernization,” as Olav Hammer calls it (2004, p. 53),

practices have become enclaves where the magical or participatory imagination can be freely cultivated and celebrated in modern societies which are ruled by a cause-effect, cost-benefit kind of instrumental rationality. Yet, magic becomes occultist as the theory and worldview behind these practices is legitimized in scientific terms.

is what unites how Theosophy and neo-Hinduism approach the question of evolution.

Western Intellectual Crisis and the Discovery of India

The West has a long tradition of turning to the East for both self-critique and domination. As J. J. Clarke has argued in his important book, *The Oriental Enlightenment*, the West has tried to acquire knowledge of the East not merely to exert power over it—as has been famously argued by Edward Said in his well-known work, *Orientalism*—but also for questioning and undermining some of its own indigenous traditions:

while exerting its hegemony over the East, the West has simultaneously admired it, elevated it, and held it up as a model, an ideal to be aspired to and emulated... Eastern ideas have been used in the West as an agency of self-criticism and self-renewal whether in the political, moral or religious spheres.... (1997, p. 6).

The mania first for China and then for India that gripped the leading lights of the Enlightenment—that fabled Age of Reason—is well documented. Impressed by the reports of Jesuit missionaries from China, great humanists and freethinkers like Michel de Montaigne (1533–92), Malebranche (1638–1715), Pierre Bayle (1646–1706), Voltaire (1694–1778) and his fellow *philosophes* including Diderot and Helvetius, upheld the Chinese religion and philosophy as deist and therefore a more secular and rational corrective for the perceived superstitions of their own Christian faith. Later as the writings of Alexander Dow, John Zephania Holwell¹⁹ and the forged “Veda” called the *Ezourvedam* became available,²⁰ the great Voltaire became convinced that the world’s most pristine religion that is based upon the purest and the most rational expression of deism is to be found in India, not in China. Henceforth,

¹⁹ Both worked for East India Company. Holwell’s work appeared in 1767 in German and in 1768 in French translation and a French version of Dow’s *History of Hindostan* was published in 1769. See Halbfass (1988, p. 471).

²⁰ *Ezourvedam* was a fake Veda originally composed by Jesuit missionaries in Pondicherry as a device for Christianization by showing that Indians were not just a primitive and idolatrous people but were capable of receiving the light of natural revelation. It was published in 1778 and was shown to be a forgery in 1782. See Halbfass (1988, p. 46).

India became a part of Voltaire's arsenal against the Catholic Church and Christianity.

But by the time the so-called Long Eighteenth century that marked the Age of the Enlightenment came to a close, Indo-mania passed on from the deists and rationalists to the Romantics. Just as the rationalists in the 18th century had used India to hold a mirror to Christianity, the Romantics in the 19th century held up India as an antidote to both Christianity *and* its rationalist critics.

Europe in the 19th century experienced a sense of weariness and exhaustion. Thoughtful people had begun to sense that "something was missing in the European present—the sense of unity and wholeness was gone.... [that Europe had fallen into] a quantifying, mechanical, merely rational way of viewing the universe and the sense of wonder and awareness of unity and wholeness of life had become lost" (Halbfass, 1988, 73). The "poesy-garbed India," as Halbfass calls it, appealed to them as an antidote to Europe's excess of quantifying and calculating thought, its pragmatism, rationalism and materialism.

The Romantic discovery of India emerged out of the joint enterprise of British and German Orientalists.²¹ Near the end of the Enlightenment era, a number of British Orientalists in the employ of the East India Company established the Asiatic Society which created the lasting image of India as the original source of mythological, religious and philosophical tradition common to both East and West. They produced an imposing number of translations which helped introduce the West to the sacred traditions of India. These included Charles Wilkins' translation into English of *Bhagavad Gita* (in 1785) and *Hitopdesha* (in 1787) and William Jones' translation of the play *Shakuntala* (in 1789), the most important law book of Hinduism, *Manusmriti* (in 1796) and *Isa-Upanishad* (in 1799). The construction of a Hindu Golden Age has been rightfully described as "the Orientalists' most enduring ideological contribution to modern India's cultural self-image" which made Indian nationalism possible (Kopf, 284).

The Orientalist construction of India as the home of a pristine religious tradition which predated Christianity fed into a number of

²¹ Sheldon Pollock (1993, 118) notes that Germany, a country that had no colonial stakes in India, had a total of 47 professors in "Aryan" Orientalism in 1903, as compared to merely four professorships in England, the colonial ruler of India. Pollock uses the German enthusiasm for the Orient to question Edward Said's thesis of Orientalism always serving the ends of colonial domination.

political projects in India, Europe²² and the United States. But what interests us here is a relatively narrow question of the role Indian thought played in the modern Theosophical movement.

Theosophy, Hinduism, and the Cultic Milieu in 19th Century America

The Theosophical Society was founded in New York City in November 1875 by a Russian émigré, Helena Petrovna Blavatsky (1831–1891), and her American friend and fellow-spiritualist, Henry Steel Olcott (1832–1907). “HPB” as Madame Blavatsky was sometimes referred to, was a woman with a colorful past involving psychic phenomena, magical materializations including mysterious letters from Tibetan Masters or “mahatmas” and an intense involvement in a range of secret societies including Roiscrucian Freemasonry in her native Russia, Masonic lodges, Sufis and Oriental secret societies in the Middle East and Europe.

After her endless travels through Europe, Egypt and presumably Tibet and India, HPB arrived in New York in 1873. Almost immediately on her arrival in America, she began work on her first major book, *The Isis Unveiled: A Master Key to the Mysteries of Ancient and Modern science and Theology*, which appeared in print in 1877. In the mean time, she established the Theosophical Society with three aims: to promote brotherhood of man, to encourage a comparative study of ancient and modern religions, philosophies and sciences, and to carry out “scientific” investigations of unexplained laws of nature involving hidden psychic powers immanent in matter.²³

As if all this hectic activity wasn’t enough, the founders soon set sail for India, arriving in Bombay in February 1879. By 1882, they had established the headquarters of their society in Adyar in the state of Madras (now Tamil Nadu), where it stands even today. After some initial misunderstandings with the Indian organization that they had affiliated themselves with—Arya Samaj founded by Swami Dayananda Saraswati (1824–1882)—Theosophical Society soon emerged as an all-India organization that brought the Western-educated Indian elite into

²² With tragic consequences in Europe, where Orientalist ideas contributed to “issuing a birth certificate for the Aryan myth” which was used to determine who will live and who will die (Poliakov, 1974, p. 188).

²³ Historical details of the founding of Theosophical Society can be found in Bruce Campbell (1980), Peter Washington (1993), Joscelyn Godwin (1994) and Nicholas Goodrick-Clarke (2004, 2008).

close contact with liberal members of the British community, including figures like A. P. Sinnett and Allan Octavian Hume, who later went on to form the Indian National Congress in 1885 (Bevir, 2000).

Why did they choose to make India their home? In order to understand the importance of India and Hinduism to Theosophy, it is important to place it in the cultic milieu of the 19th century America.²⁴

The late 19th century America has been described by as having a Woodstock feel about it:²⁵ the big cities, especially in the Northeast, saw a flourishing of many cults including spiritualism, Swendenborgianism, Mesmerism, Christian Science, mind-reading, astrology, psychic research and other more avant-garde alternatives (like Transcendentalism) to Christianity.

Participation in these movements was not a fringe phenomenon. Bruce Campbell (1980, p. 16) estimates that at its height around 1855, the spiritualist movement claimed between one to two million adherents. Given that the total population of the US at that time was about 25 million, and only one in seven Americans was officially a member of a religious group, the level of participation in spiritualism was quite significant. What is more, most of these movements, notably spiritualism, were popular rather than elite phenomena and were motivated by a democratic impulse. Unorthodox religious practices involved ordinary Americans "from 'thinking persons' on down to the level of shopkeepers and dressmakers [in Boston] who took it for granted that 'psychic force' was a reality while the language of mind-cure could be heard in everyday conversations" (de Michelis 2004, pp. 113–114). According to Stephen Prothero (1993, p. 199), "spiritualists were a diverse lot...including women, blacks, urban and rural laborers, southerners, and Catholics," who were drawn to the populist impulse of spiritualism which "criticized the privileged knowledge of the clergy and appealed to the natural wisdom of unlettered folk."

The growth of the cultic milieu was a part of a historical trend in the West where, as Nicholas Goodrick-Clarke (2008, p. 13) points out, "esoteric ideas attend the breakdown of settled religious orthodoxies

²⁴ Cultic milieu, as defined by Colin Campbell in 1972, is the "cultural underground" of a society and includes all those groups and individuals who find the conventional belief systems of their time and place as inadequate and unsatisfactory. As a result, they seek out beliefs and indulge in practices that are "heterodox or deviant in relation to the dominant cultural orthodoxies" (Campbell, 1972, 122).

²⁵ The comparison with late 19th century Boston with Woodstock is from de Michelis (p. 114).

and socioeconomic orders.” Rapid rise in levels of industrialization and rising levels of prosperity had brought with them new ideas of progress, free will and efficacy of individual effort which were fuelling a revolt against Calvinism:

progress in science and technology fostered confidence in human reason and gave credence to belief in progress. These developments challenged an understanding of man which emphasized sinfulness and depravity, the control of God, the need for grace, and preoccupation with the hereafter (Campbell 1980, p. 17).

But the revolt against the conventional pieties of Protestant Christianity did not mean a vote of confidence in science and technology. Instead there was a deep crisis of faith affecting a growing numbers of thoughtful people who were dissatisfied, in equal measure, with Christian orthodoxy and the mainstream materialistic science of that era: they could neither pray to the personal God of their Christian faith, nor could they accept the bleak mechanical philosophy of Newtonian science. Those attracted to the cultic milieu were looking for “reasonable alternative to what they saw as the “irrational dogma of Christianity” on the one hand, and the ‘dogmatic rationality’ of the Enlightenment, on the other” (Hanegraaff 1998, p. 414). It was in this context that the alternative forms of religiosity, including Hinduism and Buddhism, were gaining ground. Three features of the cultic milieu in the fin de siècle America are relevant to our story:

One, the cultic milieu had high regard for Wise Men from the East. At a time when working men from India and China were objects of discrimination, and the country was rife with moral panic over “tide of turbans” and the “Yellow peril”, gurus and teachers were finding America to be a very hospitable place. As an Indian immigrant, Saint (sant) Nihal Singh, wrote in an essay that appeared in Los Angeles’s *Out West* in 1909:

the East-Indian religious teachers and students have received better treatment than Hindoo laborers. Of all men from India who have visited the US, the late Swami Vivekananda stands pre-eminent. He seems to have won an instant way into the heart of American men and women of highest intellect and culture.... There is a mystical charm attached to the Hindoo fortune teller. It is sufficient that he comes from the East. It must follow that he is a “Wise Man.” [quoted here from Tweed and Porthero, 1999: 85].

This sentiment was echoed by another Indian immigrant, Krishnalal Shridharan who wrote in his autobiography, *My India, My America* pub-

lished in 1941 that Indian “Wise Men” could be found among the “ten or twenty Indians who have some claim to upper-bracket earnings in the US. One or two of these priests have real-estate interests in some of the most fashionable purlieus of NY, Boston and LA and some are millionaires. India is over-advertised with respect to her religiosity...” (Quoted here from Tweed and Porthero 1999, p. 180).

Secondly, the cultic milieu was fluid. Those seeking different modes of religiosity moved in and out of a range of religious movements which sometimes shared nothing more than a rejection of Trinitarian Christianity. Crossovers from Unitarianism to Free-thought and from there to spiritualism, Theosophy, Buddhism and Vedanta were common. Henry Steel Olcott had himself moved from his Presbyterian beginnings first to spiritualism, and later to theosophy and esoteric Buddhism, while Annie Besant shed her Protestant upbringing first for freethinking and socialism and then for Theosophy.

Most Americans who came to Asian religions “were women, many were foreign born, and a good number came to Hinduism (and Buddhism) out of alternative religious traditions, such as Theosophy, New Thought and Christian Science” (Tweed and Porthero, p. 145.) One of Swami Vivekananda’s devout followers, Sister Christine (born Christine Greenstidel), migrated to America from Germany in 1869 when she was three years old, and was a catholic who practiced Christian Science. She became a nun in the Ramakrishna mission after she listened to a lecture by Swami Vivekananda in a Unitarian church in 1894. She later moved to Bengal where she co-founded the Sister Nivedita Girls’ School. To take another example, Marie Canavarro (1849–1933), or Sister Sanghamitra, was the second American to take Buddhist vows on the US soil. She did that in New York City in the presence of Anagarika Dharmapala, the Buddhist monk from Sri Lanka. Her spiritual journey took her from Catholicism to Theosophy, to Buddhism to Bahai faith to Hinduism. By the time she wrote her autobiography, *Insight into the Far East* in 1925, she had embraced Vedanta at Swami Paramananda’s Ananda Ashram in California.²⁶ Asian religions were thus thoroughly integrated into the American cultic milieu which made it possible for ideas, personalities and organized movements to move effortlessly in both directions.

²⁶ Both examples come from Tweed and Porthero, 1999.

Thirdly and finally, the cultic milieu was scientific. Even though rejection of materialism of modern science fuelled the growth of the cultic milieu, such was the hegemony of science that even the most heterodox religious-spiritual movements felt compelled show that, at a minimum, their faith rested on rational foundations and was not contrary to the experimental spirit of modern science. Wouter Hanegraaff (2003) has argued that just as esoteric cults in Renaissance Europe had to defend their magical practices against the Catholic Church's suspicion of witchcraft or black magic, 19th century cults felt the need to legitimize themselves as being compatible with a secular and disenchanted world.

This tension between hostility to modern science and the imperative to speak in its language was resolved by two strategies. On the practical level, it meant practicing and investigating the occult in a "scientific" way. Thus Mesmerists went about conducting experiments, phrenologists measured the human head while spiritualists kept careful records of séances. On the more theoretical level, however, spiritualism and allied psychic practices failed to make much headway. Communication with the spirits of dead people, or manipulation of animal magnetism or psychic energy provided "evidence" for belief in immortal soul, but the spiritualists could not explain the nature of this soul, nor relate their idea of the soul to any known tradition that wouldn't lead them back to the dogmas of Christianity.

This is where the Theosophical Society came in: it provided an ancient and yet seemingly "scientific" tradition for explaining the spiritualist phenomena. While the more elite counter-cultural movements of Transcendentalists and Unitarians tended to stay away scholastic debates about metaphysics and doctrine, Theosophical Society reveled in metaphysics. It linked spiritualist beliefs and practices to an amalgam of ancient cosmological doctrines with roots in Hermetic and Renaissance neo-Platonism, updated with the Orientalist discovery of India on the one hand, and with the Darwinian theory of evolution on the other.²⁷ As Goodrick-Clarke sums it up:

²⁷ Stephen Prothero sees the Theosophical Society's attempt to provide theoretical foundation for spiritualism as "an elite attempt to reform spiritualism from above. If spiritualism constituted a democratic or populist movement in the history of American religion, then early theosophy represented an attempt by elites like Blavatsky and Olcott to reform spiritualism by "uplifting" its masses out of their supposed philosophical and moral vulgarities, to transform masses of ghost-seeking spiritualists into theorists of the astral planes" (1993, p. 198). The ordinary "ghost-seeking spiritualists"

In the West, Theosophy was perhaps the single most important factor in the modern occult revival. It redirected the fashionable interest in spiritualism towards a coherent doctrine combining cosmology, modern anthropology and the theory of evolution with man's spiritual development. It drew upon the traditional sources of Western esotericism, globalizing them through restatement in terms of Asian religions, with which the West had come into colonial contact (2004, 18)

The key to this synthesis of Western esotericism, Asian religions and evolutionary theory lay in conceiving God as a creative force that acts *internally* through nature, and not externally as a Designer. If divine agency could be imagined as an invisible, hidden (or occult) "energy" that enlivens matter, then it could presumably be studied as scientifically as any other form of energy, or any other element of nature (molecules, radiations and particles) that is invisible to the human eye. This paradigm of ensouled nature had the obvious advantage of explaining magic, paranormal and other occult phenomena as being internal to nature and therefore amenable to experiential testing, albeit using "super-physical" modes of "seeing" in the mind's eye, rather than through the physical eye. As Blavatsky famously put it: "Magic is but a science, a profound knowledge of the Occult forces in Nature, and of laws governing the visible and invisible world" (quoted here from Bevir 1994, p. 751). Theosophists saw themselves not as mystics, or as naïve spiritualists communing with the spirits of dead people. They saw themselves, Henry Olcott's words, as scientists who were seeking a "science dealing with strictly verifiable order of facts, though an order transcending that with which physical science is concerned" (1895, p. 23).

Indeed, what they meant by "science" came out very clearly when Theosophists tried to defend themselves against critics who accused them of trying to convert Indians to a foreign religion or to a new sect. Henry Olcott liked to remind his Indian audiences that they had come to India not to convert them to some new Western cult, but only to save them from the ills of materialism and skepticism on the one hand, and the false religion of Christianity that the missionaries were trying to spread. In a lecture delivered in the town hall of Calcutta in 1882, Olcott assured his Bengali audience:

did not take kindly to the Theosophical Society, advising the founders to pack up and move to the Orient!

We are not preaching a new religion, or founding a new sect, or a new school of philosophy or occult science. The Hindu *Sastras*, the Buddhist *Gathas* and the Zoroastrian *Desatris* contain every essential idea that we have ever propounded, and that our constant theme has been that Theosophy is the scientific and the only firm basis of religion. We deny that there is the slightest conflict between true religion and true science. We deny that any religion *can* be true that does not rest upon scientific lines...(Olcott 1895, p. 145)

The reference to Eastern texts was crucial to what “science” meant to Theosophists. They believed that a holistic science which included the spiritual dimension of nature was known to the ancients before Judeo-Christian monotheism overpowered it. The original home of this ancient wisdom had long been a subject of intense debate and controversy. The Western esoteric tradition had long considered pre-Hellenic and Hellenized Egypt—the home of the “thrice great” Hermes Trismegistus and the great neo-Platonist philosopher Plotinus (205–270 AD) who taught in Alexandria—as the original home of the ancient wisdom.²⁸ But by the time Theosophy emerged on the occult scene in the late 19th century, India and the Vedas had already begun to displace Egypt and the Corpus Hermeticum. Even though references to Hermeticism, Neo-Platonism and the Kabbalah outnumbered references to Hinduism in Blavatsky’s *Isis Unveiled*, Blavatsky declared Hinduism to be the original source of primordial wisdom out of which all other religions and sciences had emerged. Most of her understanding of Hinduism was derived from the writings of Louis Jacolliot (1837–1890) the French occultist and Indophile whose fanciful and unreliable writings on India—including his translation of the *Laws of Manu*—were extremely popular among the reading public and intellectuals in the late 19th century.²⁹ According to David Smith (2004), Madame Blavatsky owned all 13 volumes of Jacolliot’s India writings and makes more than 50 references to him in her *Isis Unveiled*. India and Hindu doctrines of karma, reincarnation and the seven-fold nature of human beings become central to her mature work, *The Secret Doctrine*.

²⁸ The writings of Hermes Trismegistus were rediscovered and translated into Latin by the Florentine humanist, Marsilio Ficino in 1463 under the patronage of Cosimo de Medici, the leading merchant-prince of Florence. Ficino was also responsible for reviving neo-Platonism.

²⁹ It appears that Nietzsche derived his understanding of Hinduism from Jacolliot’s *Manu*, a book he seems to have read with great attention. See David Smith (2004).

One can safely say that Theosophy, among all other esoteric movements in the West, moved the closest to India and dug the deepest into the doctrines of Hinduism.

Theosophy, Hinduism, and the Religion of Evolution

Madame Blavatsky reportedly kept a large stuffed baboon in her New York apartment. The bespectacled baboon stood upright, wore the formal clothes of a 19th century gentleman and carried under its arm a lecture on Charles Darwin's *The Origin on Species*. The baboon, according to Peter Washington, stood for "the Folly of Science as opposed to the Wisdom of Religion" while ridiculing Darwinians as baboons (1993, p. 45).

But baboon jokes notwithstanding, Blavatsky was obsessed with the idea of progressive evolution. She set out not to refute Darwin but to trump him, to out-do Darwinism by turning the idea of evolution into the First Principle of the entire cosmos which applied not just to biological species but to *everything* from crude matter to the "subtle stuff" that angels and spirits are made of. Evolution was not a blind natural process without a goal: rather, the goal of evolution, she believed, was exactly the same as that of Theosophy, namely, *divinization of man*. This was to be achieved by progressive spiritual evolution, a process that does not end with death but continues over many births until the time the soul—purified through many cycles of rebirth—is ready to be absorbed into the World Soul again. Blavatsky's aim was to unify the scientific theory of evolution of biological species with the Western esoteric belief that the natural world is a manifestation of the spirit and returns to that spirit. She sought to state this unified theory of evolution in a scientific terminology of natural law of cause-and-effect that would be acceptable to modern men and women whose faith in a Creator God had been shaken by the publication of Charles Darwin's *On the Origin of Species* in 1859.

Blavatsky made three innovations which enabled her to fit Darwinism into spiritual evolution: the idea of evolution as a cyclical phenomenon in which each evolution is preceded by a phase of "involution", karma and rebirth as the mechanism of evolution and thirdly, avataric evolution, or the avatars of Vishnu as representing the progressive evolution of species. All these innovations involved references to Hindu concepts derived in a totally unsystematic manner from a medley of Hindu

sacred books that ranged from the Vedas all the way to the Puranas and Tantras. In an eclectic fashion, Hindu doctrines were accepted to the extent they could be fitted into the western occult tradition that owed its origin, as described earlier, to Hermetic and Neoplatonic traditions.³⁰ Let us take a brief look at these three innovations.

First, involution. According to Blavatsky, Darwin's theory of evolution is not wrong, but only half-true. She agreed that species evolve from simpler forms over very long periods of time—just as Darwinian evolution would have it. But the simpler forms first got there by the decent, fall or “involution” of the spark of soul that emanates from the One. In the Theosophical scheme of things, “Evolution begins with pure spirit which descending lower and lower down, assumed at last a visible and comprehensible form and became matter” (Blavatsky 1892, p. 116). It is only after the spirit fully “involves” itself down into the lowest most particles of the cosmos that the upward arch of evolution begins in which the spirit progressively tries to free itself from matter so that it can reunite with the One, from which it had originally emanated. Darwinism only describes this upward journey of the spirit and is therefore incomplete, or as Blavatsky wrote: “The Evolutionist stops all inquiry at the borders of ‘the Unknowable’: the Emanationist believes that nothing can be evolved—or as the word means, unwombed, or born—except it has first been involved, thus indicating that life is a form of spiritual potency.” (Blavatsky 1892, p. 114).

Evolution is thus the “un-wombing” of the life-forms that already lie “involved”, “wrapped” or “trapped” in matter. There is no Creator God creating the universe out of nothing, because every possible living form, from the “amoeba to Beethoven,” lies in-folded in matter already.³¹ In place of creation ex-nihilo as taught by the Judeo-Christian tradition, material world that we see is only a “reflection” or an illusion, that the Absolute spirit casts of itself: “a periodic and consecutive appearance of the universe from the subjective to the objective plane of being,

³⁰ Wouter Hanegraaff is correct to insist that “Blavatsky's shift from a Hermetic to an Oriental perspective was more apparent than real” (1998, p. 455) in the sense that Hindu philosophy only widened and deepened Blavatskian Theosophy, but did not give birth to it.

³¹ This is how C. Jinarajadasa, the president of Theosophical Society in Adyar, India from 1946–1953 described evolution in his *First Principles of Theosophy*: “the evolution of matter is a rearrangement; the evolution of life is an unlocking and an unfolding. In the first cell of living matter, there exists in some incomprehensible fashion, Shakespeare and Beethoven.”

at regular intervals of time, covering periods of immense duration" (Blavatsky 1889, section 6). This process is compared to the rising and setting of the sun, or the "Days and Nights of Brahma or the time of Manvantara and Pralay," the former lasting 4,320,000,000 human years, and the latter, being the time between two legendary kings called Manu, 308,448,000 earth years. During Manvantra or the Day of Brahma, the Soul exhales, as it were, and many universes appear, each populated by all kinds of life forms, including human races. During Pralay or the Night of Brahma, the Soul inhales and all disappear into the original source, or "every atom is resolved back into one Homogeneity," to use Blavatsky's language from her *Key to Theosophy*. In each Manvantra, the "spark which issued from the Over-soul" has to pass through every elemental form of the phenomenal world and then begin its upward journey back to the Over-soul, "first by natural impulse and then by self-induced and self-devised efforts (checked by its Karma), thus ascending through all degrees of intelligence from the lowest to the highest Manas, from mineral to plant up to the holiest archangel (Dhayani-Buddha)" (Blavatsky 1967, p. 13). This journey of the soul back to the Origin, Brahman or Over-Soul, in other words, first takes place through "natural impulse" or by natural mechanisms—presumably those described by evolutionary biologists—and later, with the emergence of humans, through their own strivings or karma. Even in the limited role that "natural impulses" have in this scheme, they lie innate in the organism and are not a result to adaptations and natural selection.

This idea of endless cycles of the soul-falling-down, and soul-rising-up and returning home, has a venerable history in the Western esoteric cosmology: It is central to Platonism, Neoplatonism, Gnosticism and Kabala. But Blavatsky chose to turn to Hindu sources—perhaps because they were new to her, having only recently been translated into English and other European languages. Even though the basic idea of the emergence of phenomenal forms from formless substance can be found in at least two of the Vedic philosophical systems, or darshans, namely, Samkhya-yoga and Vedanta, Blavatsky chose to rely upon the more folksy puranas, the Sanskrit texts which amplify the teachings of the Vedas through legends, myths and hagiographies of kings and saints. It is well known that Blavatsky's magnum opus, the *Secret Doctrine*, where she fleshed out her theory of involution-evolution, contains 130 passages from H. H. Wilson's English translation of *Vishnu Purana* that first appeared in 1840, more than from any other

source.³² The references to Manvantra and Day and Night of Brahma are clearly derived from Vishnu Purana which is considered one of the 18 Great or maha- puranas and is considered by the devotees of God Vishnu to be equal in authority with the Vedas and the Upanishads. Incidentally, Blavatsky was the first to interpret the Puranas as containing positive knowledge of any kind. Even though they have been called the “Bibles of Hinduism” because “they exert a much greater influence on the mind and imagination of the majority of Indian people than any other literature,” (Klostermaier 1994, p. 72), Hindu reformers generally had a low opinion of them. Indeed, Swami Dayananda Sarawati, Blavatsky’s first Indian collaborator—was famous for condemning them as full of foolish stories and superstitions. Blavatsky’s use of this literature gave birth to a new wave of popular scientific exegesis which began to interpret Puranas in the light science.

One element of this cyclical theory of involution and evolution ended up reinforcing one of the most deadly myths of modern history, namely, that of the so-called Aryan race as being the most evolved of the seven “root-races.” The *Secret Doctrine* integrated the cyclical journey of the spirit through various life forms into a much bigger scheme of cosmic evolution. It is a complicated scheme in which each cycle (or round) witnessed seven consecutive root-races, which descended on the scale of spiritual development from the first to the fourth, becoming increasingly enmeshed in the material world before ascending through progressively superior root races from the fifth to the seventh. The present humanity is supposed to be the fifth root race called the Aryan race. Not all of humanity was supposed to be at the same level of spiritual advancement as the Aryans: some are ahead and will become adepts or Mahatmas, while others are lagging behind.³³ This racial hierarchy found a warm reception in Germany, with deadly results, while it continues to feed the belief in Aryan origins of Indian people even today.

The second innovation involves the Hindu concepts of karma and rebirth, which have been described as “two pillars upon which all theosophical writings rest,” (Neufeldt, 1986, p. 233). Karma provided Theosophy with a seemingly scientific principle of causality which could explain the “how” of material-spiritual evolution without invoking the

³² For a list of sources and the charges of plagiarism see Farquhar (1998[1915]: 263).

³³ This summary is derived from Goodrick-Clarke ((1985) and Bruce Campbell (1980).

personal God of the Judaeo-Christian tradition and without accepting the materialism of Darwin's mechanism of natural selection.

The fundamental idea that Blavatsky hit upon was that progressively complex species in nature are a result of the reincarnation of the soul made progressively purer, subtler, and more spiritual as a result of their karma in previous life. Karma functions here as an alternative to Darwinian natural selection: it is understood as a universal law, acting in and through nature, which determines the course of the natural, moral and spiritual history of the entire cosmos. This process did not end with the appearance of *Homo sapiens* in nature, as human souls themselves kept on getting refined until they became so subtle and pure that they became one with Atman.

A close reading of Madame Blavatsky's voluminous writing shows that she understood the Hindu doctrine of karma as a law of cause-and-effect, no different from its essence from what one observes in the material world. As Ronald Neufeldt (1986:236) has convincingly argued, Blavatsky saw Theosophy as a science that "falls under the definition of Hobbes. It is preeminently the science of effects by their causes, and of causes by their effects, . . . and it is also a science of things deduced from first principles." She saw the doctrine of karma as the fundamental causal law unifying the natural and spiritual world that theosophy was the study of:

Karma thus, is simply action, a concatenation of *causes* and *effects*. That which adjusts each effect to its direct cause; that which guides invisibly and unerringly these effects to choose, as the field of their operation, *the right person in the right place*, is what we call Karmic Law. What is it? Shall we call it the hand of providence? We cannot do so, [because it involves no] foresight and personal design of a personal god. . . . In the active law of Karma . . . there is no foresight nor desire . . . it is our own actions, thought and deeds which guide that law, instead of being guided by it (Blavatsky, *Collected Writings*, Vol. XI, p. 144–145, quoted here from Neufeldt, p. 238).

She held this law-like and impersonal working of karma as responsible for evolutionary progress: the higher biological species were simply the "right [beings] in the right place," in which the soul is reborn under the guidance of the karmic law. In order to explain what exactly is reborn after death, Blavatsky turns to Sankhya-yoga philosophy and distorts it to fit it into the seven-fold view of the occult body inherited from the Western occult tradition. Briefly, she divides the body into three lower principles—the body, the vital principle and the astral body—which

are destroyed at the time of bodily death. The remaining four higher principles—the astral shape, or (*Kama Rupa*), the animal or physical intelligence (*Manas*), the higher or spiritual intelligence (*Buddhi*) and the spirit (*atman*) move on to higher realms. From these four, only the spiritual intelligence and the spirit—*Buddhi* and *Manas*, respectively—are reborn.³⁴

For all the loan words from Hinduism, Blavatsky's view of karma are rebirth constitute a *break* from the classical Hindu doctrine. Rebirth and karma in theosophical doctrines serve as mechanism for progress: the soul, like everything else in nature, only moves forward toward perfection, until the time all potential for development is exhausted and dissolution sets in, setting the stage for the next cycle of creation, evolution and dissolution. This progressive view of karma and rebirth are at odds with the traditional Hindu view which allows for regression from the human to animal stages.

"Avataric evolution" was her third innovation. It refers to the idea that:

...the traditional series of famous divine incarnations or avatars of the Hindu god Vishnu parallels and foreshadows the modern theory of biological evolution. Specifically, the ten major animal and human forms of Vishnu symbolize, or are manifested in, or respond to, the organic evolution of species from aquatics through amphibians and continuing through reptiles, mammals, higher primates and humankind, with the final stage of the avatric evolutionary process culminating in some future spiritual state of higher consciousness (Brown, 2007a, p. 424).

The myth of Vishnu's many incarnations has been a part of Hindu religious tradition from times immemorial. But the first time that it was interpreted as foreshadowing evolution of species was in Madame Blavatsky's major work, *Isis Unveiled*, published in 1877. In this work, she provides the following sequence of ten avatars of Vishnu:

1. Matsya avatar, Vishnu as a fish.
2. Kurm-avatar, as a tortoise.
3. Varaha, as a boar.
4. Nara-Sing[sic]: as a man-lion, last animal stage.
5. Vamuna [sic]: as a dwarf; first step toward the human form.
6. Parasu-Rama: as a hero, but yet an imperfect man.

³⁴ See Goodrick-Clarke (2008, pp. 219–222) for a succinct explanation of this complicated schema.

7. Rama-Chandra: as the hero of Ramayana. Physically a perfect man; his next of kin, friend and ally Hanouma[sic], the monkey-God. The monkey endowed with speech.
8. Christna [sic]-Avatar: the son of the Virgin Devanaguy (or Devaki) one formed by God, or rather by the manifested deity Vishnu.
9. Guatam Buddha, Siddhartha or Sankya-muni: The Buddhists reject this doctrine of their Buddha being an incarnation of Vishnu.
10. This avatar has not yet occurred. It is expected in the future. Like the Christian Advent, the idea of which was undoubtedly copied from the Hindus. When Vishnu comes for the last time, he will come as a "Saviour"... (Blavatsky, 1877, part II, p. 274).

This sequence of incarnations has to be read allegorically, Blavatsky insists because both the Brahmin authors of Vishnu Purana and the devotees of Vishnu meant to read it for its secret or esoteric message.³⁵ This hidden message, she decodes as evolutionary sequence of species:

In this diagram of avatars, we see traced the gradual evolution and transformation of all species out of ante-Silurian mud of Darwin... Beginning with Azoic time, corresponding to the *ilus* [primal slime] in which Brahma implants the creative germ, we pass through the Paleozoic and Mesozoic times, covered by the first and the second incarnations as the fish and the tortoise; and the Cenozoic, which is embraced by the incarnation in the animal and semi-human forms of the boar and man-lion; and we come to the fifth and crowing geological period, designated as the "era of the mind, or age of man" whose symbol in the Hindu mythology is the dwarf—the first attempt of nature at the creation of man....we should follow the main idea, not judge the degree of knowledge of ancient philosophers by the literal acceptance of the popular form in which it is presented to us in the grand epical poem of Mahabharata and its chapter the Bhagaved-Gita. (Blavatsky, 1877, part II: 275).

As Brown points out, Blavatsky conjoins one of the many creation stories of Hinduism—that of Brahma implanting the initial seed of life as described in *Manu*—with the later Puranic accounts of the avatars. The implantation of the germ is one form of "descent or involution of the Eternal Supreme Cause into matter, and the developed seed will return to be reabsorbed into the Divine Spirit" through the evolution of ever-higher, more complex avatars leading to god-like men (Brown 2007a, p. 439).

³⁵ There is no evidence that the devotees of Vishnu have read the myth as an allegory of evolution.

What is remarkable about this synthesis of Hermeticism and Hinduism is that none of the three Hindu doctrines actually teach evolution of species. The philosophy of Sankhya-yoga, in fact, is profoundly anti-evolutionary, for it teaches that all that is, has always been and that nothing new that does not already exist in its un-manifested or manifested state can come into existence (Hiriyanna 273, p. 277). The doctrine of karma does not always lead to progressive rebirths into higher forms, but can also cause a human soul to be reborn as, say, a cockroach. The avatars of Vishnu, likewise, originally represented different forms God Vishnu (the preserver-God in the Hindu Trinity) takes on to save the world from destruction: there wasn't even a hint of evolutionary progression of living forms in representations of Vishnu from the fish to the man avatars.

Theosophists were clearly distorting the original import of Hindu doctrines. But far from correcting these distortions, Indian proponents of a modern, rational and scientific Hinduism eagerly embraced them. The end result was that a progressive evolution of biological species began to be willfully inscribed into the Hindu worldview, while still preserving the spirit-imbued cosmology of cycles of creation and destruction, each running into millions upon millions of years.

Crisis of Faith and Scientization of Hinduism in Fin De Siecle India

By the waning decades of the 19th century, a new generation of educated, urban and urbane Indian elites had emerged, especially in Bengal, the cultural heart of colonial India. They have been described as “the Oriental version of the Enlightenment man”³⁶ (de Michelis 2004, p. 52). Like their Western counterparts, these men were restless: not altogether religious and not altogether secular, they stood at the cusp of faith and skepticism. They simultaneously felt the need to defend the tradition of their forefathers, especially against the colonial critics, and at the same time, felt a compulsion to modernize and reform the religious tradition

³⁶ All the major public figures in this crisis of faith were men. But Swami Vivekananda and Sri Aurobindo had Western-born female devotees/ companions—Sister Nivedita and the Mother, respectively—who emerged as well-respected public figures in their own right.

they were born into. While they expressed a great faith in science and reason, they shied away from secular humanism.³⁷

They had inherited a crisscrossing stream of ideas. On the one hand, they had absorbed the myth of the Hindu Golden Age created by the British and German Orientalists. On the other hand, they were exposed to modern ideas and ways of thinking through Christian and Hindu educational institutions that had sprung up in Calcutta and other urban centers. On top of it, they were painfully aware of the low opinion many Christian missionaries and colonial administrators had of their Hindu faith, rituals and culture. They were caught in pretty much the same dilemma as their counterparts in the West: they could neither pray to the gods of their fathers and forefathers, but nor were they fully comfortable with the stark materialism of modern science which came with colonial baggage, to boot. Thus they faced the same old quandary that had haunted the post-Enlightenment generation in the West, namely, how to harmonize science and religion, or modern ideas with tradition. Their predicament was all the more severe because science came to them through the cruel agency of colonialism.

This shared crisis of faith served as a “link between the enlightened few in Calcutta and the enlightened few in England and the United States” (Kopf 1979, p. 4). The *first generation* of this link was undoubtedly the heroic age of British Orientalism which had lasted from 1773 to 1837 and which we have already examined in an earlier section. After the British Orientalism came to an end, a *second generation* of the “religious left” that was rebelling against the dogmas of Calvinist Christianity in their native lands—including those like Unitarians who were still at least nominally Christian and those like Freemasons and Theosophists who espoused esoteric and occult beliefs—began to arrive on the shores of India from Britain and the United States. These religious skeptics and seekers were led to India in part by the scholarly output of the earlier generation of Orientalists which had introduced them to Hindu *Vedas*, *Bhagavad Gita*, *Manusmriti*, *Vishnu Purana* and other

³⁷ According to David Kopf, the author of the renowned history of the modernist Brahmo Samaj in Bengal, “faith in science and reason were so crucial to all Bengali liberals until well into the 20th century that we are justified in looking upon these leading ideas as the most fundamental and characteristic features of Hindu modernist ideology.” And yet, Kopf adds, “straightforward secular humanism did not exist in the Brahmo Samaj” (1979, p. 48). The Unitarian paradigm of rational theism later combined with positivism set the outer limits of secular thought.

sacred books. As described earlier, they were seeking a rational theology cleansed of revealed dogmas of Christianity.

In the post-Orientalist period, especially after the 1857 rebellion when the British began to aggressively promote Westernization, it was this second generation that filled in the gap left behind by the Orientalists. As Elizabeth de Michelis points out,

the only body of interlocutors that was now [i.e., after the thwarting of Orientalist plans for Anglo-Indian cooperation] eager to communicate and cooperate with Indians qua Indians was that of the esotericists, whether Christian [Unitarians] or otherwise. Bengalis reciprocated, while Orient-inspired Romantic, Transcendentalist, occultist and in due course theosophical ideas were being propagated by a steadily growing body of literature, or through lecture tours and personal contacts (2004, p. 47).

Providing more evidence for Jocelyn Godwin's thesis that "Blavatsky's Theosophy owed as much to the skeptical Enlightenment... as it did to the concept of spiritual enlightenment with which it is more readily associated," (1994, p. xi), it was the Unitarians who shared the Enlightenment skepticism against Trinitarian Christianity who prepared the ground for the subsequent acceptance of theosophical ideas in India. The early decades saw the emergence of neo-Vedantic Enlightenment, which gradually embraced more spiritualist and esoteric ideas.

The contact between Boston, London and Calcutta began with Raja Rammohan Roy's (1774–1833) attempt to interpret the Vedas and the Upanishads to bring them in accord with monotheism strongly influenced by Unitarian ideas that were emerging from William Channing and Joseph Tuckerman from Boston, Reverend Lant Carpenter in Britain and other Christians with Unitarian leanings in Bengal itself. Roy absorbed the rational theology of Unitarians that eschewed revelation and depended more upon intuition and personal experience of the divine and tried to find it in the Vedas and Upanishads. In his many debates with his Christian friends and critics, he tried to "prove that the message of the Vedanta not only contained the unity of God, but did so in a way superior to the Judeo-Christian Bible... because it did not attempt to categorize the attributes of the Almighty—a gesture that Ram Mohun found both anthropomorphic and futile. Rammohun was now using Unitarianism in an Indian way..." (Kopf 1979, p. 13). This view of the divine became the basis of Brahmo Sabha he founded in Calcutta in 1828 which took a lead in combating socially regressive practices like child marriage and widow immolation.

The next step toward spiritualism was taken by Debendranath Tagore (1817–1905), who took on the leadership of Brahmo Samaj after Roy's death. While Roy had tried to reconcile his Unitarian faith in One God with the Vedas, Tagore broke free of this compulsion to refer back to the Vedas or any holy book. After a deep and long study of Hindu scriptures, he felt he could not accept the doctrine of karma and rebirth as taught in the Upanishad and Brahmana literature. Consequently, he made a break and announced that "the pure, unsophisticated heart was the seat of Brahmoism" and henceforth Brahmos "could accept those texts only which accorded with that heart. Those saying that disagreed with the heart they could not accept" (quoted here from de Michelis 2004, p. 59). Under his leadership, Brahmo Samaj gave up the idea of the infallibility of the Vedas and instead made the truth of the Vedas dependent upon the spiritual experiences of believers. This idea was to play an important role in the later development of self-understanding of modern Hinduism both as a "religion of science" in which spiritual experience began to serve as the basis of empiricism, and Hindus as a people endowed with the "yoga faculty." (More on these issues later). But at the time when Brahmo Samaj first adopted this principle, it was literally unprecedented as "there is simply no evidence of an indigenous Indian counterpart to the rhetoric of experience prior to the colonial period" (Sharf 1998, p. 100).

The real turn toward spiritual scientism took place with Keshub Chunder Sen's famous "New Dispensation" which laid the foundation for Swami Vivekananda's paradigm-defining writings and teachings.³⁸ Keshub Chunder Sen (1838–1884) was a protégé of Debendranath Sen, but he split from the original Brahmo Samaj in 1866 to start his own Brahmo Samaj (leaving the original body to attach the prefix "Adi", or the Original, to its name). For most of his life, he remained staunchly committed to the Unitarian social gospel and counted the American Unitarian minister Charles Dall to be an honorary Brahmo.

But by all accounts, Keshub underwent a profound change in the years immediately following a trip to England in 1870. He apparently came back from England convinced that:

³⁸ Elizabeth de Michelis places Sen somewhere in-between "Debendranath Tagore's neo-Vedantic romanticism and Swami Vivekananda's neo-Vedantic occultism," with Sen progressing throughout his life from the former toward the latter (p. 74).

the Christian vision needed completion by a distinctively Indian contribution, and implementation by an Indian....thus was born the idea of New Dispensation, an amalgam of ideas and practices culled from different religions, especially Hinduism and Christianity, with Keshub, the Great Man, at the head" (Julius Lipner, quoted here from Brown 2007a, p. 430).

He formally declared the formation of the Church of New Dispensation (or Nava Vidhan) in 1879 with an express purpose of bringing about such a completion. His "church" sought to harmonize all religions (i.e., to show that all religions are true); harmonize all religions with science; and to provide empirical evidence for such a concordance. As he announced rather grandly in 1880: "We are going to enter into a new domain of a new dispensation, that of science and faith harmonized....In the new faith everything is scientific. In all your beliefs and in all your prayers, faith and reason shall be harmonized in a true science" (quoted here from Brown 2007a, 431).

Keshub found an ideal exemplar of his Nava Vidhan in Ramakrishna Parmahansa (1836–1886), a tantric worshipper of Goddess Kali in a Calcutta temple, who he met in 1875 and who he thought could *demonstrate*, through personal experience which could be repeated by others, the harmony of all religions. Ramakrishna was an intensely spiritual man who spent his entire life seeking direct experience of God: he taught that a "feeling for God,"—directly seeing God and hearing God—were superior to book-learning which he compared to "mere dirt and straw after realization of God" (Rambachan 1993, p. 33). A worshipper of Kali, he "experimented" with Islam and Christianity by worshipping as a Muslim or a Christian would do, observing all the rites and rituals of these faiths. From these experiences, he concluded that all religions lead to the same goal, namely, god realization, and therefore all are true.³⁹

Keshub interpreted Ramakrishna's teachings as proof that religious harmony can be empirically demonstrated. This became his basis for asserting the "scientific" basis of New Dispensation and led him to invent highly syncretic rituals which combined, for example, traditional

³⁹ For a description of his experiments with god realization, see Farquhar (1915, pp. 188–200). One of the lessons Ramakrishna drew from his belief that all religions are true was that religious conversions were pointless and that "every man should follow his own religion. A Christian should follow Christianity; a Mohammedan should follow Mohammedanism, and so on. For the Hindus, the ancient path, the path of the Aryan Rishis, is the best" (Farquhar, p. 198).

Vaishnava bhakti with Salvation Army-style parades and bands, Christian-style baptism ceremonies and “pilgrimages” in which he encouraged devotees to imaginatively replicate the spiritual experiences of Socrates, Moses, Mohammad, Chaitanya and so on (Kopf 1979, pp. 268–281).

But even though he taught equal truth of all religions, he clearly singled out Hinduism as being more open to experiential knowledge of God because, as he wrote to Max Müller, he, as a Hindu was “free of biases of the true believer in a revealed religion” (Kopf 1979, p. 270). Keshub can be counted among the architects of the idea of spirituality being the essence of Hinduism. Meticulous research by Elizabeth de Michelis shows that as he broke his ties with Unitarianism, he turned more and more to yoga and meditation, declaring “we Hindus are specially endowed with, and distinguished for, the yoga faculty, which is nothing but this power of spiritual communion and absorption. This faculty which we have inherited from our forefathers enables us to annihilate space and time...” (p. 89).

Thus Keshub initiated the process of braiding together mystical empiricism, scientific empiricism and Hindu exceptionalism in a potent mixture which has continued to beguile Hindu nationalists of all shades. This mixture was inherited by Swami Vivekananda, a protégé of both Keshub and Ramakrishna and through his enormous influence, it became the fundamental assumption of neo-Hinduism. Modern Vedic evolutionism is a product of this mind-set.

It has been suggested by Elizabeth de Michelis and Mackenzie Brown recently that this concern with bringing about concordance of all religions with modern science was picked up by Keshub from his contact with the Swedenborg Society during his visit to London in 1870. Swedenborg Society shared the same intellectual space in the cultic milieu in the West as the Theosophical Society, Mesmerism, spiritualism and Transcendentalism. Its unique contribution was the application of scientific methods to the spiritual world, a project that Theosophical Society shared.⁴⁰

⁴⁰ Emmanuel Swedenborg (1688–1772) was a well-respected scientist who worked with the Swedish Board of Mines and did significant work in metallurgy and mining engineering. Hanegraaff (1998, p. 424) suggests that his scientific work led him to give up on finding any signs of the divine in nature. This intellectual crisis was resolved by a vision of Christ which he interpreted as a divine command to explain the spiritual meaning of the Bible to people. He devised an elaborate system of correspondences by which he explained the natural world as a mirror that reflects the spiritual world. His

According to de Michelis (2004, p. 61), extensive contacts with Unitarians had already familiarized Sen and his fellow Brahmos to the Vedanta-influenced Transcendentalist writings of Emerson and Parker which had predisposed them favorably toward emphasizing spiritual experience over holy books and theological treatises as the basis of a universal religion. Thus Sen was receptive to the Swedenborgian and theosophical ideas that spiritual experiences verify the spiritual phenomena in the same manner that sensory experiences verify the natural phenomena, and that the spiritual phenomena correspond with the natural world.

Mackenzie Brown (2007a) provides more evidence. He quotes from the welcome speech at Swedenborg Society on June 2, 1870 when “New Dispensation” was mentioned as heralding “an astonishing revolution in modes of faith and forms of thought” following the passing away of old religions. Indeed, in the 19th century cultic milieu, the idea of “New Dispensation” was routinely used to refer to spiritualism and other occult movements. Brown suggests that this encounter made Sen receptive to the more metaphysical writings of the Theosophical Society’s on the issue of evolution (to be examined in the next section).

This scientific turn became most obvious in Sen only close to his death in 1884. By that time, Madame Blavatsky had already published her first magnum opus, the *Isis Unveiled*, which came out in 1877. By 1879, Blavatsky and Olcott had already moved to India and were soon to establish the headquarters of their society in Adyar in Madras. By the time Sen enunciated his New Dispensation in 1880, there were already “over a hundred branches of Theosophical Society in India and Hindus everywhere rejoiced in their work... Theosophy was providing a new defense of Hinduism for thousands of educated men, whose Western education had filled them with shivering doubts about their religion” (Farquhar 1915, p. 233). Jocelyn Godwin (1994, p. 320) has speculated that their contact in India originally intended to put them in touch with Brahmo Samaj, rather than with the Arya Samaj. Olcott himself admitted that he had “written to Keshub Babu to ask him to join us in our work, and I was ready to serve in any

major contribution which influenced the development of all the later esoteric currents consisted in “his synthesis of esoteric speculation on the one hand, and post-cartesian science and natural philosophy on the other”.

subordinate position, under and with anybody, no matter whom, in the interest of India and Indians.” But, he goes on to say, “the back of the hand, not the palm, was offered to me” (1895, p. 126). Blavatsky had admired the founder of Brahmo Samaj, Raja Rammohan Roy, as a great reformer, but she did not take kindly to the devaluation of the Vedas in favor of Unitarian Christianity among the post-Roy Brahmos. She also objected to Keshub’s proclamations of himself as a prophet of the New Dispensation (Godwin 1994, p. 319). It appears that Keshub returned the criticism, calling Blavatsky “an imposter,” “adventurer” and a “pretender” (Brown 2007a, p. 445, note 26). All this provides ample grounds to believe that Theosophical Society was not an unknown entity in India by the time Keshub took his neo-Vedantic-scientistic turn in early 1880s. It is quite likely that Keshub was familiar with the content of their teachings, even though he disapproved of the famous “theosophical twins” who had made India their home.

Theosophical Society was by no means the only organized body of esoteric thought that had found a niche in India. Freemasonry, which had the agenda of creating a universal brotherhood of Man in the One, had been present on the subcontinent since as far back as mid-18th century, brought to its shores by British aristocrats. Freemasons opened their doors to the “native gentlemen” in 1843 and by the early 1880s, it had become a “fashion with the Indians to become members of the Freemasonry [sic]. Lawyers, judges and government officials were its members. Its membership gave a chance to mix with the high dignitaries and officials” (quoted from de Michelis, p. 69). By 1920, there were 183 lodges in Calcutta, Bombay (now Mumbai) and Madras, now Chennai).

One Bengali with one foot in Freemasonry and the other in Brahmo Samaj was Narendranath Datta (1863–1902), the future Swami Vivekananda who has left an indelible mark on how Hinduism is understood in the West and in India itself. Vivekananda’s spiritual and intellectual journey has been a topic of great scholarly interest. The outlines are clear: born in 1863 in Calcutta, he received the standard middle-class English medium education, and even joined the Freemasons as many aspiring young men of his milieu did in order to gain contact in the genteel society. After initial sympathy with the socially more progressive wing of Brahmo Samaj, he became an active member of Keshub’s wing (which had gradually turned its back on social reform) and joined the New Dispensation in 1880 when he was

barely 19 years old. Even though he renounced his Brahmo affiliation later in life, he retained a distrust for revealed knowledge in favor of the kind of mystical empiricism and concordance of religion with science that the New Dispensation taught.

After Keshub's death in 1884, he came under the influence of Ramakrishna Parmahansa for pretty much the same reasons as Keshub: he saw Ramakrishna as providing empirical demonstration of God.⁴¹ After Ramakrishna's death in 1886, the leadership of his disciples fell upon Narendranath. But critical of the ecstatic devotionism, anti-intellectualism and lack of social concerns among his brother monks, the future Vivekananda broke away and pursued his own quest. (He returned to establish the Ramakrishna Mission in Calcutta in 1897.) In 1893, he addressed the World Parliament of Religions in Chicago which made him a celebrity in the United States and back home in India.

It is through his deep engagement with the cultic milieu in the United States, where he stayed for another three odd years after his Chicago address, that he began to "blend neo-Vedantic esotericism and avant-garde American occultism" (de Michelis, p. 110). His years in America were spent discoursing—and raising money for his future work in India—in numerous gatherings of Unitarians, Christian Scientists, Spiritualists, Swedenborgians, Transcendentalists and Theosophists who welcomed this celebrated Wise Man from the East. As he became familiar with the Western quest for a non-dogmatic spiritualism that was compatible with the Enlightenment values of scientific evidence, progress and evolution, he settled on Advaita Vedanta into which he read all that the Western seekers were seeking.

In the process, he created an image of his spiritual master, Ramakrishna—the mad devotee of Kali—as a great Vedantic sage who exemplified the rational, experiential and therefore "scientific"

⁴¹ Young Narendranath was exposed to the writings of British empiricists, notably Locke, Berkeley and Hume in his college years and took to heart the empiricist dictum that all knowledge was dependent upon sense experience. This predisposed him toward Keshub's New Dispensation and even more fatefully, toward Ramakrishna's experiments with spiritualism. The often-told story has it that the first question he asked Ramakrishna when he went to see him at Dakshineswar temple was "Sir, have you seen God?" to which Ramakrishna replied, "yes, I see him just as I see you." The idea that direct experience of God is the most direct means of knowledge and therefore spiritualism is a kind of science remained one of the guiding principles of Vivekananda's philosophy (Emilsen 1984, p. 201).

core of advaita Vedanta. What is more, he claimed that this advaita that he and his guru Ramakrishna taught, was the same doctrine taught by the great seventh century sage, Shankaracharya (788–820 CE). Thus he managed to read an experience-based way of knowing spiritual realities that eschewed doctrine and revelations back into the original teachings of Shankara.⁴²

Where were the Theosophists in Vivekananda's journey? He did not have a good opinion of them and tried his best to dissuade his followers from joining them. Vivekananda's relationship with the founding members—especially with Olcott, Blavatsky having already left India for Europe by the time Vivekananda began to get involved in these issues in late 1880s—was fraught with mutual distrust, professional rivalry, and resentment against foreigners presuming to teach Hinduism to Hindus. William Emilsen (1984) has likened their relationship to that of porcupines huddling together who prick each other if they are too close, but yet, feel compelled to huddle because of the warmth—or in this case, the intellectual stimulation—they provide to each other. Vivekananda started out with a negative impression of Blavatsky and Olcott because of their prior dispute with Swami Dayananda, someone he held in great esteem. His negative impression deepened into a deep resentment when Olcott refused to recommend him for the World Parliament of Religions—a grudge he carried even after he emerged as a celebrity. (He managed to get to Chicago with the help of his old colleagues in the Brahmo Samaj). With his acute sense of which way the intellectual winds were blowing, moreover, Vivekananda came to the conclusion that Theosophists were a minority wing of the spiritualist scene in America, and that it was more respectable to ally with the more sophisticated Boston Brahmins (i.e., the New England Transcendentalists) and academic Orientalists like Max Müller and Paul Deussen. The irony is that many of his own best friends (notably, the distinguished judge Subramania Iyer) were ardent Theosophists and he had to persuade his followers from joining

⁴² But Sankara taught no such empiricism. If anything, he distrusted personal experience as a valid source of knowledge of the divine and insisted that Vedas themselves were the highest authority. According to Rambachan (1994, p. 3) “unlike Vivekananda, who presented the affirmation of *sruti* [the revealed scriptures, the Vedas] as having only a hypothetical or provisional validity and needing verification that only *anubhav* [experience] could provide, Shankara argued for *sruti* as the unique and self-valid source for our knowledge of absolute reality or Brahman. In relation to the gain of this knowledge, all ways of knowing were subordinate to *sruti*.”

the Theosophical Society. As Emilsen puts it, Vivekananda's movement had become "like a gecko, almost indistinguishable from the Theosophists" (p. 216).⁴³

Through the intellectual currents that led Hindu reformers like Keshub Chunder Sen and Vivekananda away from accepting sacred books on faith alone, there was one reform movement which stood steadfast for trusting nothing but the Vedas. This was the Arya Samaj of Swami Dayananda, who was the first ally of the Theosophical Society in India: when Blavatsky and Olcott landed in India, they came as disciples of Dayananda and even agreed to merge their own society into his as "the Theosophical Society of the Arya Samaj of India" (Ransom 1938, p. 115). The relationship did not last long and by 1882, Dayananda was denouncing the two as Buddhists and atheists who knew nothing of the philosophy of yoga but were only good at jugglery and magic tricks.⁴⁴

To sum up this section, secularization of esotericism—that is, the attempt to adapt the holistic or spiritual-monistic worldview to the empiricist philosophy of mechanistic science—was a dominant trend among the Hindu reformers in the 19th century India. In this, the cultic milieu of America and Britain played a key role by bringing critics of orthodox Trinitarian Christianity, from Unitarians to Theosophists, to the shores of India where they sought a more rational theology. But Indians were by no means passive recipients of their ideas. They actively participated both in appropriating Western ideas and in lending a Hindu hue to them.

The Social Context of Modern Vedic Evolutionism

By the last quarter of the 19th century, calls for social reform in India had become practically indistinguishable from calls for a revival of an authentic "Aryan" Hinduism. The idea of Swaraj (self-rule) was

⁴³ Excerpts from Vivekananda's remarks on the Theosophists can be found in Emilsen (1984).

⁴⁴ See Dayananda's lecture on March 1882, "Humbuggery of the Theosophists" at <http://www.Blavatskyarchives.com>. It is curious that Indian critics, including Dayananda, Ramakrishna, Vivekananda and later even Gandhi, should have made such a fuss about Blavatsky's magical tricks. India is replete with any number of magic-working holy men with huge following among the rich, the educated and the famous.

understood as the “fulfillment of the ancient life of India under modern conditions, the return of satyayuga (the era of Truth) and the final fulfillment of the Vedantic ideal” (Heimsath 1964, p. 313). This conflation of Indian nationalism with Hindu revival was shared across the political spectrum from the “extremists” who urged an armed overthrow of the British raj, to the “moderate” members of the Social Congress, the social reform forum of Congress. Leading members of the Theosophical Society, notably Henry Olcott, and C. W. Leadbeater, later joined by the charismatic Annie Besant, were at the forefront of Hindu revivalism, especially in southern India where the educated Hindus reportedly had a “mania for theosophy” (Heimsath 1964, p. 327).

Reception of modern scientific ideas was not exempt from this urge to present them as fulfillment of the ancient Vedantic ideals. Thus one finds influential member of the nascent scientific community of this era trying to invent Vedic genealogies for modern chemistry, physics and other sciences they specialized in. Even those like the physician-turned-homeopath, Mahendra Lal Sircar (1833–1904) and the chemist Praful Chunder Ray (1861–1944) who were highly critical of Hinduism and its negative influence on the “Hindu Mind,” still looked back to the Hindu tradition for inspiration and saw European science only as a fulfillment or “realization of the ideal presented by our own *rishis* (sages)” (Arnold 1999, p. 168). By thus turning modern scientific ideas into echoes of ancient religious teachings, science was rendered fit enough for Brahmins and other upper castes to study, while protecting their theological worldview from any critique or self doubt.

Modern Vedic Evolutionism evolved out of this intellectual-political climate. As described earlier in this essay, MVE enfolded Darwinism into Hinduism by insisting that the Darwinian sequence of evolution of species was known to ancient Hindu sages, but that it needs “completion” from the “higher” spiritual truths of Hinduism. While this kind of enfoldment applied to all sciences, theories of evolution took on a special urgency in the 19th and early 20th century India where they got mixed up with debates about the decline of the “Aryan racial genius” of India and how to revive it.

Blavatsky’s theory of the Aryans being the most evolved root-race and her popularization of the Swastika, combined with Olcott and Besant’s open admiration for the superior sciences of the Hindu Aryans found an eager audience in India. The stage had already been set by the philological works of William Jones and Max Müller. Around the end of the 18th century, William Jones had discovered

the affinities between Sanskrit and Greek and Latin, and had famously declared Sanskrit to be “more perfect than Greek.. more copious than Latin” (Poliakov 1971, p. 190). This discovery fed into the 19th century idea—popularized in India by the writings of the great Sanskritist and Indophile, Max Müller—that people that shared a root language also shared a racial ancestry.⁴⁵ This racial interpretation of linguistics was to prove fateful, as it fed into the idea of a proto-Indo-European language speaking “Aryan” race descending from the mountains of Asia to colonize and populate Europe. Because of its antiquity, Vedic Sanskrit was given the status of the “mother” of all Indo-European languages, and thus the myth was born that India was the cradle of the Aryan-speaking races and therefore, in the famous words of Friedrich Schlegel, “everything, absolutely everything, is of Indian origin” (quoted from Poliakov 1971, p. 191). But by the close of the 19th century, the academic opinion had shifted: the entire idea that shared language equals common racial had been discredited, and India was no longer considered the Aryan homeland. What replaced the Homeland theory was the Aryan Invasion (or Migration) theory which proposed that fair and blonde Indo-European language speaking tribes that had originated somewhere in Central Asia had migrated into the Indian subcontinent from the North-West direction sometime in the second millennium before the common era, where they had lost their Aryan features due to inter-breeding with the darker Dravidian races.⁴⁶

But among Indians, the idea of their country being the cradle of Aryan civilization took on a life of its own—and has continued to be actively championed by Hindu nationalists to this date. When the Indo-mania of the European Sanskritists had receded, Olcott and later, Annie Besant stepped into their shoes. In a lecture given in 1880 in Amritsar, Punjab (probably to the followers of Arya Samaj), Olcott was assuring his audience that even though Max Müller may have

⁴⁵ According to Edwin Bryant (2001, ch. 1), the idea of “one language, one race” had Biblical roots and was accepted as true by most scholars until well after the Enlightenment. It assumed that prior to the construction of the city of Babel, there was one human race speaking one language, which later got scattered all over the earth. This theme, stripped of its Biblical trappings, had become a part of the scholarly assumptions in the 19th century.

⁴⁶ For a comprehensive treatment of the Aryan homeland debates, see Edwin Bryant (2001).

recanted, they, the Theosophists, still believed that “Aryavrata was the cradle of European civilization” and that “India, 8000 years ago, sent out a colony of emigrants who carried their arts and high civilization into Egypt...” and from there to Greece and to the rest of Europe (Olcott 1895, p. 259). Later Indian reformers, from Vivekananda to Sri Aurobindo, continued to hail Indians as the Eastern cousins of the European Aryans. According to the historian Tapan Raychaudhari:

The Hindu self-image had received a moral boost from the writings of Professor Max Müller. His linguistic studies stressed the common origins of Indo-European languages and the Aryan races. These theories, translated into popular idiom, were taken to mean that the master race and the subject population were descended from the same Aryan ancestors. The result was a spate of Aryanism. Books, journals, societies rejoiced in Aryan identity. Educated young men, in large numbers, affected a demonstrative reversion to the ways of their forefathers—with fasts, pigtails, well-displayed sacred threads and other stigmata of Hindu orthodoxy. The name “Aryan” appeared in every possible and impossible context—in the title of books as much as in the name of drug stores...(quoted here from Bryant 2001, p. 47).

Evolutionary ideas ended up getting enmeshed in this sentiment of popular Aryanism. The wider appeal of modern evolutionary theories lay in the fact that, as Mark Singleton has argued (2007, p. 129), “they offered a compelling interpretative framework to account for the degeneration of the Hindu race as well as a blue print for its renewal.” Those familiar with the social Darwinist theories of struggle for mastery between greater and lesser races and nations began to explain India’s current state of degradation in terms of the decline of the “Aryan race genius” brought about by the institutions of caste, which they proposed were absent among the Vedic Aryans. The lost Aryan race genius became the “absolute standard of purity, utility and reason against which to test the customary behavior,” (Bayly 1999, p. 162). The rebirth of India came to mean building the new India on its “Aryan” foundations.

Modern Vedic Evolutionism offered a unique form of “spiritual eugenics”, to use Mark Singleton’s (2007) description, which could hasten the evolutionary process and breed “supermen” who could literally conquer nature and dominate the world. “Different races,” Vivekananda wrote, take to “different processes of controlling nature.” Hindus he suggested possess the unique gift of “raja yoga” which allows them to “start from the internal world, to study internal nature

and through that, control the whole—both internal and external.” By cultivating the unique Hindu yoga faculty, men could literally short-circuit the process of evolution and become Gods in their own life time. Thus, while it takes “millions of eons” for “a fungus...to become a plant, then animal, then man and ultimately God,” the practice of yoga can “teach men...how to shorten the time for perfection, instead of slowly advancing from point to point and waiting until the whole human races has become perfect” (CWI, pp. 156–157). Such Gods on earth achieve “absolute control of nature” bringing natural phenomena under the control of their minds, thus opening the possibility of all kind of occult powers, or siddhis.

Such ideas which combined yoga—both physical and spiritual—with *genetic* improvement of the Hindu race (and potentially, of all races) were widespread in the late 19th to early 20th century. Well-known figures including Sri Aurobindo, the philosopher of “integral evolution,” and Annie Besant, the Theosophist, believed that yoga could “weed out the undesirable elements of character” and hasten the evolution of Mother Race which would equal what used to be called the Aryan Race (Singleton 2007, p. 132). Spiritual eugenics assumed a Lamarckian mechanism through which yoga practitioners could pass on their enhanced spiritual powers or siddhis to their progeny and gradually recovering the “gigantic intellects” (to use Vivekananda’s often used description) of their Aryan ancestors.

Modern Vedic Evolutionism I: The Beginning

We are finally in a position to answer the question: How was Modern Vedic Evolutionism constructed? Or in other words, how was Darwin’s theory of evolution fitted into the Hindu worldview and the hybrid certified as meeting the criteria of scientific validity? What role did Theosophical ideas play in the evolution of Modern Vedic Evolutionism?

The main architect of MVE, without a doubt, was Swami Vivekananda: he constructed the basic model that others have continued to embellish to the present day. But he built upon the tradition of scientific exegesis of Hindu sacred books that had been growing through the 19th century in two of the best-known reformist organizations in the country, namely, Arya Samaj and Brahmo Samaj. And as we will see presently, every argument he made to fit Darwin into

the saga of Atman's pilgrimage from and to Brahman was first made by the Theosophists, especially the much reviled Madame Blavatsky. But Vivekananda stood on the shoulders of two pioneers of Hindu scientism—namely, Swami Dayananda and Keshub Chunder Seen.

Swami Dayananda's Arya Samaj was the official host of Theosophical Society: Blavatsky and Olcott had affiliated their organization with Arya Samaj and had declared themselves to be "officially and personally," subject to the Swami Dayananda's wishes. As described earlier, this relationship soured very quickly with Dayananda accusing Theosophists of "humbuggery." Underneath all the animosity, however, one finds a huge overlap when it comes to using modern science as the interpretive lens for reading the Vedas.

Swami Dayananda earned huge popularity among his followers (and an equally huge notoriety among his critics) for declaring that the archaic Vedic civilization that existed many thousands of years into antiquity was a technologically advanced culture which had knowledge of everything from steam engines, electricity and telegraphy to air travel. His interpretive scheme was simple: because he held the Vedas to be the word of God, he assumed that it could not possibly contain anything that went against the laws of nature: when in doubt about what the poetic metaphors of the Vedas *really* meant, they *have* to be understood as being in accord with the most advanced stock of rational knowledge: the most objective science of any age was the hidden meaning of the Vedas (Garg, 1984). Thus, when the Vedas mention the word *vidyut* or *agni*, they don't mean "lightening" or "fire" respectively as the common usage would have it, nor do they mean the gods of lightening and fire as the Orientalists would have it. In Dayananda's scheme, archaic Sanskrit references like "vidyut" and "agni" had to be interpreted as "electricity" and "energy" as his contemporary scientists would have it.

This scientism was ridiculed by all the more prestigious Sanskritists and Orientalists to the point that even ardent Arya Smajists like Lala Lajpat Rai were defensive about this aspect of their founder's teachings (Rai 1967, p. 111). But this extreme Vedic scientism had complete and enthusiastic support of one group—the Theosophists. Here is Colonel Olcott lecturing to an audience in Amritsar in the Punjab, the heartland of Arya Samaj:

Now, I have often been asked by those who affirm the superiority in scientific discovery of modern nations whether the Aryans could show

anything as splendid as the electric telegraph. My answer is that the properties of steam are believed to have been known in those ancient days.... That the Aryans had a system of telegraphy that requires neither poles, nor wires, nor pots of chemicals. Do you wish to know what it is? I will tell you, and tell it to the very beards of those ignorant, half-educated people who make fun of sacred thing and are not ashamed to revile their forefathers upon the strength of some superficial smattering of English education... your ancient Yogis could, and all those who have acquired a certain proficiency in occult science can even now, thus talk to each other [i.e., telegraphically, across time and space].... And then the Aryans knew a branch of science about which the West is not speculating much... they could navigate in the air, and not only navigate, but fight battles in it, like so many war-eagles combating for the dominion of the clouds. To be proficient in aeronautics, they must have known all the arts and sciences related to that science, including the strata and current of the atmosphere, their relative temperature, humidity and density and the specific gravity of various gases.... (1895, pp. 265–66).

For all the similarities, however, there was a big difference. While the Theosophists were willing to find science even in the fantastical stories of the Puranas, Dayananda denounced the Puranas and found only the hymns of the four Vedas as the true word of God and the repository of science. The two sides also arrived at their scientism through different routes. Dayananda was approaching the Vedas as a fundamentalist who saw the Vedas as the true, eternal and complete word of God which *by definition* include the results of scientific investigations.⁴⁷ The Theosophists, on the other hand, believed that spiritual forces were woven into the fabric of nature and could be understood in a scientific manner. Dayananda did not challenge the Theosophists' view of spiritual science, but he did not see the need for any further justification for the truth of the Vedas.

The two sides completely parted company, however, when it came to Darwinism and evolution. Dayananda, it appears, just did not like the idea that humans could have arisen from monkeys. He is reported to have made fun of Darwin by asking students in an engineering college why there were any monkeys left at all if they were supposed to have evolved into men: "if man descended from monkeys, how is that process had come to an end and monkeys no longer evolve into men?" (Garg1984, p. 501). Thus, even though Dayananda was the

⁴⁷ For commentary on Dayananda's "violent exegesis" of the Vedas, see Arvind Sharma (1998) and J. N. Farquhar (1915).

chief instigator of Hindu scientism, he left evolutionary theories out of his concern.

It was Keshub Chunder Sen's New Dispensation that started the process that culminated in the Modern Vedic Evolutionism. It wasn't the scientific details of the theory of evolution that he was particularly concerned about. Yet, evolutionary thought anchored his conception of the ultimate purpose of creation and life. As described earlier, the establishment of the so-called Church of New Dispensation in 1879 marked Keshub's turn away from Unitarian Christianity toward an amalgam of Vedantic spiritualism, yoga and Vaishnava bhakti sprinkled with Christian symbols and rituals. A major plank of his new "church" was "harmonization of science and religion" into a "true science of religion" the truths of which could be demonstrated. He laid out the foundations, the teachings and the aims of New Dispensation in a lecture titled "That Marvelous Mystery—The Trinity" he gave in Calcutta in 1882, just two years before his death. It is this address that he first expressed his views on evolution.

Evolutionary ideas were foundational to Keshub's view that Hinduism—and not Christianity or Judaism—was the "new dispensation" that was fit for the new world that was emerging. "We live in a new world," he announced, and the "Asiatic trinity" or sat-chit-ananda, rather than the "antiquated theologies" of the Father (Judaism) or the Son (Christianity), will take the whole world "forward, onward and heavenward into fresh paths of spiritual progress" (Sen 1904, p. 46). As he consigned the two Judeo-Christian "dispensations" to the pre-scientific past, he simultaneously replaced the Creator God of these faiths with an emanationist evolution in which the spirit takes on progressively more complex incarnations. Even though he spoke of harmony and equal truth of all religions, he clearly saw all faiths being reconciled under the Hindu understanding of God and nature.

Keshub was very clear in taking on the mantle of a prophet who is bringing the entire humanity to a spiritual awakening. In his reading of religious history of humanity:

Judaism has taught us the Father, Christianity has taught us the Son, the New Church will teach us the Holy Ghost. The Old Testament was the First Dispensation; the New Testament was the Second; unto us in these days has been vouchsafed the Third Dispensation" (Sen 1904, p. 43).

The "Holy Ghost" of Keshub's "New Church" was the "Asiatic Trinity" of Sat (Truth), Chit (Intelligence) and Ananda (Joy). This "trinity" was to continue and complete what began with Mosaic Monotheism.

This periodization of religious history was simultaneously a periodization of the evolutionary history of this world, including plants, animals and humans. He basically reads the Old Testament as a story of organic evolution, the New Testament as dealing with cultural evolution and his own New Dispensation as opening the way to spiritual evolution. The basic story line goes as follows:⁴⁸ evolution from gross matter to humans as “creatures of God”, as *Homo sapiens*, constitutes the history of the First Dispensation and the process supposedly comes to an end with the composition of the Old Testament. In this epoch, “the Lord asserted His power and established His dominion in the material and the animal kingdom, and then in the lower world of humanity. When that was done, the volume of the Old Testament was closed” (pp. 13–14). But evolution does not end with the emergence of human species: rather, the course of progressive evolution continues and with “culture and education, man rises in the scale of humanity till he becomes the son of God.” The New Testament brings the evolutionary story to the point when “having exhibited itself in endless varieties of progressive existence, the primary creative Force at last took the form of the Son in Christ Jesus” (p. 14).

It is at this point, after Christ had appeared as the Son of God, that the New Dispensation presumably begins. Its purpose is to bring about a divinization of the entire humanity. For this purpose, Keshub suggests that our understanding of God and his role in creation and its progressive evolution has to change. God ceases to be the Father who creates the world *ex nihilo*: *that* theology, Keshub tells us, has become antiquated and cannot be revived. Rather, God has to be thought in the way Hindus think of him as Absolute Consciousness, *Cit*, or Brahman that permeates the world, and continually creates the world as his manifestation or his emanation: “Creation means not a single act, but a continual process. . . it is nothing but a continued evolution of a creative force, a ceaseless emanation of power and wisdom from the Divine Mind,” (p. 12). This creative process is cyclical: God comes down in the form of all his manifestations, and god goes up, in the form of higher and higher spiritualization of man which makes everyone a

⁴⁸ The evolutionary thinking behind the New Dispensation is well described by Mackenzie Brown (2007a).

Son of God. He sums up his creation story as “God coming down and going up—this is creation, this is salvation” (p. 16).

Given that he saw New Dispensation as reconciling faith and modern science, Keshub tried to reconcile the progression of species revealed by fossil records into his emanationist cosmology. In the first recorded instance of an *Indian* Hindu—and not a Western Orientalist or a Theosophist—drawing parallels between Vishnu’s avatars and Darwinian evolution comes from Keshub’s famous 1882 lecture on the Trinity:

The Hindu, too, like the Christian believes in the continued evolution of the Logos, and its graduated development through over-advancing stages of life. The Puranas speak of the different manifestations or incarnations of the Deity in different epochs of the world history. Lo! The Hindu Avatar rises from the lowest scale of life through the fish, the tortoise, and the hog up to the perfection of humanity. Indian Avatarism is, indeed, a crude representation of the ascending scale of Divine creation. Such precisely is the modern theory of evolution. (1904, p. 13).

Before Keshub presented Indian Avatarism as “precisely” resembling the modern theory of evolution, only Madame Blavatsky had interpreted the Dashavatar myth as foreshadowing modern theory of biological evolution. As someone who grew up as a Hindu in the intensely Vaishnava culture of Bengal, Sen would have known perfectly well that Vishnu’s avatars don’t always appear in the supposedly “evolutionary” sequence, and in whatever sequence and numbers they do appear, they are in fact meant to signify heroic acts of God on behalf of mankind: The tradition does not see the avatars as a story about evolution of life forms. As someone who prided himself in comparative religions, Sen would have also been familiar with the theories that saw the avatars as tribal deities that were incorporated into the Hindu pantheon. It is rather curious, then, that he should have chosen the evolutionary interpretation which had no basis in the tradition. The *only* recorded case of such an interpretation of Vishnu Purana had come from the same Madame Blavatsky who Keshub had reviled as a “pretender” and an “imposter”!

But avataric evolution is only a small part of the intellectual baggage that Keshub borrowed—without acknowledgement—from Blavatsky. Keshub’s preference for emanationist story of sat-chit-ananda taking on different manifestations over Biblical creationism has a distinctively theosophical flavor. His pithy formulation of creation and salvation

as “God coming down, God going up” is not different from the cycles of involution and evolution that Blavatsky had derived from her Hinduized neo-Platonism described earlier.

Evolution was only a minor concern of Keshub and he only offered random ruminations on this theme close to end of his career as a prophet. For someone who spent his whole life steeped in the Brahmo Samaj’s theology that was influenced by a Deistic version of Christianity taught by Unitarians superimposed on Vedanta, he had clearly taken a turn toward God as consciousness, as Sat-Chit-Ananda who pervades the whole world. He can be seen as a link between the quasi-Christian Vedantism of the Brhamos to a more monistic and scientific Vedantism of the Theosophists.

Modern Vedic Evolutionism II: Swami Vivekananda

It is with Swami Vivekananda that evolutionary theory finds its full reconciliation with Hinduism along the lines first traversed by Blavatsky, Olcott, Besant and other Theosophists. From the opening salvo in his famous address to the Parliament of World Religions in 1893, to his influential New York discourses on *Raj Yoga* down to his informal chats with his disciples back in India, he laid Hinduism’s priority on the theory of evolution. Theory of evolution, he insisted, started from India where it was “foundational for all schools of thought” and has only “now made its way into the physical science of Europe” (CW 5, p. 519). He reproached Europeans for treating the Hindu belief in evolution as a superstition until Darwin came along (CW 8, p. 25). And he reiterated over and over again that Patanjali, who composed the *Yoga Sūtras* sometime between 2nd century BCE to the 5th century CE, was the true “father of evolution, spiritual and physical” (CW 6, p. 113). Patanjali’s “theory of evolution” remained Exhibit Number One in his larger argument that Hinduism was the religion most suitable for the modern era because it was in accord with modern science. But on sober reflection, one finds nothing whatsoever in Vivekananda’s reading of Patanjali’s *Yoga Sūtra* that is compatible with theory of evolution or even with Basic Biology 101.

His famous Chicago address contains the sketch of the argument that he continued to embellish throughout his later work. The meta-argument was “science.” The Vedas contained cosmological laws that were timeless and eternally true and the latest discoveries of science

were mere “echoes of the high spiritual flights of Vedanta philosophy.”⁴⁹ Vedantic sages discovered long ago that:

...man is not a combination of material substances...Man is a spirit living in a body, but is not the body (CW 1, pp. 7–8)

and again,

[Man] is a spirit...every soul is a circle whose circumference is nowhere but whose center is located in the body and death means the change of this center from body to body. [This] soul is not bound by the conditions of matter. In its essence it is free, unbounded, holy, pure and perfect. But somehow or other, it finds itself tied down to matter, and thinks of itself as matter (CW 1, p. 9)

This discovery, Vivekananda insisted, was akin to Newton discovering the “laws of gravitation that existed before its discovery and would exist if all humanity forgot it.” Like modern scientists discovering universal laws that applied to the material world, the Vedic “scientists,” the sages or the Rishis, were the “discoverers” of the laws of the spiritual world. They were to “science” of the soul or the vital principle, what Newton was to the world of matter. The science of Vedanta, Vivekananda proclaimed, can save humanity from the scourge of materialism unleashed by modern science, while satisfying the scientific impulse of finding unity and causality in the world through experience (as compared to blind faith in revealed dogmas).

Hindu theory of evolution occupies the pride of place in the Chicago address as an exemplar of Vedantic science. Vedantic sages discovered, Vivekananda tells his audience, that the cosmos is “a manifestation [of Atman] and not a creation [of a creator God]” (CW 1, p. 15): All the unimaginable profusion of nonliving and living entities that we see is only the atman taking on so many different forms which were already present in it.⁵⁰ This theory of the cosmos as the manifestation of the spirit, Vivekananda went on to argue in his celebrated address to the

⁴⁹ Vedanta is often understood as the doctrine of advaita or non-dualism associated with the teachings of Shankrachaya. But Vivekananda makes it clear that by Vedanta he means three streams of Hindu sacred teaching: “one, the Revelations, the Shrutis, by which I mean the Upanishads. Secondly,...the sutras of Vyasa...and finally, the Bhagavad Gita, the divine commentary on the Vedanta.” (CW 3, pp. 395–396).

⁵⁰ The presumed scientific validity of the “manifestation” theory is riding piggy back on the denial of the Creator God: Modern evolutionary theory denies the presence of Creator God, Vedanta too denies creator God. Therefore, Vedantic theory of cosmos as the manifestation of spirit is “scientific” by default.

World Parliament, is perfectly scientific because it does not require the will of a supernatural being, but can be explained by a chain of causes and effects which span past manifestations of the soul. Instead of a “cruel fiat of an all-purpose being,” Vedantic idea of karma and rebirth provides a causal explanation that goes beyond heredity, which only explains the physical configuration. Karmic action in multiple lives creates “certain tendency that would, by the law of affinity, take birth in a body that is the fittest instrument for the display of that tendency”—thus, different species are merely vehicles for the soul to manifest or express the tendencies it has acquired by repetitive karma (or “habit”). This vaguely Lamarckian idea working at the spiritual level and spanning many deaths and births, he asserted, is in accord with science, for “science wants to explain everything by habit, and habit is got through repetitions” (CW I, pp. 8–9).

Vivekananda anticipates the question about the method: how did the Vedic rishis make all these discoveries? What was their method? Here the mystical empiricism that we have already encountered in the Keshub’s New Dispensation finds a triumphant expression:

The Hindu does not want to live upon words and theories. If there are existences beyond the ordinary sensuous experience, he wants to come face to face with them. If there is a soul in him which is not matter, if there is an all-merciful universal Soul, he will go to Him direct. *He must see Him and that alone can destroy all doubts.* So the best proof a Hindu sage gives about the soul, about God, is: “I have seen the soul; I have seen God.” . . . The Hindu religion does not consist in struggles and attempts to believe a certain dogma, but in realizing—not in believing, but in being and becoming. (CW I, p. 13, emphasis added.)

Taken in its entirety, the Chicago address is a brilliant example of the phenomenon of secularization of esoteric thought. Vivekananda retains the fundamentals of spiritual monism, karma and rebirth, but explains them in the scientific language of conservation of energy and cause-and-effect. In a message carefully crafted to appeal to the sensibilities of modern men and women, he locates this knowledge in the “experience” of super-sensory realities which can be seen by “concentrating the mind”—a method he insists that is no different from what scientists do in the laboratories.⁵¹

⁵¹ Vivekananda was in good company. Representatives of Theravada Buddhism to the Chicago event, especially Angarika Dharmapala (1864–1933) from Cylone (now Sri Lanka) and Shaku Soen (1859–1919) from Japan presented Buddhism as

As he expanded upon the themes of evolution and science in his later writings, Vivekananda acknowledged no intellectual debt to any contemporary evolutionary thinker or scientist.⁵² He, of course, acknowledged a spiritual debt to his Master, Ramakrishna Parmahansa, and to the ancient Vedic sages, especially Patanjali, the author of Yoga Sutra and the “father” of theory of evolution. Vivekananda positioned himself as someone who was, for the first time, making Patanjali’s wisdom available to the modern world as a part of the “fair trade” between the East and the West: the West was to give the East its modern technology, while the East was to open its treasure trove of spiritual wisdom to the West.⁵³

The sole exception was Herbert Spencer (1820–1903), the philosopher of evolution. In his college years, Vivekananda had read Spencer, along with the writings of August Comte, John Stuart Mill and David Hume which had challenged his belief in personal God. Spencer does find an occasional reference in Vivekananda’s mature writings. But on key elements—including involution and the know-ability of Spencer’s “Unknowable”—Vivekananda is much closer to the Theosophists he so liked to deride. As Mackenzie Brown (this volume) has pointed out, it was theosophy that resolved the conflict Vivekananda had with Spencer’s *First Philosophy*. As described in an earlier section, Theosophical views about a distinct spiritual substance that differentiates, evolves, recycles and can be known scientifically were a staple of a whole host of spiritualist, Christian Science, Mesmerist and Swedenborgian groups that were thriving in the cultic milieu of the United States where Vivekananda spent his most creative years. We have described Vivekananda as a keen “spiritual entrepreneur” with

the religion of science using pretty much the same vocabulary and arguments that Vivekananda had used in favor of Hinduism as the religion of science! The common thread was the presence of Theosophical Society in the Indian subcontinent. For more details, see Donald Lopez jr. (2008).

⁵² He was however generous in acknowledging the influence of Orientalists like Paul Deussen and Max Müller on Hindu ethics and the Hindu Golden age.

⁵³ As he told an audience in New York in 1896: “whenever the Oriental wants to learn about machine-making, he should sit at the feet of the Occidental and learn from him. When the Occident wants to learn about the spirit, about God, about the soul, about the meaning and mystery of the universe, he must sit at the feet of the Orient to learn” (CW 4, p. 156). This was a theme he was to repeat constantly. In lectures to Indian audiences and in his writings in Bengali, he was far more critical of the West. He believed that the West lacked *sattva* (the element of purity), and that the “nectar” of Western science and technology came with poison: “nectar is coming, and along with it, also poison.”

a sharp eye for what aspects of Hinduism he could successfully “sell” to the West. Modern Vedic Evolutionism is part and parcel of his attempt to make Hinduism acceptable to the spiritual seekers in the West and incorporates Western esoteric themes which had already been Hindu-ized by Madame Blavatsky. Theosophical ideas show up in the three assumptions that underlie Vivekananda’s evolutionism, namely, the primacy of spirit over matter, involution of the spirit into matter, and karma as a mechanism of progressive evolution. More sensibly than his mentor, Keshub he does not accept avataric evolution: Vishnu’s ten avatars do not figure in his version of MVE.

The first assumption Vivekananda makes is that the primary stuff of the universe is *atman*, which emanates from the Eternal Being and shares its eternal, timeless and deathless quality. Because Darwin only looked at evolution at the material level, Vivekananda demotes his theory to a “lower level” of truth which fails to get to the spiritual level. Like the Theosophists, he set out not to reject Darwin outright, but to disarm Darwinism by turning evolution into a First Principle that extends into the “subtle matter” that the soul-stuff is supposed to be made of.

Vivekananda simultaneously declared Patanjali’s theory to be at par with *and* superior to Darwinism as in the following conversation he had with the students and faculty of Harvard’s philosophy department in 1896. He was asked if there was any antagonism between Sankhya philosophy and Western science. He answered:

No antagonism at all. We are in harmony with it. Our theory of evolution and of Akasha [matter] and Prana [consciousness or vital breath] is exactly what your modern philosophers have. Your belief in evolution is among our yogis and in the Sankhya philosophy. For instance, Patanjali speaks of one species being changed into another by the infilling of nature. Only he differs from you in the explanation. His explanation of this evolution is spiritual. (CW 5, p. 298).

Not only was Patanjali’s explanation different, Vivekananda declared it to be superior to that of Darwin’s mechanism of natural selection because it “does away with all the struggle for existence” and other such “miserable experiences” like “competitions, and struggles and evils” (CW 5, pp. 277–278). Darwinian mechanism of natural selection was good enough for “the lower strata of nature’s evolutions” but does not apply to the “higher strata” where “education and culture, through concentration and meditation and above all through sacrifice” prevail (CW7, p. 153). So Darwin’s theory of evolution through modification

was not rejected but only given a limited role to play in that arc of the circle of life where lower life-forms struggle for survival. But even at this level, the concession to natural selection is more rhetorical than real, because as we shall see shortly, the mechanism of spiritual evolution is supposed to work across the entire spectrum of all that exists. The “soul entity, separate from the body and immortal” that exists “beyond this body, beyond even the shining body (i.e., the “subtle body,” or the mind)” (CW 4, pp. 258, 265) is the *real* agent of material transformations in the entire cosmos. The chain of being that extends from the microscopic fungus to the most enlightened yogi is simply the visible record of the pilgrimage of the soul as it passes through different bodies that can better express the potential it has accumulated through its own karma.

This brings us to the second assumption that underlies Vivekananda's evolutionism, namely, involution. Vivekananda uses the word involution exactly how it appears in Theosophy: the descent, or the involvement, of divine consciousness into matter. He calls the spirit variously as *prana*, *purusha* or atman, and matter as *akash*, *prakriti* or even ether. But in all cases, he means a “subtle”, “fine” force endowed with consciousness getting trapped into “gross” matter. The spirit first falls into matter, it takes on more and more highly evolved life forms which are progressively more sentient and rational until it frees itself and returns to its original source, the Absolute Consciousness. All of this, Vivekananda derives from (with some original twists) the classical Sankhya and Yoga schools of philosophy as enunciated by Patanjali, the author of Yoga Sutras.⁵⁴

In a lecture on “Real nature of Man” he gave in London, Vivekananda explained what he meant by involution. Involution is the precondition of evolution: without a prior involution, there is no evolution, or as he put it, “every evolution, presupposes an involution.” If we believe that man, including the most perfect of men—the “Buddha-man,” or the “Christ-man”—evolved out of a mollusk, then involution means that this human perfection was already present (or “involved”) in the protoplasm of the most lowly organism such a mollusk as a potential (CW 2, p. 75).

But what exactly is that gets first gets “involved” and later “evolves”? Vivekananda's answer is: “intelligence” which he uses as a synonym

⁵⁴ For a succinct introduction to Sankhya, see Indira Mahalingam (1997).

for God (CW 2, p. 208). It is the spark of intelligence, or consciousness that emanates from the One, the Brahman, that gets “involved” in matter. What modern biologists call “evolution” is simply the greater and greater manifestation of this intelligence in man, followed by perfected men, the Buddha-man, or Christ-man or a perfected yogi through which consciousness returns to its source, only to involute again, followed by another round of evolution etc. He summarized this view as: “In the beginning was intelligence. At the beginning that intelligence becomes involved, and in the end, the intelligence gets evolved. . . . The Cosmic intelligence gets involved, and it manifest or evolves itself, until it becomes the perfect man, the Christ-man, the Buddha-man. Then it goes back to its own source” (CW 2, pp. 209–210).

He elaborated this theme for his Indian audience in a lecture in Lahore in 1897. The great Yogi Patanjali, he told his audience, had the same idea as Western scientists who say that different animals are related to each other because one species changes into another species. While the Europeans explain the species change by “competition, natural and sexual selection etc.,” the ancient yogis “offer a still better analysis which goes deeper.” Yogis agree that when the amoeba goes higher and higher it becomes the Buddha, but they explain the process differently. They say that the amoeba could not have become a Buddha if the Buddha wasn’t already lying there as a potential in the amoeba itself. Evolution of amoeba to Buddha—which stands for change of one species, or *jati*, into another—happens by the infinite consciousness spilling into, or “infilling” different bodily forms. This is the Hindu explanation of the origin and evolution of species: different species differ only in the “degree of manifestation” of the infinite soul that exists in all (CW 3, pp. 393–433).

The idea of involution is the seedbed of what New Age gurus like Deepak Chopra refer to as “non-Biblical intelligent design”, or what the Krishna Consciousness devotees call “human devolution”: the basic idea is that intelligence is an integral part of matter itself. Vivekananda was only the second—Theosophists being the first—proponent of this Hindu conception of intelligent design. He, like the Theosophists, insisted that this was the only rational way to reconcile the religious idea of Man as a fallen angel with the scientific idea of man as a risen mollusk, or an evolved amoeba. If the evolutionists could admit involution, then “instead of destroying religion, they will be its greatest supporters” (CW 2, p. 208).

How did Vivekananda arrive at the idea of involution? He offered no empirical evidence for it. But as any good fundamentalist, he reasoned from the fundamentals of Sankhya philosophy (which incidentally, is the closest of all Hindu philosophical systems to the Neoplatonism that undergirds the Western esoteric tradition). Sankhya teaches the doctrine of *satkāryavāda* which basically means that “the effect is not a new coming into being but a manifestation—a different form of what already exists...as the pot (effect) exists in the mud (cause) in a potential form” (Mahalingam, 1997, p. 160). This idea that nothing can evolve that is not already there, that “there is nothing new” and “the effect is the cause manifested” serves as the cornerstone of Vivekananda’s theory of involution- evolution and he came back to it again and again. From the principle that the effect (for example, a tree) is contained in the cause (the seed), he reasons that “the beginning and the end are the same.” By analogy, he reasons that if there is intelligence at the end of the evolutionary series, it *must* be present at the beginning: “...take this whole evolutionary series from the protoplasm at one end to the perfect man at the other...In the end we find the perfect man, so in the beginning it must have been the same. Therefore the protoplasm was the involution of the highest intelligence. You may not see it, but that involved intelligence is what is uncoiling itself until it becomes manifested in the most perfect man” (CW 2, p. 208).

So far so good, but Vivekananda still has to explain how this “involved” intelligence manifests itself differently in different organisms, rising progressively from a mollusk to a man. What determines the degree of manifestation?

The short answer is karma. Karma is the third basic assumption of Modern Vedic Evolutionism. For Vivekananda, karma serves as a “scientific,” progressive and humanistic alternative to both Christian theism and Darwinian materialism.

How does karma work? Vivekananda finds the answer in two verses of the *Yoga Sūtras* of the great Sankhya-Yoga philosopher, Patanjali. These verses held a great significance for him, and by Dermot Killingley’s count (1990), he alluded to these two verses seven times, five of them reference to Darwinian evolution. These verses are:

The change into another species is by the infilling of nature” (Chapter IV, verse 2)

Good and bad deeds are not the direct causes of the transformation of nature, but they act as breakers of obstacles to the evolution of nature:

as a farmer breaks the obstacles to the course of water, which then runs down by its own nature. (Chapter IV, verse 3).

The role of karma is akin to the farmer breaking the obstacle to allow the water *which is already there*, to flood into the rest of the field. Just like it is the nature of water to flow, it is the nature of atman, the soul, to seek perfection: grace of God, or even God as someone outside nature, is superfluous. Karma here does not refer to action in one life, but rather to the accumulated actions through many lives. Like energy, Vivekananda suggests, our actions are also conserved and cannot be annihilated: "Our actions (karma), though apparently disappearing, remain still unperceived and reappear again in their effects as tendencies. Even little babies come with tendencies..." (CW 4, p. 270). So, whether the infinite atman present in the protoplasm will express itself as a worm or as a human being depends upon what kind of tendencies the soul is carrying as a result of the accumulated burden of karma over many births. Depending upon that karmic burden, the soul will find a body of either a worm or a human being. It is the soul that "chooses" the species that fits its tendencies: "we by our past actions conform ourselves to a certain birth in a certain body." The only role of the genetic component that one receives from the parents is that it "furnishes the material...the only suitable material for the body comes from the parents who have made themselves fit to have that soul as their offspring" (CW 2, p. 222).

This is nothing but the traditional Hindu theodicy that is routinely used even today to explain all kinds of misfortunes or blessings, from being born rich or poor, upper or lower caste, man or a woman, dying or surviving a tsunami. In Vivekananda's formulation however, evolution takes place in one direction only: namely, toward perfection:

All progress and power are already in every man; perfection is man's nature, only it is barred in and prevented from taking its proper course. If anyone can take the bar off, it rushes nature. Then man attains powers which are his already...*it is nature that is driving us toward perfection* and eventually everyone will be there. (CW 1, p. 292, emphasis added).

Progress toward perfection is inevitable, according to Vivekananda, because it is the law of nature. But as Killingly points out, Vivekananda is introducing an entirely new innovation: it is no part of Sankhya philosophy to suggest that perfection is inevitable. According to Killingly,

the idea of inevitable progress, whether of the individual or of mankind as a whole, is hardly present in the Yoga Sutras...indeed, the same process...can change a man into a god or an animal: the change can be upward or downward in the hierarchy of beings. [the tradition] takes the spontaneous movement implied by "like the farmer" to be movement into any sort of body—not necessarily toward a predetermined perfection. (Killingly 1990, p. 160).

All the three assumptions put together, Vivekananda's Vedic Evolutionism is nothing more than a restatement of the traditional Hindu teachings regarding the stuff life is made of, how it takes different forms, and what happens after death. Yet what is remarkable is the insistence on putting the mantle of modern science on it. We have already indicated the parallelism Vivekananda indulges in when he draws analogies between involution and reincarnation with the principle of conservation of energy. But his argument for the superior rationality of Hindu evolutionism rests upon immanentism, that is, making the stuff of God/soul internal to nature.

He sees supernaturalism as the only source of superstitions: A creator God who brings the whole world into existence by assembling materials created out of nothing is simply not believable in the modern world. Science requires that "explanation of things are in their own nature and that no external beings or existences...like demons or ghosts or anything of that sort are required to explain what is going on in the universe" (CW1, p. 371). Of all the religions in the world, only Vedanta meets this requirement because Brahman, the God of Vedanta, does not sit in the clouds away from nature but rather "He is in the universe. He is the universe Himself...He is the God immanent in the universe, the very essence, the heart and the soul of things." (CW1, p. 374). Such a God is not a supernatural entity that creates *ex nihilo*, but only a "subtle force" which manifests itself in the universe. Yogis and other adepts who have learned the art of controlling their minds—as by practicing Raja Yoga of Patanjali that Vivekananda taught in the United States—can actually "see" these subtle forces as clearly as ordinary people can see a chair or a tree. All these arguments Vivekananda uses to argue for the compatibility of Vedic Evolutionism with modern science.

In all of this, there is not even a single mention of Theosophy. As touched upon earlier, Vivekananda expressed nothing but hostility toward Blavatsky and Olcott and gave only very qualified support

to Annie Besant. But all the three assumptions discussed above overlap almost exactly with those that had been popularized by the work of Theosophical Society for nearly two decades before he burst on the world stage in Chicago. The clearest overlap is in Vivekananda's use of the term "involution" of consciousness into matter. The word "involution" also appears in Herbert Spencer's writings but Spencer uses it to mean disintegration or dissolution, the reverse of evolution. Even though Vivekananda was familiar with Spencer's writings, and referred to him occasionally, his use of the term "involution" is exactly the same as that made popular by Blavatsky.⁵⁵ His conception of karma as a progressive natural law is similar to the theosophical interpretation, as is his insistence on the ability of yogis and other occult "scientists" to actually experience the occult forces that are immanent in nature. Apart from the doctrine of Avataric evolution, all other elements of Theosophical theory of evolution can be found in Vivekananda's Modern Vedic Evolutionism.

Conclusions

Biological evolution understood as emergence of new species of greater complexity by natural selection and evolutionism understood as linear historical progress are not to be found either in the Western esoteric tradition, or in the teachings of classical Hinduism. And yet the idea that the New Age and Hinduism are religions most compatible with modern theory of evolution has become so widely accepted that it seems as if evolution was always a part of these traditions.

This essay has described how evolutionary ideas were incorporated into Western and Eastern esoteric traditions, presented by Theosophy and Hinduism respectively. It has explored how the cultic milieu in the 19th century America and Britain ended up getting enmeshed with the Hindu reformist-revivalist milieu of that time. This essay, moreover, has tried to overcome the amnesia that has so far prevailed over the intellectual contributions of Theosophy to modern Hinduism's accommodation with modern science and evolutionary theory.

Blavatsky is largely much forgotten, and her Theosophical Society itself is no longer much of a presence anywhere in the world. But

⁵⁵ The difference between Spencer's and Blavatsky's and Vivekananda's use of involution is from Brown (this volume).

Theosophical ideas about science and evolution persist in the West in a whole variety of New Age religions. So far, they have not played much of a role in the debates that have raged over Darwinian evolution. The fierce opposition to Darwin in the United States has come from evangelical and fundamentalist Christians, with hardly any contribution, for or against, from the New Age religious movements.

In India, too, the enfoldment of Darwinian evolution into the larger Hindu worldview has permitted a peaceful co-existence between the two. Teaching Darwinism in schools has never provoked any controversy in India, and Indian expatriates in the United States are generally supportive of teaching Darwinism in public schools.

But there has been a price to pay. In India, where Modern Vedic Evolutionism is well entrenched in the religious and cultural discourse, it has encouraged pseudo-scientific thinking tied to a sense of Hindu triumphalism. It has contributed to a widespread cultural schizophrenia where even the most educated and well-trained scientists and intellectuals are content to affirm totally contradictory ideas.

Moreover, there are signs that Modern Vedic Evolutionism may be entering the ongoing debates over Darwinian evolution on the side of Intelligent Design Creationism. The followers of Krishna Consciousness and the New Age guru Deepak Chopra are positioning themselves as proponents of a non-Biblical Intelligent Design. There are other ongoing attempts to interpret new research in gene expression and epigenetics to open the way for spiritual Lamarckism. In light of these developments, it is important to pay attention to the esoteric theories of evolution.

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THE TRANSCENDENTAL MEDITATION ORGANIZATION AND ITS ENCOUNTER WITH SCIENCE

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Maharishi Mahesh Yogi, founder of the Transcendental Meditation Organization, was a prime example of a Hindu leader who appealed to the authority of science to lend his movement legitimacy. The interpretive lens Maharishi applied to the sacred scriptures collectively called the Veda, “knowledge”, reflected a specific Indian philosophy: the School of Nondualism known as Advaita Vedanta. Maharishi claimed that parallels to quantum physics and other forms of Western science such as biochemistry confirmed ancient Vedic “sciences”, thus developing strategic apologetics to redescribe traditional Advaita Vedanta philosophy and various practices as scientific. Maharishi added to his apologetics intensive field study through which he claimed he could prove the western scientific basis of his metaphysical interpretations. Indeed, Transcendental Meditation and its purported benefits has been the subject of over 600 studies of its physiological, psychological and sociological impact; TM is perhaps the most researched meditative technique seeking empirical proofs on the nature of the mind and techniques of all time. (N. A., Scientific Research, 2000) Maharishi even claimed that the worldview of physics and quantum field theory had successfully bridged the subject-object divide, pointing to and validating the metaphysics of the Vedic worldview, leading him to conclude that the “vacuum state” was equal to the “state of least excitation”, which was none other than the ultimate reality described in the Vedas. Moving beyond the laboratory, Maharishi sought to validate his programs by undertaking social-scientific research of Transcendental Meditation, the Sidhi techniques, and group meditation. These studies purported to show dramatic beneficial physiological, psychological, and sociological results, leading to assertions of what came to be called the Maharishi Effect. Maharishi also unveiled unique interpretations of alternative and borderline sciences grounded on Vedic sources. In addition, new technologies, particularly EEG machines and brain scans, served as para-technology aids to supposedly diagnose “imbalances” and assist practitioners in improving themselves by increasing brain

“coherence”. And finally, Maharishi made use of educational scientific capital that could provide an independent and non-religious mode of alternative credentialing. He promoted those with accredited academic degrees, particularly in science, to higher positions of authority in the Transcendental Meditation Organization, and he established academies, universities, institutes, as well as journals, and held quasi-academic conferences to announce and explore the “Science of Creative Intelligence”. In this chapter, I briefly trace the major phases in the development of Maharishi’s movement in the West and provide explanations for these seven scientific strategies to show how he could simultaneously appeal to the authority of science to lend his movement legitimacy and still claim to be “Vedic”.

Maharishi was a disciple of Shankaracharya Swami Brahmananda Saraswati, who served in the mid-twentieth century as the chief pontiff of the Jyotir Math hermitage in North India. When the philosopher and religious innovator Shankara systematized Advaita Vedanta in the late eighth century AD, he also sought to create a hierarchy that would preserve and spread its teaching. He established monasteries in each of the four cardinal directions in India; Jyotir Math is the northernmost monastery. The head of each monastery is titled “Shankaracharya”, or a “Shankara teacher”. The fact that Maharishi was a disciple of the famous and authoritative Shankaracharya Swami Brahmananda Saraswati lent his philosophy and activities great prestige to those who honor the Shankaracharya tradition.

After Shankaracharya Swami Brahmananda Saraswati passed away in 1953, Maharishi left the monastery and went off on his own. In 1955, during a visit to South India, he experienced a spontaneous revelation that he had a divine mission to spread spiritual regeneration to the entire world. (Humes, 2005, p. 62) Maharishi had earned an undergraduate degree in physics from the University of Allahabad. Conspicuously, although he had the appropriate religious credentials in having been a disciple of a Shankaracharya, he taught his master’s Advaitin message through metaphors and analogies rooted in western scientific concepts, even as he invoked a “science of the soul”:

The spirit or soul [*atman*] is the basic motive force of our existence and spirituality is the science of that motive force. The material science of today [sic] speaks highly of atomic power. Today the political power of a nation depends upon its resources of atomic energy. But we in India know that the atomic energy is not the basics [sic] motive power of our existence. It can only be called the basic motive force of material

existence, because it is found to be very gross when compared with the powers of our mental and spiritual existence. That is the reason why India laid more importance on the field of the soul which is the ultimate motive power behind our life in all its aspects; spiritual, mental and physical. That is the reason why India always regarded the science of the soul as the best and most useful of all sciences. This is the reason why His Holiness [Brahmananda Saraswati] has called spirituality as the backbone of India. (Mahesh, 1955, unnumbered)

Since 1955, Mahesh had not wavered in his subordination of western science to India's superior "science of the soul", nor had he moved away from his assertion, "The theory of Mantras is the theory of sound. It is most scientific and natural". (Mahesh, 1955, unnumbered)

Maharishi's special gift was his ability to organize, preserve, and advance a rendition of traditional Advaita Vedantin philosophy and selected religious practices as scientific by using metaphors, allegories, and parallelism. Parallelism has been used by various eastern religious proponents to draw on the ideas of physics and mysticism as cultural resources in their struggle to organize, preserve, or advance their interests. (Restivo, 1982) Maharishi's vision of Truth was what he called "Vedic Science". Maharishi's parallelist approach exemplified his strategy of offering a Terminological-Interpretive Apologetic system that resorts to science.

Advaita Vedanta philosophy posits that what we know to be the human being suffers in *samsara*, the endless cycle of birth and death. The ultimate goal of human endeavor is to find release (*moksha*) from this bondage to the cycle of rebirth. The principal means of liberation for the proponent of Advaita is knowledge (*jñāna*) of the human being's true nature, because our bondage is due to ignorance (*avidya*). Liberation is none other than realizing our true nature, which is *atman*, the Cosmic Self, precisely equated with *brahman*, ultimate reality.

Critical to understanding the world is Advaita Vedanta's concept of *maya*, cosmic illusion. *Maya* operates as a type of filter between the world as we conventionally know it, rendering the world inherently false (*mithya*), and obscuring the true perception (*satya*) of the identity of *brahman* and *atman*. Liberating knowledge of *brahman* is not attained through mere study of texts; only direct experience of the Cosmic Self, brought about through proper understanding, thereby addressing the predicament of *maya*, qualifies as *jñāna*. Ultimate Reality (*Paramarthika*) is one, with no distinctions. *Brahman* in itself is without differentiated qualities (*nirguna*). Its nature is simultaneously

pure existence (*sat*), intelligence or consciousness (*chit*), and bliss (*ananda*). Advaita promises that through knowledge of Ultimate Reality, a person can become liberated even while living. The enlightened person who experiences himself as *brahman* does not return to *samsara*, the cycle of rebirth.

Brahman's varieties of manifestation that have qualities "exist" within the worlds of phenomena. A phenomenon is anything that is, or in principle can be, an object of consciousness. All phenomena exist in time, and some exist in both time and space. For example, an embodied human being exists in time and space; however, his thoughts, feelings, and dreams exist only in time. Even deities, Shankara taught, exist on the level of the phenomenally real since they have qualities. *Brahman* is transcendence in manifestation. Lower truths (*vyavaharikasatya*) are the product of the activity of the senses and mind, whereas the higher truth transcends the senses and mind, as well as all perceptions and conceptions. Since science is an activity of the senses and mind, its truths are "lower truths", even though they are conditionally true and not false. Scientific truths are not utterly unreal (*asat*) since they are valid in their own domains. But even the Vedas, the sacred scriptures of the Hindu tradition, are considered by most Advaita Vedantins to be a lower truth, insofar as the Vedas are couched in language. Higher truth, unlike lower truths, cannot be experienced and certified through the senses and mind. Only non-dual intuition can force the tripartite distinction of the knower, known, and the act of knowing—characteristic of all lower truths—to vanish.

Maharishi claimed that Transcendental Meditation was his guru Brahmananda Saraswati's rediscovered means for directly experiencing *brahman*, and it is distinctly unlike other forms of meditation. When Mahesh declared that he would regenerate spirituality, he asserted he would do so not just in India, but the entire world. He claimed Brahmananda Saraswati had taught that all could be enlightened: "Everybody can have, should have and must have, the great privilege of enjoying the glories of the soul, the glories of the glorified aspect of everybody's life. Caste, creed or nationality is no hurdle in the realm of the soul or on the royal road to it. Soul is the individual property of everybody". (Mahesh, 1955, unnumbered)

To teach what he first called "Deep Meditation", he undertook initiation of disciples in the name of his guru Brahmananda Saraswati, not his own. Maharishi claimed that his simple technique of mantric meditation was the gift of Brahmananda Saraswati, known in the

movement simply as Guru Deva or Guru Dev, and that this was not “new”, but rather the ancient “Science of the Soul” rediscovered. (Mahesh, 1955)

Initial adherents were predominately spiritually inclined, as autobiographies by early American followers show. Moreover, in 1959, Maharishi had founded the Spiritual Regeneration Movement in the United States, whose articles of incorporation explicitly stated, “this corporation is a religious one”. This intentional alignment with terms of religion was in keeping with comments he had made recorded in *Beacon Light of the Himalayas*. There, for instance, it notes how he had explained that his meditation was directly associated with the “Gods”: “For our practice, we select only the suitable mantras of personal Gods. Such mantras fetch to us the grace of personal Gods and make us happier in every walk of life”. (Mahesh, 1955, unnumbered) However, after several years of limited response to his evangelism in the West, Maharishi began claiming that his teachings were not truly “religious” at all, let alone Hindu. He stressed how he was actually describing a “science of consciousness”, that is, a specific method for attaining self-actualization. Moreover, doing so did not require a faith claim or belief in God; one was only required to do TM and wait for the results. Even if one doubted the practice, the results would still come along automatically, and one’s direct experience would confirm the existence of enlightenment. Meditation as taught by Maharishi was a technology, a system of causative principles. The reason it worked was because it was based on a perennial natural philosophy, removed from any particular religious tradition. In the mid-sixties, college students in particular were attracted to the idea that TM’s benefits were demonstrable through personal experience, as well as his promise of bringing out good forces after tapping into the spiritual world beyond the normally observable world of science.

Shankara had also argued that his teachings derived from and were expressive of a *sanatana dharma*, an “eternal religion”, a perennial philosophy. In his lifetime, Shankara continued to observe the customs and practices of a pious Hindu monk, explaining that though his teachings were universal, he expressed them in a particular cultural context, which should be respected. Like Shankara before him, Maharishi believed that one must be most true to *sanatana dharma*—but that the forms and language used to express it could and *should* be adapted to the particular cultural setting of the time and place. (Baird, 1982, p. 392) This pedagogical approach of teaching people in

a way that they are able to understand and accept as well as allowing individual practices to differ is common in Hinduism. Not all people are of the same intelligence, and not all people have the same cultural predispositions. The teacher must adapt his or her message to fit the particular circumstances. Maharishi outlined this adaptive approach in his commentary on the *Bhagavad Gita*, commenting that teachers must use “psychological skill” to bring students along gradually by using terms the less advanced can understand: “In order to bring anyone to knowledge, it is first necessary to bring him to a state of mind where he will listen”. (Mahesh Yogi, 1984, p. 163)

Maharishi’s message of tapping into a perennial philosophy stripped bare of the trappings of organized religion found a receptive audience among 1960s youth. Rejecting their traditional religious upbringing, they were attracted by TM’s Romantic emphasis on personal spirituality, harmony with nature, mystical insight, and individualism. The Beatles were also attracted to this romantic vision of spirituality of Transcendental Meditation. However, Maharishi was not interested in being stereotyped as one element of the counterculture of the 1960s; Maharishi wanted to appeal to mainstream Westerners, and he wanted to control his own message.

Eventually, Maharishi became ever more convinced that to appeal to the majority in the West he should demonstrate TM’s benefits by appealing to science. Advaitins hold that *brahman* is the sole cause of the universe. They believe that *brahman* is both the instrumental and material cause of the universe. Creation proceeds out of *brahman*, even as all believe that *brahman* is eternal and changeless. *Brahman* is pure Being itself. And at a 1971 conference held by Maharishi in Amherst, Massachusetts, Physicist Dr. Lawrence Domash affirmed TM could allow one to experience *brahman*, a long-held belief, but he also claimed that *brahman* is actually discoverable by science. Domash is quoted thus:

I’m proposing that what we’re doing in meditation is actually consciously experiencing the quantum mechanical level of the mind. Maharishi has said that science is destined to discover pure Being; it is possible that science has already discovered pure Being in the form of the so-called “vacuum state” of the quantum theory, which has within it all the possible excited states of particles, but in an unrealized, ever-fluctuating form. (Domash, 1971, p. 42)

After Domash finished his comments, Maharishi enthusiastically responded,

It is interesting to hear that the vacuum state of the quantum theory draws upon the fullness of Being, and Transcendental Meditation gives the direct experience of it. These are, I believe, the first significant expressions in the history of science to connect the principles of physical phenomena with the experience of non-physical nature. The turning point in the history of physics has begun, and it has begun well with the recognition of the subjective experience from the objective viewpoint. In this realization, what we find is the fulfillment of physics in its quest for the ultimate Reality. Dr. Domash's unique interpretation of the quantum field theory has erected a bridge between physics and metaphysics. (Domash, 1971, 42)

The traditional interpretation of *brahman* is that it cannot be reached by the senses and mind. This is so because whatever can be perceived and conceived by mind is always an object.

According to Advaita, mind is not consciousness, but just a subtle sense-organ; it is an information-processing instrument. This means that mind is a phenomenon, on the level of appearance. Consciousness, by contrast, is not a phenomenon, but rather the Ultimate, *brahman* itself. Vedic scriptures repeatedly state that no one can picture or visualize *brahman*, for whatever one can picture and visualize is inevitably an object. *Brahman* thus transcends the senses, mind, space, time, and causality. The only means to experience *atman* and therefore *brahman* is non-dual intuition, by rendering the senses and mind quiescent. Consciousness is unchanging; by contrast, sensations, perceptions, thoughts, feelings, and emotions are all objects of consciousness (phenomena).

For over a millennium, Advaita Vedanta has taught that no one can perceive *atman* or consciousness as an object: like *brahman*, it is formless and nameless, unable to be pictured or visualized. At the heart of scientific study is the supposition that phenomena exist in time and in space. Whatever one studies scientifically is always, inevitably, a phenomenon. In Advaitin philosophy, this means that it must be an object of consciousness. The scientific study of anything results in a description of the object, its structure, its properties, and its relations to other objects. Therefore, conventional Advaita Vedanta philosophy supports the view that consciousness cannot be studied by modern science in principle. In contrast with the vacuum state posited by science, which is grounded in logical and empirical theories based on the study of external phenomena, Advaita Vedanta teaches that *atman* can only be experienced in non-dual intuition (*prajñā*), by rendering the mind wholly quiescent and still, through various yogic techniques.

This mystical experience comes only by transcending doctrine, dogma, and appeals to authority.

In a significant departure from Advaita Vedanta tradition, Maharishi would go on to equate *brahman* with the scientific theory of the “vacuum state”. *Brahman* was the “state of least excitation”, the “self-referral state”, and his personal favorite, the “Unified field”. Now, the world-view of physics was seen to have bridged the subject-object divide; the Transcendental Meditation Organization’s unique interpretation of quantum field theory had “erected a bridge between physics and metaphysics”. Maharishi’s new interpretation of ancient truths through the language of science was called the “Science of Creative Intelligence”. Maharishi publicly pushed the relationship between physics and SCI above all other sciences—often borrowing terms from the former to explain the latter.

As a result of the scientific symposia, a significant group of liberal intellectuals, most of them young and at the beginning of their academic careers, united around Maharishi. In England, interested intellectuals inaugurated *Creative Intelligence*, an international journal devoted to quasi-professional research on Maharishi’s “Science of Creative Intelligence”. In 1972, well respected professional publications, including *Science*, *Scientific American*, and the British medical journal *Lancet*, picked up some of the research pieces being produced in Movement circles that supported the health benefits of TM. Maharishi was delighted to be earning the respect of scientists. Together, these gave his Movement “educational capital”, reflecting an independently sanctioned (and thus less questionable) guarantee of seriousness and respectability. This external recognition in scientific circles greatly boosted Maharishi’s stock—not only because they gave him publicity, but also because they helped distance him from the counterculture and associations with religion. Their collective effect was to suggest that TM was for anybody who wanted to improve their health by reducing stress.

One of Maharishi’s habits was to begin each year by going into silence for two weeks. When he emerged from these retreats he gave what might be called a “state-of-the-movement address”—usually including his game plan for the next year. He also gave a name to the coming year, expressing the theme of his new plan. He had dubbed 1972 “The Year of the World Plan”, and he charged his movement to make TM available to everyone in the world by specifically establishing 3,600 TM centers (soon to be called “World Plan Centers”) around the globe.

In the United States, a group of scientists met to organize what would soon be called Maharishi International University (MIU). The founders of MIU—including Keith Wallace, Alex Hankey, Michael Cain, Paul Kapiloff, Sy Migdal, Jonathan Shear, Michael Weinless and Richard Wong—were certain there would be great interest in their institution. Jerry Jarvis, one of the most famous initiators of TM in the United States, had offered a seminar on SCI at Stanford University in 1969 and administrators there expected twenty or so students to enroll. All were surprised when the course drew more than 350—at that time the largest number of students registered for a single course in Stanford's history. The Maharishi institution meant to focus on reaching America's youth called Students International Meditation Society (SIMS) conducted research that revealed interest was equally strong on many other college campuses, where droves of young meditators sought avenues for further training.

Founded with Maharishi's blessings, in 1973, Maharishi International University (MIU; later its name was changed to Maharishi University of Management) offered its first classes out of a three-story converted apartment complex in Goleta, California (a suburb of Santa Barbara). Though its beginnings were modest, MIU was a major milestone in Maharishi's career, for not only did it signal that certain members of the established academy had embraced him, but he had even built his own ivory tower. Maharishi soon moved the university to Fairfield, Iowa, where he encouraged his followers to dwell in a mutually supportive meditating community.

MIU would center on the study of the "Science of Creative Intelligence" (SCI). They, along with their guru, believed all academic disciplines were subsets of SCI, and therefore education could not be complete until SCI was at the center of its curriculum: "The Science of Creative Intelligence is a new First Science...standing before all other fields of knowledge and unifying them in a natural and coherent way". (1974 MIU Catalogue, p. 132) "Its subject matter—orderliness in nature—is the basis of all other areas of inquiry. Order in nature and man's power of ordering show that intelligence is at the core of every physical existence and every human mind. The understanding of the nature of intelligence is the common ground of all knowledge. Thus SCI stands before all other disciplines, unifying them in a natural, coherent way. (1976 MIU Catalogue, p. 19)

Maharishi asked teachers of his technique called initiators to begin speaking to the public exclusively using the new terminology set forth in a series of 33 SCI videotapes of Maharishi's speeches. This new

mode of recruiting represented another step toward substituting western terms for *brahmanical* theological notions in an attempt to garner western scientific support for the value of Maharishi's teachings and to position his movement in terms of scientism.

Just as other religions have resorted to social-scientific research on select religious practices and membership for legitimation through scientism, in 1974 TM research turned to the study of sociological factors in an effort to show how TM could affect social variables such as mental health, poverty, crime, and drug abuse. The famed "Maharishi Effect" and its alleged importance for a reduction in crime was rooted in Maharishi's interpretation of the Third Law of Thermodynamics and the conception of entropy. The "Maharishi Effect" is the principle of a phase transition to a more orderly state by introducing orderliness into only a small faction of a system. The earliest research posited that when (first 5 percent) 1 percent of a population meditates, social manifestations of orderliness are evidenced by a scientifically demonstrable reduction in crime rate.

In 1975, Maharishi emerged from his two-week retreat into silence and proclaimed the Inauguration of The Dawn of the Age of Enlightenment:

As a result of scientific research conducted during the past decade on Transcendental Meditation, the practical aspect of the Science of Creative Intelligence, at more than two hundred universities and research institutes in different countries... His Holiness Maharishi Mahesh Yogi, founder of the Science of Creative Intelligence, through the window of science, saw the coming dawn of the Age of Enlightenment and inaugurated it for the whole world in Switzerland on 12 January 1975. (1976, p. 32)

Maharishi had been predicting that TM would transform world consciousness since he began teaching the practice in the mid-1950s in India. What distinguished the new restatement of this one time faith claim was the accumulated "scientific evidence" that Maharishi could now cite.

Maharishi had experimented with more intensive techniques off and on throughout the late sixties and early seventies. In 1976, he felt ready to introduce the supercharged TM-Sidhi program. Usually transliterated as "*siddhi*", denoting "power", *sidhis* are ritual techniques believed to offer to the practitioner great powers over nature. Maharishi based his program on the *Yoga Sutras* of Patañjali, a classic text of Hindu philosophy and practice. The *sidhis*, whose unique spelling signaled the

distinctiveness of Maharishi's technique, were called by practitioners the "Maharishi Technology of the Unified Field". The power of this mantric practice was such, Maharishi claimed, that its accurate performance could result in "Yogic Flying", the lifting of the meditator off the ground and suspension in air.¹ So powerful was this practice that Maharishi came to believe that if a group of TM-Sidhi practitioners meditated together, the critical mass of meditators required to produce the Maharishi Effect could be lessened even further, to just the square root of one percent. Since the TM technique reduces stress and increases orderliness, this Maharishi Extended Effect acts as a type of proactive defense technology to immunize an entire population against stress, and therefore against crime.

Although in the mid-1970s Maharishi insisted that the benefits of TM were scientifically verifiable, and that the new findings in quantum field theory had erected a bridge between physics and his Vedic metaphysics, the TM technique itself was deemed religious in the American court system. In a 1976–1977 case (*Alan B. Malnak, et als, v. Maharishi Mahesh Yogi*), a New Jersey law court put the brakes on TM's ascendancy in the United States by inhibiting Maharishi's efforts to mainstream his technique by teaching TM in secondary schools and jails as an educational and non-religious practice.

The court determination led to widespread negative publicity. Despite the courts having declared TM to be a religious practice and the ensuing damage to his public campaign, Maharishi remained convinced that science proved the validity of his teachings, and to keep the Movement on track, he directed its momentum inward, and he continued to cite scientific research in support of his theories. Maharishi also decided to delve deeper into his Vedic roots and revive many subsidiary "sciences" taught in the Vedas.

According to Maharishi's voluminous literature, in 1978, he inaugurated the "Ideal Society Campaign in 108 Countries", and created the World Peace Project, which consisted of sending teams of "Yogic Flyers" to the most disturbed parts of the world to produce

¹ *Yoga Sutras of Patanjali*, Chapter 3, vs. 43: "*kayakashayoh sanbandha-sanyamat laghutul-samapattesth chakashagamanam*", I translate from the Sanskrit, "Through constraint (*sanyama*, viz., the combination of *dharana* [concentration], *dhyana* [meditation], and *samadhi* [meditative absorption]—Yoga Sutras 3:1–4) on the connection (*sanbandha*) between body and ether (*kayakashayoh*), comes lightness (*laghu*) like cotton (*tula*) and the attainment (*samapatti*) of movement in space (*akashagamanam*)".

the Maharishi Effect and thereby calm the violence. That same year, he also formulated “Absolute Theories of Government, Education, Health, Defence, Economy, Management, and Law and Order” so that all would know the model of an Ideal Society. All of these innovations eventuated in the development of a panoply of subsidiary new “sciences”.

Elsewhere, I have described at some length Maharishi’s interpretations of Ayur-Veda, the health science of “long life”. (Humes, 2008) Of all of Maharishi’s new sciences begun in this period, the most financially successful by far were those marketed as *Maharishi Ayur-Veda*™ (MAV). MAV constituted a cohesive approach to health whose overarching principle affirms that perfect health can be achieved when the forces of body and mind are brought into balance.

MAV literature explained that classical Ayurvedic texts caution that to treat a patient effectively, the physician must act holistically. Each of us has three aspects—consciousness, mind, and body—and it is Maharishi’s attention to consciousness that distinguishes his system. (Sharma and Clark, 1998, p. 7) Most Ayurvedic physicians (*vaidyas*) do not prescribe meditation. Somewhat more often, but by no means as a general practice, they prescribe *yajña* (always spelled in the Hindized form “*yagya*” in TM circles), Sanskritically-based rituals performed by brahmin caste priests. Though Maharishi had increasingly emphasized the benefits of *yagyas* in the last decades, his primary emphasis in MAV continued to be on meditation and the development of consciousness. For Maharishi, ill health was caused due to our own “mistake of the intellect”—*Pragya Aparadh* (*prajñāparadha*), forgetting the underlying unity, leading to faulty judgment of how to act with regards to health, thus acting out of accordance with natural law. (Sharma and Clark, 1998, p. 14) By failing to understand our true nature, we become estranged from the ultimate source of universal consciousness and we fall ill.

In describing this unique approach to Ayurveda, Hari Sharma and Christopher Clark explained that Maharishi consistently privileged his belief that “the basis of health is consciousness”. They noted that Maharishi sought to place MAV into a larger context, “Maharishi’s Vedic Approach to Health”, and they quoted Maharishi,

There is an inseparable, very intimate relationship between the unmanifest field of consciousness and all the manifest levels of the physiology: that

is why Maharishi's Vedic Approach to Health handles the field of health primarily from the most basic area of health—the field of consciousness—through the natural approach of consciousness, Transcendental Meditation. (1998, p. 6)

One must adopt the “technologies of consciousness of MAV” to reboot one's system, if you will, and thereby “overcome *pragya-aparadh*—to ‘restore memory’ of the unified field”. (Sharma and Clark, 1998, p. 14) This is, obviously, antithetical to western medicine that holds that consciousness is not the source of our physical being but rather an epiphenomenon of it. Maharishi, in agreement with traditional Hinduism as well as Romanticism, believed the physical universe derives from a metaphysical foundation and his approach to healing the body depended upon that view.

The concept of *pragya-aparadh* in MAV mirrors Maharishi's Advaitin interpretation of *avidya*. Just as *avidya* or ignorance of our true self is the cause of bondage, with *jñana* as its antidote, so *pragya-aparadh* is the cause of ill-health, and *jñana* through tapping the field of consciousness by TM is its antidote. To communicate to Americans how *pragya-aparadh* can be overcome by *jñana*, Maharishi employed the more familiar language of science.

Maharishi championed his theory of the “quantum mechanical body”, which rested on his view that all particles and sub-particles of reality were infused with consciousness, an assertion he made as early as 1965, and published in 1969: “Through yagya you sustain the gods and those gods will sustain you. By sustaining one another, you will attain the highest good”. By understanding the powers governing different impulses of intelligence and energy as “gods”, Maharishi translated Hindu concepts of divinizing material components into the language of science:

The “gods” mentioned here are the deities presiding over the innumerable laws of nature, which are present everywhere throughout relative life. They are the powers governing different impulses of intelligence and energy, working out the evolution of everything in creation. The existence of gods may be understood by an analogy: each of the myriad cells in the human body has its own level of life, energy and intelligence; together, these innumerable lives produce human life. A human being is like a god to all these small impulses of energy and intelligence, each with its own form, tendencies, sphere of activity and influence, working for the purpose of evolution. (Mahesh Yogi, 1989, pp. 143–44)

This interpretation also succeeded in promoting Maharishi's new product line, Maharishi Yagya, rituals dedicated to "scientifically" influencing these eponymous "laws of nature".

In modern physics, the unified field is the objective reality of nature; consciousness is understood to be a subjective experience. Maharishi's "Vedic Science" rejected this fundamental principle. Maharishi claimed that the ground state of physics and the ground state of consciousness were the same. When he used the term "unified field", he meant the "unified field" as amplified by Vedic Science, which therefore included both objective and subjective aspects. Thus, "objective and subjective aspects of nature are seen as but two manifest modes of this unified field at the unmanifest basis of existence". Accepting his "unified field" theory that all of creation is infused with intelligence at the "quantum" level, no part of the body lives apart from the rest; each molecule has consciousness and can be transformed, since all co-exist in webs of relation. Thus as higher frames of consciousness shift, so will the body. For this reason, by purifying the consciousness, Maharishi insisted, the entire body could be healed.

A final philosophical innovation in MAV occurred at the hands of Lebanon-born Dr. Anthony Nader, who is credited on Maharishi websites as the world's foremost neuroscientist. Dr. Nader "discovered" that human physiology is a direct, material reflection of the field of consciousness. This field of consciousness is "traditionally known as Veda", which "in the language of modern physics" is the "Unified Field of all the Laws of Nature". Moreover, each of us can have direct access to the Unified Field in keeping with Maharishi's original theses in South India in the 1950s. Dr. Nader has painstakingly linked forty aspects of the Vedic corpus to forty qualities of Natural Law, and to forty expressions of human physiology. Thus, for example, the *Sāma Veda* has the quality of the natural law of flowing wakefulness, and its expression in physiology is the sensory systems. (Reddy and Egenes, 2002, p. 25) We are all "living, breathing, talking embodiment of Veda—a storehouse of pure knowledge, pure intelligence, pure orderliness, happiness, and organizing power. Every person has a blueprint for living perfect health and a perfect life within his or her own body". (Reddy and Egenes, 2002, p. 26) Maharishi Ayurveda and Day Spas continue to be among the most remunerative of Maharishi's programs.

Dr. Nader's 1995 research publication was surely a capstone, for it was purportedly this scientific discovery that offers the "full disclosure

of the Total Knowledge of Natural Law". Nader's discovery that there was "Unity in diversity and diversity in Unity" was said to raise the status of every individual to Cosmic dimensions, and it is at the root of one of the most unique services in MAV: Maharishi Vedic Vibration Technology (MVVT). MVVT is a service that promises "to awaken the body's own intelligence" to relieve chronic disorders. MVVT consists of a trained professional softly uttering in a patient's ears select mantras from Vedic texts that are "targeted" for specific physiological problems or areas in keeping with Dr. Nader's discoveries on linkages between the body to the Vedas. The underlying belief is that the body is rooted in physics wave/particle theory. The body is itself a vibration, so when the MVVT practitioner blows softly over the patient's body, s/he provides the proper "vibrations" to enliven the powers resident in the body to counteract disease.

In a related development, Maharishi revived *Gandharva-Veda*, the science of music. In TM, the focus of this science is on discovering the properties of healing sounds, which is exemplified by Maharishi's pioneering Maharishi Vedic Vibration Technology (MVVT).

Maharishi Sthapatya Veda® (Vastu) is the science of proper Vedic building design in harmony with Natural Law. Maharishi believed unless people live and work in buildings built according to Maharishi Sthapatya Veda® (Vastu) design, peace on every level, individual and collective, will always remain an uncertainty everywhere. This science has spurred a new industry for many TMers. In addition, Maharishi perfected and rolled out his branded version of Astrology (*Jyotish*), so that people could understand how their place and time of birth situates themselves within the web of Natural Law.

Maharishi created his own interpretation of *Dhanur-Veda*, the science of weaponry and defense, by drawing on social scientific experimentation on the incarcerated and his scientific discovery of the "Maharishi Effect". Maharishi believed that social scientific testing of prisoners who were taught to practice TM proved that meditation led to less recidivism, revealing that TM could help break the individual's cycle of deviant and criminal acts by restoring balance and orderliness within the nervous system of the violator, because a criminal violates not just government-imposed laws, but natural laws. In addition, the Maharishi Effect had demonstrated that groups of meditators could, through the power of their shared positive effects on their surroundings, reduce tension and crime, creating an "Invincible Defence" perimeter around an area. After introducing the knowledge

of the “Constitution of the Universe” in 1992, in 1997 he declared the Year of Global Administration through Natural Law and inaugurated Global Administration through Natural Law with twelve Time-Zone Capitals to establish problem-free administration that mirrors administration through Natural Law, which governs the infinite diversity of the universe with perfect order.

Convinced of the merits of his discoveries in Dhanur Veda and its ability to promote proper governance through the application of Natural Law, Maharishi organized the international Natural Law Party (NLP) in the early 1990s. The NLP sought to field candidates that would forward the scientific approach to governing that Maharishi had discovered and put into place sufficient numbers of *sidhi* practitioners that they would create an invincible defense for nations from aggressors and simultaneously lower crime and violations of natural law within their borders. The NLP also sought out candidates with scientific backgrounds to draw on educational scientific capital. The leader of the NLP in the United States during its run from 1992 through 2004, for instance, was Dr. John Hagelin, a Harvard Ph.D. educated quantum physicist and MIU professor, who did research, and still does research, in the area of unified quantum field theories. Party propaganda boast he was named winner of the Kilby Award, which recognizes scientists who have made “major contributions to society through their applied research in the fields of science and technology”.² Cover advertisements for Hagelin’s (1998) *Manual for a Perfect Government*, claimed he was able to show the “grand unification” of two great traditions of knowledge, modern and ancient, had “profound implications for the science of governance, and provides practical public policies that harness the laws of nature to solve acute social problems and to profoundly enhance governmental effectiveness”.

When Natural Law Party candidates did not succeed in secular political contests, Maharishi decided to provide a parallel, ideal government to imperfect real-world governments. According to its website, the Global Country of World Peace “exists in the domain of consciousness” and “its authority is in the invincible power of Natural Law”, which brings fulfillment to and upholds and nourishes every country’s

² The Kilby award was created in 1989 by the North Dallas Chamber of Commerce to draw attention to that area. Truman Cook, a chemical engineer who was a member of the selection committee, said that a member of the selection committee who practiced TM proposed Hagelin for the award. (Anderson, 1992)

constitution. Maharishi established his global country in October 2000 to operate according to the “constitution of the universe”, which is none other than “total natural law”. In an interview with Larry King, Maharishi explained the term Natural Law as a scientific term, but in actuality it could also be understood religiously: “Natural law, we say from the field of science. Will of God, we say from the field of religion. It’s the same thing”. (King, 2002) When Larry King asked Maharishi if he believed in God, Maharishi responded, “I believe in God. And I believe in the custody of God vested in kings”—a viewpoint traditional to ancient Vedic culture. Maharishi continued, “We will not disturb the existing administration by manmade laws in any country. We are creating of our own government, which is utilizing natural law, which we have from modern science and which we have for effective Vedic science. So we have enough ammunition to win the race”. Indeed, Maharishi became very disillusioned with what he called “damn democracy”; he felt administration is a matter of expert intelligence, and so should not be exposed to “voters on the street”, who could elect dangerous and deficient people such as George W. Bush, who evoked an especially negative reaction in Maharishi. (King, 2002) In the United States, The US Peace Government was created to carry forward the programs, policies, and ideals of the Natural Law Party. Dr. John Hagelin became its president, and many former NLP candidates and supporters were given leadership positions in a new, complementary government.³ Its purpose is to prevent social violence, terrorism, and war and to promote harmony and peace in the U.S. and throughout the world. Hagelin described his position as President of the US Peace Government as similar to that of the “shadow government” or “loyal opposition” in British politics: the people who are out of power but still try to influence public policy. (Gable, 2003)

In keeping with Maharishi’s distaste for democracy, elections do not take place in the Global Country of World Peace. Maharishi appointed his Cabinet in line with his own theories of meritocracy. At its head, Maharishi appointed aforementioned neuroscientist Dr. Nader as “His Majesty Maharaja (great king) Adhiraj (king of kings) Raja (king)

³ In addition to his role as President of the US Peace Government, Dr. Hagelin became the Executive Director of the International Center for Invincible Defense in New York City; International Director of the Global Union of Scientists for Peace; President of Maharishi Central University in Kansas; Minister of Science and Technology of the Global Country of World Peace; and Raja of Invincible America.

Dr. Nader Raam". To aid him in governing the Global Country of World Peace, Maharaja Nader Raam works with ministers and other *rajas* of various territories throughout the world.

Maharishi likened the raja as an administrator with a parental role for his Raj or kingdom. A father of the nation, a *raja* has a loving, caring, and supporting parental relationship with his children, and he is supposed to have Total Knowledge. His relationship with the people of his kingdom is to impart Total Knowledge. Maharishi defined "Raam" as the "totality of knowledge", *brahman*. This unusual interpretation is at odds with the symbolism most Hindus would resonate with, for Ram Rajya is usually understood to be the ideal future state in which the god Raam returns to the world to usher in peace and prosperity.

The creation of Peace Palaces in the world's largest cities was a critical feature of Maharishi's new strategy to promote perfect government. Peace Palaces function as homes for groups of "peace-creating experts" to radiate peace, orderly influence, and support for the government of the city and surrounding environs, so that all the citizens can enjoy a happy, healthy, progressive life and freedom from crime and problems. By virtue of these "coherence-creating" groups, Maharishi explained that the mischief perpetrated by elected officials could be cleansed. (Koppel, 2006)

Building intentional communities for TM practitioners to trigger the Maharishi Effect became increasingly important. These Peace or Vedic Colonies often located on the outskirts of a city. For example, Maharishi Vedic City is an intentional city constructed outside of Fairfield, Iowa, the location of Maharishi International University. These Vedic colonies are to be constructed according to the specifications of the architectural science of Sthapatya Veda, or Vastu. For peace to be enjoyed on earth, reconstruction is necessary, because without proper Vastu, there will always be problems. Ideally, Vedic Vastu colonies would be placed around a city with a Peace Palace at its geographical center.

And the pressure to hasten the establishment of Peace Palaces became critically important by 2005. Vedic literature teaches that the world goes through an eternal cycle of four *yugas*, or ages: *Satya Yuga*, *Treta Yuga*, *Dvapara Yuga*, and *Kali Yuga*, yielding eventually to *Satya Yuga* again. Most Hindus believe that earth is currently in *Kali Yuga*, an age during which human civilization has degenerated the most spiritually. In *Satya Yuga*, morality in the universe is at its height. In each subsequent age, morality is reduced by one quarter, so the strength

of morality in *Treta Yuga* is characterized as three-quarter full, *Dvapara* just half, and in the age of *Kali*, morality is reduced to only a quarter of that of the golden *Satya Yuga*. According to Maharishi, in 2005 the world was on the cusp of transitioning from the dark *Kali Yuga* to the radiant *Satya Yuga*. Plans were made to celebrate this extraordinary event during a ten-day international conference held in concert with the full moon day in July dedicated to the guru, *Guru Purnima*, July 25, 2005. If a peace palace were prepared in time for a groundbreaking ceremony, the city in which it was located would be able to welcome the descent of Heaven on Earth, that is, the descent of *Satya Yuga* saying good-bye to *Kali Yuga*.

Maharishi was eager to reach out to former TM initiators who were also Sidhas, called “Governors” in Movement parlance. There were many who had joined the movement decades earlier but were no longer as involved, or as informed, of new Maharishi programs. Governors were informed they would need to be “recertified” in order to take part.⁴ Recertified Governors could be appointed by the Raja of their area to arrange lectures, initiations, follow-up, and establish the Peace Palace in their designated city.

By requiring recertification, the TMO addressed a number of problems. For one, renegade teachers had been dispensing TM at reduced rates or even for free. By discrediting all non-certified instructors, Maharishi sought to control initiations and retain the fees within his organization. Even more significant, in the recertification course, Maharishi’s many new Vedic sciences were explained, which would eliminate the problem posed by the fact that many who learned to teach TM at earlier stages of the TMO had not been indoctrinated into the new theories, services, and products introduced in the 1980s and beyond. Materials on the recertification course describe thorough retraining in TM, the Sidhi techniques, and in-depth exposure to all of Maharishi’s programs to bring them up to date.

One of the new programs was Maharishi Vedic Organic Agriculture (MVOA), green practices that are supplemented by the “Vedic melodies of nature”. This is important, because due to human bioengineering and meddling with agriculture, today’s agriculture has become

⁴ The TMO has long had a hierarchy. Above ordinary meditators were *Sidhas*; above *Sidhas* were Initiators who had learned the TM-Sidhi program and became “Governors of the Age of Enlightenment”. Above mere Governors were the “Governor Generals”, “Ministers”, and even “Chancellors” of the TMO. This hierarchy is now being amplified by ministers, *rajas*, and so on.

partial, fragmented, and unbalanced; plants have lost their connection with total Natural Law, and chemical agriculture is often decidedly harmful. *Gandharva Veda* melodies help the growth of the plants as well as making them more nutritious. MVOA recognizes the fundamental link between man and nature, between the individual and the cosmos, and seeks to enhance that relationship. The goal of its “technologies” is to balance individual and collective life in such a manner that the produce created becomes rebalanced and supportive. In addition to following existing standards for pure organic food, MVOA requires that the farmers themselves follow the principles of living their lives in harmony with the Laws of Nature, resulting in improved health for the farmer, the family, the nation, and the environment. Promotional literature on the program alludes to the progress of modern science in systematically revealing deeper layers of order in Nature. Again repeating that modern science has identified the “unified field”, the literature claims it through parallelism to be none other than the ultimate basis of man’s awareness, the self, or *atman*: “The description of the Laws of Nature from the perspective of modern science and the description of Veda and the Vedic Literature provided by Maharishi’s Vedic Science are identical. These two great traditions of knowledge—objective and subjective, modern and ancient—uphold one another and together rejoice in providing mankind with the basic and timely knowledge of Natural Law”. This recent “green” application of Maharishi’s scientific strategies is in keeping with Dr. Nader’s research on Vedic sound technology. MVOA delicately “rebalances” plants by applying the “appropriate administering intelligence of Natural Law” at proper time in the life cycle of the plant or animal.

Another major program of the Global Country of World Peace in recent years has been promoting support for the establishment of cadres of Vedic Pandits stationed in key locations throughout the world. In addition to practicing Maharishi branded meditation programs, Pandits also perform Vedic recitations according to the scientific discoveries of Dr. Nader. Their dual performances are a heightened form of the Maharishi Effect: the pandits can contribute even more than cadres of *sidhi* practitioners to the coherence and invincibility of the world.

There has recently been a concerted effort in the West to entice back earlier practitioners who had left the Transcendental Meditation Organization as well as to encourage teaching TM to the youth. Filmmaker David Lynch had been looking into different meditation

techniques in 1973 when he learned about TM from his sister. After learning TM, he claims not to have missed his morning and evening meditation sessions since. Thirty years into his practice, Lynch participated in Maharishi's 2003 four-week "Millionaire's Enlightenment Course", and became very close to the ageing guru. (Stevens and Barkham, 2009) Lynch was one of the privileged few invited into the inner circle at Maharishi's funeral rites in India in February 2008, joining the ranks of the sage's *rajas* and relatives. So close was he to Maharishi that Lynch was able to gain his confidence and persuade him to radically reduce the TM initiation fees so that more young people could learn the practice.⁵ In July 2005, Lynch established a new charity called the David Lynch Foundation for Consciousness-Based Education and World Peace (DLF). The DLF seeks to support the teaching of TM to a million school children in the United States, particularly disadvantaged youth.

Lynch's foundation portrays TM in terms reminiscent of the 1960s and early 1970s, punctuated with small doses of allusions to scientific verification. In his 2006 autobiographical book, *Catching the Big Fish: Meditation, Consciousness and Creativity*, Lynch explains the basics of TM and Maharishi's theories as well as how TM has influenced his life work and why he has dedicated his life to using his name and money to promote and subsidize reviving the teaching of TM among the youth to help reduce violence and increase academic performance, lauding throughout the scientific studies proving the technique's efficacy. (Lynch, 2006, and Sopelsa, 2006)

Other notables have also decided the time is right to step forward to lend their name to the cause of promoting Transcendental Meditation again as well, including former TM superstars of the Romantic sixties and early seventies. In 2006, the British musician Donovan specifically observed that he felt a new enlightened consciousness akin to the Sixties had dawned. (Naish, 2006) Recalling that Maharishi referred to him as his "transcendental musician", Donovan claimed that although surrounded by healers, he believed TM to be the "supreme healing

⁵ In Fall 2009, the David Lynch's DLFtv.org site recorded "Special Reduced Fees" by 25%, viz.: Adult course fee now \$1500; a Full-time student, single parent and retired person now \$750; Children under the age of 18 (if learning to meditate with a parent) now \$375; and couples at \$1500 for the first student and \$750 for the second. According to its website, the David Lynch Foundation also provides funds for hospital-sponsored wellness programs, boys and girls clubs, and before and after school programs in schools, and independent research to assess the effects of the programs.

system”, because when people transcend, all solutions to their problems appear. Speaking of his 2006 tour, Donovan said, “My comeback is scheduled for the time when Linda and I feel that the world’s consciousness is high enough again”, because the bohemian ideas in the Sixties were finally accepted into the mainstream. (Naish, 2006) Soon after the 2006 summer music festivals, Donovan joined David Lynch and Dr. John Hagelin on a meditation-promoting tour of universities in America.

By January 2009, the fusion of famed TM musicians, David Lynch, and Hagelin’s organization was complete. Lynch announced a “global benefit concert” that would take place at Radio City Music Hall in New York on April 4th called “Change Begins Within”. Eventually, the full line-up featured Paul McCartney and Ringo Starr, and alphabetically, Sheryl Crow, Donovan, Ben Harper, Paul Horn, Jim Jones, Bettye LaVette, Mike Love, Moby, and Eddie Vedder, with presenters including Russell Simmons, Laura Dern, and of course, David Lynch. Journalist Pareles (2009) noted there was an “undeclared contest” over who had been meditating longest. Comedian Jerry Seinfeld clocked in at 37 years, Radio shock jock Howard Stern at 38 years, and the two remaining Beatles boasted over 41 years. The winner at the concert was New Age flutist Paul Horn with 43 years, who in a press conference said he had started meditating in 1966, and he soon became one of the first twelve teachers of TM in the United States. In a night filled with Beatles music, Paul McCartney sang “Cosmically Conscious”, written during the 1968 trip to Maharishi Mahesh Yogi’s *ashram* in Rishikesh. He introduced the song by saying it was composed around two of Maharishi’s favorite phrases, “cosmically conscious” and “It’s such a joy”.

In an April 2009 interview about the Change Begins Within concert with David Lynch on his foundation’s web site, Paul McCartney applauded the practicality of Lynch’s approach:

The idea of what you’re doing, of putting this into schools, I think is a fabulous thing, because I think it is all very well to talk about it, but the thing is when you actually put it in the mainstream, I think that is very important. I think that is the foot in the door, because then people can then say, ah, in Detroit, where the DLF has put the program into schools, the results are these. And I think this is what people need, they don’t need high-minded talk, so much as results. And so for you to be able to say the kids love it, the kids in the West Bank love it, the kids in Brazil love it, and you’re actually getting results, it to me, is like a seed.

It's for sure, if you take a great seed, an acorn, and you don't put it in the ground, it's pretty guaranteed you won't get an oak tree. But if you put it in the ground, there's a very good chance you'll get an oak tree. And I think that seems to me that is what you are doing. So that's what I love about what we're involved in now. So that is why I was so happy to do the concert. It's very inspiring.

In recordings of the concert participants, Donovan concurred, noting that the youth of America at risk needed TM to help them raise their esteem and improve their well-being, and the way to do that was through meditation, because change begins within.

Although the TMO is still operating amidst the same controversies of being a religion but posing as science, they have adopted new strategies to sidestep the problems, and apparently these strategies are much more successful. By linking teaching in schools to David Lynch's foundation instead of overseen directly by schools themselves or government agencies, and making it voluntary rather than required, criticisms of teaching TM as a religious practice in school still may occur, but they have been muted. Ayurveda is widely mainstreamed in the West.

The major scientific elements of Transcendental meditation have been in place for decades. First, Maharishi's apologetics redescribed traditional Advaita Vedanta philosophy and various practices as scientific, and he adopted scientific-technological notions and terminology in what he came to call the Science of Creative Intelligence. Those terms that may be too specific to the Advaitin tradition and therefore "unfamiliar" are instead explained in more neutral Western terms. Second, methodologically, Maharishi supported hundreds of what he felt to be empirical research into the mind and the techniques of meditation. Third, Maharishi claimed that the worldview of physics and quantum field theory had bridged the subject-object divide, pointing to and validating the metaphysics of the Vedic worldview: the "vacuum state"="state of least excitation"=the "self-referral state"=none other than *atman/brahman*. Fourth, social-scientific research of Transcendental Meditation, the Sidhi techniques, and group meditation purported to show dramatic beneficial physiological, psychological, and sociological effects. Fifth, Maharishi unveiled his unique interpretations of alternative and borderline sciences grounded on Vedic sources. Sixth, new technologies, particularly EEG machines and brain scans, served as para-technology aids to help diagnose imbalances and assist practitioners in improving themselves. And finally, Maharishi made use of

educational scientific capital that could provide an independent and non-religious mode of alternative credentialing. He promoted those with accredited academic degrees, particularly in science, to higher positions of authority in the Transcendental Meditation Organization. He established academies, universities, institutes, as well as journals, and he held quasi-academic conferences to announce and explore the Science of Creative Intelligence. All of these seven strategic scientific elements continue to be stressed in delicate combination with the major Advaitin underpinnings of Maharishi's Vedic "sciences".

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THE SIKH SCIENTIFIC ETHIC—WORLDLY AND MYSTICAL

RICHARD CIMINO

Greeting me in the living room of his suburban Long Island home, Sarvjit, an active Sikh and recently retired engineer, summed up the thesis of my research a little too neatly before I had told him much about it. “You’ll see that I look at religion from the perspective of my profession and education,” he said. “Everybody looks at religion from [the perspective of] their own professions... I’m an engineer, so things should add up. If they don’t, then something is wrong.”

I had spent over a year interviewing Muslim, Hindu, and Sikh engineers and Information Technology (IT) professionals, looking at the ways they related their work in technology and science to their religious lives. I doubted that the influence of occupation on religion proceeds in the strictly linear manner suggested by Sarvjit, but I was particularly struck by his and other Sikhs’ dexterity in navigating the boundaries between religion, science and technology. Sikhs are hardly the only religious group seeking to reconcile their beliefs and practices with modern science. Most of the professionals I interviewed spoke their sacred texts and traditions as uniquely advanced in scientific understanding. The religious and scientific discourse of Sikh and other immigrant professionals will likely become more prominent in the near future. A growing share of applied science professionals in the American workforce and increasingly on the global level consists of immigrants and nationals from Asia, Southeast Asia, and the Middle East accompanied by their religious cultures of Islam, Hinduism, Sikhism, Buddhism (and increasingly Christianity, in the case of Asia).

The Sikh interviewees stood out by injecting an entrepreneurial ethic into their work in applied science. They were more likely to be in management positions or to have started their own companies; several had made or were in the process of making the transition from engineering to the financial professions, such as investing. The corollary sociologist Robert Merton drew between the Protestant ethic of capitalism and the Protestant ethic of scientific discovery and development (or economic rationalization and scientific rationalization) may

seem relevant in the case of the Sikhs (Merton 1962). Both Sikhs and Protestants emphasize the importance of discipline and on living their faith in society rather than seeking an ascetic escape from the world. While both belief systems do not hold to holy mediators or institutions of salvation that stand between the believer and the holy text, for the Sikhs the Guru Granth is a living manifestation of the ten Gurus and a terminal point “of a line of belief handed down and deposited in a canon that constitutes the source of spirituality even today.” (Pace 2006). Rather than being merely an inspired text as in Protestant Christianity, the Guru Granth functions as an “authoritative, institutionalized religious memory worshipped by the community.” This more mystical orientation of Sikhism can be traced to its origins, where Guru Nanak is venerated as the bearer of charisma and of the “extraordinary Word,” writes Pace. The Calvinist doctrine of predestination and the corresponding concept of vocation to demonstrate membership in the elect church are alien concepts in Sikhism; as we will see throughout this chapter, Sikh beliefs and practices creates a distinctive type of rationality, in both science or economic life, that is quite different from that of other religious groups.

Sikhism has always had a liminal identity, existing somewhere between Hinduism and Islam, both in the popular imagination and in the actual history of the religion. Up until the late 19th century, Sikhism consisted of a series of local communities and traditions inter-related with Muslim and Hindu traditions. The boundaries between these religions were not firmly set in place and it was not uncommon that those who followed Sikh gurus might also make a pilgrimage to the shrine of a Muslim saint or visit the Ganges for healing. Harjot Oberoi (1994) writes that in the 19th century the Sikh faith had a pluralist framework that allowed its adherents to belong to several different traditions and gurus. “Many of these Sikhs shaved their heads, some smoked tobacco, others were not particular about maintaining the five external symbols of the faith [known as the 5Ks—not cutting one’s hair, wearing a bracelet, a small sword, a comb, and an undergarment]. In the absence of a centralized church and an attendant religious hierarchy, heterogeneity in religious beliefs, plurality of rituals, and diversity of lifestyles was freely acknowledged.”

It was not until the late 19th century that a growing movement of Sikhs sought to purge their faith of such pluralism and particularly what were believed to be Hindu influences. In place of such pluralism, the influential Khalsa tradition of Sikhs became the dominant

authority, elevating the Guru Granth and the gudwaras (or temples) as its main sacred resources (McLeod 2001). The complex interplay of Khalsa influence and the role of colonialists and other religions in constructing a tri-faith India—Hindu, Muslim and Sikh—resulted in Sikhism tending to define itself against Hinduism and Islam.

While orthodoxy has been the dominant trend in world Sikhism, the picture is not only one of conformity. The growth of non-ethnic converts to Sikhism in the US has added an alternative identity in the religion based on yoga, the leadership of gurus and vegetarianism and found in such non-Pujabi, “white Sikh,” groups as the 3HO and Sikh Dharma (Helweg 1999). But for this chapter I will focus on the immigrant Sikh community in the US. The following accounts are based on 15 interviews conducted with Sikh applied science professionals in the New York metropolitan area in 2007.

Sikh Science or Scientific Sikhism?

The Sikh professionals I interviewed claimed if not a distinct science dictated by their religion then at least a faith uniquely capable in promoting and accommodating scientific progress. Many of the Sikhs pointed to their sacred text as foreshadowing future scientific advancements. They did not so much cite the Guru Granth for its scientific accuracy as a way to prove the infallibility and divine inspiration of the text. Rather the text was viewed as documenting how individuals who receive “enlightenment” are on par with scientists in their knowledge of the natural world. Thus a popularly written book on Sikh basics states that “Modern science, now, has concluded with authority the indestructibility of mass or matter. But ancient GURUS, SEERS and PROPHETS could long ago declare this TRUTH, with assertive authority, gained intuitively. Soul is consciousness. Without the soul, the body is only a skeleton. After death, the subtle body rises out of the gross body.” (Singh, 1998).

Manir, an engineer-turned investor, spoke about how the big bang theory of the earth’s origin is already found in the Guru Granth. However figurative and allegorical it may be, the language of the texts do address creation in a way that invited scientific speculation from the interviewees. The Guru Granth refers to the “Primal Void” from which the “earth and the Ethers were created.” (AG; 1037). This “void” is often translated as a “vacuum” and then portrayed in a scientific

manner relating to the big bang theory. Several of the interviewees cited many other teachings and accounts from the Guru Granth that allegedly had scientific significance: The reference to millions of universes in the text is said to be related to the growing number of planets discovered. Einstein's theory that energy can't be created or destroyed but only transformed was first proposed when Sikh gurus taught that humans are all part of cycle of life. An IT professional mentioned that the development of nanotechnology, or micro-devices, was foreshadowed in the Guru Granth. Similar claims of scientific innovations based on scriptures can be found in Sikh literature on the Internet. (Sidhu 2003; Sikhism FAQs 2007).

The highly orthodox Ranjit, an electrical engineer in an IT firm in New Jersey, was the most enthusiastic about such supposed Sikh-Science convergences. He said the Guru Granth is a "book of life and knowledge, not just a book of religion." Whereas most of the other professionals accepted a theory of evolution without many problems, Ranjit said he "doesn't believe it. The [Guru Granth] teaches that God created humans directly in just a fraction of a second." Ranjit was also unique in the way he incorporated mystical, even esoteric, concepts into his views of science. He believes that Sikhs who have reached an "inner enlightenment" can, if not in this life than in later reincarnations, see how the universe was created and actually experience the "black hole," or the void from which creation emerged. Disciplined living and meditation made such feats possible. Once the "mind [reaches] enough enlightenment," the Sikh can leave his body and explore alternate universes. Returning to a more empirical approach, Ranjit added that recent scientific research has verified such a phenomenon.

Most of the interviewees took a far different position than Ranjit in relating science to religion. Even if some might agree that Sikh gurus and the Guru Granth had made valid scientific observations, they seemed more interested in showing how Sikhism was in line with modern scientific thought than in claiming Sikh roots and preeminence in science. In such a view, Sikhism is the "most scientific" and "most modern" religion because it conforms to the demands and rubrics of modern science. In one way, this could be done by default, with the belief that Sikhism does not have much to do with or is removed from science.

Kandhir, a 36-year-old IT hardware specialist, said that he could not recall any references to science in all the sermons he had heard

at his *gudwara* or in the *Guru Granth* itself. "There's no science in it. It's all about how to act and behave and how to improve yourself." When most of the interviewees were asked about how their faith influenced their work, their answers had less to do with making a connection between Sikhism and science than with ethical considerations. In discussing how his faith has influenced his work, the 28-year-old civil engineer Ravindra pointed to his father as the model of a Sikh engineer and businessman. "I take a lot from my father, the way he treats people equally... He [views the] company like his extended family. That's a direct relation to how his religion affects his work. He has the best benefits package around that really tries to help people." Ravindra recounted how one employee who was frequently ill and missing work was considered being dropped by the health plan and how his father intervened to help her retain the health benefits.

Some believed that the lack of explicit references to science in Sikhism was because of the lack of conflict and controversy over this issue as compared to other religions. Ravindra said "It's a very modern and scientifically based religion. It's 530 years-old. The Big Bang, evolution; there's no conflict [over these]. Our basic philosophy is that science is okay. In the *Guru Granth*, I never witnessed anything remotely like scientific theory, just the general philosophy of how to live life." Jasdai, the 40-year-programmer for a bank, said that he is "not one who explains religion through science. I don't feel we have to judge the holy book with a scientific yardstick. I take it for granted that the *Guru Granth* is ahead of science [though] we don't have to use it [that way]."

Also common was the recasting, if not the transformation, of Sikh beliefs into a more scientific mold. This tendency was very clear in the account of the 25-year-old IT executive Prandeep. In explaining the doctrine of reincarnation, he said it could not be proven scientifically, and has had trouble believing in it himself. "My own personal belief is that every religion has its own form of scaring people into good behavior. It's psychological, [and] when you grow up you see it as a scare tactic. It has a purpose, but scientifically I don't believe in it. But I wouldn't tell that to... those younger in the faith."

Ravindra said that the accounts of miraculous healings in the *Guru Granth* and popular Sikh legends could likewise be explained by unrecognized medical cures that were mistaken for the supernatural. For instance, a guru in scriptures is reported to have healed a village of Small Pox. "But they were just stories passed down [from one

generation to another]; it was probably just medicine,” he added. In a religion that lacks a central teaching authority, there was sharp divisions among the Sikhs about the nature of miracles. Prandeep said he believes the “supernatural is also the natural,” meaning that supposedly supernatural events can be explained in naturalistic terms. But most of the interviewees were uneasy in ceding too much ground to a rigid naturalism that excluded divine intervention.

The Sikhs often drew a distinction between the theoretical and applied sciences, arguing that the latter was more concerned with the “real world” and actual results rather than with speculation and generalized explanation. Sarvjit criticized such scientific methods as prediction and extrapolation since they rely on “imagination,” meaning that they are based on future events and data which don’t exist and “don’t affect life.” In this way, he also criticized theories of evolution since they are conjectures and reconstructions of developments and events from the distant past. In his view, science is more partial and incomplete than scientists are willing to admit. “Whenever you get answers to questions, you always get more questions. You never get there, but you should always keep trying [to find the answers.],” he said. It is at this point that religion enters the picture, since the endless and incomplete nature of science “does not teach ethics. But it says to be humble. Most of religious philosophy explains the part [of reality] science can’t explain.”

For most of the Sikh interviewees, the incomplete nature of science and the practical and “real world” basis of applied science created a scenario where the spheres of religion and science rarely clashed. If a particular scientific development conflicted with a religious teaching, the latter could be discarded as irrelevant or reinterpreted as more symbolic than literal. In a similar way, a troublesome scientific finding could be viewed as partial and thus misleading, something that could be set right by new data in the future. These strategic views allowed for the possibility of divine intervention in mundane affairs, even if there was considerable disagreement about the nature of miracles among the Sikh professionals. For Sarvjit, “God works within the [natural] system. Miracles don’t happen.” But others maintained that supernatural occurrences, such as healings, suspended scientific laws and could be valid.

Harpreet, an IT executive working for a New York bank who was among the more orthodox Sikhs, believed that through mediation one could control one’s world, though Sikhism calls the believer to

renounce such powers. “This is what Guru [Nanak] did. He said the biggest miracle was to share your bread with someone.” Jasswinder, the founder and CEO of an IT firm on Long Island, said that while Sikhism disapproves of demonstrating miraculous powers in order to prove God’s existence, he is convinced that some things are still “unexplained. There is something out there. I don’t have a clear knowledge of what it is. I can’t convince others but I can try to convince myself.” He also drew on his profession in explaining his approach to religious and scientific concepts he can’t prove. “I’m an engineer. Logically speaking, some things are out of my control and I leave it there and don’t worry about it. If I haven’t done my own homework, I can’t say something doesn’t exist.” In this way, Jasswinder sought to cast doubt on both religious and scientific certainty.

Questioning Religious Authority

The individualistic attitude taken toward both science and religion among these Sikh applied science professionals was most clearly evident in their approach to religious authority. There was a marked tendency of the Sikhs to go outside of official channels (i.e., the Granthi or clergy) when they had questions or dilemmas about the faith. Unsurprisingly, first-hand study of the Guru Granth was the preferred route that most interviewees took to answering their own questions. But there was also a good deal of reliance upon family members, especially parents and grandparents, as informal sources of authority.

The case of Sarvjit, the recently retired civil engineer, illustrates the conflict between the institution and personal faith. He grew up in a traditional Sikh home in the Punjab and was eight years-old when the region was divided between India and newly formed Pakistan, with his village falling within the boundaries of the latter country. In the late 1960s he came to the U.S. for graduate studies in engineering at Duke University. As with the other Sikh professionals, he became more personally committed to Sikhism the longer he stayed in the U.S. He has taught and written about the faith in Sikh publications. When asked about what sources he turns to for direction in his faith, Sarvjit, responded that he makes up his own mind through his own reading. “I’m blessed that I have enough intellect [to decide such matters.] I’m dead-set against the clergy. I don’t give two hoots what they think about religion. The [clergy or Granti] are just professionals. They may

know a lot but they compromise a lot, too. I have no respect for people actively involved in the religion; they become politicians. [The leadership] has nothing to do with Sikhism; it's pure politics." Yet Sarvjit himself said that both ritual and such practices as following the 5 Ks were important because they provided a framework of discipline for the devout Sikh. "Religion comes in a package that [includes] ritual. If it follows spirituality, it doesn't matter what ritual it is."

Because ritual is downgraded and the mediating role of clergy and holy men between the Sikh and God is condemned while serving God through good deeds and holy living are stressed in the Sikh tradition, it is no surprise that there is a strong tendency to disassociate the truth of the religion from its organizational, ritual and sometimes even dogmatic dimensions.

Early in my interview with Parminder, a retired mechanical engineer, he declared that the clergy are "my least favorite kind of Sikh." The way in which the Sikh professionals often made the dichotomy between authentic religion and official Sikhism was clarified when I asked Parminder why he remains a practicing Sikh. "It's the utter simplicity of it. Guru Nanak was a revolutionary visionary who wanted to bring Hindus and Muslims together. He understood that dogma divided. He went to both mosques and [Hindu] temples. He did not promote conversions and [he] preached gender equality. He said how could women be inferior when they've given birth to kings? There was not a formal priestly class. He said truth is wonderful, but truthful living is higher still. [The religion] is more practical than dogmatic."

The principles of practical living over doctrine, equality over hierarchy, respect for and tolerance toward other religions, and social justice were cited as the most appealing aspects of Sikhism by the interviewees. That these principles are "modern," "scientific" and American-based made them even more attractive.

Technology and the Will of God

There was little doubt or uncertainty when it came to the value and importance of technology among the Sikh professionals. Unqualified support may be the wrong term, since these interviewees did not necessarily oppose attempts to curb such progress when it proved harmful. The case of Armeet, a 46-year-old woman sales executive for a Long Island IT firm, may help illustrate such attitudes. She grew up in a traditional Sikh family in New Jersey. While she has been active in the

gudwara, running its education program, she has also dissented from Sikh orthodoxy. She has cut her hair and does not carry the dagger, another one of the 5 Ks. The most appealing aspect of Sikhism for her is that the religion is “very flexible, very fair. It treats men and women equally. Any inequality in it is man-made. It’s very simple—there are no rituals and special prayers. It teaches mutual respect and that good will happen if you do this.” Armeet sees her faith as instrumental in her success. “Because the religion teaches us to be fair, honest and good people, we carry that into the business world. The payback is immense. The religious difference [of being a Sikh] has been an asset. The interest that others have [in Sikhism] creates a bond and is instrumental in me being a success. Our talk about religions leads to deeper conversations; it’s not all about business.” The benefits of the faith also blend the business and personal. “Because my job is closing [sales] for the company, you can only take transactions so far. It’s out of your hands. It’s destiny. No matter what I do, [sometimes] it’s not going to happen.”

The same acceptance of destiny was on display in Armeet’s view of technology and the relation between science and religion. On the latter question, she answered that she saw some conflict between the two spheres, but her sympathies were not with the religious side. “I’m glad from the science standpoint that they don’t let religion stand in their way. I’m glad the scientific community doesn’t let their [own] beliefs stop them [in their work].” Asked about the advance of biotechnology and associated issues—ranging from abortion to stem cell research and cloning, Armeet replied, “I am in favor of it, the abortion act and the [other] technology being applied...Because of technology, like the Web, we have so much...[It’s] destiny, and I generally support such measures.” Although Armeet’s view on abortion was not shared by all the professionals, her reference to technology being “destiny” was echoed throughout most my interviews. Harpreet, the New York computer programmer, said that technology on the whole is “beneficial,” and that “stem cell research is good if used positively. Everything that happens is the will of God. The problems and solutions [of technology] are a manifestation of the will of God.” Even the highly orthodox Ranjit said he supports such measures as cloning and stem cell research. “If it’s going to happen, it’s the will of God. That [means] it’s a reality already. If [the development] is too much, God can destroy the planet.”

Sarvjit worked in nuclear power before public opposition closed his plant, forcing him into early retirement. To him, it was fear mongering that caused the closure. "Fear is our worse enemy. They [didn't] say we built anything unsafe. The fear was unnecessary and stupid. To say there's a problem is not to do anything to solve it. We do the best we can and keep on moving." Sarvjit also supports stem cell research and cloning, even though some say that such technology is playing God. "This is what God wanted," he added. "Anything that's going to happen emerges or God could stop it. Nothing comes without a price. Happiness will not come with technology. But to refuse to accept technology is just as bad."

As suggested in the case of Sarvjit, such confidence in technology can stem from these professionals' work in this area (and the success that Sikhs have achieved through such work), but that does not explain the connection often made between the will of God and technological progress. Even for the most non-dogmatic Sikh, the doctrine of "hukam" or God's order has come to mean that God controls the good and bad things that happen, which is similar to other Eastern religious notions of fate. As Jasdal, the 40-year-old IT professional said, "If something happens, then God willed it. The Sikh tries to live in God's good order."

Autodidacts in Religion and Science

Poised at the intersections of American finance, technology, immigration and transnationalism, the Sikh professionals' claim of scientific and religious proficiency is not only about science and religion. They share an American professional immigrant (and increasingly global) ethos where technical expertise and lingo supersedes a common language and culture in achieving upward mobility and assimilation.

It should be stressed that it is the American immigration experience rather than the immigration process in itself that significantly contributes to this convergence of professional and religious discourse. Along with the cultural pressure to be religious like other Americans, immigrants find that religious identities tend to gain salience in the process of immigrant incorporation into the U.S. Not only do immigrant religions often take a Protestant "congregational" form on the local level (in marked contrast to their traditional structures in their home countries), but they also gain equal footing with other religions as they

are integrated into a denominational market structure under the separation of church and state (Casanova 2007). Studies of the development of American Islam and Hinduism find that for such immigrants claiming a religious identity can serve as an attractive alternative to being viewed in primarily racialized categories (Kurien 2007). This is especially the case for upwardly mobile professionals who understand that racial discrimination is far more prevalent than religious discrimination in the American workplace. Thus, stressing both a religious identity and scientific proficiency, and attempting to bridge the two spheres, at least in discourse (in arguing for intelligent design, for example), is advantageous in an American and a global context. On first appearance, the transnational ties of the Sikh interviewees seemed modest. But these dimensions became more prominent when considering that most of them traveled to India on a fairly regular basis, contacted family and sometimes religious leaders when they had questions about their faith, donated to international religious causes, and were considering eventually returning to their home countries to assist in social betterment or to cultivate their own spirituality. The two values of scientific proficiency (which bypasses national cultures and languages) and a religious faith which crosses national boundaries makes the professionals in this study “global citizens,” whether they take advantage of their status or not (Levitt 2007).

In drawing closer to their respective faiths, these professionals relied on the tools of their trade, such as first-hand inquiry and investigation and valuing practical effectiveness, rather than following the guidance of religious authorities and institutions. The institutional religious involvement of the interviewees varied, but it is not necessary to generalize from such a small sample to observe that their vocational orientation could easily lead to individualized religion. We saw instances of this with Sarvjit, the retired Sikh civil engineer, who scorned the “politics” of his religious leadership and confessed his uneasiness with participating in the *gudwara* because of his unpopular and contested views.

These professionals’ expertise and their ability to “think things out” for themselves was applied to interpreting sacred texts, leading to a selectivity in emphasizing, de-emphasizing or even discarding particular beliefs and practices. Several interviewees made the point that they were orthodox and traditional, but the ways in which they ordered and articulated their system of belief was often individualized. The disinterest in and sometimes outright opposition to clergy and

professional religious leadership found among the applied scientists may not be a direct result of religious individualism and autodidacticism; there has often been conflict between assimilating immigrants and clergy who are usually more recent (and often temporary) arrivals from the sending countries. These professionals may not be as individualistic as they think; as I will discuss later in this chapter, they are shaped by the American religious culture as much as by their professional environment. It is also true that the lay-clergy culture gap in the Sikh (and other immigrant) traditions surely contributes to the sentiment common in both the interviews and the literature that educated laypeople have to take religious matters into their own hands. The autodidacticism I found among the interviewees is more pronounced largely because engineers and IT professionals have the resources and time to devote to religious self-education and improvement (and also the reason why the retirees were the most active and outspoken religious autodidacts among the interviewees).

In the literature and Internet-based writings produced by these religious autodidacts, as well as in the interviews, one finds a degree of theological creativity and even improvisation. This is most clearly seen in the attempts to harmonize modern science and technology with traditional teachings. For instance, in trying to come to terms with a sharply contested issue such as evolution, one finds a range of novel readings and interpretations of sacred texts, borrowings from other traditions, and imaginative renderings of the historical tradition. In comparison, there was less innovation on more basic matters of the faith as they have been traditionally understood, particularly if they would challenge sacred texts and authorities. Even if religion and theology is self-taught and the holders of the monopoly of religious knowledge are distrusted or ignored by autodidacts, a certain degree of "preventive censorship" by the institution is exerted "without anyone having to apply controls and constraints." (Bourdieu 1984: 85). Autodidacts still expect the authorities (whether they be the university or the *gudwara*) to "indicate and open the short cuts of popularization and the vulgate, which are always, directly or indirectly, dominated by the institution," Bourdieu argues. In a wider context, Randall Collins (2004: 359) writes that because autodidacts tend to "build an intellectual identity upon...random access to cultural capital, [they are] unlikely to meet much success in the stratified networks that make up the intellectual world." Collins portrays such self-taught intellectuals as alienated, "individualistic and proud of it," and even belligerent (in

extreme cases and circumstances, even being numbered among serial killers and terrorists). Yet the necessity of maintaining contact with the networks surrounding the institution was recognized by most of the interviewees.

The Sikh professionals were autodidactic in their acquisition of scientific as well as religious knowledge. They tended, on one hand, to blur the line between their training and work in applied science and that of theoretical science in their claims to scientific knowledge. On the other hand, they frequently criticized the non-practical and tentative nature of theoretical science. Much of this criticism had religious undertones, holding that theoretical science unnecessarily and on scant evidence dismisses religious truth claims. Most were of the not wholly unwarranted opinion that theoretical scientists, particularly biologists, are not very religious in the traditional sense (Ecklund, Park 2007). Yet they often used the findings of theoretical science to legitimize their claims that their respective religions had a special affinity with modern science. Their high valuation of science was applied to their religious lives, viewing their faiths as the “most scientific” and progressive.

All of these believers often find themselves in the unsettling position of lauding the advances of theoretical science—from those of embryology to astronomy—in the cases when they confirmed their faiths while condemning this field and its methodology when its theories challenge their beliefs. To avoid this inconsistency, many adopted the idea of provisional science—that scientific theories are often speculative, incomplete, and even reversible. In this view, the believers’ respective faith will be vindicated as the truth in the end so they need not take scientific challenges too seriously in the meantime. In fact, some took the next logical step, arguing that since science is such a changeable and unstable enterprise in the first place, it makes no sense and could even be self-defeating to seek scientific proofs for their teachings and beliefs.

The concept of provisional science is not limited to religious believers. The postmodern critique of science, stressing the situated and socially constructed nature of scientific work and theories, makes somewhat similar claims, even if it does not see any final resolution to the conundrum in the way that the believer does (Harding 1998). But in the believers’ hands, the concept of provisional science means something quite different than relativism; the Sikh engineers and IT professionals I interviewed saw science as something universal that makes them modern, global, and American all at the same time.

Provisional science serves to make religious beliefs plausible; miracles are still possible and divine revelation can reveal the “true” meanings to past, present, and future events. The frequent criticisms I heard of theoretical science was not always the result of a religious orientation; the conflict and rivalry between applied science and theoretical science has a long history (Noble 1977). But if theoretical science is provisional, at least in the eyes of these Sikh applied science professionals, then it is also of a somewhat lower status than applied science, which deals with the “real” world, producing tangible results that improve people’s lives.

The belief in the provisional nature of science and the value (in some cases even moral superiority) of practical over theoretical science for these professionals created a fertile field for the interaction between scientific and religious spheres. Even among non-believing scientists, such new technologies as artificial intelligence raises quasi-religious questions of meaning and the nature of human complexity (“Resistance is Futile” 2006). The practical sciences built upon practices and concepts of order, design, and invention have a special affinity with the “strong theism” of the believing engineer or IT professional. Designing and then setting machine parts or software into motion stirs up echoes of divine creation, order, and harmony, even encouraging the sense that one may be participating in such processes. That is one reason why Sikh professionals found Christian-based intelligent design theories (more than simple and literal creationism) appealing. Thus these applied scientists affirmed both (non-Darwinian) evolution and the existence of God through a concept originating within their own discipline; they had more difficulty accepting evolution outside of the framework of design, even though many theologians hold such a position (Miller, 2007).

In one sense, of course, faith and values, not to mention matters of evolution and creation, are irrelevant to these fields; if “the work is done” and the “problems are solved,” management and customers could care less whether the engineer or software designer doing the work is an ardent atheist, pagan, or Mormon. But the meaning assigned to such work matters a good deal to the religious applied science professional. We saw this most clearly in the way the interviewees responded to my specific question about how they apply their faith to their work. Their answers were not so much about special insights they received from their respective faiths concerning engineering or designing software. Rather, they cited specific values and concerns generated

by their faiths that they then applied to their work. These values and virtues impinged on the actual choices and manner in which several of these professionals conducted their work; they were not just private and internalized sentiments.

One way in which the religious beliefs and perspectives informed these professionals' work was in the area of technology. The way in which technology was accepted, admired and linked to societal progress often carried a religious dimension. Their more accepting attitudes were often compared with the stricter and "less scientific" views of American Christians. The Sikhs claimed the religious justification of divine destiny and the unfolding of God's will for their support of technological development.

But it is in the formation of values surrounding the motivation and attitudes involved in work where the religious factor was the strongest. The Sikhs stressed what can be called the "social virtues" of their work, which would include tolerance, equality, sharing of wealth, and social justice. This was seen in the case of Ravindra, the civil engineer from New Jersey, who cited his father's company's generous health benefit plan as an example of how one's faith should influence one's work. That even the New Jersey computer programmer Ranjit, the most orthodox and unassimilated Sikh among the interviewees, stressed the social justice component as part of his work ethic suggests that integrating such values into one's job is not the result of diluting or secularizing the faith. In fact, such secularization could just as easily lead to a focus on materialist acquisition and calculated self-interest as to community-minded benevolence.

Between Mysticism and Pragmatism

There was some agreement among the interviewees with ascetic Protestants that prosperity can be a minefield of temptations and dangers to the faith. But, on the whole, the Sikhs were able to maintain a balance between an inner piety or mysticism with a strong outward dimension (social justice and equality) and leading worldly and successful lives in applied science and business. The accumulation of wealth among ascetic Protestants was portrayed by Weber and other historians as an unintended consequence of virtuous living as they sought to prove themselves to be among God's elect. (Weber 1946). For the Sikhs, the accumulation of wealth was quite intentional (as it

is for many Protestants today), and sometimes even on display, even if they saw such prosperity as being subject to the mysteries of God's will. The Sikh believer is called both to achieve mystical union with God while at the same time living and working in this world. This would be close to what Weber called "inner-worldly mysticism;" the world is not rejected but is the "sphere in which contemplative virtues are practiced and the search for the mystical union with God takes place. Therefore, in everyday life and practical work, the inner-worldly mystic lives in the world, respecting the internal autonomy of the various spheres of life, without allowing this recognition to turn itself into an internal conflict between 'faith and work,'" according to Enzo Pace (2005).

The risk that defines Weber's Calvinist Protestants, who live out their vocation in line with God's commands while uncertain of their own salvation, is foreign to Sikhs who do not have a concept of predestination. It is the more positive concept of "work as worship," which Pace defines as attaining spiritual elevation by "giving your best in the worldly sphere." The Sikh followers learn to discipline their lives by devoting themselves to the achievement of a goal which is both the practice of the virtue of obedience toward the master [found in the sacred text] and economic and social success... One's righteous actions ("truthful living") and the discipline of following the 5Ks trumped mysticism, spirituality and dogmatic correctness in forming the core of Sikh identity among the interviewees. Obedience and disciplining one's actions and thoughts in pursuit of a sacred goal are among the classic ingredients of rationalization.

Sikhism, like Islam, underwent rationalization as it codified its teachings excluded diverse traditions, and closed the process of revelation with the passing of its last guru. It can be argued that American Sikhism in the post 9/11 era has been "re-rationalized," as its members (especially articulate professionals) have been forced to explain Sikhism to outsiders in understandable terms and differentiate it clearly from Islam (Singh 2006). The use of positivist historical criticism and philosophy (as found in the Sikh studies programs established at many North American universities) to prove the validity of Sikhism and justify its existence likewise rationalizes the religion in the West (Helweg 1999). Sikhism, however, also retained its mystical disposition from Hinduism even as it compels members to express their mysticism in worldly pursuits. This tension between the inner-mystical and the worldly and rational runs through the accounts of the Sikh professionals. This dynamic forms a particular logic that is congenial to work

in applied science and technology. To begin with, the instrumental approach of the Sikhs is evident even in the way they approach their occupations. For all immigrant professionals, a high-paying position with skills easily transferable between societies, including a minimum of required language skills, is a practical career choice. But the relatively high mobility of the Sikhs, whether it be moving to management levels or switching from applied science to more lucrative lines of work, suggests a more instrumental approach to one's occupation. This does not mean that the Sikhs' sole priority is financial or that they are less devoted to their vocations than other immigrant professionals. But the entrepreneurial orientation of Sikh immigrants allows for more flexibility and choice in the occupational market.

The emphasis on practical action and living a religion instead of adhering to a complex doctrinal system fits well with a profession more concerned with results rather than methodology and with practical solutions rather than speculative theorizing. For several interviewees, the sentiment that religion, however true, is useless unless it leads to "truthful living," seemed to translate into almost a disdain for scientific reasoning removed from practical realities and benefits. More than Islam and Hinduism, the dominant Sikh Kalsa tradition provided a rationalized template to the religion that proved uniquely adaptable to Western modernity, whether in its scientific or economic dimensions. The waves of secularity that shook these spheres in the 20th century have also been buffeted for the Sikhs by strong community ties and networks enhanced by ethnic and language difference from the wider society. Within these subcultural parameters, however, considerable freedom of thought, if not practice, is allowed. The more individualistic and "heterodox" Sikhs may find the strictures and popular sentiment within their religious communities as confining and unenlightened, yet they, no less than their more orthodox counterparts, laid claim to their Sikh heritage and identity. This common religious identity is based on following external rules, such as adhering to the 5 Ks, more than correctness of belief, making room for divergent views. At the same time, Sikhs looked back to Guru Nanak and his teachings of radical equality among members and the practice of good works (or living out the truth) as the cornerstones of their religion—concepts which also resonate with both conservative and liberal Sikhs. Again, this concern with equality can reinforce traditionalism or broaden out to embrace social justice for those outside the fold. That both tendencies can be present simultaneously for the Sikhs was seen in the case of

Ravindra, who works in his father's civil engineering company. He was very critical of *gudwaras* that he says have been too quick to accommodate worshippers with chairs (rather than the traditional sitting on the floor to symbolize the equality of all Sikhs), yet at the same time held his father up as the model of the Sikh professional for how he ran the company as an extended family, granting generous benefits to everyone.

Nowhere is the dynamic between worldliness and mysticism seen more vividly than in the Sikh professionals' views on technology. In a way, it seems all too simple: These applied scientists work with technology and thus see it as a benign force that is part of God's will. It can be argued that the overwhelming embrace of technological progress, including biotechnology, among the Sikhs shows a reliance on disenchanting technical expertise at the expense of mystery and the supernatural. This pattern could be explained by a diffusion of secular values in occupations largely based on technology, or a non-Western (mostly Asian and Indian) otherworldiness that takes a benign approach to societal affairs and changes.

Yet the Sikh acceptance of technological advances or changes appears to stem more directly from their distinctive belief in the unfolding of God's will and destiny than from societal and work-related pressures to adapt to technology. It entails fostering an internal state of resignation to and acceptance of God's will along with a willingness to participate in the divine plan as it manifests itself in the world. Unlike the Calvinist Protestant, there is no attempt to "remake the world" or steer the process along more godly lines. The mystical acceptance of scientific developments—and everyday life itself—as the unfolding of God's will implies that both problems and their solutions are part of such a destiny and doesn't necessarily imply complete passivity on the part of the believer. The protesting and closing of a nuclear power plant can just as easily fit into this divine scheme as its installation and operation. If things turn out badly, the devout Sikh can reason that 'it wasn't meant to be'; the believer still has the assurance that he or she accepted God's will and intended to live out the truth. This is somewhat similar to the boiled-down version of Sikhism I heard from Jasdal, a computer programmer: "Live life, meditate, and feel good." But the tendency to see science and values as separate spheres that have little interaction can give technology an autonomy that precludes moral agency. Such a stance does not mean so much a rationalization of Sikhism as much as the potential weakening of the religion's outward thrust toward social justice.

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THE GOD EXPERIMENT:
RADHASOAMI'S VERSION OF SCIENCE AND THE
RHETORIC OF GURU SUCCESSION

DAVID CHRISTOPHER LANE

Introduction

The Radhasoami tradition has almost since its formal inception in 1861 in Agra, India, attempted to explain its practices and teachings as a higher form of spiritual science. But in so doing, Radhasoami has developed its own unique understanding of how science operates which at times is at odds with more conventional definitions of how to systematically study nature.

In this article we will examine the history of Radhasoami's version of science and how and why it has attempted to legitimize its religious practices in light of the latest discoveries in astronomy, physics, biology, and psychology. We will also be particularly interested in exploring how and why Radhasoami's definitional use of science often contradicts a more conventional scientific worldview.

Radhasoami is the all-purpose name given to a system of teachings first propounded by Shiv Dayal Singh, a local guru in Agra, Uttar Pradesh, India, who lived from 1818 to 1878. Shiv Dayal Singh, otherwise more honorifically known as Soamiji Maharaji, was raised in the teachings of Sant Mat, as propounded by the relatively obscure Hathras guru, Tulsi Sahib. What precisely Shiv Dayal taught during his lifetime is still disputed till this day and has led to several varying schisms in the movement. However, all branches which claim a genealogical connection to Shiv Dayal Singh agree that he taught surat shabd yoga and emphasized a strict lacto-vegetarian diet.

After his death in 1878, several disciples worked as gurus and in turn this led to even more branches over time. Today it is roughly estimated that there are over one hundred different Radhasoami groups in India and abroad which connect their lineages back to Shiv Dayal Singh. By far the largest of these groups is Radhasoami Satsang in Beas, founded by Jaimal Singh in the latter part of the 19th century.

Radhasoami Satsang Beas

Although Jaimal Singh was not the majority successor to his guru, Shiv Dayal Singh (that honor goes to Rai Salig Ram, who eventually established his center in Peepal Mandi, Agra), he created a ministerial base in Beas, Punjab which grew exponentially through a series of successors (from Sawan Singh to Jagat Singh to Charan Singh to the present guru, Gurinder Singh). Today Radhasoami Satsang Beas has millions of followers and most likely has more initiates than all of the other Radhasoami satsangs combined. It also has established centers throughout the world and has embarked on a number of ambitious building projects. Radhasoami Satsang Beas has seven major properties in North America and twelve in Europe and Asia, including at least two that can house over 5,000 participants. In addition, it also has a number of centers and properties in India, and its central headquarters at Beas can accommodate upwards of a million pilgrims at one time. Today Beas boasts that it holds meetings in over ninety countries in the world. Although no exact figure is given for how many people current follow Radhasoami Satsang Beas, conservative estimates put the number at over 4 million.

Perhaps the best way to describe Beas' version of Radhsoami is presented on their website which states, "At the core of the RSSB philosophy is a belief that there is a spiritual purpose to human life—to experience the divinity of God who resides in all of us. It is through this experience that we will realize the truth of the concept that there is only one God and we are all expressions of his love.

Central to the RSSB philosophy is a spiritual teacher who explains the purpose of life and guides and instructs members in a method of spirituality based on a daily meditation practice. The present teacher is Baba Gurinder Singh, who lives with his family at the main centre in northern India.

By performing the meditation practice according to the teacher's instructions, individuals can realize the presence of God within themselves. It is a solitary practice that is done in the quiet of one's own home. Members commit themselves to a way of life that supports spiritual growth while carrying out their responsibilities to family, friends and society.

To build on the primary spiritual practice of meditation, members are vegetarian, abstain from alcohol and recreational drugs, and are expected to lead a life of high moral values. A vegetarian diet encourages

respect and empathy for all life and acknowledges that there is a debt to be paid for taking any life unnecessarily. Abstaining from intoxicants improves ones ability to concentrate and calms the mind during meditation. Members are encouraged to be self-supporting and not be a burden on society. They are free to make their own choices in life and maintain any cultural or religious affiliations they choose. RSSB does not involve itself in the personal lives of its members.

Yet, Beas doesn't want to be viewed merely as a spiritual philosophy but rather as a science. Indeed, almost all of the Radhasoami branches describe their teachings in scientific language, detailing how their meditation technique of surat shabd yoga is open to personal experiment and ultimately testable and verifiable.

To understand why this is so prevalent in Radhasoami, and particularly at Beas, it may be useful to see how Radhasoami first evolved from a relatively obscure guru cult into a worldwide religious movement. The seeds of Radhasoami's growth may be due in part to how it first envisioned itself and how it differentiated its path from others that were so similar to it. While Radhasoami clearly has its roots in the eclectic Sant tradition, championed by such early pioneers as Namdev, Kabir, and Dadu, the founder, Shiv Dayal Singh, also wanted to disentangle much of his Sant Mat teachings from their more traditionally Hindu roots. Why he would do this is open to several lines of speculation, but clearly one obvious aspect was that Hindus and Sikhs enjoyed unprecedented religious freedom under British rule and thus were allowed more latitude in developing their own ideas.

However, after Shiv Dayal Singh's death, there were multiple (not singular) interpretations of what his teachings represented. This led almost immediately to varying ideologies which in turn have influenced how each sangat has tended to view spiritual authority. These differences have also led to a variances in how each Radhasoami group has used science to buttress their worldview. Before exploring Radhasoami's peculiar version of science, it may be helpful to first understand the theological differences between each group and how such differences have led to specific outlook concerning spiritual authority.

*The Ideology of Enlightenment**Radhasoami Theology and Its Social Context*

Theological perspectives and debates, which are delineated by such terms as orthodox and heterodox, not only focus philosophical differences but actually reflect more fundamental social circumstances and conflicts. Indeed, conflicts in theology often represent in an idealized fashion social relations between particular religious groups. For example, the 2nd century AD dispute between Gnostic sects and emerging Pauline Christianity was not simply an argument over mysticism versus revelation, but a genuine political fight over centralized control and unification. (Pagels, 1979; Gerard Valle, 1981). Thus, the use of such terms as “orthodox” and “heterodox” by religious leaders and movements can be utilized by sociologists as indicative signposts underlying societal tensions that are often the main causes or catalysts behind theological debates.

The importance of this kind of approach is three-fold: 1) religious ideas are seen as important indicators or crystallizations of underlying social differences; 2) theological or philosophical knowledge is viewed in a connective (and not an abstracted) way with culture; and 3) how a religion views itself (and in relation to potential competitors) sets up how it will both employ and react to prevalent authority structures such as science. As such, this kind of methodology sheds light on the formation, process, and culmination of theological thinking.

Furthermore, it should be understood that philosophical positions are in many cases indices of social relationships. The very idea of an “orthodoxy” implies that there is another school of thought which is contrary to it (hence the pejoratively used term “heterodox” and its sister “heretical”). Although it is strikingly obvious, it is important to remind ourselves that “heresies” do not exist in a literary vacuum, but are directly related to established and oftentimes mainstream cultural institutions (Eisenstadt 1984). In this way, therefore, the study of theological disputes offers a fruitful context whereby the sociologist can better understand the social relationship between connected, if battling, religious movements. Robin Gill, in a ground-breaking work *Theology And Social Structure* (page xi, 1977) elaborates on the importance and utility of this kind of endeavor: “Despite [the] obvious dangers of theological relativism, the task of carefully uncovering the social determinants of theology remains an important one. Far from being an

attempt to reduce theology to a series of affirmations about society—the charge that is often levelled at Feuerbach—or to relativise it by exposing its obvious dependence upon transitory social contexts, this task of uncovering social determinants becomes an essential step in theological self-awareness. Just as it is widely acknowledged that theological statements carry numerous philosophical and historical connotations and presuppositions, so theologians might eventually assume that an awareness of social context and determinants is a prerequisite of an adequate theology.”

In light of this, the following section, which focuses on the continuing controversy among the various branches of Radhasoami over what constitutes ultimate authority or enlightenment, will examine how theological disputes codify underlying social relationships and tensions and how this in the process predetermines how authority structures, such as a scientific worldview, are reinterpreted. In *Theology and Social Structure*, op. cit., Robin Gill suggests three levels of analysis for studying the social determinants of theology: 1) socio-cultural; 2) socio-political; and 3) socio-ecclesiastical. I have followed Gill’s strategy throughout this study, developing a new category which I call socio-authoritarian which touches upon how a religion, in particular Radhasoami, responds to a entirely new worldview (that of science) which undermines the very basis of religious authentication.

Specifically, I will want to address this one major question: How do social circumstances, such as geographic location, property rights, status/caste, and succession transference, influence theological perspectives on enlightenment and appeals to ultimate authority in a modern society where secular values, not necessarily religious ones, hold sway? More specifically, in this context, how do theological views once established alter how a particular satsang views science and scientific authority? Simply put, the evolution of such ideologies seems to influence to a large measure how alternative authority systems are viewed. Ironically, just as there are numerous versions of Radhasoami, so too are there numerous versions of science from which to choose from.

To properly examine and answer this query, however, it is necessary to study Radhasoami theology in a developmental fashion since theology, like other intellectual disciplines progresses through a series of stages. Thus, to identify the social determinants of Radhasoami thought, attention must be paid to its historical development as well. For instance, what may begin as a dependent variable (such as Radhasoami’s lack of strict rules or guidelines governing gaddi

nasheen succession in its beginning stages) may in time develop into an independent variable (such as Sawan Singh's use of a registered will to document the appointment of his successor, Jagat Singh, at Dera Baba Jaimal Singh) which can significantly influence by itself the future strategies of guru legitimation. Hence, a fully comprehensive sociology of Radhasoami doctrines needs to take into account how theology is both a product and a producer in the social construction of philosophical thought. To carry out this task, though, the sociologist is forced by methodological considerations to study dependent and independent variables separately—despite the obvious fact that they are not mutually exclusive and are in constant interaction. In an illuminating footnote in his book, *The Survival of a Counterculture* (page 175, 1981), Bennett Berger explains the difficulty in using such terms as “independent” and “dependent” variables. Berger writes: “The very language of “dependent” and “independent” variables, like the language of “infrastructure” and “superstructure,” imprisons one in a vocabulary that is misleading, one from which theorists have struggled to extricate themselves....” As Robin Gill explains, “The main justification for focusing separately on the social determinants and the social significance of theology is that such focus presents the sociologist with an empirically manageable area of study.”

I. SOAMI BAGH: *Orthodox/Objective/Closed System*

Orthodoxy and Its Social Roots

(Science as Rhetorical Strategy: Appealing to Authority to Elevate One's Own)

Orthodoxy and Its Social Roots

Although religious leaders and followers tend to dismiss social circumstances and relationships as having a major impact on the development of their beliefs, teachings, and practices, it appears obvious societal context plays a tremendous role in shaping theological viewpoints. The problematic issue, though, is how to measure the social influence. Given the wide array of contributing influences, I think it is impossible at this stage to accurately gauge the impact, but it is possible to identify certain general social factors which have helped mold philosophical outlooks.

What were the social circumstances which contributed to Soami Bagh's establishment of an orthodox and exclusive interpretation of Radhasoami teachings? To accurately answer that question, however,

we must first realize that Soami Bagh's orthodoxy did not develop overnight. Rather, it developed in progressive stages, demarcated most graphically by each new guru succession crisis. Thus, we will want to identify the social determinants of Soami Bagh's theology by taking a close look at various phases in its history. By starting with Rai Salig Ram, the first guru in Radhasoami history to define a specific orthodox interpretation of Shiv Dayal Singh's teachings, it will enable us to identify the various social factors which contributed to the solidification of an orthodoxy. Although, as I have previously stated, it is not possible at this time to know the exact reasons behind Rai Salig Ram's theology, we will at least have a general idea of which social factors may have played a significant role. After this, we can then turn to Rai Salig Ram's theology and see which ideas may have a social impact on the continuing development of Soami Bagh and why it holds a distinctive view of science that is reflective of a more Newtonian outlook where the universe is akin to a vast and interlocking mechanism.

The Social Context of Rai Salig Ram's Theological Perspective

Even during the lifetime of Shiv Dayal Singh, the founder of Radhasoami, there were divergent interpretations over the nature of his teachings. Apparently Shiv Dayal Singh was well aware of the problem and advised his brother, Seth Partap Singh, just prior to his death not to interfere with their respective development. Addressing Lala Pratap [Partap] Singh, Soamiji observed, "The Faith I had given out, was that of Sat Nam and Anami. Radhasoami Faith has been introduced by Salig Ram (Huzur Maharaj). You should let it also continue. Satsang must go on. Satsang shall spread far and wide in future. (Partap Singh, 1958). By Shiv Dayal Singh's own admission, Rai Salig Ram introduced Radhasoami Mat in contradistinction with his own mat, Sat Nam and Anami Nam. What is not at all clear, though, is why? Why, for instance, did Rai Salig Ram introduce Radhasoami Mat during the lifetime of his teacher? Moreover, what were the social determinants at the time which prompted Salig Ram to do so?

Although our inquiry lacks several key historical documents (such as Rai Salig Ram's notebooks which have yet to be released by his great grandson, Agam Prasad Mathur), there are enough original writings of both Shiv Dayal Singh and Rai Salig Ram to give us a clear idea about their respective theologies.

Rai Salig Ram's Unique Relationship with Shiv Dayal Singh

By all accounts (including those of rival successors) Rai Salig Ram was the chief and most well known disciple of Shiv Dayal Singh. Seth Partap Singh in his biography of Soamiji Maharaj referred to Salig Ram as “the chief and most beloved disciple of Radhasoami Saheb.” (Partap Singh, 1978). This unique, personal relationship between Salig Ram and his guru should not be underestimated. If anything, it presents us with a social context in which to understand why Salig Ram would eventually claim that Shiv Dayal Singh was the Supreme Incarnation. Salig Ram would often serve his guru up to fifteen hours a day, performing personal tasks ranging from drawing water from a well one mile away to cutting twigs from trees to be used as a toothbrush. Salig Ram’s devotion was unique, as evidenced by Seth Partap Singh’s high praise of his services: Huzur Maharaj [Rai Salig Ram] would never miss attendance on Soamiji Maharaj. Even while attending on Soamiji Maharaj for about fifteen hours every day, he was extremely eager for Darshan. As soon as he would come in His presence, he would feel at ease and imbibe the nectar of His discourses... He was, in fact, singular in his devotion to Soamiji Maharaj (Partap Singh, 1978).

There can be no question that Salig Ram’s intensely close physical proximity to his guru day in and day out contributed to his devotional ideas about guru-bhakti in general. We know from historical records that Rai Salig Ram and other close devotees partook of Shiv Dayal Singh’s charanamrit (water which has been personally sanctified by the immersion of the guru’s physical feet) and prashad (blessed food which was apparently sanctified by Shiv Dayal Singh’s own saliva). These kinds of practices, however, are not unique to Radhasoami (Babb, 1986). What is not typical, though, is Salig Ram’s extreme devotion to the bodily form of his guru. An excerpt from one of Rai Salig Ram’s letters to his guru, reveals the nature of his devotion: “It is also prayed that brother Pratap [Partap] Singh or brother Gauri Shankar be directed to collect and send a small packet of dust, which may have been besmeared on Huzur’s Feet. Huzur’s foot-print on the paper which has been sent to me had very little dust. So this slave of Yours, prays for the favour of being supplied with the special dust from off Your sacred Feet. Charanamrit and Prashad may also graciously be sent to this slave soon (Maheshwari, 1960).” Although it is not possible to draw a cause and effect connection between Salig Ram’s unique personal relationship with Shiv Dayal Singh and his

subsequent theological views, they are nevertheless consistent with one another. At the very least, this supports why Salig Ram—and not other successors who were not as physically close to the guru—would have adopted a univocal interpretation of his master's teachings. In other words, Salig Ram's singular devotion is reflected in his singular (and exclusive) interpretation of Shiv Dayal Singh's teachings.

Another factor at play here is a psychological one: transference inflation. By elevating his guru to the greatest incarnation of all time, Salig Ram, in turn, elevates his own status, since he was by all accounts one of the closest, if not the closest, disciple of Shiv Dayal Singh. Although such a projection may indeed be unconscious, it does nevertheless have a very visible social effect: the successor of the greatest incarnation of all time naturally engenders an almost unparalleled amount of respect and adulation, thus solidifying an emerging guru's ministry. Salig Ram's univocal interpretation of Shiv Dayal Singh is also a categorical pronouncement about his own ministry. It is not surprising, therefore, to learn that Salig Ram's actions after the death of his guru caused some envy and dissension among his fellow satsangis. Partap Singh (Shiv Dayal Singh's brother), in particular, was incensed by Salig Ram's airs of grandeur. He was especially outraged by the extreme devotion displayed toward Salig Ram during and after his satsangs in Peepal Mandi.

Thus Salig Ram's exclusive interpretation of his guru's message must also be seen as personal testimony about his own functional status as a viable successor. In other words, Salig Ram is not only revealing something about his guru when he speaks of an unqualified incarnationism, he is also speaking categorically about his own perceived role in the history of spirituality.

The Socio-Religious Influences of the British Raj, Vaishnavism, and Biblical Christianity

Since Salig Ram had a long and fruitful career in the office of Postmaster General in the North Western Provinces (he was the first Indian to be appointed to the position), he had close contact with the British and their ways of administering government. Even though the British did not always respect the various manifestations of Indian religion, such as Hinduism, Buddhism, Jainism, and Sikhism, their rule was generally much more tolerant of differing religious practices than were India's previous rulers, the Muslim Mughals. In such a climate, modern Hindu

revivalist movements such as Swami Dayananda's Arya Samaj and Blavatsky's pro-Indian thought, Theosophy, flourished. The importance of this kind of religious freedom should not be overlooked. As Mathur explains: "It cannot be denied that during the six hundred years of Islamic suppression, Hinduism as the religion of a vanquished people suffered significant setbacks. It was during British rule that Hinduism could stand on a plane of equality with Islam. With the state policy of non-interference in socio-religious matters, an air of freedom was experienced by religious leaders... (Mathur, 1974, page 12)."

Even though Shiv Dayal Singh's teachings were not oriented towards bettering the world, overthrowing British rule, or re-establishing the supremacy of Hinduism, there was undoubtedly an element of absolutism which evoked a sense of pride in its members. For even though the British may have been the temporal rulers of India and its people, they had no jurisdiction whatsoever in the higher spheres of spiritual existence. Hence, a devout Hindu or Sikh could still retain a sense of self-pride by realizing his religious views were beyond the scope of British Raj politics. Despite their transmundane aspirations, modern Indian religious movements served a vital social function in allowing their practitioners to retain a sense of community and historical continuity even in the midst of foreign rule.

Thus, Salig Ram is one of a series of Indian revivalists who sought to re-establish the supremacy of religion in everyday life. The unique twist in Salig Ram's venture, though, was that he advocated Radhasoami as the supreme religion of all time. In doing so, he criticized all other forms of worship. As such, Salig Ram was simply extending Shiv Dayal Singh's own exclusive views on the nature of spiritual evolution into a historically unique occasion. Bachan 3 of *Sar Bachan Chhand-Band* reveals in a nutshell Salig Ram's spiritual appraisal of other religions and their leaders: Neither Ram nor Krishna knew Thee, O my beloved Radhasoami! "Neither Sita nor Rukmin and Pat-rani heard about my beloved Radhasoami. Christ, Moses, Mary and Mani failed to find out my beloved Radhasoami...What could Hindus and Muslims know about my beloved Radhasoami? (*Sar Bachan Radhasoami*, page 58)."

Salig Ram's orthodoxy, especially his elevation of Shiv Dayal Singh as the Supreme Incarnation of God, has some interesting parallels with Christianity, where the central emphasis—especially in fundamentalist sects—is on the historical uniqueness of Jesus Christ. We know that Salig Ram was familiar with Christian doctrine, owning a number of books on the subject, including a complete collection of Emanuel

Swedenborg's mystical texts. Couple this with Salig Ram's Vaishnava background (his family were staunch devotees of Krishna—one of the ten incarnations of Vishnu) and it appears certainly obvious, but not yet scientifically ascertainable, that Salig Ram's incarnational views owe much to both orthodox Hinduism and Christianity. The former because they were the context of his early youth; the latter because they represented the "status" religion of the ruling class. Salig Ram was also highly affected by the 1857 Indian mutiny. As Agam Prasad Mathur remarks, "The horrors and aftermath of the freedom movement in 1857 left a sad mark on his impressionable mind, and increased his desire for meeting a true guide." (Mathur, 1974, page 59). To what extent such a tragedy influenced his religious views remains uncertain, except that it increased Salig Ram's longing for spiritual fulfillment.

The Religious and Social Impact of Salig Ram's Ministry

Although it is nearly impossible to precisely gauge the socio-historical influences on Salig Ram's extreme philosophical positions, we do know that his legacy left a huge imprint on the growth of Radhasoami in Agra and elsewhere, especially through his two main followers, Brahm Shankar Misra and Madhav Prasad Sinha. Salig Ram was responsible for several key developments in Radhasoami theology and organization, including: 1) publishing Shiv Dayal Singh's writings in 1886 for the first time; 2) drawing a significant increase of followers to Radhasoami; 3) articulating in a clear and systematic fashion various abstruse points in Radhasoami theology; 4) spreading the teachings of Radhasoami outside of Agra; 5) establishing a new ministerial base at Peepal Mandi, outside of Soami Bagh; and 6) To better supports its growing religion, Salig Ram and his successors invoked scientific language to rationalize why their theological views were not only correct but open to verification.

But Salig Ram's greatest legacy occurred when he died. Instead of clearly appointing one successor to carry on the work, Salig Ram died without nominating anyone as his heir apparent. The result was an "interregnum" where no one for a couple of years emerged as a guru. This event, perhaps more than any other thing in Salig Ram's career, altered the course of future Radhasoami history. Luckily for scholars, unlike the death of Shiv Dayal Singh, there are a number of important written documents which reveal the uncertainty and tension that accompanied Rai Salig Ram's death. A particularly insightful commentary comes from Brahm Shankar Misra, Salig Ram's eventual

majority successor, who wrote a number of letters to satsangis during this time period. Below are some pertinent excerpts: “The sudden departure of Huzur Maharaj [Rai Salig Ram] has no doubt been a real shock to all of us and taken away the apparent prop we were resting on. But He has not totally severed His connection with us. On the other hand, He is now watching our spiritual welfare more keenly than before and giving us also greater help inwardly. The question of allegiance to another Sadh or Sant does not, therefore, arise for the present” (*A Solace To Satsangis*, page 1, 1952). This letter was dated 18th December, 1898, twelve days after Salig Ram died.] “Nothing definite can be said yet about Huzur Maharaj’s successor. Eventually, no doubt the necessity of a Sant Satguru is indispensable for the continuance of Radhasoami Faith, but some spiritual benefit is intended even until His appearance, the object being that all followers of Radhasoami faith should exert themselves internally for spiritual advancement. As long as another Satguru does not appear, there is no question of altering the contemplation of the last Satguru’s image Who was the latest Incarnation of the Supreme Being” (*A Solace to Satsangis*, page 4 and 5, 1952). What is clear from Misra’s letters is that no successor to Salig Ram emerged for at least two years. Even Misra himself, who would later assume the role, appears not to be aware of his own spiritual status during this period. Hence, the importance of the interregnum should not be overlooked. In many ways, it serves as a period in which Salig Ram’s theology gets solidified and gaddi nasheen succession takes on a new political twist. It may also explain why Salig Ram’s successor, who was himself trained in the natural sciences, may have tried to give a more scientific accounting of Radhasoami’s spiritual practices since given all the theological confusion over succession led to an impasse. A more rational presentation of the teachings may have elevated the discourse from the petty squabbles that were an almost daily occurrence during this time. In other words, employing scientific language can at certain opportune moments be of a rhetorical advantage especially when older and more traditional religious ideology has led to insoluble schisms.

The Central Administrative Council: When Orthodoxy Gets Entrenched

With a proliferation of gurus and satsangs (after Shiv Dayal Singh's death there were at least six different disciples working as gurus) there arises an overriding impetus—both for individuals and organizations—to establish some kind of outward criterion for legitimation. In the case of Shiv Dayal Singh, there was no unanimity on who was his male successor. Even though Radha Ji was accepted as his chief female heir (and general guardian of the entire sangat), it appears that Sanmukh Das, Rai Salig Ram, Seth Partap Singh, Jaimal Singh, Gharib Das, and others perhaps, commenced their own satsangs and gathered their own particular followings. The consequences of this split in the sangat were tremendous and until this day have been a major source for the continued proliferation of new breakaway groups.

In Agra, after the death of Shiv Dayal Singh, there were four satsangs that were held: 1) the sadhu satsang, headed by Sanmukh Das; 2) the women's satsang, headed by Radhaji; 3) Seth Partap Singh's satsang at Soami Bagh; and 4) Rai Salig Ram's satsang in Peepal Mandi. Apparently, there was some disharmony among three of these satsangs almost from the outset. For example, Seth Partap Singh, Shiv Dayal Singh's younger brother, did not always approve of Rai Salig Ram's satsang in Peepal Mandi, because he had introduced some changes which were not to his liking. Despite whatever theological differences Salig Ram and Partap Singh had, it appears that one of the major points of their dispute was over who gave satsang and where. The Partap/Salig Ram dispute illustrates graphically that the atmosphere in Agra after Shiv Dayal Singh's death was anything but serene. Apparently when Salig Ram moved back to Agra in the mid-1880's (he had been posted outside of the city for some time after the death of his guru), his satsang caused a rift of jealousy amongst devotees who had previously been associated with Radha Ji, Shiv Dayal Singh's wife and chief heir. As Salig Ram himself noted on July 16, 1887, to Brahm Shankar Misra, his eventual successor, "Troubles constantly arise from my holding Satsang and I have a mind to modify present procedure so as to avoid giving cause to jealousy on the part of others as well as the great want of respect hitherto shown towards our Supreme Mother Radhaji Sahib by the members of the congregation..." (Maheshwari, 1964). It appears that the animosity reached a peak in 1889, when Salig Ram began solidifying his constituencies and drawing seekers

and satsangis away from Partap Singh's satsangs. The following correspondence between Salig Ram and Madhav Prasad Sinha at that time reveals the intensity of the dispute. "For the last week or ten days, Lala Pratap [Partap] Singh Saheb is very much displeased with this Satsang. Although it so happens once in a month or two, this time he is over-excited. Yesterday, in the Satsang and the general congregation at his house, he vehemently used very intemperate language and harsh words about this Satsang, Satsangis, Satsangins, and Sadhus. As far as possible, I do not like to give the least cause of annoyance and displeasure to the members of the holy family. For the last few days Lala Pratap Singh has been holding his separate Satsang. In order that his Satsang may flourish, I wish to stop, for some time, the Satsang held at my place. This would remove the cause of his displeasure and annoyance. Besides, there are quarrels and differences among Satsangis and Satsangins, due to which I feel very much vexed and annoyed. It, therefore, seems advisable to stop the Satsang for the time being. Sadhus would attend Satsang in Soami Bagh. Householders would join the Satsang held at Radhaji Maharaj's. And Sadhus, if they so wish, may come to the town and join the Satsang arranged by Chachaji Saheb and held under the benign presidency of Radha Ji Maharaj." In a later letter, this time to Prem Anand, Salig Ram elaborates on the controversy: "I have never trusted his [Partap Singh] external respectful conduct for I always noticed a strong spirit of jealousy and venomous rancour harboured in his breast. But my endeavour has been to give way and take no notice of his words and on the other hand for the sake of my beloved Supreme Father to give this queer gentleman no cause for offence or in any way lower his dignity amongst the members of the Satsang...."

Thus by the time of Salig Ram's death there were a number of factions in Radhasoami, and the disputes, mostly concerning succession and property rights, were increasing. To remedy this factionalization, Brahm Shankar Misra and other prominent Peepal Mandi/Soami Bagh satsangis created a Central Administrative Council to unify the divergent Radhasoami groups under one collective umbrella. Even though the result was disastrous, the Central Administrative Council was a coup of sorts for Brahm Shankar Misra and orthodox Radhasoami. For, by its very inception, Misra was able to legally establish a system whereby an elite inner circle could determine the future of Radhasoami doctrines, initiations, membership, and in turn control the satsang properties associated with Shiv Dayal Singh and

Rai Salig Ram. S.D. Maheshwari explains the guiding principle of the C.A.C.: "It had been observed that after the departure of Sant Sat Guru, certain persons had seceded from the main Satsang and formed into separate groups. They asserted their right of interest in the above properties. So it was necessary to take measures to protect these properties. And the Council was established (a) to consolidate the properties presented or acquired during the time of Soamiji Maharaj and Huzur Maharaj, which were in possession of the members of the families of Sant Sat Gurus, (b) to settle, once for all, the question that the property belongs to the Sant Sat Guru as such and to no one else, (c) to safe-guard against the properties passing into the family of a Sant Sat Guru or another person, (d) to help the Sant Sat Guru in the management of the properties, (e) to administer the properties during interregnum and (f) to prevent the formation of cliques as far as possible (Maheshwari, 1954)."

What may not be so obvious at first glance is that the very structure of the Central Administrative Council is predicated upon a wholly different authority structure, one that is rooted more upon democratic guidelines than earlier appeals to religious authority. Why this was the case is most likely due to the increasing fractionalization within Radhasoami, where more and more gurus and their respective sangats were breaking off and starting their own separate organizations. It can be argued that Brahm Shankar Misra's advocacy of a more Westernized organizational structure, replete with voting rights, was due in part to his desire to resolve internal disharmonies that couldn't be resolved by a mere appeal to one's guru status, since there were too many gurus using the same strategy.

This raises a very intriguing question, and one that may not be easily answered. When religious conflicts arise that apparently cannot be resolved using the prevalent theological language available (such has been exhausted, so to say), then other forms of conflict resolution become more viable. It should not be surprising, therefore, to see Brahm Shankar Misra and others utilize a more rational and scientific discourse (given his own training and given the prevalent atmosphere under the British Raj) to help alleviate difficulties that have been recalcitrant to earlier solutions. But in so doing what we discover isn't democratic or scientific values per se, but rather the possible benefit of utilizing such as rhetorical strategies. In other words, I don't think the Central Administrative Council was really an attempt to introduce democracy and a more scientific outlook to Radhasoami guru politics,

but rather was a keen way to absolve what had hitherto been intractable. Simply put, the *language* of science and the *language* of democracy (even if one is not at all genuinely scientific) can be a powerful tool in trying to gain an advantage in religious conflicts.

Geographical Location: Where the Sacred and the Profane Intersect

The importance of geographic location and property in establishing and maintaining a religious orthodoxy should not be underestimated. Religious orthodoxies, in general, are much more likely to develop in the geographical location where the charismatic founder established his mission. Not only does the land lend historical significance to the fledgling movement, but it provides visible proof of where the sacred touches the profane. As such, the founder's spiritual gaddi (lit., "seat of the guru") represents a primordial hierophany, a divine axis mundi where the numinous coincides with the mundane. Such a sacred spot becomes an historical repository of the initial divine manifestation in the world. A comparative look at the world's great religions attests to this as a trans-cultural phenomenon: witness the Jewish-Christian Jerusalem; the Sikh's Amritsar; the Hindu's Benares; and the Muslim's Mecca. Moreover, these holy places by their very nature are oriented towards a nostalgic remembrance of the religion's beginnings. Although they may inspire pilgrims to transform their lives in the future, they do so by presenting an ideal from the past. Hence, it is natural and consistent with the spirit of religious devotion that the place where the spiritual leader made significant advances, commandments, or miracles, should become the focal point of pilgrimage and worship.

The Central Administrative Council working out of Soami Bagh, therefore, by its entitled position was more predisposed toward orthodoxy than any other satsang group connected with Shiv Dayal Singh, since it retained what other branches did not: historical legitimacy and sacred memory via geographic location, personal artifacts and relics, etc. Thus, one of C.A.C.'s/Soami Bagh's chief sources for legitimacy, in the face of rival claims, was its geographic location. Whatever else may be said against the presiding gurus at Soami Bagh, nobody could dispute its singular claim for being the place where Radhasoami started. [I vividly remember when Professor Mark Juergensmeyer and I visited with Sant Das Maheshwari in his home at Soami Bagh, where we discussed the origins of Radhasoami. At one point, Maheshwari

emphatically pointed to the sacred relics in his room as proof that Soami Bagh was the only true lineage connected to Shiv Dayal Singh. As Maheshwari himself so emphatically put it, “Who else [but Soami Bagh] has Soamiji’s fingernail clippings and eyebrow hair?” Maheshwari’s tone was both serious and proud.]

Hence, despite whatever controversies it engendered, the Central Administrative Council was key in cementing an orthodox viewpoint in Radhasoami. By retaining the vital satsang properties of the first two gurus and restricting voting to a selected elite, the C.A.C. was able to establish its sacred base as well as wield political control over its membership. Even though the C.A.C. came under heavy attack just five years after its inception and suffered a drastic loss of membership due to the rebellion of Kamta Prasad Sinha and other disaffected satsangs, it clearly established itself as the orthodox branch of Radhasoami.

But much of this “orthodoxy” has to do with a reaction to growing schisms within the movement and the need for centralizing the control of satsang properties. The very idea of an orthodoxy arises only when there is a contest over centralized control. And usually such contests hover around material interests like property rights, membership privileges and doctrinal interpretations. With the increase of properties and members and monies, it is little wonder that internal disputes would prompt a push for some kind of centralized order. Who determines that order, however, has more to do with politics than mysticism. And it is precisely the politics of property and economic self interest that determines to a large measure how theology gets transformed to fit the needs of a given time and circumstance. For this reason, the Central Administrative Council must be seen for what it is: a political body interested in preserving economic interests. Why else would such a “spiritual” institution pursue a decades long legal battle with Dayal Bagh over worship rights at Soami Bagh and elsewhere? To be sure, the pretext is one of doctrinal purity, but underlying such a pretext is an economic reality, wherein the C.A.C. stands to lose exclusive rights to its property holdings, as well as to its incoming donations from outlying sister satsangs. Hence, the C.A.C.’s development of a doctrinal orthodoxy is intimately related to its own economic self interest in retaining control over sacred properties and the worship rights to those holy places.

In later years, after the death of Madhav Prasad Sinha, the last guru at Soami Bagh, it became imperative for the Central Administrative Council to assume a more active role in controlling satsang related activities, such as: building the holy samadh; processing new applicants for initiation; collecting bhent (donations); conducting regular satsangs; printing Radhasoami literature; and maintaining satsang properties. Indeed, with the demise of Madhav Prasad and his personal charisma, Soami Bagh's orthodoxy became entrenched. With the apparently interminable interregnum started by Madhav Prasad Sinha's death, the routinization of Radhasoami doctrines finally reached its pinnacle. No longer subject to the unpredictable ideas of a new guru and/or the controversies that would inevitably follow his/her death, the Central Administrative Council, without a recognized living Master at its helm, emerged as the sole governing force at Soami Bagh—a development which will undoubtedly insure that a doctrinal orthodoxy reign supreme for many more years to come.

The evolution of this orthodoxy at Soami Bagh didn't happen overnight and it is one of those historical ironies that a group that was first to introduce a democratic organizational structure and was the first to publish a book correlating Radhasoami with science would eventually become exceptionally unbending in its religious dogmas.

It is here that we soon realize that Soami Bagh really wasn't so interested in democracy or science as such, but rather in how best to establish its own authority and retain such. Therefore it may well be that appealing to authority structures outside of its own tradition wasn't really a desire to open up and appease such systems of power and status, but rather to re-establish its own viability within its own social world when its previously employed religious strategies have been found wanting. Because if Soami Bagh's desire to connect with democratic or scientific values was indeed earnest, one would expect the religious institution to have been changed over time from a reactive orthodoxy to a more open ended religious system of inquiry. As we have seen, this didn't happen at all. Rather, it evolved into a very closed system, which would give us some indication that Soami Bagh's version of science and democracy was a self-interested one which emphasized more its rhetorical appeal than its radical imperatives.

II. *MANAVTA MANDIR: Heterodox/Subjective/Counter System*
Science as Modus Operandi: Popperian Falsifiability

Social Position and the Evolution of Heterodoxy

The antithesis of Soami Bagh's interpretation of ultimate truth and enlightenment is the viewpoint held by Manavta Mandir, founded by the late Baba Faqir Chand (1886–1981). Although arising from the same genealogical roots (Faqir Chand's guru, Shiv Brat Lal, was an initiate of Rai Salig Ram), Manavta Mandir does not hold to any exclusive dogmas or doctrines. Rather, due to its founder's penetrating insights and frank autobiographical admissions, this satsang sees every religious expression, from Radhasoami to Advaita Vedanta, as being subjective and partial manifestations of the total reality. In fact, truth is not objective as a cognitive capability, but is wholly transcendent, beyond the capacity of any individual to attain to it or understand it. What man knows is only a small part of the larger universe, like a germ in the human body, circumvented by its very existence to a remote region of inquiry. [In a personal interview, later published in a booklet edited by B. R. Kamal entitled *The Master Speaks To The Foreigners* (Hoshiarpur: Faqir Charitable Library Trust, 1978), Faqir Chand spoke the following words to me: "No one has ever been able to know it completely. No one has known it. A small germ in a body cannot know the whole body. Similarly (a) human being is like a small germ in a vast Creation. How can he claim to have known the entire creation?"] As Faqir Chand once wrote: Who can say authentically that God is Unnamed (Anami) or Unseen (Alakh)? Man is in search of Truth. When his attention (surat) reaches or merges in its own self, he feels himself to be unnamed (anami). He loses his "self" into a state of limitlessness and there ends his struggle of research. Who can know what man is? So, Man, none has known anything about God. All these propounders of different religious philosophies have no right to say that they have become something. If anyone makes this claim, he is still ignorant of the Truth. See the end of those saints who made claims of their so called greatness and immortality. Where did the immortality of Paltu Sahib go when he was thrown in the boiling oil pan? My Guru Data Dayal could not do anything against His (God's) will and save his ashram, Radhaswami Dham. Swami Param Hans Dev whose prashad had a power for curing incurable diseases, himself died of

cancer..." (David Lane, 1986). Interestingly, Faqir Chand's radicalization of absolute Truth came about only after he had embraced the accepted doctrines of Radhasoami, as outlined by Shiv Dayal Singh in his book, *Sar Bachan* (both the prose and poetry volumes). Faqir Chand, like many satsangis in the faith, believed he had been led to the highest path available to mankind. However, since there were many different schools of Radhasoami—each with their own presiding master—Faqir quickly learned that he was not alone in his pride of spiritual superiority.

Yet, unlike many of his counterparts, Faqir underwent a remarkable transformation in his religious views near the end of World War One. In a battle in Iraq in 1919, Faqir Chand had two extraordinary experiences which convinced him that no path or guru was necessarily closer to God. First, he beheld a vision of his master, Shiv Brat Lal, while he was in grave danger, which on further inspection occurred without any knowledge on behalf of his guru. And, second, close associates of Faqir Chand claimed that he was appearing to them during their meditation sittings, but all the while Faqir himself when questioned about such appearances stated that he had absolutely no knowledge of the manifestations. These unusual events confirmed to Faqir that all inner visions, miracles, etc., were products of the devotee's own faith and concentration and had nothing to do, per se, with any particular religious master or system. Faqir Chand comments on this critical insight: "Dayal's mother, whom you see within and whom you love within is your own creation, your own child. You, yourself, create the image of Shiv Brat Lal in your center of Trikuti, while other devotees create ideals such as Krishna, Rama, or other Gods at the same center and enjoy their vision. Man is basically ignorant about the reality...When you create my image for the fulfillment of your worldly desires and get many works done from my form, I remain unaware about such happenings. I daily receive a heavy mail about such miraculous incidents from satsangis. Such cases have convinced me that the manifestation of the Guru's form within me was not from without. It was the creation of my own mind. I do not go anywhere, but my form does manifest at many places at the same time. It proves that it is one's own creation, one's own faith, belief and devotion. An individual enjoys visions within according to his intentions and convictions" (Lane, 1986).

True spiritual enlightenment, according to Faqir Chand, is not the apprehension of inner visions, the listening to celestial sounds, or out-of-body experiences, but is rather the realization that every concep-

tion of the Divine is ultimately unreal. Truth or Reality is, in essence, absolutely unknowable. Liberation is the tacit awareness of that mysterious fact on every level of life. Thus, Faqir Chand and his Be-Man philosophy represent a devastating subjectivity, which no matter how profound can never be completely objectivized—Divine Ignorance from beginning to end. Coincidentally, Faqir Chand's understanding of ignorance is quite similar to Da Love Ananda's (alias Franklin Jones; Bubba Free John; Da Free John) concept of "Divine Ignorance" or "Eternal Mystery," as outlined in his book, *The Paradox of Instruction* (1977).

Obviously, this radical purview did not sit well with other Radhasoami groups (especially the Agra sects), since it relativizes even the most exceptional of religious revelations. Faqir Chand's heterodox views have not won him a wide following, though they have clearly distinguished his teachings as the chief "counter system" to mainstream, orthodox Radhasoami theology, specifically, Soami Bagh's closed and incarnational system in Agra, which holds that Shiv Dayal Singh and his designated successors were full embodiments of the Supreme Being, Radhasoami Anami Purush. As Faqir Chand once observed: "This is a hard fact: the plain truth does not help in establishing centers; it does not increase the number of followers. But how is anyone to understand it (Truth)? Only after this realization: that he is a bubble of consciousness. A bubble of consciousness would not claim himself to be a yogi, sadhu, or gyani. Had I not realized this Truth, I might have made claims of my greatness and got myself worshipped from you and exploited you." (Lane, 1982).

Today, Manavta Mandir preaches an unqualified "Be-Manism," an ecumenical humanism which stresses the need for human interaction and upliftment. Dialogue with a variety of different religious traditions is invited and welcomed. Unlike Soami Bagh, which shuns any type of publicity or formal communication with "splinter" satsang groups, Manavta Mandir seeks out platforms with other spiritual gurus and masters. In fact, the Be-Man temple in Hoshiarpur contains not only pictures of the late Baba Faqir Chand, Shiv Brat Lal, and Rai Salig Ram (which is expected in such an institution), but also houses photographs of almost every other Radhasoami leader from various branches. Where Soami Bagh's orthodox/objective/closed system leans towards exclusivity, Faqir Chand's heterodox/subjective/counter system tends toward inclusivity. Manavta Mandir was quite inclusive and tolerant of opposing perspectives during the reign of its founder

Faqir Chand. As Faqir Chand himself has stated on several occasions, “I do not know whether my realizations are right or wrong. I do not make any claim that my realization is final.”

Faqir Chand was also quite open to the latest discoveries of science and tended to hold a Popperian view of religion which dramatically contrasted with his other guru counterparts. Faqir Chand always felt that his views were open to correction and that whatever he realized could be augmented or changed over time. Thus, Faqir Chand didn’t merely invoke science as an analogy or as sophisticated wordplay to elevate his guru status, but rather as the *modus operandi* for discovering truth, even if when discovering such truth it could in time be compromised by a “higher” truth.

Faqir Chand was not highly educated, but he seems to have grasped an essential component inherent in the scientific enterprise which is that change is the norm and what is regarded as factual and certain today may not be so tomorrow.

Shiv Brat Lal and the Roots of Heresy

Faqir Chand’s heterodoxical viewpoint was not simply the product of deep mystical insight (though its value should not be underestimated), but rather was the outcome of a complex series of personal and social events. Faqir Chand’s guru, Shiv Brat Lal, for example, was never accepted by the majority of satsangis in or outside of Agra as the true successor of Rai Salig Ram. Indeed, by his own admission, Shiv Brat Lal had only visited his guru three times, and then never for more than a week. Shiv Brat Lal’s personal contact with Rai Salig Ram was minimal when compared with other fledgling successors. Thus, Shiv Brat Lal did not have any established formal ties with Rai Salig Ram’s sangat, much less with his ashram or property. It is not surprising, therefore, that Shiv Brat Lal was never considered a serious gaddi nasheen candidate. In fact, Shiv Brat Lal did not start his own satsang in earnest until around 1904/1905—some six years after the death of his guru.

When Faqir Chand first met his master in 1905, Shiv Brat Lal’s sangat was extremely small and was not regarded as a major Radhasoami branch. Only later, with Shiv Brat Lal’s numerous publications on Sant mat, did Shiv Brat Lal’s Radhasoami group emerge in Gopiganj as a major force in Sant mat circles.

Shiv Brat Lal's philosophy was marked at each turn with a liberality of expression which contrasted drastically with Salig Ram's orthodoxy. This is most evident perhaps in Shiv Brat Lal's popular, *Light On Ananda Yoga*, which postulates a clearly delineated—but not an exclusive—path to God. Although Shiv Brat Lal did establish a Radhasoami center, named Radhasoami Dham, and preached the cardinal principles of surat shabd yoga, he did not invoke the unbending orthodoxy of his predecessor, Rai Salig Ram, who claimed that there was only one true religion in the world now existing—namely Radhasoami Satsang in Agra. On the contrary, Shiv Brat Lal expressed a keen desire to connect the teachings of the saints with the mystical essence of other world religions. Shiv Brat Lal was widely educated and published in a number of literary magazines. It is roughly estimated that he published over 3,000 separate articles, pamphlets, and books in his lifetime. Shiv Brat Lal was also an editor for a number of magazines, including the *Arya Gazette* (an Arya Samaj publication) and *Sadhu*. In each of these publications, Shiv Brat Lal stressed the need for toleration and respect of differing religious leaders and ideas. Shiv Brat Lal was also on quite friendly terms with other spiritual leaders from other paths, particularly Sawan Singh of Beas, for whom he had very high regard.

Be-Manism: A Humanistic Interpretation of Radhasoami Teachings

The development of an extreme heterodox position in Radhasoami theology did not commence, however, with Shiv Brat Lal. Rather, it was Shiv Brat Lal's chief successor, Faqir Chand, who developed what is now considered the most radical interpretation of Shiv Dayal Singh's teachings: Manavism or "Be-Manism." Fortunately, the socio-historical events leading up to this development are clearly outlined by Faqir Chand in his frank autobiography, *The Unknowing Sage*. Faqir Chand, due to his strict Brahmin upbringing, did not appreciate the dogmatic and unsparing criticism of his religion that was made by the founder of Radhasoami, Shiv Dayal Singh, in his book *Sar Bachan*. Faqir Chand recalls: "I reached the ashram of Hazur Data Dayal Ji [Maharishi Shiv Brat Lal] and prostrated my humble self at His Holy Feet. He gave me an exceptionally affectionate welcome and initiated me into Radhaswami Mat. His Holiness gave me a book and asked me to go through it. The work was *Sar Bachan* written by Swamiji Maharaj [Shiv Dayal Singh], the founder of Radhaswami. I went through some pages of the book in the very presence of Hazur Data Dayal Ji. But I could

not pursue it any further, though, because Swamiji Maharaj had most vehemently criticized almost every religion, including Vedanta, Sufism, Islam, Jainism, and Buddhism. He declared them all to be Kal and Maya. It was too much for me. I felt hurt and tears rolled down my eyes. His Holiness noticed my reaction and inquired for the reason. I broke out, "Hazur, God is One. I have failed to understand the justification for condemning all other religions as incomplete. This is a direct attack on the religion of my ancestors." Hazur very lovingly advised me, "Keep aside this book and never read it until I ask you to read [it]."

Thus, Faqir's first contact with Radhasoami doctrines was not a pleasant experience. He did not appreciate Shiv Dayal Singh's criticism of other religions and their leaders, nor his exclusive claims on the efficacy of surat shabd yoga. Faqir's distaste for dogmatic Radhasoami doctrines was further exacerbated when he learned that other Radhasoami devotees (particularly those who paid allegiance to Kamta Prasad Sinha) did not accept Faqir's guru, Shiv Brat Lal, as genuine. An incident from Faqir's early life exemplifies the social tensions that existed between various Radhasoami factions at that time (and, I should add, still persist): "On my way back from Lahore, I used to stay at Malkway Railway Station. There a book stall agent used to give discourses on Radhaswami Mat. Once the agent refused to share his huqqa (an Indian smoking pipe used for tobacco) with me. "We are both Brahmin by caste, why have you refused to share your huqqa with me?" He surprised me by responding, "Babu Kamta Prasad Sinha (alias Sarkar Sahib) is the only true incarnation of Radhaswami Dayal." [Babu Kamta Prasad Sinha was at that time head of the Radhaswami Satsang at Ghazipur in Uttar Pradesh.] He meant thereby that I had not been initiated by a true guru and thus was not a true satsangi. I very politely said to him, "Dear brother, God is one. He belongs to all and all belong to Him. He may manifest to his devotees in different forms at different places and different times. But if you do not agree with me, then let me write a letter. You mail this letter to your guru. His reply in any form shall be accepted as final and I shall abide by it." There and then I wrote the letter, shedding tears of love and devotion for the Supreme Lord and handed it over to the gentleman to post it to his guru. After fifteen days I was told that Babu Kamta Prasad Sinha had breathed his last, and should wait for a reply until his successor was chosen. From this incident I concluded that followers of Radhaswami Mat [Ghazipur] were not impartial and true seekers of the ultimate reality. Their approach towards the all-em-

bracing Truth was narrow and very sectarian. Hence, I gave up their company and avoided all blind followers thereafter. Even if anybody wished me “Radhaswami,” I responded with “Ram Ram.”

It is almost impossible not to take the preceding incident as a turning point in the development of Faqir’s philosophical and scientific outlook. First, Faqir receives a significant social insult when his friend refuses to share the huqqa with him, even though they are both of the Brahmin caste. Second, Faqir realizes that his guru is not accepted by a major Radhasoami group as legitimate. And third, Faqir senses that satsangis are not necessarily biased free seekers after the truth, but may be just as sectarian and prejudiced as other religious zealots. However, the real turning point in Faqir’s outlook occurred shortly after World War One when he underwent a remarkable mystical experience—the consequences of which forever changed Faqir’s notion of spiritual enlightenment. Faqir recalls: “After about three months, the fighting came to an end and the Jawans retired to their barracks. I returned to Bagdad, where there were many satsangis. When they learned of my arrival, they all came together to see me. They made me sit on a raised platform, offered flowers, and worshipped me. It was all very unexpected and a surprising scene for me. I asked them, “Our Guru Maharaj is at Lahore. I am not your Guru. Why do you worship me?” They replied in unison, “On the battle field we were in danger. Death lurked over our heads. You appeared before us in those moments of danger and gave us directions for our safety. We followed your instructions and thus were saved.” I was wonder struck by this surprising explanation of theirs. I had no knowledge of their trouble. I, myself, being in danger during those days of combat, had not even remembered them. This incident caused me to question within myself, “Who appeared to them? Was it Faqir Chand?” My faith was strengthened and I concluded, “Whosoever remembers God in whatever form, in that very form He helps His devotee.” This gave a new turn to my conception of the Spiritual Master. Henceforth I came to believe that the Master is no separate entity. Rather, He is the disciple’s Real Self and resides within. Happy with this conclusion I came to India on annual leave in 1921.”

Faqir Chand’s experience, though mystically interpreted, was also sociologically profound: man projects his own image of God due to the religious and cultural environment he/she is brought up in. In religious visions, Sikhs see Guru Nanak, not the Virgin Mary; Catholics see Jesus, not the multiple arms of Vishnu; and Hindus see Krishna

or other gods/goddesses, but not the angel Gabriel. Because satsangis saw Faqir Chand's radiant form without any conscious manipulation or knowledge on his part, Faqir concluded that religion was radically subjective and, by extension, particularly relativistic. Theoretically, God could assume the form of anybody, provided the devotee engendered enough faith and love for him/her/it. Yet, according to Faqir, almost all religious people are ignorant of this fact, since they tend to believe that their cherished gurus, gods, and holy figures bilocate specially to them. Needless to say, this view is one that is generally supported by evolutionary psychology and sociobiology. Religion is a social and biological by-product, evolved over eons of time to help humans survive and adapt in a hostile environment.

The Social Bedding of Radicalness

At first glance it may appear that Faqir's insight on the nature of religious visions has nothing to do, per se, with his social standing with other Radhasoami groups. However, on closer inspection it becomes clear that Faqir's mystical interpretations of Radhasoami doctrines are consistent with his social standing with other more mainstream Radhasoami centers. Faqir and his guru, almost from the outset, were regarded as outsiders by orthodox Radhasoami satsangis, especially those who paid allegiance to the Central Administrative Council. Thus, Faqir was driven—both by his strict Hindu-Brahmin upbringing and his steadfast devotion to Shiv Brat Lal, a minority guru claimant—to seek an alternative understanding of Radhasoami doctrines. If he did not, Faqir had to then face a crisis of legitimacy, since neither he or his guru had any rightful claim to the legacy of Shiv Dayal Singh, the founder of Radhasoami. Hence, it is not surprising, given Faqir's peculiar social position, that Faqir Chand and his group would develop a heterodoxical (read: opposite) interpretation of Radhasoami from that of the Central Administrative council.

What is not so clearly evident, though, is exactly what kind of interpretation that would turn out to be. In other words, it may be sociologically possible to predict the direction or context of a vying guru's theological viewpoint, but not necessarily the content or substance of his/her philosophy. So, given the formation of the Central Administrative Council and its strict by-laws governing the development of non-Agra satsangs, it is reasonable to assume that fledgling minority candidates must engage in "ideological work" which explains their

existence. That is, they must “legitimize” themselves in ways which are contrary to the status quo. Whether or not this is consciously done it is difficult to determine. One thing seems certain, though: if Faqir was the successor of a mainstream, widely accepted, Radhasoami guru in Agra, there would be no overriding reasons—socially or otherwise—for him to break with precedent. Faqir’s radical philosophy, in sum, is not so radical when one considers the social context out of which he was operating. Due to his association with Shiv Brat Lal, Faqir was already on the outskirts of conventional Radhasoami and thus was never involved in the institutional policies, property disputes, or doctrinal purification debates, which occurred in Agra. Faqir was for all intents and purposes an outsider, a marginal character in Radhasoami politics—a fact that Faqir realized early on with his run-in with the shopkeeper.

This is not to suggest that Faqir’s own mystical revelations did not contribute or drastically inform his heterodoxical views, but that his viewpoint was consistent (not contrary) to his social position in the Radhasoami hierarchy.

Unlike other rival Radhasoami branches (like Dayal Bagh) which attempted to gain legitimacy by contesting successorship or property rights, Shiv Brat Lal and Faqir Chand avoided such disputes and attempted to establish their missions on a different footing—one which took issue with orthodox ideologies. Whereas other fledgling successors and their satsangs avoided doctrinal disputes in general, Faqir Chand attacked the problem head-on. And, in so doing, both ostracized and lionized himself in a way that is to this day unique in Radhasoami. Faqir was ostracized quite simply because he upturned what is perhaps the most cherished idea in Radhasoami orthodox literature: the historical and spiritual uniqueness of Shiv Dayal Singh and his teachings. And Faqir was lionized because he dared to reveal the secrets surrounding miracles and inner visions.

However, Faqir’s views have not been accepted by any of the major Radhasoami groups. Indeed, when I interviewed some of the principal leaders of the various Agra, Beas, and Delhi factions of Radhasoami, each of them without exception claimed that Faqir was simply wrong in his interpretations or misguided. [I have discussed Faqir Chand’s philosophy with a number of Radhasoami gurus, particularly Darshan Singh, Ajaib Singh, Thakar Singh, and Pir Munga. Field interviews were conducted both in India (1978, 1981, 1983, 1986, 1987, 1988) and in the United States (1979, 1983, 1986).] Thakar Singh, one of

the more popular successors to Kirpal Singh, even claimed that Faqir Chand was “crazy” and not to be taken seriously due to his old age.

Here Faqir’s alignment with science as tentative and potentially falsifiable is well grounded in his own life experiences. Faqir doesn’t so much appeal to science as an authority structure (rhetorically or otherwise) to buttress his guru status, but aligns himself with science as a method to find truth. More precisely, Faqir finds that his own viewpoint dovetails better with science’s progressive and changing views (which can be corrected and augmented over time) than with the very religious tradition for which he was given a leadership position.

Faqir’s stance, however, is so at odds with other Radhasoami gurus (even those who use scientific language to present their teachings) that he is regarded as something of an anomaly, oftentimes not to be taken seriously since he so upends the longstanding traditions within the movement.

Here Faqir seems to realize that his more skeptical and scientific outlook can be at odds with his guru role and can ultimately even overthrow his own status and his own position in the community. One of Faqir Chand’s last letters written several weeks before his death in the United States underlines just how divergent (and human) his views were on religious truth:

It is ten o’clock at night. I am lying in a room number 2015 of a big hospital in Pittsburgh. The entire life of 95 years moves in front of me. I did inner exercises and practices. What have I understood? I’m actually a bubble of consciousness. I wished and still I wish that when my last hour comes I shall tell how I went above after leaving body and mind etc. But the experience is somewhat contrary. I wish I should separate myself from the body and mind but it becomes impossible when there is physical pain, giddiness. Since glucose is being given continuously day and night for the past four days, hence, I am tired now and it has become impossible. Now it is 12 o’clock at night. For the past four days I am unable to eat anything due to excessive urination and extreme burning. Where has the knowledge and concentration gone. Alas! Great souls have not told as to what they experienced. Worldly people would have benefitted from that. Regret! There is no any other particular trouble except that I am tied to the bed for the past five days or there is burning while urinating. But Lord! I have a grief. During life, so far as possible, I did not feed on offerings of followers (Satsangis). Only Mool Chand Rijjimal of Katni, Durga Das and my son send money on which I sustain. God only knows what will be the expenditure here. The house/room rent is \$150 per day. Dr. Rao says—‘do not worry’, he will bear all expenses.

And if I died in America there will be additional expenditure of \$2000. Eyes shed tears while I look at the philosophy of Karma. Whether, in another life, I shall have to repay them the money they are spending? Brain is not in a position to think.”

What is so unusual in this letter in contrast with other last statements from Radhasoami gurus (where hagiographically speaking, the guru always dies peacefully and knowingly) is how Faqir Chand is still echoing his doubts about what will happen to him after death. He admits to be confused. He admits that he doesn't know. This is completely contrarian to Radhasoami literature which repeatedly states how the guru is fully conscious of the ultimate truth.

What we find in Faqir Chand is precisely what we find in the idealized scientific quest: honest unknowingness and a willingness to change one's mind given new evidence. Whereas Soami Bagh tended to use science as a rhetorical strategy to buttress its own in-group authority, Faqir Chand in contrast sees science as a method to be followed and enjoined, not merely parroted for one's own social advantage. It can be argued that Faqir Chand's path is less religious than it is scientific.

III. *BEAS SATSANG: Paradox/Elective/Partially Open System*

Science as Advertisement: The Paradox of Transmission

Perhaps the real reason there are so many different Radhasoami branches today, each with a presiding guru, is that the process of succession was not formally outlined by the founder of Radhasoami. Rather, Shiv Dayal Singh only gave general hints about it, elaborating more about the nature and the necessity of a living guru. A good example of Shiv Dayal Singh's views on the subject of succession comes in a letter written on his behalf by Rai Salig Ram to Sudarshan Singh: “When the Sat Guru of the time departs, He appoints someone as his successor in whom He re-incarnates and thus continues the work of regeneration of Jivas as before (*Sar Bachan Prose*, 1958).” The problem here, though, is that Shiv Dayal Singh does not elaborate on exactly how the Satguru appoints his successor. It is that very process, which is not given any binding shape in the writings of Shiv Dayal Singh, which led to a major crisis in succession following the death of Radhasoami's founder. That crisis, it should be added, has never been fully resolved

in Radhasoami history, and is the major factor behind the tremendous proliferation of satsangs and gurus in the movement. Even Shiv Dayal Singh's last commandments, which appear to indicate that the founder of Radhasoami intended for his wife, Narayan Dei (Radhaji), to succeed him, have not been interpreted the same by his followers. Concerning this succession confusion, Aaron Talsky argues that it stems from a paradoxical tension within Shiv Dayal Singh's very teachings, which allowed for a successorship crisis after his death. Writes Talsky: "In the early history of the Radhasoami movement we have before us, then, a complex maze of ambiguous historical evidence which was interpreted in support of a number of reputed gurus, each with his own understanding of the true interpretation of Soamiji's teachings. The unprecedented growth of this sampradaya, side-by-side with an incredible systemic predilection towards bifurcation and schism, is in part due to this [growth] of putative successors, each of whom attracted a sizeable following..." (Talsky, 1986).

There can be no question that the teachings of Sant mat and Shiv Dayal Singh, in particular, lend themselves to a wide range of possible personal interpretations. Since the basis of surat shabd yoga necessitates inward practice and attainment, it is consistent with the philosophy that there would be several initiates claiming access to higher regions of awareness. The crucial debate arises when those same gifted meditators allege to be genuine spiritual masters or designated successors. Outside of external verification, it is literally impossible for the Radhasoami initiate to know who, if any, among the emerging claimants are authentic, unless he/she too is enlightened (which, if such were the case, would collapse the utility of this type of discussion).

Jaimal Singh and the Founding of the Beas Satsang

Jaimal Singh (1838–1903) was a devoted follower of Shiv Dayal Singh, having received initiation from the Agra master in 1856 at the age of seventeen. Accordingly, Jaimal Singh worked as one of Shiv Dayal Singh's spiritual successors, giving satsang and initiation in the Punjab. In the "History of the Beas Satsang," *Spiritual Letters*, Jaimal Singh's commission is explained: "Baba Jaimal Singh Ji Maharaj was one of the foremost disciples of Swami Ji Maharaj [Shiv Dayal Singh]. Whenever Baba Ji would get any time, He would spend it in the Satsang of Swami Ji Maharaj and His Darshan. In October 1877, when Baba Ji came on leave, Swami Ji Maharaj said to Him: "This is our last meeting.

Now I shall go away to Param Dham (Eternal Home), after completing my life's pilgrimage. I have made you my beloved and my own rup (self or form)." Bhai Chanda Singh then requested that Satsang be started in the Punjab. Swami Ji Maharaj replied: "This request has been accepted by Akal Purush, and this task has been allotted to Baba Jaimal Singh." Then Swami Ji Maharaj gave His own turban to Baba Ji as Prashad and ordered Him to go and preach Nam in the Punjab." (*Spiritual Letters*, 1976).

Further substantiation of Jaimal Singh's succession is given in the same text with references to Shiv Dayal Singh's wife, Radhaji [Narayan Dei], and younger brother, Chachaji [Seth Partap Singh], both of whom reportedly supported Jaimal Singh's ministry. Bibi Rukko used to reside in Agra in the service of Mata Radha Ji. One day, sometime after Swami Ji Maharaj's death, Mata Ji asked Bibi Rukko to return to the Punjab. Bibi Rukko replied that she had no work there and she did not want to give up her Satsang and go to the Punjab. She further suggested that some Sadhu may be sent there, who should preach Swami Ji's Bachans (words or teachings). Mata Ji replied that for Satsang and the spreading of Nam in the Punjab, Swami Ji's orders had already been given. Next morning Mata Ji asked Bibi Rukko to go to the railway station and receive the Satguru who had been appointed by Swami Ji Maharaj for the Punjab. "He is our beloved son, and Swami Ji Maharaj has to take both Swarath and Parmath (worldly and spiritual) work from Him," Mata Ji further said... Then Mata Ji reminded Baba Ji that Swami Ji Maharaj had left orders for Him to spread Nam in the Punjab; so now, according to His orders, He should hold Satsang and give Nam. Thereafter, Baba Jaimal Singh Ji came and settled down on the banks of the River Beas, between the villages of Balsarai and Waraich, and started Satsang there (*Spiritual Letters*, 1976).

Seth Partap Singh's support of Jaimal Singh is evident in a series of letters he wrote to both the Beas guru and his eventual successor, Sawan Singh. One excerpt, for instance, reads: "It is my great desire that after Baba Ji [Jaimal Singh] and myself, there should be two or three Saints (Nadipurush) who should spread Radha Swami Mat and Nam Bhakti..."

Although these testimonies from Shiv Dayal Singh's family attesting to Jaimal Singh's succession are undoubtedly provided by the Beas Satsang as external verification for their particular branch, it would be misleading to just cite outward evidence for Jaimal Singh when so

much emphasis is placed in Radhasoami on internal, spiritual achievement. What makes a saint is not simply the exterior rituals associated with dastarbandi (formal succession), but rather his inner attainment. Specifically, what region has he reached? Is he selfless? What was his relationship with his guru?

In the case of Jaimal Singh, the Beas Satsang points to his life-long dedication to meditation, pure moral life (he was celibate his entire life), and strict obedience to his master. As Kirpal Singh illustrates in his biography of Jaimal Singh, *A Great Saint*: "The light army duties left Jaimal Singh ample time for meditation. If he had no night duty, he would get up at 2 a.m., bathe, and sit down for meditation. During the day, as soon as the parade and other normal duties were over, he would engage himself in like manner or hasten to the home of Swami Ji. He was known for not wasting a single moment on pastimes popular among his fellow soldiers. He visited Punni Gali with great regularity, and often acted there as Swami Ji's pathi or reciter..."

Thus, we can see that there are both internal and external stories about Jaimal Singh's authenticity as a spiritual successor to Shiv Dayal Singh. This is not to say, of course, that such testimony is accepted as legitimate evidence by other Radhasoami factions, but only that Jaimal Singh's followers (direct or secondary) do invoke a variety of accounts to buttress their guru's succession. Below are the four major forms of verification provided: 1. Verbal confirmation by the departing master, Shiv Dayal Singh, to Jaimal Singh. 2. Verbal confirmation by the departing master, Shiv Dayal Singh, to other satsangis, including his wife, Narayan Dei, and his brother, Seth Partap Singh. 3. Personal artifacts of Shiv Dayal Singh bequeathed to Jaimal Singh, such as a turban and a aasan (prayer mat). 4. Assorted narratives by satsangis and other interested parties about the merits of Jaimal Singh, including accounts of inner experiences and special social interactions.

The above is not an exhaustive list, but it does provide a general outline to the kinds of evidence provided on behalf of Jaimal Singh. As we will see, how this information is used and interpreted by various factions depends upon the specific time period and circumstance.

For example, in the two decades following Soamiji's death, Jaimal Singh did not attract the majority of his guru's disciples to his side. Rather, he limited his activities to the Punjab, and even there mostly attracted a new following, just as Shiv Dayal Singh himself had done in Agra. Hence, Jaimal Singh was not involved in competing with

other guru claimants in Agra (Rai Salig Ram, Sanmukh Das, Partap Singh, et al.), as his entire ministry was focused in a region where almost nobody had even heard of Shiv Dayal Singh or Radhasoami. There is almost no mention of Jaimal Singh in any of the written records or books in those days.

Jaimal Singh's ministry appears to have met with little, if no, opposition for over twenty years after Shiv Dayal Singh's death. This was due to a number of factors, not the least of which was the smallness of his sangat, the remoteness of his ashram, and the limited scope of his satsang activities. It was not until the founding of the Central Administrative Council in 1902 in Agra, under the prompting hand of Brahm Shankar Misra, that Jaimal Singh's guruship came under harsh criticism. The Council, an indissoluble body whose purpose was to unite all the different factions into a unified whole, objected to Jaimal Singh's lack of cooperation with their policies. Although Jaimal Singh had close connections with the Agra satsangs (Partap Singh was particularly fond of him, as was Radhaji), he did not agree with the formation of the Central Administrative Council. In a letter to his closest disciple and successor, Sawan Singh, Jaimal Singh explains his reasons against the organization: "Chacha Ji (Shiv Dayal Singh's brother) desires that we should all cooperate with the Agra Committee. Although I have given my formal consent, it is not possible for me to agree with the committee because the "updes" (initiation) of... (name deleted; it is Brahm Shankar Misra) is not in accordance with Swami Ji's "updes"... On account of this, I cannot agree with the committee... If they are prepared to satisfy my three conditions, I shall fully co-operate with them. The three conditions are: 1) The "updes", namely the system and method of Initiation and Bhajan, should be the same as practiced and taught by Swami Ji Maharaj and not as (name deleted; it is Brahm Shankar Misra). 2) We should have the option of nominating three members from the Beas Satsang, but you and I should not become members. We shall select our own members. 3) Offerings will not be solicited from our Satsangis, because they are all poor and we do not wish to take anything from them. Here we give "updes" (Initiation) only for Bhajan and Simran." (*Spiritual Letters*, 1976).

Jaimal Singh's eventual break with the C.A.C. over principles demonstrates his adamancy in not accepting Agra's interpretation of succession via Rai Salig Ram and Brahm Shankar Misra. Because he

would not give the names of his satsangis to the Council, his “official” permission to initiate new seekers—which was granted by the Council to police the activities of all Radhasoami related gurus—was revoked. The break between the Council and the Beas satsang has never been mended.

Jaimal Singh’s position in relation to the Agra satsangs raises an important issue in the politics of guru succession: how does one know if a guru/successor is authentic? Should the evidence be outward signs, inner experiences, or a combination of both? We know that in Jaimal Singh’s case, he did not have the outward evidences that Rai Salig Ram, Radhaji, and Partap Singh possessed, all of whom resided in Agra. Jaimal Singh even lacked written confirmation of his role, as he was not mentioned once in the last utterances of Shiv Dayal Singh. Yet, none of these factors significantly interfered with Jaimal Singh’s work since he did not contest the gaddi at Agra; nor, did he allege that he was Shiv Dayal Singh’s sole successor. Unlike other minority guru claimants, Jaimal Singh had several things working in his favor: good relations with the “Holy Family” (Jaimal Singh almost always deferred to Radhaji and Partap Singh); general acknowledgement from the Agra sangat that he was appointed to conduct satsang and grant initiation in the Punjab by his guru; and, finally, a growing reputation as a steadfast meditator.

Although he lacked the overwhelming outward evidence to make him Shiv Dayal Singh’s chief successor (Rai Salig Ram eventually assumed that role), Jaimal Singh did not have to resort to legitimizing his role in Agra because his function did not conflict with the rival claims of other Shiv Dayal Singh disciples. A good illustration of this is that Jaimal Singh had a small room built at Soami Bagh, where he periodically stayed years after the death of his guru. Sawan Singh, who helped pay for the construction, also stayed in the same room years later when he visited Agra. It should be noted that this is a fairly uncommon practice when there has been a major dispute over succession. For instance, Kirpal Singh never visited Dera Baba Jaimal Singh, the ashram of Sawan Singh, after his guru’s death in 1948. The Beas gurus willingness to stay in Soami Bagh supports my contention that Jaimal Singh did not contest the gaddi at Agra. In the politics of guru succession, it is important to note that “ideological battle” does not commence or develop unless there is an a priori contest over something, be it property, status, followers, or doctrinal interpretation. Jaimal Singh apparently didn’t contest anything, except

perhaps theology and spiritual techniques, until he was prompted to by the Central Administrative Council in 1902, some twenty-five years after his guru's death.

The Social Context of Jaimal Singh's Theology

Jaimal Singh was only a teenager when he met his master, Shiv Dayal Singh, in Agra in 1856. He had travelled throughout the Punjab and Uttar Pradesh for almost five years in quest of a guru conversant in the path of surat shabd yoga. Thus, it was with great joy when Jaimal finally heard about Shiv Dayal Singh and his teachings from an old sage in Rishikesh. However, two things immediately bothered Jaimal about his would-be master: he was not a Sikh and he smoked a huqqa (a tobacco water pipe). [Jaimal Singh may also have been bothered by his guru partaking of pan (betel leaf), which is a mild stimulant.] Although Shiv Dayal Singh qualified as a spiritual master, Jaimal's social upbringing was such that it was quite difficult for him to accept a guru who went against his religious background. Indeed, it was only after Shiv Dayal Singh demonstrated his mystical knowledge that Jaimal Singh resolved the discrepancy and fully accepted him as his teacher.

As Daryai Lal Kapur in *Heaven on Earth* (1986) writes: "He knew he wanted initiation from this great Mystic but found himself hesitating because Soami Ji was not a Sikh. He could not resolve whether it was proper for him to accept a non-Sikh as his Master, despite his conviction that Soami Ji was the one who could give him the key to true spiritual knowledge. For four days he remained in this dilemma. One day, while Baba Ji was lost in these thoughts, Soami Ji came to him and gently inquired whether he had yet decided the question of Sikh and non-Sikh. As Baba Ji had spoken to no one about his conflict, Soami Ji's loving words moved him profoundly and tears filled his eyes... The next day Baba Jaimal Singh received initiation, and for two days and nights remained absorbed in meditation in a small room in Soami Ji's house."

This initial hesitancy on Jaimal's part should not be overlooked, for it provides us with a clue to how and why Jaimal Singh's theological outlook was fundamentally different from Rai Salig Ram's, even though both were initiates of the same master. For Jaimal Singh, almost from the outset, connected Shiv Dayal Singh's teachings with the underlying spiritual message of the Guru Granth Sahib, the holy book of the Sikhs and the guiding text of Jaimal's early spiritual quest.

By his own testimony, Jaimal was not looking for a new path, but an old and apparently forgotten one. Thus, Shiv Dayal Singh's teachings were more of a confirmation than a revelation for the young Jaimal.

Although Jaimal Singh's Sikh heritage undoubtedly played a major part in shaping his interpretations of Shiv Dayal Singh's teachings, it should not be overestimated since a number of dependent factors came into play. Of these contingent social factors, the following three appear to be central: 1) Shiv Dayal Singh's theology as an independent variable; 2) Sikh-Sant mat connection; 3) geographical location.

Radhasoami as Sant Mat

Jaimal Singh's theology, like Rai Salig Ram's, appears to have much of its basis in the teachings and writings of Shiv Dayal Singh. Unlike Rai Salig Ram, though, Jaimal Singh did not find his guru's teachings advocating a new and exclusive religion. Rather, Jaimal Singh saw a continuous and consistent link between the saints of old, like Kabir, Nanak, and Dadu, and his present guru at Agra. Shiv Dayal Singh also saw the same link, as evidenced in Sar Bachan Radhasoami Bartik where he writes: Observing this sorry state of affairs of the present times, Saints were moved to pity. Although there were very few real seekers and spiritually minded, yet out of sheer grace and mercy, they gave out the secrets of the highest regions, through discourses and writings.... The names of some of the perfect and true Saints, Sadhs, and Faqirs who manifested themselves during the last seven hundred years are Kabir Saheb, Tulsi Saheb, Jagjiwan Saheb, Garib Das, Paltu Saheb, Guru Nanak... A perusal of their writings would give an idea of their spiritual attainments" (1958).

Hence for Jaimal his guru represented a living manifestation of his ancestors' religion. In terms of Sikhism, Shiv Dayal Singh was like Guru Nanak come alive again, albeit within a different cultural milieu. In contrast, Rai Salig Ram did not perceive Shiv Dayal Singh as the recurring manifestation of something traditional but of something radically new—historically and spiritually. Although Jaimal Singh undoubtedly held his guru in the highest regard (as one with the Supreme Being), he did not differentiate his teacher's mission from the Saints of old. And it is precisely here that the key difference between Salig Ram and Jaimal Singh emerges.

Jaimal's Relationship with the Holy Family

Jaimal Singh's views were also influenced to some degree by his close relations with Shiv Dayal Singh's family, who supported Jaimal Singh and his ministry. Without their encouragement, particularly Seth Partap Singh's, it would have been exceedingly difficult for Jaimal Singh to break with the Central Administrative Council over a doctrinal dispute. However, since Partap Singh apparently sided with Jaimal Singh on theological matters, if not organizational ones, it allowed Jaimal and his sangat the opportunity to run their satsang outside of the C.A.C.'s legislative jurisdiction. A bold move, no doubt, for the young satsang, but one that would eventually turn out to be to their benefit politically.

Jaimal's association with Shiv Dayal Singh's family also proved to be a key legitimizing factor later on, since the Beas satsang could point to Seth Partap Singh's obvious patronship of them as validation of their development. Sawan Singh, for instance, went to Seth Partap Singh after Jaimal's death to receive consolation, only to be told that he had to work as a guru. Sawan Singh recollects: When I appeared before Chacha Ji Maharaj (Seth Pratap [Partap] Singh Ji Maharaj), he enquired who was working at Beas in place of Bhai Sahib (Baba Ji Maharaj) and who had been instructed to initiate after Him. My companions replied, "Baba Ji Maharaj has appointed Him, but He does not give Initiation." "Why?" Chacha Ji Maharaj enquired. At this, I submitted that I did not possess sufficient power, and said to Chacha Ji Maharaj, "You better send some Sadhu from here who should initiate people." Chacha Ji Maharaj replied, "You will have to give Nam (initiate). I hold myself responsible. Swami Ji Maharaj will be responsible" (Rai Sahib Munshi Ram, 1974).

Jaimal Singh's theology was also influenced to some degree by his geographical surroundings. Since Jaimal centered most of his mission in the Punjab, far away from the political and doctrinal in-fighting going on in Agra, he was able to develop his views without interference from rival successors. He also did not receive any major monetary support from Agra (although Seth Partap Singh and his sons used to send small amounts of money from time to time) because most of his initiates were from outlying villages like Ghuman and Gurdaspur. This relative solitude undoubtedly contributed greatly to Jaimal Singh's ministry because he was mostly concerned with attracting new initiates, not converting old satsangs to his fold. As Aaron Talsky notes:

“Jaimal Singh, on the other hand, was sent to preach in the Punjab. In an era before mass communication and transportation, we can presume that this institutional or tradition-derived authority—that is, recognition by the Agra satsangis—was of negligible importance to his potential followers in the Punjab. Precisely because of the absence of this potential foundation, however, Baba Ji and his followers did not have to concern themselves with the sanction (or absence of such) of those same satsangis. By the same token, it was necessary for Jaimal to attract followers through his own charisma—in this sense, we can assert that Jaimal Singh, for the Beas upa-paramparas, was a sort of second exemplar. The affirmation of his disciples was premised primarily upon their perception of their guru as a satguru, rather than a successor” (Talsky, 1986).

The Strained Relationship between Agra and Beas

Almost from the outset of his ministry, but most dramatically after the formation of the Central Administrative Council in 1902, Jaimal Singh had a strained relationship with Agra. This tentative fellowship with Agra has been the basis, I would suggest, for much of Beas’ seemingly paradoxical theology. For it is historically quite evident that Jaimal Singh was not regarded as the chief successor of Shiv Dayal Singh. His following was nowhere near that of Rai Salig Ram, nor did he inherit any of his guru’s property. Although Jaimal Singh was not simply a break-away candidate—he did enjoy the backing of Shiv Dayal Singh’s family—it must be recognized that his ministry is significantly different from other fledgling successors in Agra. From its commencement, the Beas satsang has had only minor links with Agra—links which would be later severely damaged by the formation of the C.A.C.

It is little wonder, therefore, that Beas does not subscribe to the unbending orthodoxy of the C.A.C., since if it did it would undermine its own legitimacy. But let us not go too far. Because despite Beas’ disconnection with the C.A.C., it still did not try to disavow its Agra origins. The reason for this is fairly obvious: Jaimal Singh and Sawan Singh, notwithstanding their severance from Agra’s orthodox elite, remained on good terms with Shiv Dayal Singh’s immediate family—so much so that they even built an apartment inside of Soami Bagh for their personal use. In his thesis, *The Radhasoami Tradition*, Aaron Talsky elaborates on why Beas retained cordial relations with the Agra satsangs: The relationships Jaimal Singh had with the other

gurus who emerged after Shiv Dayal's death, it has already been noted, are contentious issues. More than this, however, the Beas group itself seems to adhere to very vague beliefs as is evidenced by the conflicting information provided in their own literature. In contrast with Soami Bagh, then, there is a much more preliminary epistemological difficulty encountered when one attempts to simply cognize precisely how this group assumes that Baba Ji perceived those contemporaries who were also reputed to be successors to the gaddi; the only apparent consensus which we can easily delineate is the contention that Jaimal Singh retained very cordial relations with all of them.... Thus, other reputed gurus may also be considered true and perfect successors: there is no reason to deny the validity of another lineage, as the existence of other paramparas neither substantiates nor precludes the authenticity of one's own, unless, of course, these other lineages by deed or doctrine deny your validity, in which case one must demonstrate the inaccuracy of the competing claims.

Selecting Truth: The Origins of Beas' Theology

The "elective" or "selective" nature of Beas' theology is directly connected to its founder's discriminating interpretation of Shiv Dayal Singh's teachings. For instance, when Jaimal Singh republished *Sar Bachan* at Beas, he edited portions of the volume which were not in keeping with his understanding of Shiv Dayal Singh's instructions. Although Beas has since received heavy criticism for altering *bachan* 250 and deleting references to smoking *huqqa*, such editing clearly demonstrates Jaimal Singh's distinctive interpretation of Radhasoami. It also partially explains why later gurus at Beas were not historically bound to a literalistic interpretation of Shiv Dayal Singh's teachings. As Radha Krishna Khanna explains: "Baba Jaimal Singhji was convinced of the error and therefore, [sic] replaced *Bachan* 250 by one that is wholly in accord with the rest of Soamiji's many statements on the subject. The error might have escaped the eye of others, but it did not escape the eye of one well-versed in Soamiji's spiritual message and knowing that it did violence to it not only as taught by Soamiji, but also as taught by all the other past sants. He therefore had it altered when publishing the volume at Beas, and informed Chacha Pratap Singh who raised no objection... Is it a mere accident that he should have chosen to alter only that one *Bachan* which in all the collection jars with the harmony of the other *Bachans*? If ever any proof of his full

mastery of the science taught by Soamiji was needed, the example of this change would be enough, for it rescues it by a single stroke from the irreconcilable [sic] contradictions and confusion that must have been introduced by a satsangi's misconstruction of Soamiji's words and meaning" (Radha Krishna Khanna, 1961).

Moreover, since Jaimal Singh did not inherit his guru's gaddi, he was not bound by the traditions started at Agra. Because his followers were mostly Sikh and had no formal connection with the Radhasoami groups at Peepal Mandi or Soami Bagh, it enabled Jaimal Singh to emphasize those aspects of Shiv Dayal Singh's teachings which tallied with Sant mat and Sikhism, and downplay the sectarian or incarnational aspects which were sure to cause controversy and misunderstanding. Jaimal Singh's traditional and geographic freedom was undoubtedly instrumental in allowing him to delete references in *Sar Bachan Radhasoami Chhand-Band* which would anger his mostly Sikh sangat, especially references which clearly showed that Shiv Dayal Singh smoked tobacco—a serious moral offense to orthodox Sikhs. If Jaimal Singh had centered his mission in Agra, where the majority of the population is comprised of Hindus (many of whom enjoy smoking and partaking of pan), there would have been no need for him to edit Shiv Dayal Singh's use of the term huqqa.

Therefore, almost from the beginning of Jaimal Singh's ministry, we can see a diplomatic tendency which is concerned with not offending religious sensibilities—including both the orthodox Radhasoamis and the orthodox Sikhs. This diplomatic sensibility has continued to persist at Beas. All three gurus after Jaimal Singh—Sawan Singh, Jagat Singh, Charan Singh—have remained on fairly good terms with Soami Bagh and Dayal Bagh, and have also maintained cordial relations with their Sikh neighbors. Nevertheless, it should be mentioned that the Beas satsang has had its share of difficulties with orthodox Sikhs who have from time to time criticized Radhasoami as an affront to the religious heritage of Guru Nanak. For instance, Sawan Singh even signed a pact with Anand Sarup, leader of the Dayal Bagh satsang, in the early 1930's which expressed the desire for unity and friendship between the two groups, even though they have divergent opinions over the nature of Shiv Dayal Singh's teachings. The late leader at Beas, Charan Singh, had also kept friendly contacts with Dayal Bagh, having visited the current head, Dr. Lal Sahab, in Agra in 1978.

Science as Advertisement

All of this is a prelude to how Radhasoami Beas' selective theological outlook has deeply informed its understanding of science in general. Whereas with Soami Bagh we have found that its use of science was secondary to its own religious worldview, and science was mostly a way to reaffirm its own superior status amongst other vying satsangs and other religions in general and where Faqir Chand saw science as a more accurate expression of his own radical views on truth, with Radhasoami Satsang Beas we find a more nuanced, even if at times confused, understanding of science and what it portends. Because Beas was from the very beginning not tied into the more traditional patterns aligned with Agra centered satsangs, it had greater freedom to describe itself in more modern terminology. Indeed, it be could argued that one of the chief reasons behind Beas' tremendous growth worldwide (numbering in the millions) is due in large part because it was able to present its teachings in a form more accessible to divergent religious audiences. To the degree that Beas could present its gurus and its path as a scientific versus a purely religious manifestation of Punjabi Santism, it could reach a larger audience. And this is precisely what has transpired. The most popular Radhsoami book ever written was *The Path of the Masters* in 1939 by Julian Johnson, a medical doctor, who attempted to argue that Beas' version of Sant Mat was actually an ancient science and that whatever religious ideologies that were attached to it were cultural and not necessarily elemental.

However, Beas' understanding of science is at odds with the notion of falsifiability, even if at times it pays lip service to the progressive and correcting nature of the scientific enterprise. Radhasoami Beas' version of science is entirely selective, employing only those aspects which make its path look more believable and more conducive to a skeptical audience. For instance, Sawan Singh, the second guru at Beas and the key architect behind its initial expansion, writes, "Facts of Sant Mat are reproducible, like facts of any science, and can be demonstrated in the laboratory of Sant Mat. The laboratory of Sant Mat, as said before, is inside man. Anybody who enters this laboratory (brings his scattered attention within himself at the eye focus) can see, feel, and realize what the Saints say, and he can repeat the experiment as often as he likes. Sant Mat deals with facts only, not with theories or beliefs."

While this may at first glance look to be a scientific description of an inner path to God-Realization, on closer inspection we find that Sawan's letter actually dismisses the very basis of almost all scientific endeavors, that of theory making. When Sawan instructs the neophyte to go within the laboratory of one's own body to verify the factualness of Radhsoami, he doesn't mention that such subjective experiences should be open to varying interpretations of what they could possibly mean. Sawan Singh's version of science is more akin to an elaborate food recipe, where the would-be chef needs to follow a set of given instructions in order to know how to make a chocolate cake or a vegetarian pizza.

Beas' version of science is similar to a computer program like Basic or Unix where if you follow just the right set of protocols you will invariably end up with a repeatable outcome. But this leaves out the most vitally important aspect of science, something which Faqir Chand seemed to grasp, which is that science isn't a thing but rather a process of discovery and along that pathway there will be false starts, differences of opinion, falsifications, tentative hypotheses, and theories and even facts that are always subject to alteration or even wholesale elimination. Sawan Singh goes even further in elaborating his understanding of Sant Mat as a universal science, "There is no better method than that of the Sound Current, which is an ancient and natural science. It was designed by the Creator Himself, is within every one of us, yet whole nations and entire countries of the world are ignorant of it."

Here Sawan Singh is saying that Sant Mat isn't merely a scientific endeavor to be placed alongside biology or chemistry, but rather is more fundamental than even physics since it was created by God himself as a path back to him. While a devotee may believe this to be the case, it is fairly obvious to an outsider that Sawan Singh isn't making a scientific claim as much as he making a dogmatic one in the guise of scientific dressing. This is important to understand since each of the Radhasoami branches, apparently without exception, cherry pick which aspect of science they wish to utilize. And why they choose what they do seems dependent upon their own evolved theological outlooks which are rooted in their particular geographical and social circumstances.

In Beas' case, science is employed as a form of advertising to reach interested seekers who may have been turned off by more exclusive forms of religious dogmatism. While it appeals to the rational authority

of science, it does so by claiming that Sant Mat is the highest of all sciences, apparently forgetting in the process that any scientific endeavor worth the appellation must be open to revaluation and correction. Nowhere do we find in Radhasoami Beas' vast literature a consistent theme of falsification, where past gurus and their ideas are corrected, changed, or overthrown. What we do find, however, is a paradoxical selection of quasi scientific language which appears to be offering a potential experimental procedure to validate inner spiritual experiences. But as we have previously noted, when closely examined this type of rhetoric is more an instructional formula to achieve an already agreed upon result (similar to baking a pie) and less a scientific method with all its unforeseen trajectories.

Thus in many ways the various Radhasoami branches use science's authority in the secular world as legitimating their own quite specific concerns. Those concerns arise mostly from how the gurus themselves were appointed and how they finally emerged as viable successors and leaders in their own right—all of which gets transformed by the attendant socio-economic and political forces at play. As we have noted, Soami Bagh tended to use scientific rhetoric to bolster its own status among other vying gurus by dovetailing it with an absolutist ideology. With Faqir Chand, we saw how his own early experiences led him to doubt the prevalent orthodoxy in Radhasoami and align himself with a more Popperian view of spiritual matters. For Faqir Chand science wasn't a rhetorical strategy but rather a method in itself for self-correcting previously held ideas related to mysticism. Radhasoami Beas, and in particular the late guru-architect, Sawan Singh, saw science as a preset code of instructions for accessing an already agreed upon result in deep meditation. We argued that this selective view of science was utilized primarily as a form of advertising so as to convince religious skeptics that Beas' version of Radhasoami was a universal science and not merely a parochial list of unalterable dogmas.

What I think is perhaps most telling about Radhasoami's many versions of science is how the politics of guru succession seem to determine which aspect of the scientific enterprise is chosen. Thus, it may be that Radhasoami is appealing to science not as an authority to be appeased and persuaded, but rather using scientific language to buttress its own internal needs, ranging from resolving sangat schisms to justifying doubtful theological claims to providing new forms of persuasive advertising.

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JUDAISM AND ISLAM

THE USE OF MEDICINAL LEGITIMIZATIONS IN THE CONSTRUCTION OF RELIGIOUS PRACTICE: THE DIETARY LAWS OF JUDAISM

DAMIÁN SETTON

Modernity and the Secularization of Religious Practice

In the mid-seventies, a succession of international events marked the decline of a certain type of relation between religion and modernity, which had been based on strategies of adaptation that the former taken with respect to the latter (Kepel, 1995, Berger, 2001). Religious discourses that focused on opposition to modern values gained a relevance that would have been unthinkable during the sixties, a decade marked by a faith in progress and the development of a secular utopia. Nevertheless, we must analyze what type of relation these religiosities established towards modernity—whether we are talking about an opposition to it, or whether modernity added legitimacy to the religious revival.

In this chapter, we will analyze the case of Judaism, referring to the emergence of what has been called ‘Jewish modernity’. The 18th and 19th Centuries witnessed deep changes in the organization of European Jewish society (Ruppin, 1934, Karady, 2000). In Berlin, proponents of the Jewish Enlightenment aspired to develop a Jewish life outside the boundaries of the traditional community. This religious reform movement, heir to the Enlightenment, tried to adapt Judaism to Western modernity. At the same time, a diversity of movements ranging from Zionism to Socialism impacted these Jewish communities; particularly in Eastern Europe. The traditionalist Jews, who saw modernity as a path to the destruction of traditional Judaism, deepened their rejection of innovations perpetuated by Reformed Judaism and to the penetration of the secular ideologies into Judaism (Kriegel, 1997, Baumgarten, 2006). Ultimately, modernity implies the pluralization of Jewish identity, which no longer unfailingly refers to a divine invocation, nor reproduces itself in communities which have a limited outside contact (Azria, 2003).

Modernity did not imply the mere abandonment or rejection of the religious precepts, but it gave them a new significance. Between

the weakening of the divine reference and the predominance of the secular currents of Judaism in the 20th century, those precepts and traditions had to find legitimacy by appealing to secular subjects. For those for whom Judaism did not mean rejecting integration into non-Jewish society, traditional practices were re-interpreted. According to Azria (1991), a process of selection among such practices was undertaken which implied the abandonment of some of them. The ones that were preserved were those that fulfilled two conditions. On the one hand, they were constituted into vectors of messages that harmonized with modernity. On the other, they were able to promote social bonds. In both cases, traditional practices were secularized. The potential that a practice could be considered legitimate depended on its susceptibility to rationalization, meaning susceptibility to the adaptation of its meaning to the modern values. Among the types of rationalization, hygienist and medical interpretations were highlighted concerning practices such as dietary law, family purity and those related to circumcision, as well as the social-political interpretations of the Sabbatical rest and jubilee.

For the “emancipated” Jews, traditions were reinterpreted according to their capacity to express modern values. For Orthodox Jews, on the other hand, keeping religious practices was a means of protecting themselves from the effects of a modernity they rejected. In this way, dietary laws had the function of protecting the space of a closed community from the outside world. These laws expressed particularisms more than universalisms. The Orthodox Jews protected themselves in their particularity, rejecting secular interpretations of religious laws.

The Revival of Orthodox Judaism

During most of the 20th Century, secular currents within Judaism provided hegemonic referents for the construction of the Jewish identity (Azria, 1996). Simultaneously, the conflict within Judaism took place between such secular currents as Zionism and Communist Jews (Senkman, 2000, Schenkolevsky-Kroll, 2001, Bell, 2003), alienating the Orthodox groups which were marginalized into their own communities, resisting the onslaughts of a modernity. It would not be until the seventies that this process started reversing with the emergence of the *Baalei Teshuvá*, the Jews returnees, a process studied in different national contexts (Aviad, 1983, Danzger, 1989, Podselver, 2002, Topel, 2005, Lehmann and Siebzeher, 2006). The native term *teshuvá*, which means

‘return’, gives evidence of a process of internal religious conversion, from the secular or religious Judaism, in both reformist and conservative versions, to Orthodox Judaism. According to Danzger (1989), it is in the early Seventies that this term emerges, showing evidence of the emergence of a social process. However, already in the prior decade, the emergence of social movements claiming their ethnic particularisms had begun to dispute reformist currents and Judaism based around universalist values. Thus, the “return” is understood as a part of a social process which vindicated these particularisms.

In Argentina, we can find, with the foundation of the *Agudath Israel* and the *Agudath Israel Hasefaradit* in the 1940’s, the firsts stages of this phenomenon. Young people gathering in *Agudath Israel* experienced a relationship with the religiousness that their parents rejected (Bianchi, 2004). In 1953 the Orthodox rabbi Itzjak Scheebar arrived in the country, re-introducing a strict religious perspective in the community of Aleppo Jews, modifying the openness this community had begun to experience towards the rest of society (Brauner, 2000). In 1955, arriving from the United States, Dovber Baumgarten, emissary of the *rebe* of Lubavitch, gathered a group of young people to whom he imparted the concepts of Chasidism, almost unknown at the time (Setton, 2008). Thus, unlike other countries (Poll, 1973, Heilmann, 1994, Gutwirth, 2004), Chasidism in Argentina was not instituted by the immigration of Chasidics Jews, but through the explicit intervention of emissaries. Subsequently, we can see the development of a process of revitalization of religious Judaism in its Orthodox version, but still in an incipient form. The conservative version, on the other hand, was more successful, with the arrival of the American rabbi Marshall Meyer and the foundation of the synagogue Bet El and the Latin-American Rabbinic Seminar (Weil, 1988). It would not be until the 1980’s that the Conservative Judaism lost its predominance and the Orthodox movement prevailed, having a wide gamut of movements willing to transmit their version of Judaism.

After Dovber Baumgarten’s death, Chabad Lubavitch developed as a particular institution, building their synagogue and their religious school. Young people who had travelled to the United States, where the global headquarters of Chabad Lubavitch was located, returned to Argentina and settled in different provinces. Later, the movement expanded to the city of Buenos Aires, with the building of the *Batei Chabad* (Chabad’s Houses). A *Beit Chabad* is a place where diverse activities are offered to the Jewish public, from religious services to

courses and conferences. This institution, directed by an emissary of the *rebe*, aims to build a social space in which the *Lubavitchers* and the non-religious Jews would be able to relate to one another. But, as we will see, to constitute this relationship, the institution needed to build a discourse rooted in dialogue, which would allow them to come to terms with the more modern elements—those that would likely be rejected by the Orthodox. The aim of this chapter is to analyse how this negotiation was produced.

Chabad Lubavitch: The Relation between Science and Religion

The Chabad Lubavitch movement has been one of the main sectors of Orthodox Judaism which built a discourse based on the relation between science and religion. Those who support the group declare that their own leader, Menahem Mendel Schneerson, who died in 1994, had studied at the Sorbonne. Gutwirth (2004) denies this, saying that Menahem Mendel Schneerson actually studied in *L'École Supérieure des Travaux Publics*, where he received a diploma as an electrical engineer. But beyond the question of the gap between myth and reality, what we find relevant to observe is how, for the *Lubavitchers*, the presence of the *rebe* in a secular institution does not delegitimize him from a religious point of view, but legitimizes him by invoking the authority of an institution like Sorbonne University. The image of the *rebe* is built using sources of legitimacy that are not only secular, but are also from the non-Jewish world.

The *rebe* is considered a figure who knew how to use science and technology for the mission of spreading Orthodox Judaism. On the one hand, his scientific knowledge allowed him to analyse the presence of God in the world using technology as a metaphor for divine revelation (Mintz, 1992). Simultaneously, technological advances are interpreted in terms of their religious meanings, based on a perspective that denies the distinction between sacred and profane (Ravitzky, 1991). Unlike Satmer's Chasidism, which considers modern technology as an expression of evil, Chabad takes advantage of it, considering that radio, TV, and Internet, far from being neutral tools, reflect sublime spiritual matters. Science and religion are found integrated in the discourse of the leader, and also in the discourse of certain figures from the scientific field that joined the *Lubavitch* community—such as the specialist in magneto hydrodynamics, Herman Branover, who maintains that a return to Judaism can be perfectly compatible with a scientific career (Kepel, 1995).

The Laws of Kashrut: Between Science and Religion

The religious movements of the late 20th Century will dispute the sense of those religious precepts that had been secularly legitimized through science. But, by doing this they recapture their legitimacy from scientific discourse. To understand the process of fusing religious and secular meanings with the same strategy of proselytizing, we have to understand that the people with whom they are aiming to communicate belong to a middle class with access to the educational system and that socialized them into a universe of meaning where secular explanations legitimized Jewish practices.

The discourse of the Orthodox movements does not reject the secular referents that had been built into it as part of modernity, but these are recaptured as part of a strategy of legitimization. Yet, by recapturing these referents, it risks actualizing a vision of Judaism that rejects justification on the basis of a divinity that demands submission to its precepts. Therefore, it is not only about enabling the circulation of secular meanings, but knowing how to administer them to keep them within the field controlled by religious discourse. What are the conditions that will allow the religious movements to recapture scientific discourses? Our hypothesis is that there has been a transformation in the boundaries that separated religion from secularity. Not only does religion use science, but it is also the case that scientific discourse is altered by the process of the dissolution of the religious that Bourdieu (1987) describes. While religions have retaken some components from the scientific discourse, this last one has crossed the boundaries to penetrate the spiritual field.

Despite the claim of Orthodox Jews that all precepts have the same value because God has provided, their discourse usually emphasizes some of them over others. The Dietary Laws are, for example, emphasized, along with the observation of the *Shabbat*, the Sacred Day and the use of the *Tefillin*¹ and of the *Mezuzot*.² Evidently, the dietary laws imply, on the one hand, control over corporality, and, on the other hand, as Marta Topel (2003) points out, a control over social relationships—this being the reason why they become one of the main

¹ Leather boxes that contain fragments of the *Torah*. Men wear it on their arm and head during the Morning Prayer.

² Boxes containing parchments with fragments of the *Torah*. These are placed on the door frames.

precepts to be spread. Simultaneously, these dietary laws enable the development of an important gastronomic market, becoming a source of income for many businessmen and employment for the Orthodox community.

The *Kashrut* laws distinguish allowed food from forbidden food, and also between allowed combinations and forbidden ones. Concerning meat, only ruminant and cloven-hoofed animals are adequate for consumption, and must be slaughtered by a *shokhet*, a specialist. Mixing milk products with meat is forbidden. Among fishes, only those ones with fins and scales are allowed. This process implies a continuous supervision by a religious authority. Each Orthodox community has their own preferences regarding the supervision. For example, a member of Chabad Lubavitch does not eat the food that has been under the supervision of another community's rabbi. Thus, group boundaries are built inside the same Orthodox field through the act of eating.

From a religious point of view, there is no rational justification for these laws. Yet, different perspectives have legitimized them. We will focus, in this context, on how some legitimizations from the scientific field, especially from medicine, are appropriated by Orthodox Jews. Here we find the significance of the medicinal field circulating inside the religious institution, through the organization of conferences, where medical specialists are invited. We also find them in brochures that spread the need for complying with religious precepts. The circulation of these meanings is based on the acknowledgement of the secular authority invested in medical professionals: specialists on obesity, eating disorders, whose discourses are then used by the religious specialists in the process of constructing the meaning of the *Kashrut*. What we have to question is if the *Kashrut* is still a religious practice before this amalgam of discourses and statements. The medical discourse relates *kosher* food with health care, but here health is meant in a broader sense, going beyond the body's well-being. Thus, the medical experts introduce the concept of soul, entering into the field of the religious specialists. The doctor is no longer limited to matters which are strictly corporeal. But, at the same time, *Lubavitchers's* idea of sickness is based on the inter-connection between soul and body, where each member of the body is the expression of a religious precept. Thus, each infraction or observation of these precepts produces a reaction on the body (Dein, 2004). The concept of health as a totality that involves body and soul, shared by medicine and religion, enables the foundation of a construct where both hold significance.

The *Kashrut* is crossed by a variety of meanings that we can find in the discourse of various agents. Medical discourse gives meaning to the dietary laws in the frame of a general diagnosis of society and people's afflictions. Depression and phobia attacks are interpreted as the consequence of eating habits that have an effect on self-esteem. For the medical discourse the *Kashrut* is synonymous with a healthy life. Meaning: eating *kosher* is eating healthy. The positive consequences that a diet based on those principles have on the body and the psyche of each person is highlighted. Systematic compliance with the *Kashrut* is directed towards improving different aspects of terrestrial life, such as physical and psychic health, self-esteem, mood, and family relationships. The consequences of an a-systematic kind of life would be conditions such as stress, asthma, irritable bowel syndrome, anorexia, bulimia, as well as mood changes, anguish, feelings of guilt tied to lack of impulse control, and difficulty leading an independent life. Therefore, eating *kosher* implies not only the selection of food, but also a systematization of the act of eating.

But the medical discourse is not limited by the traditional boundaries of medicine; it also introduces itself into the spiritual field:

Food, as I said before, has a decisive influence, not only on a physical level, but also in the spiritual and intellectual levels as well as on feelings. It is said that we are what we eat, and, somehow, by eating, food becomes a part of our own flesh and blood.³

Thus, if the *Kashrut* laws allow the consumption of ruminant animals it's because of its consequences for one's spiritual and psychological aspects, given the fact that ruminant animals become part of the human being's property, as a physical characteristic, and on a spiritual plane, through a process of self-perfection. Hence, by eating ruminant animals, human beings would develop the necessary abilities to think and to analyse. Doctors turn to an animist concept of the world, where the physical properties of the animals become spiritual properties of the human being. In this way, we find a medical discourse which emphasizes the relation between the body, soul, and society; from a holistic view of the world. Nevertheless, this call to spirituality does not mention the existence of a God with a determined will.

³ Lecture by a nutrition specialist in the main headquarters of Buenos Aires's Chabad Lubavitch, 2004. All passages of lectures and brochures have been translated from Spanish.

The idea of *kosher* food as healthy food is part of a universe of meaning under which most Jews have been socialized, part of the reason why the medical discourse does not sound new for those who hear it. These are not new concepts introduced by the medicinal field, but components from a world of meaning that is already internalized, and with which religious movements have to deal. Many Jews have been socialized into the belief that the prohibition against eating pork had the purpose of avoiding trichinosis. For Orthodox Jews, this explanation denies the divine character of these laws. For this reason a rabbi, in a religious studies course, explained that the notion that pork was prohibited because of matters related to disease was not accurate, even though this explanation would allow Jews to justify themselves, with legitimate reasons, to the outside world. If eating *kosher* avoids disease, it is just an extra benefit, not the main reason by which a Jew must eat *kosher*. Evidently, giving this kind of legitimacy to the positive effects on health could lead one to comply with the dietary laws justified by a personal interest before a person's submission to God. This is what Orthodox Jews are concerned about.

However, in a brochure where the importance of the *Kashrut* was promulgated, the *Lubavitchers* emphasized secular legitimacy more than the religious one. In that brochure there was a smiling boy with a hamburger in his hands. The title was "free of impurities, free of contamination, free of cruelty towards animals: *kosher*!" Inside the brochure was written:

The extraction of the blood [...] assists the development of the immunity to many diseases. Forbidden fats, especially those which are close to the intestines, are also disease carriers. Microbes are frequently found in sea animals and forbidden meats as well. Separation between meat and milk assists an ordered digestion and the laws of ritual slaughter—*shejita*—are stricter than any governmental sanitary control

In other brochures the latter was explained:

The gastronomic expert Dr. Myles Bader writes: 'If you want a healthy chicken, with good taste, buy *kosher*'. *Kosher* chickens are submerged in frozen water for thirty minutes, they are salted to remove the blood and then washed three times to take the salt out. As 48% of intoxicants are caused by contaminated chickens, this process could actually save lives.

As we can see, knowledge from a gastronomic expert is invoked who, from a secular field, provides a discourse legitimizing proper practices in the religious field. Nevertheless, the religious field has to "adminis-

ter” this legitimacy, since there is a risk of relegating ethereal components from their religious representations by emphasizing the benefits regarding health, which would alter the meaning of these precepts. For that reason, the latter is highlighted in the following paragraph of the brochure:

The kasrut laws were not created by means of physical health. But it’s not surprising that what is good for the soul ends up being good for the body as well.

This process of “administration” of the secular legitimizations can be also observed in a round of conferences about the *Kashrut* laws taking place at the central Bait Chabad of Buenos Aires. The last conference (the second one had been provided by a specialist on eating disorders) was held by a rabbi from the Chabad Lubavitch movement, who insisted on the fact that the sources of human diet was not food itself, but the divine energy that food manifested when sanctified through the saying of a *berakha* (blessing). In this way, the act of eating constituted a way of being close to God, just as the aim of health care would not ultimately be for the well being of the person, but as a service to the Creator:

It seems that living does not depend on eating, but on being close to God or not. This is totally different to what we have been talking about until now, because we are very worried about what we eat and drink.⁴

The rabbi’s words shifted the focus of the discussion. It was no longer the aim of emphasizing the role of the body, but on the transcendental significance of food, which is the link to Divinity. At the same time, caring for the body was no longer an objective in and of itself. If Jews were expected to take care of their health, it was in order to be in optimal condition for serving the Creator:

And then, we had the second class, where we all loved hearing how *casher* is health and how it is not only about eating *kosher*, but about the proper *casher* outlook which is the one that allows us to *mens sana in corpore sano*, really having and enjoying a healthy body, obviously to serve God. God sent us to this world with a purpose, and when we’ll have to give account [...] we do not want to make a bad impression to who trusted us for so long and gave us everything we needed in order to accomplish our mission.⁵

⁴ Lecture by a rabbi in the main headquarters of Buenos Aires’s Chabad Lubavitch.

⁵ *Idem*.

Asceticism as the Articulator of Religious and Scientific Discourses

To comprehend the conditions under which the connection between scientific and religious discourses is taking place, we have to take into consideration what type of subject they both aim to build. Science and Religion share, in this case, a total vision of the world that aims to impose certain forms of behaviours related to asceticism. The figure of the ascetic is the ideal that is extracted from these two discourses. It is not expected that every subject becomes ascetic, but that they modify their habits contemplating complete asceticism as on a horizon out of one's reach.

Such medical discourse aims to demonstrate the need of discipline towards diet, not only to keep in shape, but to maintain a balance between body and spirit, whether for oneself or society:

With this choice we make towards what we must do and what we must not do, not only are we making a choice towards our diet, but we are also learning, in some way, to control and moderate our lives.⁶

On the other hand, Chabad discourse recognizes asceticism, implied in the native term *Itkafia*, as the consummation of the religious identity of the *chossid*. This *Itkafia*, regarding diet, would mean man's transcendence of the material world to a point where he could no longer perceive the taste of the food. This ideal is embodied in the legend around the visit of the Chabad Chasidism's founder to another Chasidism leader's house. While they were eating, the host's wife appeared in a frantic state, saying she had forgotten to salt the meal by mistake. Chabad's *rebe* answered that, after perfecting himself through Chasidism, he no longer distinguished any taste from food. This detachment from the material world is what appears as the unattainable horizon for the regular Lubavitcher. Some of them, however, have tried, for example a young man who decided to quit salting his food and ended up ill because of low blood pressure.

Conclusions

Proselytizing strategies from the religious revitalization movement put into circulation discourses that combine legitimatizations from medical and religious standpoints. These are assembled upon a set of previous

⁶ Lecture by a nutrition specialist in the main headquarters of Buenos Aires's Chabad Lubavitch.

representations constituted during the development of modernity. These representations have enabled the Jews to keep a set of practices whose original intention was religious by secularizing them. The secularization of the dietary laws implies an appeal to the medical discourse, by which these laws are legitimized according to health benefits. This secular universe of representations was hegemonic throughout the 20th Century. But by the end of the century religious movements emerged all over the Jewish world, disputing the hegemony of the secular movement as well as the conservative one. By approaching the non-religious Jews, striving to bring them closer to religion, they build a discourse opposed to modernity that simultaneously borrows from the same set of meanings formulated by modernist thought. In this process, they arrive at the meaning of the religious precepts.

By relating science and religion, what is being attempted is establishing a legitimate meaning for compliance to precepts. The question to be answered is: Why must we, as Jews, eat *kosher*? Medicine provides an answer: “you must eat *kosher* because it’s healthy”. But not only is it healthy for the body, but it is also healthy for the spirit and social relations. Religion states that Jews must eat *kosher* because, by complying with divine precepts, they express their submission to the Almighty. To make Jews aware of the significance of the dietary laws, proselytizing movements within Orthodox Judaism resorted to scientific discourse as it was closer to the secular Jew’s universe of representations than the religious one. Secular Jews are part of a population likely to accept the scientific discourse, but, at the same time, they are part of a middle class which also consumes alternative types of medicine, where the physical and the spiritual planes are considered as part of one whole.

Finally, we have seen how both the religious and scientific discourses share a common denominator: the demand of discipline in everyday life behaviour. The ascetic is the subject whereupon science and religion combine to act, and where the division between both is overcome.

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SCIENCE IS JUST CATCHING UP: THE KABBALAH CENTRE AND THE NEO-ENLIGHTENMENT¹

HANNA SKARTVEIT

The Zohar teaches that Genesis presents the revelation of parallel universes, a notion that has only recently been confirmed by science. It has taken some 2,000 years for science to catch up to what Kabbalah had known all along! (Berg, P., 2003: XXXIII).

For some reason, the hypothetical multiverses and hyperdimensions of modern physics, which remain purely theoretical, are accepted by science, while the experiential reports of mystics throughout the ages of transcendent (i.e. supernatural) realities are dismissed or ignored (Haisch, 2009: 37).

“Nobody asks *when* physics started; it has always been there. It’s the same with Kabbalah. The work of the Kabbalist consists in discovering the rules which govern the world we live in”. The rabbi lets his gaze wander over the group of potential new students who have turned up for the Kabbalah Centre’s free introductory lecture at the *Centro Cultural San Martín* in Buenos Aires. His Spanish is steady, though now and then he searches for the correct words; the accent reveals an Israeli background, mixed with the characteristic Buenos Aires jargon. His tall stature, a greyish beard, the Jewish *kippah*² and a firm, yet mild, voice give him an air of authority and wisdom, but rarely in an intimidating way. “2000 years ago”, he continues, “the *Zohar*³ stated that the world is round like a ball and that people live on the lower side but do not fall down. And if you walk into the Trinity College in Cambridge, you

¹ I am grateful to John Chr. Knudsen, Margit Ystanes, Kristine S. Fauske, Thomas Mountjoy and Kathinka Frøystad for commenting on earlier drafts of this article.

² Skullcap.

³ The *Zohar*, the Book of Splendour, is an Aramaic text, accredited by the Kabbalah Centre to Rabbi Shimon bar Yohai, who lived in Palestine during the first and second century CE. It constitutes the principal Kabbalistic text and contains interpretations of the codes and metaphors hidden in the Torah.

can see Isaac Newton's Latin translation of this central Kabbalistic text. It is said that he spent more time studying this than anything else". This information usually has an impressing effect on the audience who are about to be introduced to the secrets of life; well-selected pieces of information that awaken the modern appetite for mysticism.

The Buenos Aires Kabbalah Centre is one out of 25 local Centres⁴ which form part of the transnational Kabbalah Learning Centre,⁵ and was established formally in 2001 with the arrival of a rabbi from the Centre in Chile.⁶ The Centre has since then experienced increasing popularity among the middle and upper middle classes of the Argentine capital, but also dramatic reorganisation. During my fieldwork, over three periods between 2007 and 2009, there was an air of optimism in the Buenos Aires Centre, both leaders and students spoke of expansion and the possibility of reaching status as Latin America's most important Kabbalah Centre, and in early 2009 new teachers arrived in order to broaden the course schedule. In 2010, however, the situation was quite different; the leaders and teachers had been transferred to more promising communities in Miami and Panama, and the Buenos Aires students were left managing the Centre through virtual classes and considerably reduced resources.

During my fieldwork, I heard a number of references to science; as parallels and explanatory metaphors in the courses and in the books, or sometimes merely as curious digressions. The Kabbalah Centre International's spiritual leader Philip Berg has shown a passionate interest in science since the start and is convinced of the scientific validity of the Kabbalistic knowledge. "From his earliest writings, he explained that the *Zohar* and other Kabbalistic writings constitute the most complete scientific textbook in existence, containing the information necessary for understanding the root causes for the functioning of the physical world" (Myers, 2007: 105).

⁴ The number of Centres varies due to local circumstances. In December 2009 there were ten Centres in the US, as well as centres in Canada, Argentina, Brazil, Mexico, Venezuela, Germany, Poland, UK, Israel, Russia and the Ivory Coast (<http://www.kabbalah.com/16.php>).

⁵ The Kabbalah Learning Centre is lead by Philip Berg, his wife Karen and their sons Yehuda and Michael, and has its main location in Los Angeles.

⁶ The Centre in Santiago de Chile was later closed due to internal differences, but an active study group still carries out gatherings and classes in improvised locations.

Beyond the Authority of Science

Some scholars have analysed the Kabbalah Centre within a New Age framework, either in more or less neutral terms (Huss, 2007; Myers, 2007) or as a direct critique (Garb, 2006). It would consequently be tempting to locate the Centre's interest in science within such a rich framework. And I am not saying that such a perspective would be misguided. Indeed, a lot of the scientific references employed by the Kabbalah Centre can be found in abundance in the New Age literature. As remarked by Hanegraaff (1996), modern science appeals to New Age thinking for two reasons: the interpretation of "new" science can legitimate a spiritual worldview, and, at the same time, the "old" science serves as a weapon to attack the existing scientific consensus for representing an "(...) outdated reductionistic paradigm bound to be replaced by a new paradigm based on a holistic perspective" (Ibid: 62). This appears to be true also in the case of the Kabbalah Centre. Nevertheless, there seems to be an important difference between the two systems. According to the New Age model "(...) science can shed light on, even explain, the workings of the divine in the cosmos and thus secure a scientific basis for religion" (Ibid: 63). The Kabbalah Centre, in contrast, at times expresses, as we will see, a quite opposite perspective: Kabbalah can shed light on, even explain, the workings of the cosmos as a complete system, the divine being present in every aspect, and hence assist science in opening the doors to the fundamental questions of reality that strict materialism impedes science from seeing.

As is common within New Age circles (Frøystad, this volume), the Centre frequently applies academic terms and titles in its self presentation. Philip Berg hence regularly appears with the title Dr.,⁷ sometimes in combination with religious titles, such as on the cover of the Spanish translation of his book *The Power of Aleph Beth* (1990) which states "Rabino Dr. Philip Berg". The Centre itself, of which Berg is dean, was formerly called the *National Institute for Research in Kabbalah* (1965), then the *Research Centre of Kabbalah* (1970), and finally the *Kabbalah Learning Centre* (1988) (Myers, 2007). In 2009 the Centre established the

⁷ The veracity of Berg's doctoral degree is widely disputed. See for example Fishbein (1994) or the Freedom of Mind Center (<http://www.freedomofmind.com/resourcecenter/groups/k/kabbalah/>) (accessed 15 October 2009).

website *Kabbalah University*⁸ which for a fee of \$ 42 a month gives access to live streaming of Kabbalistic events, weekly lectures and video lessons. However, as also Myers and others have observed, there is a long Kabbalistic tradition for comparing Kabbalah to science, and for placing science in a subordinate position to Kabbalah. Moreover, Kabbalah is, directly or indirectly, frequently referred to as a scientific tool or a science in itself.

By looking at the Kabbalistic tradition in a historical perspective, one can begin to understand an important paradox, which a too close focus on the New Age characteristics of the Centre's scientific allegories might easily conceal: The Kabbalah Centre's enthusiastic admiration for science on the one hand, and the, at times, almost sarcastic critique on the other. It might appear as if the Centre is appealing to science in an effort to achieve authorisation of its ideology. This is, I believe, a discursive strategy for the transmission of Kabbalah in modern terms, but not an ideological aim. For Kabbalah does not need the authority of science. On the contrary, science is merely shouting out yesterday's news; knowledge which the Kabbalists have attained for millennia by means outside of the limitations of rationality. True knowledge can only be achieved through revelation,⁹ intuition and experience. It might therefore also be fruitful to consider the Kabbalah Centre as a global project of bridging spirituality and rationalism, of harmonising the inevitable physical reality with the metaphysical; a project which also engages some contemporary scientists. Though clearly itself one of many children of the Enlightenment's emphasis on individual freedom, this movement, if one were to call it that, represents an attempt to move away from the rationalistic enterprise originating in the Enlightenment, and instead looks towards what I see as a "neo-enlightenment", where human knowledge is no longer bound by the limitations of the material. In contrast to the Enlightenment project, which aimed at eradicating magic and belief in the supernatural from Europe's intellectual culture in an effort towards complete rationalisation and secularisation at every level (Israel, 2001), the neo-enlightenment project does not intend to eliminate rationality. Rather, it points to the limitations of extreme rationalism and argues that true and

⁸ <http://www.ukabbalah.com/home> (accessed 30 October 2009).

⁹ Defined by Michael Berg as: "the connection between the naked energy of the Lightforce and humankind" (2003: LXVI).

complete knowledge of the universe can never be achieved if human-kind continues to ignore the influence of the spiritual realm and the knowledge acquired through millennia of mystical practice. Hence, the neo-enlightenment project can be said to represent efforts to re-establish the spiritual realm as a legitimate source of knowledge along rationality, breaking with the historical dominance of both extreme rationalism and established religion.

In my time at the Centre, I was surprised to find that science, in spite of its important place in the teaching and the literature, was rarely a topic of conversation among the students outside of classes. On the contrary, it seemed as if their attention was firmly directed at the experiential level; on the personal certainty of truth provided through *living* Kabbalah. My suggestion is that Philip Berg does not attempt, in his writings and formation of the Kabbalah Centre ideology, to establish the truth value of Kabbalah through scientific references. Rather, his aim is to prove to the world the superiority of Kabbalah, by showing how science eventually ends up reaching the same conclusions. For the students of the Centre, however, intellectual assertions come secondary to experiential certainty, in a process of learning to let the intuition of the soul dominate over the limiting materiality of the brain.

In the following I will discuss the Kabbalah Centre's perception of rationality, true knowledge and certainty, as presented in the texts of spiritual leader Philip Berg and his sons Yehuda and Michael. These notions are consequently reflected in the courses given in the local Centres and later reproduced among the students in a personalised, though easily recognisable, form. A consideration of the awkward relationship between spirituality and rationality not only opens up to a better understanding of the Kabbalah Centre's, at times paradoxical, manner of relating to science, but also to revealing their affinity with certain historical and contemporary scientific attempts to overcome the rationalist legacy from the Enlightenment. I will look at the Kabbalah Centre's relationship to science in a historical perspective, as part of a Kabbalistic tradition which frequently defines Kabbalah as a science in itself and blurs the lines between the two systems of knowledge. Recognising the limitations of an exclusively rational perception of human existence, the spiritual camp and certain segments of the scientific appear to share a strong wish to re-establish the rational and the spiritual realms as complementary and mutually dependent truths.

Science in the Kabbalistic Tradition

The Kabbalah Learning Centre was founded by Yehuda Ashlag in Jerusalem in 1922.¹⁰ He had emigrated from Poland to Palestine in 1921, and was inspired by the ideals of socialism, but yet critical of its incapacity to see religion's role in improving society. Ashlag developed some of the principal concepts of modern Kabbalah, but also wrote essays on topics of general interest to the public, without using Kabbalistic terminology (Myers, 2007).

He was quite aware of the tremendous scientific discoveries and new theories that were daily transforming life and challenging older religious outlooks. Yet Ashlag insisted that Kabbalah and science were in harmony. The existence of a supremely intelligent creator was demonstrated by the scientific studies that showed the complex internal construction of even the tiniest of living creatures (Ibid: 20).

One of Ashlag's disciples from Palestine, Rabbi Levi Krakovski, was in 1937 the first to attempt the dissemination of a popular version of Ashlag's teachings in the United States. He did not, however, have much success in his mission. "American Jews shaped their synagogue, home rituals, and Jewish school curricula to promote a rational, ethical, elevating, and staid religion" (Ibid: 25); they did not show much passion for Torah studies and did not see Kabbalah as an appropriate subject of interest. However, there was another small audience who did: Americans, mostly non-Jews, who had become familiar with Kabbalah as part of the new spiritual movements or through Kabbalistic symbolism in Masonic lodges.

Ashlag had crafted an argument that appealed to people's admiration of science, and certainly his disciples learned it from him. However, Krakovsky translated it into an American idiom. Whereas Ashlag had highlighted the harmony between Kabbalah and the findings of scientific research, Krakovski described Kabbalah as a scientific tool for material advancement (Ibid: 26).

Krakovski later became more critical of scientific knowledge as a force that would bring not just material improvement, but also human fulfil-

¹⁰ According to the Kabbalah Centre websites (www.kabbalah.com). According to Jody Myers (2007) it was registered in the US in 1965 under the name of *the National Institute for Research in Kabbalah*.

ment, and saw the World War II as a demonstration of the human spiritual regression.

One of Krakovski's students in New York was Shraga Feival Gruberger, who later changed his name to Philip Berg. Krakovski helped Berg form *the National Institute for Research in Kabbalah*, which was to become the Kabbalah Centre, but Berg nevertheless later only mentions Rabbi Yehuda Brandwein, another disciple of Ashlag, whom he studied with in Israel in the 1960s, as his teacher (Ibid.).

However, the Kabbalistic interest in science, and in seeing Kabbalah as science, goes further back than Ashlag. Ira Robinson, in his analysis of the Jewish text *Sefer ha-Berit* (first published in 1797), observes that according to its author, Pinhas Elijah Hurwitz, "science was at its best a confirmation of the truth known to the sages of the Talmud—Kabbalist all" (Robinson, 1989: 279). And this was no new perception; Hurwitz and his contemporaries were, through publishing books on scientific topics, "(...) continuing a tradition of harmonising Kabbala and science which was at least as old as the sixteenth century" (Ibid: 276). The *Sefer ha-Berit* saw science, the "handmaiden to Torah" (281), as progressing towards a confirmation of the divine wisdom of the rabbis regarding the physical universe, and as a secondary source of information through which Jews could get a clearer understanding of the rabbinic literature. In the sixteenth century, the Jewish mystic Moses ben Jacob Cordovero of Safed, showed a similar confidence in Kabbalah's capacity to enhance the knowledge of the universe: "Cordovero consistently refers to Kabbalah as *hokhmah*, the word medieval Jews used for "science", as in *hokhmah ha-refuah*, the "science of medicine". It was Cordovero's conviction, and that of some of his contemporaries, that Kabbalah could provide a "scientific" key by means of which it would be possible to understand the secrets of the universe" (Robinson, 1994: 3, footnote 1). Similarly, the French text *Traité de la Cabale*, commissioned by the king Francis I around 1521, presents the author Jehan Theanaud's definition of Kabbalah:

... the science and knowledge of God, as well as of separated substances, of the spiritual world, and of its secrets. Such knowledge cannot be acquired by exterior senses, nor by experience, reason, demonstration, syllogism, study or any other human and logical means, but only by faith, by illumination and celestial revelation which moves the free will to believe that which is inspired and to know the aforesaid secrets by the holy and written law of God and also by the figures, names, numbers, symbols, and other ways divinely and supercelestially given and revealed

to the fathers, patriarchs, prophets, and doctors of the Hebrews on the divine law (cited in Masters, 1993: 133–134).

As Hebrew is the divine language of creation, he concludes, the Holy Scriptures, written in Hebrew, contain all grammar, all knowledge (Ibid: 134). Theanau's characterization of Kabbalah is close to Philip Berg's son Michael's definition from 2003:

(...) the ancient spiritual science that is, both literally and metaphorically, a key to understanding the very principles governing the whole of creation—both seen and unseen, Divine and demonic, from the blinding stellar heights of enlightenment to the deepest depths of ignorance (Berg, M., 2003: LXXVI).

Nevertheless, while Theanau's definition seems to refer to knowledge of the "spiritual world" as one aspect of reality, The Kabbalah Centre, as we will see, considers Kabbalah as the science of both the spiritual and the material world.

The Spiritual Alternative: Bridging the Gap between Faith and Rationality

(...) humankind suffers from two basic modes of chaos. The rational mind is disconnected from the unconscious mind. We therefore operate with very little of our potential. A bridge of some sort is needed so that we can avail ourselves of the full impact of our mind computer (Berg, P., 2003: LXIII).

Science, as explanatory reference and metaphor, occupies a central role in the global enlightenment project of the Kabbalah Learning Centre. Without a doubt, it provides their cosmology with the authority needed to convince an urban, often highly educated, middle- and upper-middle class audience of the authenticity of its wisdom. It also offers attractive models, terms and metaphors for the explanation of complex spiritual concepts. But is that it? Is the Kabbalah Centre's relationship to science merely a conveniently constructed parallel which serves to legitimate the Kabbalistic cosmology?

Philip Berg has, in many of his publications, expressed an eager interest in the developments of science. In 1975, still early in the process of presenting Kabbalah to a wider audience, Berg stated:¹¹ "Based on scientific tests, it has been found that man uses only 10 percent of

¹¹ I am grateful to Boaz Huss and Jody Myers for giving me access to this material.

his mental faculties; that is to say, 90 percent of man's consciousness is—shall we say asleep? From this conclusion you can see that man, to use a Kabbalistic term, is veiled” (Yisrael, 1975: 17). One of the main causes of such veiling was, in his view, the dominance of rationalism in society. Nevertheless, he saw the importance of not strengthening the gap between the rationalistic ideal of modernity and spirituality, and criticised Judaism for what he saw as dogmatism and authority based on blind obedience. Berg regarded the Kabbalah Centre as an answer to the lack of spirituality in traditional Judaism in a time that craved the new spiritual and mystical influences of the East, as well as an alternative to religion for secular Jews and non-Jews.

This deadening presentation of Judaism could not withstand the prevailing rationalism of modern thought, Berg observed. Many people were persuaded by reason and science to be sceptical of religion entirely. At the same time, they were aware that science cannot “make sense of a world in which chaos and injustice abound and the innocent suffer” (Myers, 2007: 51).

Berg has since dedicated much space in his writings to enthusiastic comments on new scientific ideas and their parallels in the Zohar. According to Jody Myers, Yehuda and Michael Berg are not as focused on bridging Kabbalah and science as their father Philip (2007: 108). As I see it, however, there are no indications of a diminishing in Kabbalah Centre attention to new scientific theories and how to link them to the Kabbalistic body of knowledge, though on a fairly popularised level. Michael Berg's *Becoming Like God: Kabbalah and Our Ultimate Destiny* (2004) cites Einstein on the optical illusions of consciousness (168), and describes Kabbalah as “the science of the oldest truth of all” (22) and the Zohar as a “compendium” of all information concerning the universe, which science is just beginning to confirm (155). Michael has nevertheless focused more on making the traditional Kabbalistic texts available to humanity,¹² while Yehuda has published on a number of topics. He devoted a large part of his introduction book *The Power of Kabbalah* (2004b) to explaining the harmony of science and Kabbalistic ideas, and the amazement of modern scientists when comparing their

¹² According to his biography on the KC website, “Michael Berg was the first person ever to translate the entire 23-volume Zohar, with complete commentary by Rav Ashlag, from Aramaic and Hebrew into English—a monumental task which he completed when he was only 28 years old”. (http://www.freeczohar.com/michael_berg.html, accessed 5 June 2009).

own theories with the writings of the Zohar. In addition, the book's appendix, "A Brief History of Kabbalah", places Pythagoras, Plato and Newton in chronologic relation to biblical figures Abraham, Moses and Jesus, as well as Kabbalists such as Shimon bar Yohai, Isaac Luria and Yehuda Ashlag. In his book *Angel Intelligence* (2007), Berg states that what the Kabbalists call angels are really "packets of energy" (5), or in the language of science: *particles* (10) or *atoms* (12). Hence, "Kabbalah validates science" (10). In *The Dreams Book: Finding your Way in the Dark*, Berg refers to Kabbalah as an "applied science" and as the answer to Einstein and others' search for a "Theory of Everything" (Field Theory) (2004a: 25). Even his book on how to become economically and professionally successful, *True Prosperity* (2005), briefly mentions theories of physics on matter and the universe in order to establish the relativity of what we believe to be real (31). Finally, *The Kabbalah book of Sex* (2006) parallels the mystical language of the creation in the Zohar to the scientific theory of the Big Bang (87); a parallel that is well established in the Centre. In fact, the entire cosmology of the Kabbalah Centre, as it is presented today, would probably collapse without the aid of scientific parallels and metaphors.

True Knowledge, Certainty, and the World's Longest Half Metre

Only in being is there true knowledge (Berg, M., 2003: LXIX).

In order to understand the Kabbalah Centres' somehow paradoxical relationship to science, one of simultaneous embracing and critique, I find it fruitful to consider in more detail their notion of knowledge and certainty, which clearly sets them apart from scientific methods of obtaining objective knowledge.

The Centre considers Kabbalah the original wisdom of the forces that rule the universe, divinely revealed to humankind on two occasions, but not properly appreciated: First to Moses on Mount Sinai, accompanying the Pentateuch, and later to whom some claim was the reincarnation of Moses, Rabbi Shimon bar Yohai, in a cave in Palestine around the 2nd century C.E. through the Zohar. Nevertheless, the secrets of the Torah, as they appear in the Zohar, were already known to Adam, and to the Patriarchs of the Old Testament.¹³ Kabbalah

¹³ http://www.freczohar.com/about_the_zohar.html (accessed 5 June 2009).

is hence seen to constitute the foundation, not only for all religions and belief systems, but for true knowledge itself. As affirmed by Philip Berg in the interview mentioned above, from 1975, the knowledge of Kabbalah was spread to the Eastern philosophies, as stated in the Zoharic interpretation of Genesis 25:6: "And unto the sons of the concubines that Abraham had, Abraham gave them gifts... and sent them eastward, unto the east country" (Cited in Lipschutz, 1975: 17). The "east country", according to Berg, refers to areas such as India, and the gifts were spiritual teachings, but the complete system of knowledge was nevertheless only handed down to Abraham's son Isaac (Ibid.).

Another important clue to understanding the Kabbalah Centre notion of knowledge is to be found in the biblical story of Adam's sin in the Garden of Eden. This fundamental story, far from representing a historical reference, is seen as a rich source of information about the secrets of the universe, hidden in mystical codes. According to the Kabbalistic interpretation, there are two parallel universes that human-kind can occupy and connect to; the reality of the Tree of Knowledge (*Etz HaDaat*) and the reality of the Tree of Life (*Etz HaChaim*); the story of the Garden of Eden defines these realities.

¹ Now the serpent was the shrewdest of all the wild beasts that the Lord God had made. He said to the woman, "Did God really say: You shall not eat of any tree of the garden?" ² The woman replied to the serpent, "We may eat of the fruit of the other trees of the garden. ³ It is only about fruit of the tree in the middle of the garden that God said: 'You shall not eat of it or touch it, lest you die.'" ⁴ And the serpent said to the woman, "You are not going to die, ⁵ but God knows that as soon as you eat of it your eyes will be opened and you will be like divine beings who know good and bad." ⁶ When the woman saw that the tree was good for eating and a delight to the eyes, and that the tree was desirable as a source of wisdom, she took of its fruit and ate. She also gave some to her husband, and he ate. ⁷ Then the eyes of both of them were opened and they perceived that they were naked; and they sewed together fig leaves and made themselves loincloths (Genesis, 1, 3: 1-7, *Parashat B'reishit. Tanach, 1985*).

Adam's sin had nothing to do with the eating or not of apples, and Philip Berg (2003) points to the puzzling detail that God apparently was wrong in predicting Adam's death, as he afterwards lived to be 930 years old. In contrast, the Kabbalistic interpretation states that Adam's "sin" consisted in connecting to the energy of the Tree of Knowledge, which contains both good and evil. "Before he connected to the Tree of Knowledge reality, he maintained a consciousness of certainty about the

physical state of existence. To achieve the reality of mind over matter, Adam was required to maintain absolute certainty. Were Adam to falter, he could not control the physical realm. His certainty assured him of control over the material realm” (Berg, P., 2003: XXXIV). Without certainty Adam opened up for the energies of limitation and mortality to enter the world. In a sense, knowledge, as opposed to certainty, allowed for doubt to enter the picture and conditioned humankind to pain, chaos and suffering from the beginning of times.

From this central event, we can identify two separate systems of knowledge: the Tree of Knowledge and the Tree of Life. Every individual chooses which of these realities to connect to. One important key to understanding these concepts can be found in Philip Berg’s perception of the level of activity in the human brain: “Psychiatrists admit that humankind makes use of no more than four percent of its consciousness and that the remainder lies dormant” (Berg, P., 2003: XLII). Curiously, though maybe suspected by some, mankind’s brain activity appears to be decreasing, since Berg in 1975 stated that “based on scientific tests, it has been found that man uses only 10 percent of his mental faculties” (Lipschutz, 1975: 17). I have also heard this widespread argument¹⁴ been presented in class at the Kabbalah Centre.¹⁵ According to Berg, the limited four percent activity of our brains is thoroughly focused on the material and the rational, hence overlooking the potential of the remaining 96 percent which would allow us to expand our understanding of human existence and gain access to true knowledge. “This metaphysical or unconscious level can accomplish infinitely greater processing than the most sophisticated computer available” (Berg, P., 2003: LXII–LXIII). In consequence, humanity’s ignorance of this unused potential has made us blind to the perfect order of the universe, believing instead that we are “helpless human beings aboard a rudderless ship in a stormy sea” (Ibid: LXVII). The Tree of Knowledge system, with its emphasis on material reality and

¹⁴ The argument, often referred to as the “ten percent of the brain myth”, is widespread in New Age circles for its utility in explaining non-used human psychic powers, but has also flourished in secular understandings of the brain. The myth has been given several origins, among them Albert Einstein, William James and Margaret Mead. It lives on today, in spite of the continued insistence from researchers that brain scans show the activity of the whole brain, even during sleep, and that a brain that only uses 10 percent of its potential is in fact a severely damaged brain. See for example Beyerstein, 1999.

¹⁵ The course *Kabbalah 1*, 25 April 2007.

physical limitations, is in itself hence an erroneous tool for reaching true knowledge because it involves uncertainty. The knowledge of good and evil that it offers is an illusion, for evil is a human product expressed through the desire to receive for the self alone; since the Creator is pure good, so is the divine order of the universe.

In consequence, true knowledge requires a transformation of consciousness, from the illusions of the material and rational to a connection with the Tree of Life reality. This entails a recognition of humanity's rationality as both limited and limiting, it entails certainty about the true human role and potential, and it entails a transformation of the ego-driven desire to receive for the self alone into a desire to receive for sharing. For analytical purposes, it is possible to see the two knowledge systems as binary oppositions which imply a set of characteristics:

Tree of Knowledge: Tree of Life
Physical: Metaphysical
Rational: Spiritual
Uncertainty: Certainty
Illusion: Truth
Suffering: Harmony
Chaos: Order

The soul, in its non-material state, has complete knowledge of creation and its divine past and purpose. It is said that the soul, while preparing to enter a new incarnation, is visited by an angel who places a finger on its mouth so that it will forget everything. The task of the human is to find its way back to this knowledge. This goal, however, can never be achieved through rationality alone, for it will always limit the mind through relying strictly on the materiality of the senses. Escaping the material prison which limits the human mind requires a disconnection from the intellect's conformity with the norms and thought patterns created and imposed by society, and a reconnection with the soul. Each human soul carries a divine spark which connects it to the Creator, but the knowledge that this connection implies is hidden behind veils of negativity which have been built up through several life-times of negative emotions, thoughts and actions. In order to attain knowledge, the Kabbalist must hence work to eliminate negativity from his life through active correction of habits, thought patterns and accepted truths. True knowledge makes itself available through experience and revelation, but this requires clear "channels" to the source.

One of the most important spiritual “tools” available to access this knowledge is certainty; certainty of the Creator’s generosity and love, but also certainty of the individual’s capacity to create its own reality and miracles. The Kabbalist, hence, has a fundamental tool that science lacks: total certainty of its knowledge and an ability to see beyond the material illusions. “Unlike the physicist, the Kabbalist does not suffer from a plague of uncertainty” (Berg, P., 2003: XVII), Berg almost sarcastically comments in the introduction to the Kabbalah Centre’s publication of the Zohar. The scientific community’s uncertainty, stubbornness and materialistic limitations are also seen as unnecessarily blurring the understanding of reality:

Were the scientific communities amenable to accepting the hypothesis that terrestrial activity is subject to celestial cosmic influence, as so clearly stated in the Zohar, much of scientific data, now shrouded in mystery, might just open up endless new frontiers in nature never before imagined (Berg, P., 1984, cited in Myers, 2007: 107).

The Kabbalah Centre’s critique of science should not, however, be seen as a denial of the value of rationality. Rather, it sees the all-encompassing rationalism that dominates modern thought as incomplete; through a narrow focus on the material, it overlooks the spiritual, and hence ends up considering the effects rather than the causes. In order to overcome these limitations and for Kabbalah to be experienced in a true way, knowledge hence needs to move from the brain’s rational understanding of concepts to the heart; one must intuitively know that this is correct. Nevertheless, the distance from rationality to intuition, from head to heart, is, as commented by the rabbi in Buenos Aires, “the world’s longest half metre”.

Science as the Golden Calf—The Intermediary as Creator of Uncertainty

As we have seen, the classification of rational understanding within a different knowledge system than the Kabbalistic knowledge confuses what at first glance might appear as the harmonious relationship of Philip Berg and the Kabbalah Centre to science. In the following I wish to suggest that the relationship might be further complicated by the Kabbalistic perception of idolatry, as described in the central biblical incident with the Golden Calf (Exodus 32, verses 1–24, *Tanach*, 1985). This well-known story narrates how the Israelites were waiting for Moses to return from Mount Sinai. However, they became impatient and lost

faith in their leader's return. So they gathered all their jewellery and made a golden calf to which they directed worship. This act of idolatry, in the Kabbalah Centre interpretation, consisted in worshipping the intermediary instead of God. The pact of Mount Sinai, Berg explains, represented an empowering of the people; Moses was no longer to be their intermediary to God, as none was needed anymore. The Israelites forgot this, and made a new agent in the place of Moses, hence disempowering themselves (Berg, P., 2003). And this has been humanity's burden ever since: "For the past six millennia, humankind's lot in this universe hasn't really improved, aside from what appears to be the physical conveniences that have also brought with them the problems of an enlightened society" (Ibid: LXIV).

The intermediary, the idol, might hence be defined as anything that stands in the way of human being's direct relation to the divine and therefore veils the understanding, and certainty, of its position within the cosmic order and its divine potential. Berg identifies the computer in the role of humanity's contemporary golden calf, through placing "a consciousness thought within the minds of all people of the world that we are incapable of accomplishing what the computer can accomplish" (Ibid: LXI). Hence, by depending on the computer, humankind maintains uncertainty about its ability to master the universe; the computer "convinces humankind that it is not empowered with the ability to rise above matter" (Ibid: LXII). In other words, humanity's tendency towards creating intermediaries is slowing down our evolution rather than encouraging it. Through inventing these modern idols "(...) we have abdicated the responsibility to do things for ourselves" (Ibid: LXIV). The only way out of this predicament is through recognising that human potential far exceeds any of these material manifestations, including rational consciousness itself. The computer on the other hand, as the golden calf before it, has only contributed to humanity's lack of certainty about its relation to the divine order.

In my view, Philip Berg, in his frequent use of scientific references in the introduction to the Zohar, indirectly locates science, within its current principle paradigms, in a similar relation to humanity as the golden calf and the computer. Science, through its insistence on rationality as the true language of knowledge, might be seen as yet another intermediary, infusing the world with uncertainty. Science makes the human being seem insignificant in a historical sense as well as a physical: man is not even a grain of sand in the larger cosmic context. As

expressed in a recent popular effort to unite science and spirituality, *What the bleep do we know!?* (2005):¹⁶

The followers of Darwin provided the final stroke in the materialist triumph. Not only is there no God, and thus no intelligence guiding the unfolding of intergalactic life, but we ourselves, once at the center of the world, are nothing but random mutations, carriers of DNA's relentless quest for more, in a meaningless universe (Arntz, Chasse & Vicente, 2005: 20–21).

Kabbalah, on the contrary, sees the history of mankind as a consistent cycle of souls; through reincarnation, each person has participated throughout history, and this history is relevant for the present life. Historical events are hence directly relevant for the present, for they are part of shaping individuals and humanity today; not through culture or tradition, but as part of the souls' way back to unity with God and with the other souls. A soul's previous incarnations, and its performance in them, set the conditions for the current incarnation. In consequence, every soul is immensely important for the cosmic system; man is not a grain of sand, but represents God's only option for manifestation on earth. The soul is the physical surface which allows the divine light to reflect and hence manifest itself; it is the vessel of all God's blessings.

Science, much like the golden calf and the computer, makes the human being dependent upon intermediaries instead of understanding and manifesting its divine potential, and reaches for the truth they offer instead of the truth of the divine source of everything. This idolatry, in the Kabbalistic sense of the word, allows for doubt to rule physical reality, creating chaos, suffering and loss of empowerment; mankind is not in synch with its purpose, which is to manifest its divine potential though practising certainty. This way, humanity keeps on connecting to the reality of the Tree of Knowledge, instead of the reality of the Tree of Life. Science, like the computer, can be a convenient tool, but one must not base one's perception of reality upon it or allow consciousness to be controlled by it, for its "truth" is dressed in illusion and its product is doubt rather than certainty. Berg asks himself:

So why does science continue travelling down a path that must end with inconclusiveness? One becomes appalled, when reading of scientific "discoveries" in newspapers and scientific journals, to find that the reports

¹⁶ This book was on some occasions used as reference in the Kabbalah Centre in Buenos Aires, for example in the course *The Power of the Mind*.

and articles conclude with statements such as, “Of course, these findings still remain inconclusive, unsupported by hard evidence” (Ibid: LXIII).

Another creator of doubt and disempowerment is complexity, for truth and certainty should be simple. We can consequently add another pair of characteristics to the binary oppositions presented in the previous section, complexity: simplicity. The growing complexity of which we are accustomed in modern societies and which characterises the sciences’ quest for discovering reality is part of the rational illusion created by Satan¹⁷, and hence serves to confuse, rather than enlighten; it makes humanity see itself as disempowered, insignificant and incapable of change. In this sense, Satan is similar to what Rudolf Steiner termed Mephistophelean Ahrimanic beings, who promote scientific rationalism and work to retain humanity in its present materialist and earthbound evolutionary stage (Brendbekken, 2003). Philip Berg describes the illusion of rationality as follows:

Some will dismiss the Zohar because it offers such simple answers. It is Satan who, over the millennia, has led humankind into the abyss of complexity. We have accepted the idea that physics, mathematics, and other complex sciences belong to the elite. This has hindered the masses from understanding the nature of life and has placed our destinies in the hands of those who “know better” (Berg, P., 2003: XLIX).

Similarly, Michael Berg, explaining why his edition of the Zohar does not appear in a formal academic format, with footnotes and scholarly comments on linguistics, argues for the importance of presenting the text in a “simple and unadorned” manner. This, he argues, reflects the role of the Zohar: “to bring Light where formerly there was none”. Hence, “providing material for yet more obscure treatises on metaphysical theology serves no real purpose, but it does betray the real purpose of the Zohar” (Berg, M., 2003: LXXI).

Science is used descriptively to sustain certain Kabbalistic principles, but it seems that this is its only function, it supports the Kabbalistic knowledge; “handmaiden of Torah”. Confusions and lack of nuances in relation to actual scientific findings and out-of-date theories (such as

¹⁷ The Kabbalah Centre does not see Satan (pronounced *Sa'tan*) in traditional biblical terms as an evil force, but rather as a metaphysical opponent, created by God and manifest in the human ego, dedicated to veiling truth and giving human beings challenges, in order to promote personal empowerment, give them the opportunity to deserve their blessings and secure free will.

the myth of the limited use of our full brain capacity) might therefore not be so important, for this is after all *secondary* knowledge derived from the rational conscious level of the brain; Kabbalah contains the original, primary and complete knowledge of our existence, while science is merely seen as arriving at the same conclusions, presenting them in a language designed for the rational mind. The Kabbalah Centre hence appeals to science in an effort to dress Kabbalah in a contemporary outfit, in the Western language of modernity.

Uncovering Veiled Knowledge through Science and Experience

Kabbalah has through history proven to be an extremely flexible system of knowledge. The application of an elaborate system of codes and metaphors which, according to the Kabbalists, dominate the texts of the Pentateuch, and the poetic language which characterises the Zohar, allows for the texts and the messages to remain modern and relevant at all times. Without a doubt, this flexibility allows for the Kabbalistic system to continually approach and evaluate new developments and adaptations within the scientific field, and in that sense it resembles Marit Brendbekken's description of vodou in the Dominican Republic and Haiti: "I argue that the cosmological openness of vodou and the attitude of additivity among its adherence make the bridging over to science possible, while Western material-mechanical science is incapable of crossing the bridge due to its cosmological close-mindedness" (Brendbekken, 2003: 56–57). The rabbi in the Buenos Aires Centre explained to me that the Zohar can be seen as a mathematical formula which is unchangeable and contains everything. The use of this formula, however, is in continuous development, allowing it to retain relevance in a changing world. The Zohar hence gives the Kabbalist access to divine perpetual truths which, due to the text's literary form, hold sufficient flexibility for the implementation of the knowledge in modernity.

This form requires continuous adjustments to contemporary society, contexts and language in order to be understandable. In the words of Philip Berg: "Only when knowledge of electricity, basic physics and even the general principles of quantum mechanics were in possession of the average person could Kabbalah be taught in any span of time shorter than a lifetime" (Berg, P., 1984, cited in Myers, 2007: 107). Kabbalah hence seems to need the modern language of science to

transmit its message and to uncover the metaphors of the Torah and the Zohar. The ancient Kabbalists had the knowledge, but described it textually based on the world view and language of the moment. They were, according to Yehuda Berg, saying the same thing as the physicists of today, only in a different language.

(...) because the kabbalists 2,000 years ago couldn't explain protons, electrons, and neutrons—or positive force, negative force, and resistance—they depicted this energy as a winged cherub! The right wing is the positive charge. The left wing is the negative charge. And the body in between is the neutron—the free will, the force of resistance (Berg, Y., 2007: 11).

The language of the Western, educated upper middle class has since the Enlightenment, increasingly, been rationality. The Kabbalah Centre, perhaps more than any group of Kabbalists before them, shows an impressive ability to stay modern and trendy while maintaining their traditional Jewish and Kabbalistic foundation. Equipped with a notable team of students/volunteers with professional skills from areas such as publicity, marketing, finance, media and entrepreneurship, as well as experience from several spiritual and religious traditions, the Centre can enjoy free trend expertise and analysis for the development of their global mission. Hence, in spite of their ideological definition of rationality as belonging only to the material reality, the KC seems to recognise the importance of speaking a language that will be understood and approved of by its audience. “Kabbalah is so amazingly intellectual”, one of the most experienced students in Buenos Aires told me. “It makes total sense, not only for the heart/soul, but also for the brain”. As explained by another student, “it is hard for us to believe without using the five senses, so showing all the aspects that unite science and Kabbalah makes it much easier to understand”. His passionate interest in science does not, however, modify his understanding of what Kabbalah is, but it does help to convince his senses and his logical inclinations of what Kabbalah teaches. The true Kabbalistic knowledge, however, can only be achieved through recognising the illusions of rationality, and connecting to true knowledge through intuition, practice and experience.

To my surprise, the students at the Buenos Aires Centre rarely mentioned the topic of science in their conversations outside of classes or when asked how they know that Kabbalah constitutes true knowledge. How could this be, given the KC's central interest in this topic? Of

course, the lack of reference to the topic could be explained by a lack of personal interest in or comprehension of the scientific field, but when I brought up the subject many stated to have both interest and educational background in the natural sciences. Andrea, a central person in the Centre's volunteer work and with an educational background in mathematics and physics, saw the relationship between Kabbalah and science as important, because Kabbalah has the answers to the questions that science has not yet resolved. Kabbalah therefore helps her understand science better; it shows her that the developments of science were already present in Kabbalah, and that no scientific answers can be clearer than those given by Kabbalah. Her interest in science does nevertheless not affect her way of looking at Kabbalah. "Kabbalah doesn't need rationalisation, I feel it. It's already in me; it's part of my DNA".¹⁸

Cristian, a man in his early fifties, entered the Centre in my second period of fieldwork, and was in many ways a novice to the field of Kabbalah. Nevertheless, he seemed to comprehend the Kabbalistic system with facility due to his almost life-long experience with other spiritual traditions, different types of meditation and shamanic practices. In addition, he appeared to have a natural ability to experience the energies of the rituals and spiritual tools physically. When I asked him whether he understood Kabbalah mainly through his intellect or through intuition, he responded that it, without a doubt, went through the heart, the instincts and the mind. "The dominant role of rationality that we see today", he said, "is an attempt to avoid taking the personal responsibility of assimilating that every one of us is creating the world in every instance".

Carlos, one of the more experienced members of the community and with much experience as a tutor in the Kabbalah classes, admits a more intellectual approach to the knowledge. "Kabbalah is so incredibly logical; it's very satisfying for my intellect, everything adds up. Being a Scorpio, I'm a very empirical person; I need to understand everything intellectually and see in order to believe". Carlos has, as Cristian, spent a great part of his life searching through different spiritual disciplines, but until he started studying Kabbalah he kept feeling

¹⁸ DNA is a frequent reference in the Centre. See for example Berg, Y. (2004b) who uses terms such as the "DNA of God" (2004b: 59) and "spiritual DNA" (2004b: 125).

an uneasiness which always led him to move on to the next philosophy. “There are a lot of philosophies and spiritualities which teach you wonderful things”, he explained, “but you have to *do* it, not sit and wait for some enlightenment thing to hit you in the head. *Living Kabbalah* is what has given me the certainty of its truthfulness”.

There is no doubt that the students of the Kabbalah Centre enjoy the scientific references, and these must clearly affect their judgement of the knowledge in some way or the other. Nevertheless, as observed by Jody Myers, “[f]or the teachers and students at the Kabbalah Centre, the most convincing proof is personal experience. They are not seeking carefully controlled and thoughtfully interpreted experiments whose conclusions meet the critical scrutiny of the scientific community” (Myers, 2007: 105). In fact, narratives of personal experiences are central to the communication in the Centre, both in class and in more informal conversation. The narratives tend to take the form of testimonies of the improvement of the quality of life since Kabbalah entered their life, confessions of how hard the process of personal transformation can be, or both of them together. The subjective improvement of life quality is fundamental for the students’ understanding of Kabbalah as true knowledge. In a much less obvious way, the recognition of the hardship of living Kabbalah is too, for problems should be seen as opportunities to grow spiritually and as indications of being on the right track towards humanity’s common enlightenment.

Entering a New Enlightenment

Man’s nobler future is destined to come when he will develop to a sound spiritual state so that instead of each discipline negating the other, all knowledge, all feeling will be envisioned from any branch of it. This is precisely the true nature of reality (Rabbi Abraham Isaac Kook, cited in Smith, 2006: first page).

Science without religion is lame. Religion without science is blind. (Albert Einstein, 1941).

Accompanying the Scientific Revolution, The Enlightenment brought a strict new ideal into European intellectual life: traditional authority based on religious dogma and divinely ordered systems was to be replaced with a profound rationalisation and secularisation of all aspects of life. In practice, however, the intellectual scenario was fragmented, and most of the new streams of thought still sought to accommodate

the new advances in science and mathematics to religious belief (Israel, 2001). Nevertheless, it may seem that the mystical traditions went from the threat of heresy accusations of the Dark Ages to a new regime, that of rationalism.

Isaac Newton was an enthusiastic alchemist and a student of the Zohar. He believed that God ordered nature through divine law, and saw no contradictions between the truths of his scientific discoveries and those expressed in the Bible (Hexham & Poewe, 1997). According to Michael Berg, Newton learnt Hebrew in order to study the scriptures and “ended up writing more about Kabbalah and mysticism than he did about science” (Berg, 2008: 71). Berg also quotes Einstein, in a letter from 1940: “He (Newton) is firmly convinced that the seemingly dark sections in the Bible hold great revelations, and one has to simply strive to decipher the underlying symbolic language” (Ibid: 70). Lars Sunnanå, on the other hand, maintains that Newton came to see Kabbalah as a dangerous heresy because it mixed up religion and intellectual understanding, hence generating confusion and religious disagreement. Religion should restrict itself to transmitting the message of love and faith, and leave the investigation of the world to science.¹⁹ According to Berg, on the other hand, it was Newton’s heirs who intentionally attempted to portray him as an atheistic, rational man of science.

(...) although a genius like Sir Isaac Newton understood that spiritual wisdom and physics were two sides of one coin, many rejected this holistic approach to nature and the mysteries of the Universe. Theology and mysticism were out. Materialism and atheism were in. In the late 1800s, it was no longer politically correct to commingle spirituality and science (Berg, 2008: 69).

The Kabbalah Centre version of Newton’s interest for Kabbalah is here more significant than whether or not it is a correct description. It represents one out of many examples of how the Centre stresses Kabbalah’s fundamental role in the developments of new scientific ideas:

The 17th century experienced an abrupt and *unexplainable* explosion of scientific advancement. Scholars and scientists had no idea why this sudden scientific outburst took place. On the basis of new evidence, however, some scholars now argue that it was Kabbalah that profoundly

¹⁹ “Kabbalahs rolle i europeisk åndsliv”. Publication year not stated.

influenced the greatest scientists and mathematicians of the 17th century. This was a time a lot different than our own. In our day, science and spirituality wage war on another. During the 17th century, the lines between spirituality and science, physics and metaphysics, were virtually nonexistent" (Berg Y., 2004: 242).

Albert Einstein on several occasions expressed his views on the relationship between religion and science. His concept of "cosmic religious feeling" (Einstein, 1930), a worldview with no anthropomorphic conception of God, can be seen as an attempt to challenge the historical construction of the two fields as antagonists. This feeling, which should be awakened and kept alive in those receptive to it by art and science, is, in Einstein's view, characteristically found among the heretics of every age.

The individual feels the futility of human desires and aims and the sublimity and marvelous order which reveal themselves both in nature and in the world of thought. Individual existence impresses him as a sort of prison and he wants to experience the universe as a single significant whole (Einstein, 1930).

The cosmic religious feeling is hence "the strongest and noblest motive for scientific research" (Ibid.); the strength that makes the scientists remain true to their purpose in spite of the years of solitary labour, immense efforts and countless failures which characterise pioneer work in theoretical science. The scientist and the spiritual seeker hence have a common drive behind their endeavours: a profound yearning to understand the universe and humanity's existence within it. In Einstein's perception, dedicated science, in a sense, takes on a religious character, but it cannot represent the only source of knowledge, for the scientific method in itself "can teach us nothing else beyond how facts are related to, and conditioned by, each other" (Einstein, 1941). Objective knowledge can be a powerful instrument for achieving certain ends, but can never be a guide for humanity; the purely rational conception of existence is therefore limited:

It is true that convictions can best be supported with experience and clear thinking. On this point one must agree unreservedly with the extreme rationalist. The weak point of his conception is, however, this, that those convictions which are necessary and determinant for our conduct and judgements cannot be found solely along this solid scientific way (1941).

Einstein deducts that the conflicts between religion and science must be due to a misapprehension, for the two fields should belong to different

realms, though with strong reciprocal relationships and dependencies. Science, in Einstein's understanding, is "the century-old endeavor to bring together by means of systematic thought the perceptible phenomena of this world into as thoroughgoing an association as possible" (Ibid.). Religion, on the other hand, can be seen as "the age-old endeavor of mankind to become clearly and completely conscious of these values and goals [which neither require nor are capable of rational foundation] and constantly to strengthen and extend their effect" (Ibid.). According to this, science can only ascertain what is, not what should be, while religion deals only with evaluations of human thought and action, and cannot justifiably speak of facts and relationships between facts. Conflicts between the two realms should hence appear impossible, but do indeed occur when religion intervenes in the sphere of science or visa versa. The greatest source of conflict is, however, the concept of a personal God, and religious teachers should work to overcome this image and focus on the forces which are able to cultivate the good, the true and the beautiful in humanity itself: "After religious teachers accomplish the refining process indicated they will surely recognize with joy that true religion has been ennobled and made more profound by scientific knowledge" (Ibid.).

In 1975 physicist Fritjof Capra published his bestseller *The Tao of Physics*, which pointed to the parallels between Eastern mysticism and modern physics. In his opinion, "modern physics leads us to a view of the world which is very similar to the views held by mystics of all ages and traditions" (Capra, 1991 [1975]: 23). His voice is one of optimism; Western science is finally overcoming the dualism between spirit and matter which has dominated intellectual thought since Aristotle's strict separation of body and soul. Around 30 years later, however, astrophysicist Bernard Haisch expresses a more sober view of modern science, as an enterprise "based on the premises of materialism, reductionism, and randomness" (Haisch, 2009: ix) which is "dangerously dogmatic" (Ibid: 35) in its inability to accept evidence which does not accord with its philosophical beliefs, and hence constitutes "fundamentalism in the guise of scientific inquiry" (Ibid: 36). In response to this, Haisch's project is similar to that of the Kabbalah Centre and hence goes further than Capra's. He not only points to the parallels between spirituality and science, but proposes a new theory of "rational spirituality" (Ibid: 2) or "spiritual physics" (Ibid: 19) which promises to reinstall divine purpose in the lives of human beings, while at the same time maintaining consistency with the discoveries of science: "What I

propose is an infinite conscious intelligence—so let's call it God—who has infinite potential, whose ideas become the laws of physics of our universe and others, and whose purpose in so doing is the transformation of potential into experience" (Ibid: xi). Consciousness is hence the origin of matter, not the other way around. Haisch states that an ancient Kabbalistic text, the *Haggadah*, inspired him to consider the Big Bang differently. On March 25 2009 he was a guest in the radio show *Yehuda Berg and Friends*²⁰ in the event of discussing his book *The God Theory* (Haisch, 2009). Berg expressed great enthusiasm for his work and confirmed that his view was in line with Kabbalah. In fact, the vision of God is very similar in the cosmologies of Haisch and the Kabbalah Centre. In their view, God before creation is a force in state of potential, one that is pure giving but has no receiver of his generosity. So God creates a vessel whose nature is that of pure receiving, the human soul. The soul, in spite of its apparent distance from the Creator, maintains a divine spark which connects it to all the other souls that were once part of the same original vessel, and to God. In Haisch, God moves from *being* to *doing*; from sterile potential to manifestation; from ideas to creation. In the words of the author, "We are the creating intelligence made manifest—sons and daughters of that infinite consciousness, experiencing one particular creation that happens to consist of space and time and the laws of physics known and loved by modern science" (Ibid: 17). They also share a fundamental belief in the complementary of spirituality and science, and a conviction that science can never achieve complete knowledge without moving beyond the limitations of materiality: "Science, or *scientism*, in the service of ontology, although absolutely correct, "only penetrate[s] the lowest level of reality—that of the physical and the material" (Ibid: 25). Science should hence learn from spirituality rather than making it irrelevant. As reflected in the statement of one of the students in Buenos Aires: "By learning from Kabbalah, science could achieve the same results as they do now, but in shorter time".

Astrophysicist Howard Smith represents another recent effort to locate ontological links between Kabbalah and science, though his approach is somewhat different. He argues that "mysticism is rooted in rational insights and the logical development of ideas, not just personal

²⁰ Broadcasted on *Sirius Satellite Radio* (www.sirius.com) from February 2009. In August 2009, however, the show was no longer on the channel's websites.

revelations" (Smith, 2006: 12) and also that "modern science is no longer quite so sure what an "objective" measurement is, or even if such a measurement is possible" (Ibid: 13). Consequently, he attempts to draw Kabbalah and science closer to each other not just thematically, but also methodologically. He is also critical of many "religious people's" view of science:

They argue that science is naively pursuing a reductionist approach that leaves it intrinsically blind to deeper truths and oblivious to how human language and societal concerns shape it—influences, they feel, that ensure science's failure to meet its own ideal of "objective truth" (Ibid: 13).

Comparing the three positions, the Kabbalah Centre, Bernard Haisch and Howard Smith, it is clear that they share a common goal: a harmonised unification of spirituality and science which will enhance human beings' understanding of the world we live in. Nevertheless, there are some important differences. Smith aspires towards the harmonic union of religion and science as equals; the two fields are, and should be, complementary, because they both "teach us something of God's manifold ways" (Smith, 2006: 209). In contrast, The Kabbalah Centre and Haisch, though departing from different disciplines, are at times very critical of what they see as science's secularist finitude and naïve materialism. The only way out of such a limiting world-view is through recognising the intuitive spiritual knowledge and relinquishing the domination of the material. There is a sense here, strongly reflecting the New Age valorisation of spirit over matter, that the spiritual is morally above the material, both as idea and as a method of knowing and revealing new knowledge. After all, as seen in the story of the Garden of Eden, it was Adam's lack of spiritual certainty that caused him to loose control over the material realm; mind over matter, to use a popularised term. Similarly, the students at the Buenos Aires Centre, though emphasising their admiration for science, also see it as limiting, as a kind of "half-truth" and as representing a logic that is not in balance with universe itself. In the words of Mateo:

The rationality of today is a product of our disconnection from the universe. If we had this connection, rationality would not govern our life, our society. When we are rational we believe that we have the capacity to analyse, solve problems and live in a "logical" way. The universe does not have our logic. But we are socially conditioned by messages, tendencies, habits, religions.

The ideals of the Enlightenment pictured rationality and secularisation as the road to human freedom from the bounds of religious dogma. As pointed out by Haisch, today's "(...) feud between science and spirituality is deeply rooted in intellectual repression perpetrated by organized religion in centuries past" (Haisch, 2009: 40). By contrast, the neo-enlightenment predicts rationality's return to spirituality, for humanity's true purpose can only be manifested through recognising the interplay between the material and the spiritual realm. As envisioned by Maria, this view will even allow for the rational mind to discover the logic of spirituality:

Rationality is the most direct and comfortable road towards the failure of humankind. Neither philosophy, nor science has been able to respond to the great questions behind everything that science has been doing for centuries, where do we come from?, where are we going?, what's the purpose of our existence? Kabbalah answers all these questions in a simple and complete manner. It's hard for the great thinkers to break their schemes of thought, but if they dare to leave this structure they will find that the answers are logical.

Science Is Just Catching Up

The project of the Kabbalah Centre, which I here have termed neo-enlightenment, aspires towards re-establishing the authority of spirituality in defining what is true knowledge of the universe. In doing this, they criticise what they see as science's rationalism and limited focus on the material, but also religion's limiting emphasis on misunderstood dogma instead of enlightening practice. Neither of them is capable, within their present ideologies, of reaching complete and true knowledge of the world we live in. But at the same time, as argued by Myers, the Centre can credit science for its success: "It is *because* of the scientific advances that Kabbalah can be taught to the intellectuals at this time; they had been resistant before because they felt that Kabbalah went beyond the scope of science" (Myers, 2007: 107). The Centre also recognises the necessity of transmitting their message in the modern language of rationality and of making itself relevant through incorporating science, rather than opposing it. This way, Philip Berg lets the Kabbalah Centre act in the physical world, a central aspect of the Kabbalist's mission, but not to be blinded by its limitations. In the Kabbalah Centre courses, as we have seen, the employment of science takes two forms: as metaphors for explaining the Kabbalistic concepts,

and as interesting parallels for maintaining the truth-value of Kabbalistic texts and the Kabbalistic sages' acquisition of knowledge outside of the rationalistic framework. Consequently, rather than strengthening the authority of science, the references work to confirm the subordinate position of the scientific rationalist methods to the Kabbalistic intuitive methods of obtaining knowledge. Hence, instead of Kabbalah reaching towards science for authorisation, "Kabbalah validates science" (Berg, Y., 2007: 10); science is finally catching up.

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ISLAMIC OPPOSITION TO THE DARWINIAN THEORY OF EVOLUTION

MARTIN RIEXINGER

Introduction

Arguably, of all scientific theories “Darwinism” poses the greatest challenge to theistic religions.¹ What is commonly referred to as the “theory of evolution” should appropriately be described as a bundle of five distinct but interwoven theories: evolution, gradualness, population speciation, natural selection and common descent (Mayr 1982, pp. 505–510). The latter two theories turned out to be the most controversial aspects because they are largely responsible for the six “sweeping changes” Darwin and his heirs caused in Western intellectual life (Mayr 1982, p. 501):

1. The replacement of a static by an evolving view of the world (not original with Darwin).
2. The demonstration of the implausibility of creationism.
3. The refutation of cosmic teleology.
4. The abolition of any justification for an absolute anthropocentrism by applying the principle of common descent to man.
5. The explanation of “design” in the world by the purely materialistic process of natural selection, a process consisting of an interaction between non-directed variation and opportunistic reproductive success which was entirely outside the dogma of Christianity.
6. The replacement of essentialism by population thinking.

Here I will try to highlight how Muslim authors have reacted to these challenges. Particular attention will be paid to Turkey because it is the only country where the theory of evolution has become a major

¹ Post-Copernican astronomy which had become known between the mid-18th and the early 20th century was after initial rejection rendered theologically acceptable as a proof for the wisdom of God’s planning: İhsanoğlu (1992), Arjomand (1997) and Riexing (2004, pp. 132f., 364–388, 392–410, 556n64.).

public issue. Moreover, recent debates elsewhere have drawn on Turkish examples, and finally the state of research is the most advanced with regard to Turkey. In addition the Arab World, South Asia, Iran and the Western diaspora will be dealt with more briefly. Other areas of the Islamic World such as Sub-Saharan Africa, Central or South East Asia are linguistically not accessible to me and to my knowledge no research has so far been conducted on respective developments in these areas.

Creation in the Qur'ān and the Ḥadīth

The Qur'ān does not present a detailed account of creation in one particular place. Hence it is sometimes suggested that there are no obstacles to the acceptance of the theory of evolution in Islam. Actually pre-modern Muslim concepts of the creation of mankind and other species differed from the Judaeo-Christian ones only in detail. The creation of Adam from earth, argil or clay is frequently referred to in the Qur'ān (6:2, 15:26, 28 and 33, 23:12, 32:7–9, 37:11, 55:14). Therefore the “special creation” of humans was never questioned in the great commentaries and universal chronicles. Implicitly it was assumed for other species as well (Schöck 1993, pp. 63, 74–78, 83–86). The Flood and Noah's Ark are described three times (7:59–64; 11:36–48; 23:23–30) and God's order to take a couple of all species of animals aboard is mentioned twice (11:40; 23:27). These passages do not go into detail on many aspects but the Biblical story is alluded to, hence the Flood was considered an event that affected Earth as a whole whereas nobody thought that species extinct at present might have inhabited Earth before the advent of mankind.²

Moreover, the lacunae in the Qur'ānic reports were filled with reports from the Ḥadīth (prophetic tradition), Biblical material and apocryphal stories from Jewish and Christian sources. Hence detailed accounts of Creation and the Flood (and the prophets in general) are to be found in the classical universal chronicles. Furthermore this material formed the bases of literary genres for non-scholars such as

² Heller s.v. “Nḥū” *Encyclopaedia of Islam* 2nd ed., vol. viii pp. 108f.

the prophetic stories (*qiṣaṣ al-anbiyā'*; Nagel 1967) and the popular poems recited on the occasion of Muḥammad's birthday (*mawlid*) or the night in Ramadan when Muḥammad received the first revelation (*laylat al-qadr*).³ Both genres enjoyed great popularity in other languages than Arabic too (Knappert 1985, pp. x–xi, 3) and were illustrated in miniature paintings (Milstein, Rührdanz & Schmitz 1999). In principle these accounts even allow conclusions on the timeframe of creation on which the Qur'ān is silent. However, the differences are striking: For the chronicle of al-Ṭabarī (d. 922/2) Robinson (2003, p. 137) has calculated 14 000 years whereas Ibn al-Jawzī (d. 1250), a historian and author of a widely read biography of Muḥammad, suggests that 4600 or 6130 years have passed between Adam and Muḥammad in his world history (Nagel 2008, p. 207).

The Reception of the Theory of Evolution in the Islamic World

The theory of evolution became an issue in parts of the Islamic world within two decades after the publication of the *On the Origin of Species*. In the Arab East the Christian editors of the science journal *al-Muqtataf* ("The Digest"), alumni of the Syrian Protestant College (now American University Beirut), were the first to publish evolutionist ideas (Glaß 2004, pp. 415–434; Jeha 2004). About the same time several Ottoman Turkish intellectuals accepted it (Demir 2007, pp. 99–106; Demir & Yurtoğlu 2001). However in both cases not the writings of Darwin himself were read but French translations of Ludwig Büchner's popular books *Kraft und Stoff* and *Die Darwinsche Theorie*. For Büchner, at that time one of the most popular German authors, the theory of evolution served to bolster his "Vulgärmaterialismus" (Gregory 1977).

Especially the Ottoman Turkish reception was not primarily motivated by an interest in biology. The materialism of Büchner and slightly later the "monism" of Ernst Haeckel appeared to the intellectuals who finally formed the Young Turk movement as ideological devices to undermine the Islamic justification of the autocratic rule of sultan Abdülhamit II (1876–1908; Hanioglu 2001, pp. 38f., 293f.; id. 2005; Doğan 2006). In the course of the reception of "Vulgärmaterialismus" they also adopted the polygenetic explanation for the emergence of

³ Salmi s.v. "Mawlidiyya" *Encyclopaedia of Islam* 2nd ed., vol. vi pp. 897f.

races formulated by Carl Vogt as opposed to Darwin's monogenism. This informed the racist concepts which became a central element of Kemalist ideology until they were discarded in 1944. Furthermore, evolutionist ideas were mixed with Comtean positivism. From this ideological conglomerate the Young Turks derived the justification for their claim to engineer society, a pretension which characterizes the self-understanding of the Kemalist elite until present. The strong ideological interest in the theory of evolution was not supplemented by any original contribution to evolutionary biology due to the lack of research oriented institutes of higher learning before the establishment of the Republic (Kadioğlu 2003). According to the model proposed by Glick & Henderson (2001) for the analysis of responses to scientific theories outside the cultural context in which they emerged, the reception of the theory of evolution in Turkey can hence aptly be described as purely "extensional" because the ideological appropriation was the dominating aspect.⁴ In this regard the situation differed considerably from other areas which lagged behind North-Western Europe and North America in socio-economic terms. Although in Russia and Latin America ideological appropriation was also an important aspect, scientists from these countries contributed to the international scientific debate (Vucinich 1988; Glick, Puig-Samper & Ruiz 2001).

In South Asia the theory of evolution was not mediated through Büchner and Haeckel. The educational reformer, modernist theologian and pro-British political leader Sayyid Aḥmad Khān (1809–1998; Troll 1978) was the first leading Muslim of that region who came out in favour of the theory of evolution. In his late years he published a number of articles in which he gradually came to address the more contentious aspects of the theory. Instead of using the theory of evolution as antireligious propaganda he strove to demonstrate that it could be reconciled with Islam (Riexinger 2009, pp. 217–219). The fact that his views were shared by Abūl-Kalām Āzād (1888–1958), the leading Muslim Indian nationalist, shows that unlike in Turkey and the Middle East the question of the theory of evolution was devoid of political overtones in the South Asian context (Riexinger 2009, pp. 220f.). One exception to the rule is the Punjabi politician 'Ināyatullāh Mashriqī

⁴ The three other types of reaction are: a) *thetic*, i.e. acceptance, b) *antithetic*, i.e. rejection, and c) *corrective*, i.e. revision in the light of disciplinary traditions in the new cultural context.

(1888–1963) whose party, the Khaksār (the humble ones), followed fascist models. He reformulated Islam as an ideology encouraging political activism instead of as a religion preparing for the hereafter. Hence he interpreted the “struggle for survival” as a conflict between larger collectives (Daechsel 2005; Riexinger 2009, pp. 221–225).

Early Refutations of the Theory of Evolution

The first extensive refutation of the theory of evolution from an Islamic point of view was published in 1888 by Ḥusayn al-Jisr from Tripolis in what now is Lebanon. He was committed to the introduction of secular institutions of learning to the Muslim population of his hometown. Nevertheless he feared that many ideas concomitant with secular education might undermine religious belief (Ebert 1991). Therefore he wrote a treatise in order to single out acceptable from harmful concepts. He considered the theory of evolution in general as a hypothesis that may be discussed but he unambiguously discarded its application to the origin of mankind. For this purpose he had recourse to the theologian al-Ghazālī (1056–1111) who had declared that ambiguous verses of the Qurʾān or the prophetic traditions have to be interpreted allegorically if they contradict a stringent geometrical proof. But according to al-Jisr the verses of the Qurʾān on the creation of Adam are unambiguous whereas the theory of evolution is merely hypothetical. Hence al-Ghazālī’s principle, which around 1900 was generally used to demonstrate the accordance of post-Copernican astronomy with Islam, does not apply in this context (al-Jisr n.d., pp. 188–209, 237–255; al-Ghazālī n.d., pp. 76f.; Riexinger 2004: pp. 377f.).⁵ Al-Jisr’s treatise has been translated into Ottoman Turkish, Tatar and Urdu and for a considerable time it seems to have satisfied the demand for refutations of the theory of evolution.

The religious press in pre-Republican Turkey only briefly referred to this question (Riexinger *forthcoming*). As far as we know, the first work primarily dedicated to the theory of evolution in Turkey was written in 1928 by İsmail Fenni Ertuğrul (1855–1946), a pensioned civil servant, writer and musician who became a leading figure of a conservative undercover counterculture in İstanbul under the Kemalist one-party

⁵ Ziadat (1986: 90–95) misrepresents al-Jisr’s position.

regime. His *Dissolution of the materialist school*, which is primarily directed against Büchner's *Kraft und Stoff*, differs from later anti-evolutionist literature insofar as the theory of evolution is presented without polemical distortions. Furthermore Ertuğrul explicitly defends Darwin against the appropriation of his theory by materialists (İ. F. Ertuğrul 1928, pp. 77–86, 115f.). Most of Ertuğrul's arguments turn up again in later polemics: the idealist concept of species, the lack of fossil proofs, uncertain dating methods and the insurmountable gap between the capabilities of apes and humans. His crown witnesses are the antievolutionist Francophone palaeontologists Georges Cuvier, Louis Agassiz and Charles Depéret and conservative philosophers (İ. F. Ertuğrul 1928, pp. 89–92, 109, 113f., 694–697). Ertuğrul, who was aware of the contemporary anti-evolutionist campaign in the USA, follows al-Jisr's assertion that hypothetical claims can not supersede the literal reading of unambiguous proof texts (İ. F. Ertuğrul 1928, pp. 110–113).

The Emergence of Islamic Creationism in Turkey in the 1970s

In the 1950s and 1960s the theory of evolution did not generate much interest among Islamic circles in Turkey. Religious magazines occasionally published articles on the subject. Furthermore the theologian Ömer Nasuhi Bilmen (1883–1971), a high ranking official in the Directorate of Religious Affairs, defended the constancy of species (Bilmen 1972, pp. 188–199).

Islamic creationism as an ideology emerged in the 1970s among the disciples of Said Nursi (d. 1960), a Kurdish scholar born in the 1870s. He was educated in the classical disciplines of Islamic scholarship and through autodidactic studies he gained some secular knowledge. After realizing the importance of education for overcoming the backwardness of his home region he planned to found a university teaching both religious and secular sciences. This project never materialised. He was among those religious scholars who hailed the dethronement of Abdülhamit II by the Young Turks in 1908/9. After World War I he supported Mustafa Kemal's, later Atatürk, resistance against the Allied and Greek occupation and even followed his call to Ankara in 1923. However, when the secularist direction of the new government became apparent, he broke with Mustafa Kemal. Falsely accused of participating in a Kurdish uprising in 1925, Said Nursi was sent into

banishment (interrupted by phases of imprisonment) until after the end of one-party rule in 1950. During this time he used to preach in a flowery language to the people from the villages and small towns to which he was confined. In his sermons he affirmed basic concepts of Islam which he saw as endangered by the materialism of the Kemalists (Vahide 2005). His followers, the *Nurcus* (disciples of the [divine] light), propagated his views in the coming decades by publishing his works. Furthermore they started to publish a newspaper, a magazine and tracts in which they propagated solutions for current issues on the basis of Said Nursi's teachings. Although they were strictly opposed to Kemalism they opted for political moderation. The majority continued to support the centre right parties even after an Islamist party was founded in 1970 (Spuler-Stegemann 1981; Yavuz 2003b; Karabaşoğlu 2003).

The admonition to take to heart the transience of this world forms the core of Said Nursi's teachings. In accordance with classical Sunni doctrine he refutes the concept of independent causality. Instead he asserts that all events are continually directed by God. Furthermore he stresses the beauty, harmony and purposefulness of creation. Although he never explicitly referred to the theory of evolution he often uses the argument from design as proof of God. One of his most famous epistles is the "pharmacy parable", in which he asks how the many substances mixed together in a pharmacy ravaged by a storm could bring forth life (Nursi 2002: 142–150). It is unmistakably directed against the concept of the self-organization of matter and the emergence of life from inorganic substances. This shows how much the popular presentations of Büchner and Haeckel informed the understanding of the theory of evolution, because for Darwin this question was of minor importance.

In 1971 Fethullah Gülen (b. 1938 or 1941) began to preach against the theory of evolution (Gülen 2003c). He was a clerk of the Directorate of Religious Affairs and a minor affiliate of the Nurcu movement. In İzmir, the country's most westernized city, he became popular among religious students who faced discrimination from their left wing professors and fellow students in the tense political atmosphere of that time. Gülen aimed at providing arguments with which they could challenge their opponents. Darwinism became a target of his attacks because he regarded it as the underpinning of Marxist materialism. Together with

sermons on other subjects these speeches made him famous and thus enabled him to form his own, separate branch of the Nurcu movement.⁶

A few years later other Nurcus began to translate Christian creationist literature from English⁷ and Nurcu magazines like *Sızıntı* “the Leak (of truth)” *Köprü* “The Bridge” and *Şafer* “Triumph” published translated articles. The sudden turn to Western, especially American creationist literature in the 1970s may at least in part be due to the interest generated by several American expeditions to Mount Ararat with the purpose of finding remnants of Noah’s Ark (Witham 2002, p. 116; Numbers 2006, pp. 159, 184–213, 287, 315; Varisco 2007, pp. 89f.). Some writers from other Islamic groups like the nationalist Zekeriya Beyaz (b. 1938), an alumnus of the Ankara Theological Faculty (1978; Berger 2005), and the physician Haluk Nurbaki (1924–1997), an associate of the Islamic poet and publisher Necip Fazıl Kısakürek (1905–1983), joined the campaign of the Nurcus.

Main Theses of Turkish Islamic Creationists

The arguments Islamic creationists use can be divided into two categories: “scientific”, and theological *cum* moral. With the following arguments they try to show that the theory of evolution has been scientifically disproved:⁸

1. The complexity of the living organism, it is suggested, cannot be explained without reference to a designer. The organisation of the cell, the so called Cambrian explosion and the alleged optimal adaptation of all organisms to particular purposes are the most frequently used examples. Furthermore many authors argue that all life-forms are useful for mankind. Some writers claim that the imitation of structures found in living beings for technological purposes

⁶ The bulk of the literature on the Gülen movement can be divided into uncritical apologetics and hysterical conspiracy theories by left-wing nationalists, hence a critical biography remains a desideratum. Although in general positive in tone Hermann (1997) and Yavuz (2003a:179–205) take objections against Gülen into account.

⁷ Metin (1978) contains articles by A. N. Field and John Moore.

⁸ For extensive references to articles from religious magazines cf. RieXinger (forthcoming) and my Habilitationsschrift *Die verinnerlichte Schöpfungsordnung: Weltbild und normative Konzepte von Said Nursi und der Nur Cemaati*, submitted to the Philosophische Fakultät, Göttingen, in April 2009.

(bionics) bears proof for the existence of a designer of the respective models.

2. Species are said to be immutable, because forms deviating from the ideal type would have no chance of survival. Hence the idea that new species could arise through mutations is rejected as nonsensical.
3. The tendency of evolution towards the perfection of life forms is said to be disproved by the persistence of primitive organisms. This argument reflects that in the beginning "evolution" was often misleadingly translated into Arabic, Turkish and Farsi as *takāmul*, i.e. perfection.
4. Allegedly the theory of evolution provides no explanation for the emergence of life (a "God of the gaps" argument).
5. Arguing against a frequent misrepresentation of Darwinian evolution, the literature rejects the possibility of biological change and transition from one species or even higher taxon to another within a generation.
6. In another misrepresentation of the theory of evolution Lamarckist conceptions are grafted onto Darwin's theory.⁹
7. The alleged principle "survival of the strongest" (rather than the commonly used phrase "survival of the fittest") is attacked for failing to explain how small animals managed to survive while dinosaurs and mammoths became extinct.
8. The fossil record is said to contradict the theory of evolution. Fossils of "missing links" are usually denounced as forgeries.
9. Apes and monkeys are exempted from the otherwise common praise of the beauty of nature. Primates are instead portrayed as exceptionally dumb and vile creatures, in order to ridicule the idea that they could possibly be related to humans. A related polemical device which accompanies some articles or adorns magazine covers are caricatures of Darwin as an ape or monkey.
10. Forgeries such as the Piltdown skull are referred to in order to argue that the dominance of the theory of evolution in biology can be attributed to a conspiracy.
11. Probability theory is said to disprove the possibility of a random emergence of cells as well as species.

⁹ "Why are Muslim and Jewish boys still born uncircumcised?": Gülen (2003, p. 29), this objection was already raised by al-Afghānī (Keddie 1968, p. 137).

12. It is argued in these texts that the discovery of the Big Bang (interpreted as *creatio ex nihilo*) by modern physics has disproved the theory of evolution by undermining its need to postulate that matter has existed eternally. This argument reflects the importance of Büchner and Haeckel, who postulated this precondition for Islamic creationist discourse. Darwin does not deal with this question.
13. Without quantitative methods, it is said, evolutionary biology does not deserve the status as science. The literature that uses this argument typically fails to mention the existence of biological sub-disciplines that do use quantitative methods (e.g. population genetics) or to discuss the validity of historical and descriptive approaches in other disciplines.
14. Because the theory of evolution supposedly cannot be falsified, it is rejected as unscientific. This assertion closely parallels similar arguments in American Christian creationism, used to get the exclusive teaching of the theory of evolution in public schools banned. In both milieus the argument depends on an interpretation of Popperian philosophy that Popper explicitly rejected (Sonleitner 1986; Ruse 1996, pp. 302f.).
15. The propagandists of the theory of evolution, these authors suggest, have to stem a flood of mounting criticism against specific details of their theory. The examples invoked to support this argument are typically borrowed from Christian creationist tracts, which can be seen by the repetition in the Islamic literature of misquoted Darwinist passages (or quotes taken out of context) in the Christian originals. That the criticism of details is evaluated as an outright rejection of the theory of evolution as a whole is due to the fact that the Islamic creationists cling to a holistic concept of revelation-based knowledge (Hedin 1988, p. 86; Berger 2005, p. 104).

A common objection raised by detractors of creationism in the Christian context is the reproach that it does not address scientific problems and propose solutions (Ruse 1996, p. 305). One Turkish-Islamic creationist Dayıoğlu (1990), however, tries to explain the creation of Adam as a prehistorical experiment in extra-corporal gestation. Islamic creationists differ from many of their Christian counterparts insofar as they do not attach any importance to the question of the age of Earth and that they do not deny that many species had become extinct before the

first humans appeared (İnal 1985; Sarsılmaz 1995). Nevertheless some of them follow Christian models so slavishly that they repeat Christian creationist objections to the methods of geological dating (Metin 1978, p. 64; Tatl 1993, pp. 31–35). The literal interpretation of statements in the Qurʾān or Ḥadīth is defended by only a minority of authors.¹⁰ In general, arguments derived from the Intelligent Design movement have over time replaced concepts derived from Young-Earth creationism (Edis 2007, pp. 134–136).

On the normative and religious level the Islamic creationists put forth the following arguments:

1. The principle of competition that lies at the heart of the theory of evolution is unethical and can also be refuted with reference to examples of cooperation in nature. The fact that already Darwin (1871, pp. 70–106, 161–167) dealt extensively with the question how the susceptibility of humans to moral considerations and their ability for empathy can be explained, is ignored completely.
2. There is a consensus among the three monotheist religions with regard to the separate creation of humans and all other species.
3. Some authors claim that the theory of evolution is devoid of aesthetic value. This objection is related to the idea of many conservative and Islamist authors according to which a “dismembered” and “dismembering” modern science has to be replaced by a “centred”, holistic concept. This argument betrays the influence of René Guénon’s traditionalism (Stenberg 1996; Sedgwick 2004).
4. The theory of evolution is an atheist belief system originating from the creation myths of the Ancient East and Classical Antiquity according to which the universe has emerged from chaos.
5. Enlightenment materialism is singled out as one further source for the theory of evolution. Based on this allegation the theory is branded as a central element of the main political foes of the Nurus, i.e. Marxism and Kemalism, although in the 1970s the theory of evolution did not play a major role in the writings of the Turkish Left.

¹⁰ Uzunoğlu & Yılmaz (1995, pp. 137–141) insist that Adam measured sixty cubits when he descended from Paradise to Earth, as related in a *ḥadīth*. The dinosaurs prove that the existence of living beings of such a size was possible under different ecological conditions.

6. Darwinism is said to be the basis of racism in the West. Creationists authors pass over both Darwin's abolitionism (Browne 1996, pp. 196–199, 244–246; Browne 2002, pp. 214–217, 255f.) and the virulent racism of many Western creationists they refer to (La Rooij 2005). The existence of racial prejudice in the Islamic world and the fact that slavery was practised in this region many decades longer than in the West is totally ignored (Lewis 1992; Toledano 1998; Hunwick 2006, pp. 75–89).

The overarching aspect that holds together the “scientific” and the “religious *cum* ethical” line of argumentation is the correspondence between a harmonious nature and a harmonious order of society.

In the case of the Nurcus one further aspect comes into play. This movement does not take any particular interest in the reintroduction of Islamic law. According to them compliance with Islamic norms should be brought about by conviction and not by conformism or external force. Based upon this premise their strategy is based on demonstrating that a connection between the individual's place in the purposeful cosmos and his or her ethical duties exists. This view is inculcated in the weekly lectures and interpretations of the writings of Said Nursi which are at the heart of the life of the Nurcu community. But this aspect is also apparent in a literary genre that has gained in popularity since the 1990s: conversion reports. In such stories the protagonists, for example a Communist agitator (H. Ertuğrul 2005a) or a student with behavioural problems (H. Ertuğrul 2005b), justify their attitudes with their atheist worldview based on the “findings of Darwin”. However, they quickly emerge as unhappy persons searching for the true purpose of life. How the protagonists overcome the view that their own existence is the result of random processes is described as the first step toward a fundamental reorientation leading to a satisfied life in this world and eternal bliss in the hereafter.

The Political Impact of Islamic Creationism in Turkey

Following American models Turkish biology textbooks presented the theory of evolution without reservation throughout the 1950s and 1960s. When Islamists joined a Turkish government for the first time in the 1970s a clause stating that the theory of evolution has not been

proven was introduced into the textbooks, although the presentation of the theory otherwise remained unchanged (Öztürkler 2005, pp. 47f.).

After the 1980 coup the influence of Islamic creationism reached its apex. Instead of striving for the restoration of pure Kemalism the Council for National Security under Kenan Evren sought to gain legitimacy by promoting a quietist interpretation of Islam. This trend was reinforced after the 1982 elections which brought Turgut Özal into office as prime minister. For a decade his Motherland Party managed to hold together a fairly heterogeneous coalition of the westernized business community and religious circles. Vehbi Dinçerler, his secretary of education, hailed from the latter group. In 1984 he invited the biologist and Nurcu author Âdem Tatlı to formulate a report on the theory of evolution. In this document the theory of evolution was presented as untenable and as a danger for state and society. Based on these allegations the report concludes within the demand that the theory of evolution and the theory of creation should be given “equal time” in biology lessons (Türkiye Cumhuriyeti Milli Eğitim, Gençlik ve Spor Bakanlığı 1985). As a practical result natural selection and the descent of humans from primates as the two most controversial aspects of the theory of evolution were deleted from the textbooks, whereas Lamarckism and the “theory of creation” were proposed as alternatives (Edis 1999; Öztürkler 2005, p. 80). Moreover fierce anti-Darwinist polemics were introduced into the textbooks for the newly introduced compulsory lessons in “religion and ethics” (Ayas 1994, pp. 12f.; Öztürkler 2005, pp. 68–70, 82).

In the 1990s the debate on the theory of evolution had lost momentum in Turkey. The theory was reintroduced into the textbooks although Islamist and centre-right deputies have occasionally called for its removal (Öztürkler 2005, pp. 58–61, 84, 118, 136). Since the “moderately Islamic” Justice and Development Party (AKP) came into power in 2002 Islamic creationism has regained government support. This is due to the activities of Harun Yahya, which will be dealt with in the next section. The secretary of education pleads for the introduction of the theory of creation in schools. AKP deputies have been distributing Yahya’s *Atlas of Creation* in the National Assembly and council members have invited the companion photo exhibition to the book to their cities. Teachers explaining the theory of evolution have reportedly been intimidated (Öztürkler 2005, pp. 57, 86) and the chief editor of the Turkish Academy for Science and Technology’s (TÜBİTAK)

popular science magazine was fired after presenting Darwin's life as the cover story on the occasion of Darwin's 200th birthday.¹¹

The Global Expansion

The world wide expansion of Turkish-style Islamic creationism began in the late 1990s. The man behind this development is a fellow traveller of the Nurcus, Adnan Oktar (b. 1956), known under his pen name Harun Yahya. He was educated as an interior designer but in the late 1970s he began to address young İstanbul socialites with sermons in order to bring them back to the fold of Islam. In the 1980s he also began to publish tracts on subjects such as the imminent reappearance of the Mahdi, the splendour of the Ottoman Empire, alleged Judeo-Masonic conspiracies and above all the theory of evolution. However, he was a marginal figure in Turkey's Islamic camp and even one of the most knowledgeable observers of the scene at the time regarded the disappearance of his group as imminent (Çakır 1995, pp. 241–246). This prediction was falsified some years later when Yahya discovered the opportunities provided by the Internet. In 1999 he published online versions of his tracts and at the same time he had them translated into English. Later versions in several other languages followed. Rapidly these websites were linked to by Islamic media and associations of very different ideological orientations and ethnic backgrounds. After having gained popularity Yahya began to venture into further international activities. His books were offered in Islamic bookshops and emissaries of his Science Research Foundation (BAV) began touring the world in order to address conventions of Islamic organisations, especially students' associations. Yahya focuses in particular on Muslims in the Western diaspora. South East Asia and Turkey's claimed zone of influence in Central Asia and the Caucasus are also given attention, whereas the Arab World, Iran and South Asia are rather neglected (Shipman 2006; Rieuxinger 2008, pp. 103–108).

Originally Yahya presented hardly any arguments beyond what could be found in Nurcu tracts. An addition of Yahya's is the assertion that Darwin was motivated by his enmity toward the Turks. As

¹¹ Orhan Bursalı, "Dergiye Darwin vetosu" *Cumhuriyet* March 10, 2009.

proof for his allegation Yahya adduces a single disrespectful remark from Darwin's correspondence (Yahya 2001a). In 2001 he swiftly exploited 9/11 for his purposes by publishing the book *Islam condemns terrorism* which was immediately translated into several languages. In this work he denies any connection between the attacks and Islam. Instead he blames Darwin because he taught that "life means conflict" (Yahya 2002, pp. 124f.). In addition he goes much further with regard to the rejection of materialism than previous Islamic creationists did. Referring to the Sufi thinker Ibn 'Arabī (1165–1240) he claims that matter and time are just mental illusions produced by God (Yahya 2003). With this stance he alienated *salafī* circles; he is currently denounced as heretic on many of their websites.¹²

Yahya's attempts to propagate other issues like the imminence of the End of the world or the grandeur of the Ottoman Empire via the Internet apparently met with little success. Nevertheless his anti-Semitic and anti-Masonic conspiracy theories which until 2003 included holocaust denial brought his supporters from the Islamist Milli Görüş movement in Germany into a scrape (Landesamt für Verfassungsschutz Baden-Württemberg 2004, pp. 76–78).

The Gülen movement which commands an impressive network of media and educational institutions in Central Asia, Caucasia, the Balkans and, recently, Western Europe as well, also propagates Islamic creationism albeit on a smaller scale (Balci 2003; Agai 2004, pp. 167–190), for example in its magazine *Sızıntı* and its German and American offshoots of (*Die Fontäne/ The Fountain*).

A more important propagandist of anti-Darwinism in the West was Mustafa Akyol (b. 1972). Originally he was sent to the Discovery Institute in Seattle by Harun Yahya in order to organise the cooperation between his Foundation and the American Intelligent Design movement. However, Akyol began to publish independently and gained the favour of certain conservative circles in the United States. For the Christian advocates of Intelligent Design he became a welcome ally because they hoped that a Muslim supporting their position could help to counteract the perception that their ideology is merely Christian theology cloaked in the terminology of biochemistry in order to circumvent the prohibition of religious education in

¹² Especially the article "Mise en garde contre Harun Yahia" by Brahim Ouelaa from the *salafī* magazine *al-Balagh* (Nr. 4) has been copied extensively on the Internet.

state schools. Hence Akyol was invited to witness before the conservative Republican majority in the Kansas House caucus for education in 2005. However, because the advocates of Intelligent Design were defeated in the Republican primaries in the following year his appearance was to no avail (Edis 2007: 136; Riexingner 2008, pp. 109f.). In the meanwhile he has passed on to advocating “theistic evolution”.¹³

The Opposition against Creationism in Turkey

Apart from a resolution passed by the Association of Turkish biologists there has been no organised resistance to the activities of Islamic creationists in Turkey. Under the impression of Harun Yahya’s activities the Turkish Academy for Science and Technology passed a resolution against the activities of the Science Research Foundation in 1998. Whereas Turkish scientists succeeded in alerting their colleagues and the public abroad (Edis 1999; Kence & Sayın 1999), their response at home was far from impressive. They countered Yahya’s excellently designed websites with amateurish productions of their own which were hardly ever updated (Riexingner 2008, p. 108).

The support for creationism by the current Turkish government has motivated secular scientists and educationists to devise their own counter-propaganda. The conference “Science, evolution and education” at Yıldız Üniversitesi in İstanbul in May 2006 formed the prelude to a series of similar events at various universities throughout the country.¹⁴ Furthermore the popular science magazines *Bilim ve Gelecek* (Science and Future) and *Bilim ve Ütopya* (Science and Utopia) publish articles in favour of the theory of evolution. However, these activities became a part of the problem because the theory of evolution was again drawn into ideological quarrels which are only partially related to science. *Bilim ve Ütopya* is published by the İşçi Partisi (Workers’ Party) a political “sect” whose leader Doğu Perinçek is one of the main propagandists of *ulusalcılık*—an ideology which could aptly be translated as left wing nationalism and which is a mixture of Kemalism, socialism and militant nationalism. Its supporters accuse the current

¹³ http://www.thewhitepath.com/archives/2009/06/lecture_at_boston_university_on_brave_new_turkey.php#comments

¹⁴ <http://www.universitekonseyleri.org/icerik/evrim-bilim-ve-egitim-sempozyumu>.

government of selling out the country to the EU and the USA and call the army to take over power. Since 2007 Perinçek and other *ulusalcıs* have been taken into custody during the investigations into the so called Ergenekon network, an alleged conspiracy aiming to bring about an army coup (Uslu 2008; Hermann 2008, pp. 82–84, 240f.; Riexinger 2010). Among those arrested is the forensic scientist Ümit Sayın, one of the most outspoken critics of Harun Yahya. He was, however, released in January 2010.¹⁵

Developments in Other Regions

The earliest anti-evolutionist publication by a South Asian Muslim author that I have been able to trace dates from 1944. Its author Abū l-A'lā Mawdūdī (1903–1979), founder of the party *Ĵamā'at-i islāmī* and one of the foremost ideologists of Islamism (Nasr 1994, 1996), engages in polemics against the belief in the self-organization of matter and denounces materialism in general. However he does not attack specific opponents (Mawdūdī 1944). In this respect his attack of the theory of evolution differs from that of Abdul Quasem (1980; Riexinger 2009, pp. 238f.), a physicist from Bangladesh who was motivated by the commitment to stem the tide of Marxist cultural influence from Communist-governed Indian state West Bengal. Like many Turkish authors he claims that the Big Bang theory has undermined the basis of materialism. Shihābuddīn Nadwī (1931–2002) a scholar working in Bangalore seems to be the only South Asian Muslim author who considered the struggle against the theory of evolution his main concern. Although the theory of evolution was rejected by most authors writing on that issue, Islamic creationism never emerged as an ideological movement (Riexinger 2009, pp. 230–233). When authors with a South Asian Muslim background on the subcontinent or in the diaspora addressed the subject recently, they usually referred to Turkish materials (Riexinger 2008, p. 107).

In the Arab World the theory of evolution does not seem to have attracted much interest during the interwar period. Rashīd Riḍa (1865–1935) editor of *al-Manār*, a religious monthly read in many parts of the Islamic World (Kosugi 2006), questioned the tenability of the theory

¹⁵ Erdal Kılınç: “Ergenekon soruşturması üniversiteye uzandı” *Milliyet* Feb. 23 2008; “Ergenekon davasında 3 tahliye” *Radikal* Jan. 30 2010.

but did not consider it a matter of belief or unbelief.¹⁶ Debates about the theory of evolution in the Arab World during the last decades have hardly been analysed in the scholarly literature. A further problem with summarizing the discussion in that part of the world is that Arab discussions have to be evaluated with consideration of the highly different ideological orientations and educational policies in the various Arab states. However, it seems possible to single out two types of religious responses to the theory of evolution and to associate them with two different ideological trends. Whereas creationist concepts are usually propagated by Islamists and conservative scholars, concepts of directed evolution are proposed by eclectic thinkers.

Hādī Mudarrisī (d. 1978), a Shia cleric active in Bahrain and Iraq, attempts to attack Marxism, which at that time had made some inroads into the Shia community in Lebanon, by denouncing the theory of evolution. At the moment the most active propagandist for Islamic creationism in the Arab World is Zaghlūl al-Najjār, an Egyptian geologist who had been working in Saudi Arabia for many years. His sermons are distributed as video-CDs and Internet downloads. He acknowledges that fossils found in different geological layers bear evidence to the fact that life forms have changed in time. Nevertheless he insists that species are immutable. Furthermore al-Najjār explicitly declares that when two scientific theories conflict the one closer to the wording of the Qur'ān has to be chosen.¹⁷ Judging from the fact that none of these authors have dedicated a work specifically to the theory of evolution the interest of leading Arab Islamist ideologues in this issue seems to have been restricted. But when Sayyid Quṭb (1906–1966; Kepel 1993, pp. 39–71), the leading ideologue of radical Islamism in Egypt, mentions the issue in his commentary on the Qur'ān he affirms the special creation of humans and speaks out in favour of the fixity of species (Quṭb n.d., pp. 2137f., 2809).

An example of the concept of directed evolution is provided by the Egyptian gynaecologist Karīm Ḥasanayn (2001). His concept of evolution in stages does include the evolution of humans. He claims that his ideas agree with the theory of punctuated equilibrium (Eldredge and Gould 1972) which has allegedly taken the place of the concept of natural selection in the scientific discussion. Eclectic ideologues such as the Sudanese Maḥmūd Ṭāhā (2002, pp. 203–234), who was exe-

¹⁶ “Naẓariyat Dārwin wal-islām” *Al-Manār* xxx 593–600 (March 1 1930).

¹⁷ <http://www.clnaggarzr.com/en/index.php>.

cuted as a heretic in 1985 (b. 1911; Oevermann 1993), and the 1938 born Syrian engineer *cum* exegete of the Qur'ān Muḥammad Shaḥrūr (1993, pp. 286–301; Christmann 2003) hold similar views, but do not delve into details.

In the beginning of the 20th century religious scholars in Iran rejected the theory of evolution outright (Arjomand 1998). The most famous modern Shiite exegete of the Qur'ān in recent decades, Sayyed Moḥammad Ḥosayn Ṭabāṭabā'i (d. 1981) denounced the theory of evolution for contradicting Islam (Ṭabāṭabā'i 1362 h.sh: iv 150–154, xvi 272–274). During the 1970s, however, a major shift seems to have occurred. Yādollāh Saḥābī (1905–2002), a French-trained geologist and associate of Mahdī Bāzargān, a leading figure in the opposition against the Shah, presented in two tracts the scientific evidence for the theory of evolution as well as reinterpretations of Qur'ānic verses and traditions from Muḥammad and the imams which were said to demonstrate its compatibility with Islam (Saḥābī 1346 h.sh.; Saḥābī n.d.). His views were adopted by 'Alī Mishkini Ardabīlī (n.d.) who headed the Assembly of Experts, the second highest body of religious scholars in Iran, until his death in 2007.

Some Muslims in the Western diaspora have not adopted the arguments formulated by Harun Yahya. Instead they formulated Islamic varieties of anti-Darwinism based on concepts that are influential in the respective countries: protestant Creationism and Intelligent Design in the USA and Scandinavia (Otterbeck 2000, p. 65), and Christian neo-Lamarckism as proposed by the entomologist Pierre-Paul Grassé (1974) in French-speaking countries. The first to adopt the latter was a convert, the physician Maurice Bucaille, in his book *L'Homme, d'où vient-il*. However, this work never gained the same popularity as his *La Bible, le Coran et la science* which has become one of the most popular apologetic works throughout the Islamic World. Whereas Grassé and Bucaille accept the descent of humans from primates, other authors who have adopted their concepts with regard to non-human species insist on the special creation of humans (Kaskas n.d.; Lala 2004).

The Impact of Islamic Creationism

A survey in the OECD countries in 2005 shows that about 50 percent of the Turkish population reject the theory of evolution whereas just 30 percent accept it. In this respect the country is more anti-evolutionist than the USA (with 39 percent rejection and 40 percent acceptance;

Miller, Okamoto and Scott 2006). According to a poll conducted among Muslims in Turkey, Egypt, Malaysia, Indonesia, Pakistan and Kazakhstan, Turkey ranks second with 22 percent who fully endorse creationism, after the post-Soviet state Kazakhstan which represents a special case (ca. 40 percent; Hassan 2007, pp. 465–467). In Turkey the activities of Harun Yahya have definitely contributed to the formation of negative attitudes to the theory of evolution as a study documenting the reception of his books and CDs among middle school students demonstrates (Öztürkler 2005, pp. 162–165, 191f.). Research among Muslim students in the West points in the same direction, although the small samples on which the respective studies are based demonstrate above all the need for further research (Bogaerts 2005, pp. 52–61; Koning 2006).

Why Did Islamic Creationism Emerge in Turkey?

Islamic creationism emerged in the one country of the Islamic World in which scientific output reaches the same level as in non-Muslim countries with a similar per-capita GDP (Butler 2006; cf. United Nations Development Program 2003). What might seem contradictory at first sight is in fact a part of the explanation: only in a society where a larger part of the general public and the religious leaders have been exposed to secular education could the theory of evolution become an issue of conflict (Hameed 2008, p. 1638; Rieixinger 2009, pp. 245–247). In particular in the case of the Nurcu movement, which plays a crucial role in the formulation and dissemination of Islamic creationism, it has been remarked that they displayed a rather ambivalent attitude to secularisation (Yavuz 2003a, p. 162; cf. also Spuler 1977, p. 1247):

Paradoxically, the success of the Kemalist reforms also resulted in the Nur movement's growth. The expansion of communication and universal education, the centralization of law, and the growing secularization and disenchantment of society were also products of the Kemalist revolution.

This development has brought forth a type of activist which fits the description of “commuters between two world” (Grenzgänger zwischen den Welten) singled out by Martin Riesebrodt (1990, pp. 181, 194f., 224, 229–236, 246) as the main actors in fundamentalist movements,

because they have perceived that the “traditional” values and world-views can only be defended by adapting to new forms of argumentation and by finding new organisational structures and forms of expression. The popularity of Islamic creationism among “educational climbers” in the diaspora might be due to similar ambivalent experiences.

Authority and Argumentation in Islamic Creationist Discourse

Islamic creationism and the other forms of opposition to the Darwinian concept of evolution based on natural selection are in the same fashion as their Christian counterparts and models primarily motivated by two non-scientific considerations: the urge to defend traditional teaching and even more by the wish to prevent the undermining of a purposeful vision of the world. Two sure signs point to this conclusion. With the rare exception of Rashīd Riḍa the theory of evolution is not only condemned as false but also as incompatible with religion. An unmistakable indicator for the paramount importance of ideological motifs in this discussion is that decontextualized and contradictory arguments abound because the exclusive criterion for their selection is their ability to bolster one’s position. A striking example is the argument that the theory of evolution is not falsifiable, used together with the logically contradictory assertion that it has been disproved.

This has lead to a remarkable double standard of argumentation in the discourse on science and religion in general. It becomes evident when statements on the theory of evolution by Islamic creationists are compared to their writings on (in their terminology) “metaphysical” beings (angels and *jinn*), the hereafter or the possibility of miracles. Whereas advocates of the theory of evolution are continually reproached for not being able to produce sufficient evidence, in this context the fact that something (say, angels or miracles) may even be conceived of serves as sufficient proof for its existence. The entirely hypothetical faster-than-light particles, tachyons, are for example supposed to prove the existence of angels which are also said to be faster than light (Nurbaki 2002, p. 155; Gülen: 2003a, vol. ii pp. 207ff.; id 2003b, vol. i pp. 146f.). Alternatively, angels can be considered visitors from hypothesized parallel universes (Nurbaki 2002, p. 155). The uncertainty principle is invoked to show the possibility that Islamic saints may be at different places at the same time, because they have

overcome the supposedly “Newtonian” principle “I am here and you are there”. Moreover the uncertainty principle is invoked as proof for the idea that in the hereafter people are not confined by the constrictions of time and space (Bozdağ 2005, pp. 227–229).¹⁸

Early refutations of evolution like those of al-Jisr, Nursi, Mawdūdī and, somewhat later, Bilmen are based on the style of argumentation characteristic of theological debates in former centuries. The theory of evolution was seen as an avatar of earlier forms of materialism (*dah-riyya*). Ertuğrul was the precursor of the trend towards “scientification” that became dominant in the 1970s. He referred extensively to Western biologists and geologists. In addition he was aware of recent developments in physics and correctly pointed to the fact that these developments have undermined the physical theory underlying 19th century materialism. Later detractors referred to more decidedly Christian models, which reflects the fact that, as in the Christian context, religious concerns had to be defended in a scientific cloak in order to gain respectability (Numbers 2006).

This “scientification” has led to the increasing involvement of authors without sound religious schooling in religious debates. Although the phenomenon of an increasing involvement of lay authors can also be observed in other fields since the late 19th century (Rieuxinger 2004, pp. 388–390, 406f.) it is particularly conspicuous in this context, because credibility is derived from another source than religion. The effect of this “scientification” is also reflected in the background of the authors writing on evolution. Writers with a secular education outnumber religious scholars by far, although the seminal role of Gülen has to be taken into account. People holding degrees in relevant scientific fields play a particular role (Tatlı, Uzunoğlu, Yılmaz, Nurbaki, Najjār; Hasanayn, Keskas), while a few come from other sciences (Quasem). The moral impact of the theory of evolution is also dealt with by authors who were educated in the humanities or the social sciences (Quṭb, Bozdağ, H. Ertuğrul).

In one particular respect the Islamic discourse differs from its counterparts in Christian contexts. It is like discourses on various other issues permeated by a sense of loathing for the West and the intention to demonstrate that Islam is at least morally superior. Hence in

¹⁸ The question to what extent this discourse has been influenced by the reception of “New Age” concepts deserves further attention.

this discourse a certain type of protagonist which is typical for Islamic apologetics in general plays a decisive role: the Western crown witness who serves to highlight the superiority of Islam and/or the moral failure of the West on the basis of his scientific or philosophical knowledge (Wieland 1980, p. 57). In the context of opposition to Darwinian evolution this role is played by Christian creationists who are said to represent a rising tide of anti-materialist criticism. The need for a Western "crown witness" may however also be considered the implicit acknowledgment of Western superiority, an attitude which the same authors tend to decry as *taqlīd* (emulation without consideration) when they detect it in the discourse of their secularist opponents.

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CHRISTIAN TRADITION

FIGHTING SCIENCE WITH SCIENCE AT PAT ROBERTSON'S CHRISTIAN BROADCASTING NETWORK

CARIE LITTLE HERSH

Despite earlier disbelief in global warming, conservative Christian televangelist Pat Robertson shocked many of his supporters in 2006 when, a year after expressing concerns about “far-Left environmentalist groups and their growing push to enlist conservative evangelicals in their cause” (Inhofe 2005), he reversed his position, announcing that he believed that the phenomenon of global warming was valid. Although he credited not science but rather the “summer’s record-breaking heat” for making him “a convert,” he did address the broader ecological context in a broadcast of his Christian news talk show, *700 Club*: “It is getting hotter, and the icecaps are melting and there is a buildup [sic] of carbon dioxide in the air... We really need to address the burning of fossil fuels” (Roberts 2006).

Robertson’s change of heart on global warming, while seemingly revolutionary, is instead reflective of the complex and contradictory relationship that many American conservative Christians have with science and the scientific community. This chapter examines how Robertson’s extensive and vocal conservative Christian organization defines and establishes its relationship with “science”.¹ Through dialogue over issues of global warming, evolution, and biblical archaeology, members of Robertson’s Christian Broadcasting Network (CBN) and related organizations construct the scientific “Other” as at once having familiar authority and legitimacy and yet also usurping its boundaries,

¹ This paper is based on field research in pursuit of a doctorate in Anthropology at the University of North Carolina at Chapel Hill. In 2006 the author conducted a year of fieldwork at the Christian Broadcasting Network and the Association for Research and Enlightenment, two global religious organizations headquartered in Virginia Beach, Virginia. Fieldwork included attending events, interviewing members and employees, working, and taking classes at the organizations. This research would not have been possible without the funding assistance of the University of North Carolina at Chapel Hill Off-Campus Dissertation Research Fellowship and Dissertation Completion Fellowship, two research grants from the UNC-CH Center for the Study of the American South, and research money from the Association for Research and Enlightenment.

proffering answers to questions it is not equipped to address and leading people towards atheism and away from Christianity.

This struggle to preserve the proper roles of religion and science is evident as the seemingly haphazard adoption or rejection of scientific findings reveals patterns in which elements of science are benignly useful, such as health care or digital technologies, versus which threaten to influence Christian's interpretations of biblical truth. An example is in Robertson's own ambivalence about theories of natural science: although he appears "converted" to scientific concerns about global warming, he has not experienced similar conversions regarding evolution. Famous in 2005 for referring to evolution as "a cultish religion" in which "the evolutionists worship atheism" (Robertson 2005), Robertson continued to argue against it in 2009, providing CBN viewers with tangible pointers on how to "us[e] common sense to debunk evolution" (Comfort 2009a).² Further, controversy and disagreement abounds among Robertson's followers and employees over the accuracy of scientific knowledge, its moral repercussions, and its applicability to their lives. Robertson has developed, and continues to head, a multi-faceted religious organization, the Christian Broadcasting Network (CBN), located on a Virginia Beach campus in the southeastern U.S. that interconnects all of Robertson's independent creations: the non-profit CBN media, the for-profit International Family Entertainment, the legal advocacy group American Center for Law and Justice, the international charity Operation Blessing, and an accredited private university, Regent University (originally begun as CBN University in 1978) (Foege 1996).³ Throughout the organizations, whether on campus or on their interactive websites, the employees, students, volunteers, and other participants of CBN present diverse and sometimes conflicting messages about global warming, evolution, the archaeological record, medical research, and the political agenda of the scientific community.

As one might expect at a conservative religious institution, there are very vocal critiques of science present at CBN. From stories on CBN's

² In Robertson's interview with Ray Comfort, which is discussed at length later in this paper, Comfort provides concrete strategies and examples for how Creationists can argue effectively with Evolutionists.

³ Although all of these organizations consider themselves to be independent, they are connected spatially on the same campus and share the same core religious and political missions as established by Pat Robertson. For ease of discussion, the collective organizations will hereinafter be referred to as "CBN" unless otherwise distinguished.



Figure 1: The main entrance to CBN studio building. Matthew 24:14 is quoted above the door. (Copyright Author)

cornerstone Christian news talk show, *700 Club*, to classes at Regent University, the proper role of science is debated and refined.⁴ Yet CBN stands apart from other, more extremist groups in the Religious Right movement in its increasing valuing of science as a source of knowledge and legitimacy in some instances. *700 Club* broadcasts and CBN.com news articles frequently reflect a broader social change among the Religious Right that suggests some space is opening up for vocal supporters of environmentalism, health, and some scientific historical findings. CBN.com even features a “Health & Science” section, where readers can find out about scientifically-supported diet plans, archaeological discoveries about biblical events, information about flu vaccines, the latest NASA shuttle take-off, or, perhaps surprisingly, information about “going green”.⁵

When viewed closely, however, CBN’s and Robertson’s openness to science seems less about a conservative Christian paradigmatic shift and more about CBN’s relationship with the public. CBN’s devotion to engagement with mainstream culture inevitably requires engagement with science because science is inextricably interwoven into the secular realm, which Robertson hopes to influence. CBN is a mix of fundamentalist, evangelical, charismatic, Catholic, and Protestant Christians brought together by common politics fed by a shared theological vision: to integrate into and change society for the better. As part of its mission statement, CBN is committed to preparing the world “for the coming of Jesus Christ and the establishment of the kingdom of God on earth” (Christian Broadcasting Network. N.d.), and their methods for accomplishing these include converting as many people to Christianity as possible, keeping the holy land of Israel in the hands of Jewish leaders (per Revelations), and assisting Christians into positions of power. Robertson changed his university’s name from CBN University to Regent University to reflect this missionary desire to foster Christian leaders who would direct the world’s organizations as “one who governs a kingdom in the absence of a sovereign” (Foege 1996, p. 176).

Robertson’s integration into mainstream public life is also reflected in his own conversion story which hinged upon his realization that he could be both religious and a successful public member of society. As he recounted, his mother arranged a meeting with a fundamentalist evangelist from The Netherlands, Cornelius Vanderbreggen, who took

⁴ See, e.g., Colson N.d.

⁵ See, e.g., Strand 2009.



Figure 2. CBN studio building, in the heart of the CBN campus.
(Copyright Author)

Robertson to an expensive restaurant and told him that “You are the Lord’s guest. God is generous, not stingy. He wants you to have the best. Order anything you want” (Foege 1996, p. 86; cf. Robertson 1972). This brought new awareness to Robertson, who later wrote, “I thought God’s people wore shabby clothes, baggy trousers, and suit coats that didn’t match...I though they ate hamburger and boiled turnips” (Foege 1996, p. 86). The realization that material wealth and religion were not mutually exclusive so profoundly affected Robertson that he immediately enrolled in New York Theological Seminary.

Although very diverse, CBN broadly reflects Robertson’s openness to material society. Unlike some fundamentalist Christian groups that express a Luddite-like resistance to technology and its social-spiritual consequences, CBN applauds the benefits of scientific knowledge and technology, such as CBN’s groundbreaking use of satellite and interactive website technologies or its aforementioned articles about health and environmentalism. Nevertheless, these concessions are not unproblematic. Rather than revealing a transformative adoption of scientific fact, writers, academics, and participants at CBN demonstrate much ambivalence over how to incorporate science into everyday life and faith.

This necessarily begs the question: what is “science”? Science is a term that in public discourses is used alternately to represent a methodological approach to the natural world, an academic discipline (subdivided into various hard and soft sciences) and the community of people who adopt the methodologies, training, or practices of these disciplines. While this paper incorporates some of these elements in discussion, the primary goal is to define the category of “science” as it is understood through dialogic practice at CBN. As Bakhtin points out, “[t]here can be no such thing as an absolutely neutral utterance” (1999[1986]: 128). Speakers bear a plan of where the utterance fits into the chain of speech communion between the speaker and the addressee, and this plan influences the speaker’s lexical, grammatical, and compositional choices. By exploring the ways CBN members speak about and to science, the construct of an imagined “Scientific Other” becomes clear.⁶

Several factors influence CBN’s construction of and engagement with this Scientific Other. First is the historical mistrust and lack of understanding conservative Christians have of science and scientific theory. “Science” has become a highly politicized category over more than a century of discord between biblical literalists and non-literalist secularists who sought to wrest political power away from Protestants by promoting scientific fact over biblical morality and belief in law, education, medicine, and other public realms. Through the twentieth century, fundamentalist and evangelical Christians have first “opted out” of then “re-entered” mainstream society, largely in an effort to avoid or combat scientific knowledge and the power it wields in society.

A second factor influencing CBN’s engagement with science is the latter’s undeniable social power and authority. In many ways science and its cultural trappings become recruited, whether for content or simply for legitimacy of form. Participants at CBN, just as at other religious institutions, frequently borrow scientific data to support their religious beliefs. While the archaeological record may be contested with regard

⁶ Of course as CBN produces the imagined Scientific Other it is subsequently producing the imagined Christian Self, one which self-identified Christians unaffiliated with CBN frequently contest. As one such woman stated to the author in casual conversation about CBN, “I’m Christian and I’m conservative, but I think those people are crazy.” Nevertheless, the construction of the imagined Christian Self at CBN works to call together people for social change, much like Benedict Anderson’s description of the nation-state inspired people to live and die for what was essentially an imagined construct (2003[1983]).

to accepted biblical history, CBN media writers often report upon archaeological discoveries such as an ancient ship that appears to fit the description of Noah's ark. Yet, because of the hostility with which fundamentalist and evangelical Christians viewed science over the last century, a prevailing ignorance remains as to the actual methods and tenets of disciplinary science, even among "mainstream" evangelical Christians⁷ like those at CBN or Regent University who comment extensively on science's flaws. As I will discuss, this is particularly evident in contestations of evolution and global warming, during which popular understandings of the phenomena, rather than scientific theories, are debated at length. Scientific data aside, the structure of scientific method, fact, and writing itself carries great authority, which is also borrowed. Whether in *700 Club* broadcasts or Regent classrooms or blogs on CBN.com, participants adopt the apparently neutral form of "science-speak" to lend weight to their assertions.

Perhaps the most important factor explaining the contradiction and complexity of science and religion at CBN is the process through which science and its components of "technology" versus "culture" are defined, segregated, and assessed. Science as a discipline or philosophical approach clearly has its own history during which its technologies of language, knowledge production, and engagement with the natural world were developed. However, the focus of this paper is less on the particulars of "science" per se and instead is on the authority and influence of science as understood by CBN. Naturally, the organization's definitions of science are crafted with respect to themselves, and, through their own valuations of science and its social role, they simultaneously reveal their own insecurities, values, and goals within the public sphere.⁸ According to depictions by CBN media, professors, public commentators, and individual members, science is much more

⁷ Traditionally there has been a divide in the U.S. between fundamentalist Christians and those whom Joel Robbins characterizes as "Pentecostal/charismatic"; the former tend to focus on "doctrinal purity" while the latter has typically been defined as "experientialist" (2004, p. 123). Robertson has worked to bridge Christians of varying traditions, preferring to focus on political rather than theological solidarity by taking strong conservative stances on political issues. Although "evangelical" traditions are similarly distinct from categories of fundamentalist and charismatic, being "marked by its emphasis on conversion" (Robbins 2004, p. 119), for simplicity's sake in this paper members of CBN may be referred to generally as "evangelists".

⁸ By "public sphere" I adopt Griffith and McAlister's description which rejects Habermas' original usage of "the rational bourgeois public sphere pioneered in Enlightenment Europe," favoring instead what "in both scholarly writings and the parlance of public intellectuals...has come to mean...something more like 'a space

than a philosophy or system of technologies, it is a competing culture and social movement unto itself. “Science” and “scientific community” are repeatedly invoked by participants at CBN as representing a coherent, identifiable group with particular values and goals.

An example of this occurred during the 2006 Symposium in Honor of Ronald Reagan, hosted by Regent University (and later aired on CSPAN). The Symposium, entitled “The Future of American Conservatism” drew a large regional crowd of academics and interested members of the general public. One local audience member who identified herself as a “politically incorrect” housewife and mother of four brought up the issue of stem cell research, saying she donated the umbilical cord blood saved from her daughter Reagan (named after President Ronald Reagan). The mother asked, “Why don’t conservatives push for umbilical cord research without using the embryo?” The conference speakers, who were all pundits, journalists, and academics from around the country,⁹ replied that there is a pressure on politicians to remain neutral. One remarked that he was hopeful that the next generation will be more anti-abortion, remarking, “It’s hard to take on the entire scientific medical community.” The clear implication was that the scientific community is at best indifferent to abortion, appearing rather criminally so in “their” desire for knowledge above the sanctity of what one speaker described as “preborn infant life”.

In numerous ways, CBN participants subtly separate out the data and technological products distilled through scientific process from their uses and interpretations, which are driven by the cultural framework of scientific practitioners. The latter is thus depicted as a competing cultural institution with similar motivations. Just as CBN seeks to convert the public to its worldview by wielding the authority of the Bible, science is understood as seeking to convert the public to its worldview (inevitably reductionist and atheistic) by wielding the authority of scientific method and fact. As will be explored in this paper, it is this multi-faceted nature of science as both product and culture that defines the contradictory, love-hate fascination CBN members have with scientists and scientific process.

of intentional, broad-reaching conversation’—a far less rigorous but perhaps more useful definition” (p. 535).

⁹ Despite the apparent non-affiliation these pundits had with CBN, several were close friends of Robertson and other leaders at Regent University, and were brought in to the conference to comment on/speak for conservatism in a way that reflected everyday language and politics at Regent. Of note, all eight speakers were white men.

Science versus Religion?

Dr. Jonathan Jacobs,¹⁰ a professor of law and politics at Regent University describes conservative Christianity's engagement with science as a recent phenomenon and a reluctant one, driven by the prevalence of science in the public sphere. When I met with Dr. Jacobs several times on campus, he related his studying and teaching in both secular and conservative Christian higher education. A self-identified unapologetic, conservative, fundamentalist Christian, his personal experience in both "leftist secular" and "extremely conservative Christian" educational settings gave him a broader perspective on the Religious Right and led him to perceive Regent University as somewhere in the middle—a fairly moderately conservative Christian university that had room for liberals and more extreme conservatives.¹¹

Puzzled by what I saw as open contradictions in the depiction of science as foe and friend, I mentioned to Dr. Jacobs that I was trying to think through the relationship between CBN and the scientific community, to which he replied "There's a relationship there?" I laughed, again stating my surprise at Robertson's recent confirmation of global warming.

"You touch on something very important there," Jacobs replied, "there is a phenomenon taking place" (interview with author, December 14, 2006). Reflecting on his experiences in academia, Jacobs remarked on conservative Christianity's general distance from science:

Clearly what you would call the hard sciences are underrepresented in what you might call conservative Christian colleges and universities, and there aren't many of those, but there's not much science taught there, period. And it is a curious thing because... [it is] ubiquitous in secular academia.

If you look carefully at [conservative Christian universities], they don't really teach science. It's actually fairly unusual to have a [secular] school that doesn't have a science component. You can't major in science there

¹⁰ Except for public figures, all individuals' who were interviewed for this project have been given pseudonyms. Other identifying details have also been changed to preserve their anonymity.

¹¹ Jacobs defined "conservative" consistent with other definitions circulating at CBN. As part of his identification as a conservative Christian, Jacobs expressed a belief in the literal and exclusive nature of the Bible, the primacy of family and open worship of Christ as God, and the reprehensibility of abortion and homosexuality and postmodern relativism.

as if somehow this isn't important. Regent is no exception (interview with author, December 14, 2006).

Considering how ubiquitous science is in secular academia, I replied, why would Christian schools ignore science?

Arguments I've heard at Regent [and other conservative Christian universities] are mission-oriented: "it's not our mission". And I guess that's true, but on the other hand, how do you completely yield that field to the adversary? And [how can you] think that, particularly in a modern culture, that you can be ultimately successfully in fundamentally changing it by yielding all of that all at once. That's a big thing. Part of the problem I'm sure is that as the church we're uncomfortable with science (Interview with author, December 14, 2006).

This discomfort between (certain) religion and (some) science is longstanding in the United States. These struggles have fuelled conversation in popular press and media and have, to some extent, furthered public perception of science and religion as acrimonious and irreconcilable. Mainstream depictions of science increasingly conflate the field with atheism or agnosticism, but rarely with belief. Lately popular media seem to be flooded with debates structured by the media outlets that present them, where anti-science people of faith square off against atheistic scientists over global warming, stem cell research, or evolution.

This popular view of science and religion in the U.S., as sociologist Christian Smith points out in *The Secular Revolution*, represents them as factions in "an enduring 'warfare' of fact against faith" (2003, p. 9). The two sides "are thought of as two antithetical means to knowledge, inherently incompatible kinds of claims to truth that have been ever battling each other for human allegiance" (ibid). This becomes reiterated and therefore concretized through pop culture depictions, albeit sometimes humorously. In Season 9 of *The Simpsons*, a disbelieving Lisa finds what looks like a fossilized angel. After much debate over its scientific validity, the angel disappears and the town suspects its chief critic, Lisa. Lisa is chased through the streets by a religious mob, which proceeds to destroy institutions of science throughout the town.

Despite continued "Crossfire"-like¹² positioning of science and religion in the media, most people exist in both worlds simultaneously, as the same Simpsons episode points out when bartender Moe, in helping

¹² Crossfire was a CNN news talk show pitting liberal against conservative over various topical issues.



Figure 3. The “angel” from The Simpsons episode “Lisa the Skeptic.”
(Copyright Fox Broadcasting Network)

destroy the Museum of Natural History, is crushed by a mammoth tusk and exclaims, “Oh, I’m paralyzed! I only hope medical science can cure me!” (Lisa the Skeptic 1997). As Moe points out through oblivious irony, the authority of secular institutions, particularly science, is undeniably powerful.

The view of religion and science as warring opposites, however, is not the inevitable facing off of natural enemies. Rather, as Smith points out, it is “less a reflection of historical reality, and more an interest-driven ideological frame first promoted by certain late-Victorian academics” (2003, p. 9). This political rebellion was heavily influenced by the Scientific Revolution and the Enlightenment project, during which “scrutiny and criticism were the order of the day. Established religion, at once a dominant ideology and an instrument of political power, was a primary target of the scorn, wit and critical acumen of the Enlightenment philosophers” (Hammer 2001, pp. 2–3). As the social movement developed into the twentieth century, scientific knowledge production became synonymous with secularism.

Whether science truly impacted secularization is in dispute, as “most people simply were not (and are probably even today not) particularly

aware of what the scientific worldview entails” (Hammer 2001, p. 202). Nevertheless, science as fact and cosmological approach has become integrated into all levels of secular society. It can be seen through the regular adoption of social scientific evidence as a determining factor in legal decisions since the landmark case of *Brown v. Board of Education* and through the increasing reliance upon quantitative data and “evidence-based practice” in the social sciences. Most significantly, perhaps, the scientific worldview has had a major effect on contemporary religion, which must work to find a meaningful role alongside, against, or in place of science (Hammer 2001).

Science, with its naturalistic approach to understanding the empirical world, has become the dominant standard against which alternative systems of knowledge production must argue. Over the course of the twentieth century, some denominations have reconciled particular truths of Christianity and science. However, fundamentalist Protestant Christians in the U.S. continue to wrestle with contradictions between their literal interpretations of the Bible and alternative cosmologies produced through scientific research.

According to Susan Harding, “after the Scopes trial in 1925, fundamentalists ‘separated out’. That is, they accepted their designation as unfit for ‘modernity’ and for ‘modern’ political discourse, which henceforth were understood to be intrinsically secular and off-limits to Biblical literalists” (1994, p. 539). Fundamentalists, or as Dr. Jacobs referred to them, “those Christians who took the Bible seriously,” began “to withdraw from public life of all sorts and also academic life at the same time” (Interview with author, December 14, 2006).

Since the Scopes trial, conservative Christianity has frequently presented itself as antagonistic to science. As the secular movement grew, the authority of science to establish the historical record through the theory of evolution became one of the key issues in classrooms and courts. As Christian Smith points out, rather than being a triumph of reason over religion, the outcome of the Scopes trial was symbolic of a political transition of power in the public sphere (2003). It was not until 1979 when fundamentalists “broke the ultimate barrier and plunged en masse into the national political arena, most strikingly through the organization of the Moral Majority under the Reverend Jerry Falwell” (Harding 1994, p. 539). This decision was influenced in great part by the theology adopted by Moral Majority leaders, like Falwell and Robertson, who adopted as their mission the preparation of the world for the second coming of Christ. Re-entering secular institutions and media became imperative.

There's a long period of time there, literally, when conservative Christians just didn't get involved, period, with anything "public". They existed, they had jobs, so they obviously did something, they put food on the table and so forth, but their influence in the public square was minimized. And that included academia, just a general withdrawal. And it's only fairly recently that that has changed. In political terms it only changed twenty, twenty-five years ago. It started to change twenty-five years ago¹³ (Interview with author, December 14, 2006).

The impetus for re-entering the mainstream was the realization that institutions still have to exist in the secular realm in order to be effective in changing it. Fundamentalist Christians at CBN and elsewhere have struggled with engaging secular standards of academia, medicine, law, etc, all of which incorporate scientific methods, data, and valuations. An example of this is in education, where secular politics prevail over academic institutions, requiring science disciplines in any school that desires degree accreditation from national professional organizations.

In some fields of endeavour, you might say, the reintroduction [of Christians] hasn't even taken place yet. And I wonder if maybe science itself is one of those where, clearly again there was a time when almost everybody engaged in this discipline came at it from some kind of Christian or at least pseudo-Christian perspective. At the very least they paid lip service to it—they had to because that was the price of admission. Obviously that has changed radically and for whatever reason, science in particular seems to be very inoculated against the re-entry of Christians into that field, unlike other fields, where, Christians maybe didn't yield but have assertively re-entered. More successfully in politics. In other areas endeavoured...for example take the arts, not as successfully as politics but still some infiltration, but the sciences, almost nothing. As though we haven't done much, haven't tried (Interview with author, December 14, 2006).

As Dr. Jacobs said earlier, "Regent is no exception" (Interview with author, December 14, 2006). Regent University began as a graduate school, which allowed administrators to circumvent many of these issues. No science classes are needed, for example, for a law school to become ABA-accredited. However, as Regent expands into undergraduate education, they face broader cultural requirements.

Robertson, as Chancellor-for-Life at Regent University, has expressed ambivalence about some of the solutions the university has enacted. Rather than incorporating a biology or physics department, Regent

¹³ Interestingly, Jacobs noted that in his opinion, "it may have, by the way, reached its peak already, it may be subsiding again" (Interview with author, December 14, 2006).

boasts an extensive Psychology department, in spite of Robertson's admonition that, "true Christians don't need psychology".¹⁴ The department provides graduate degrees and a much-needed undergraduate "science" component. Within the field of psychology, however, there are broad disagreements dividing more "scientific" evidence-based practices such as cognitive-behavioural therapies from more intuitive and subjective practices such as Gestalt Therapy. Therapies rooted in Christian ideology are taught and practiced as effective treatments for their relevant subculture. Thus, Regent University's accommodation of academic science is to provide instruction in the "softer" side of a soft science.

The issues with incorporating science into undergraduate Christian education are somewhat widespread. As Regent Professor Jonathan Jacobs commented, recounting his experience at another fundamentalist university,

I have known some outstanding scientific scholars who were also Christians and very, very good at what they do. And even consistently applying biblical principles to their own field. But they're awfully rare, and you'd be hard pressed to build a whole university with a whole scientific component to it. You'd have to pull them from all corners. You could leave no stone unturned if you just wanted them. Period. Because as Christians we don't even pursue these fields. If you don't go to graduate school you're not going to get a Ph.D. If you don't have a Ph.D. you're not going to have professors in these fields. And that's largely what happens. I can remember [another fundamentalist Christian university] trying to find—we were under certain obligation for accreditation reasons, we had to teach science. And for a couple of years we'd have this search going on: Any science. We don't care whether you teach geology, we just need somebody. A gigantic ad: "You can teach any of the following fields" and there was a long list. Please teach some science, we don't care what it is. Could you make up a science? That's fine. Paranormal Psychology, we'll try that. Eventually found—I know her very well, we went to graduate school together—she was a very talented biologist, but [her graduate school] had a gigantic biology department. She was literally the only Christian in that whole department. And that's a pretty substantial school. All over the country the same thing is happening (Interview with author, December 14, 2006).

¹⁴ Author's notes from speech given by Robertson, Orientation Weekend March 2006 at Regent University.

Clearly, as Dr. Jacobs identified, science is considered an integral part of mainstream/secular/non-Christian society, and CBN echoes the broader struggles fundamentalist Christians have undergone throughout the twentieth century in sorting out their actual and desired roles in the public sphere. Robertson was active in the Moral Majority before striking off on his own to develop his Christian talk show, *700 Club*, to spearhead a famous Presidential campaign, and to expand CBN media into multiple institutions, all designed specifically for broad public influence. Throughout most of this time, CBN was best known for their support for their criticism of science over issues such as evolution. However, CBN's engagement with science has become much more contradictory as participants recruit scientific technologies and mechanisms, as though they stood for science proper, to promote political and theological positions. This becomes particularly complex when scientific reasoning and data is used seemingly to contest science itself.

"Fighting Science with Science"

Whether arguing for evidence of Noah's ark and confirmation of Jesus' miracles, or arguing against the practice of abortion and the theory of evolution, participants at CBN draw on an unlikely source to strengthen their claims: science. On occasion, participants enlist scientific data to support religious suppositions (as will be discussed later in this chapter). More frequently, particularly in media and education, CBN participants present information in a way that resembles scientific deduction and dissemination.

When the feature film *Evan Almighty* was released, starring Steve Carell as a modern-day Noah, *700 Club* and CBN.com featured a series of informative news articles on Noah's ark. The articles became arranged into three categories: "The Facts", "The Faith", and "The Film". While "The Faith" focused on Noah's faith and spiritual task and how they apply to contemporary everyday life and "The Film" included reviews and commentaries of the movie's depictions of biblical events, "The Facts" included not just biblical data about the events of the flood but also scientific data. Articles such as "The Archaeological Search for Noah's Ark" and "Where is Noah's Ark Today?" discuss NASA satellite photography and C-14 readings of soil on Mt. Ararat along with conditions under which wood petrifies and a naval architecture team's

calculations of whether an ancient, boat-like structure seen atop Mt. Ararat in satellite photos could float.

The material in the articles can be very convincing, laying biblical text next to scientific technical explanation. In “Where Did All That Water Come From?” the author, investigating the origin of the floodwaters, first presents the biblical description from chapter 7 of the Book of Genesis:

10 After seven days, the waters of the flood came and covered the earth.

11 When Noah was 600 years old, on the seventeenth day of the second month, all the underground waters erupted from the earth, and the rain fell in mighty torrents from the sky. 12 The rain continued to fall for forty days and forty nights.

17 For forty days the floodwaters grew deeper, covering the ground and lifting the boat high above the earth. 18 As the waters rose higher and higher above the ground, the boat floated safely on the surface. 19 Finally, the water covered even the highest mountains on the earth, 20 rising more than twenty-two feet above the highest peaks.

24 And the floodwaters covered the earth for 150 days.

The religious record is then followed by description lifted from www.ChristianAnswers.net¹⁵ that appears drawn from scientific material:

According to www.ChristianAnswers.net, “There are many volcanic rocks interspersed between the fossil layers in the rock record—layers that were obviously deposited during Noah’s flood. So it is quite plausible that these fountains of the great deep involved a series of volcanic eruptions with prodigious amounts of water bursting up through the ground. It is interesting that up to 70 percent or more of what comes out of volcanoes today is water, often in the form of steam.”

In their catastrophic plate tectonics model for the flood, Austin et al. have proposed that at the onset of the flood, the ocean floor rapidly lifted up to 6,500 feet (2,000 meters) due to an increase in temperature as horizontal movement of the tectonic plates accelerated. This would spill the seawater onto the land and cause massive flooding—perhaps what is aptly described as the breaking up of the ‘fountains of the great deep’ (von Buseck N.d.b.).

When the “scientific” references for these articles are investigated, however, very little of the supportive material is from scientists within

¹⁵ ChristianAnswers.net describes itself as “a mega-site providing biblical answers to contemporary questions for all ages and nationalities with over 45-thousand files”. Cf. ChristianAnswers.net N.d.

academic disciplines or from sources that have been peer-reviewed in these fields. In the previous example, the article cited as "Austin et al.", entitled "Catastrophic Plate Tectonics: A Global Flood Model of Earth History," is published in Proc. Third ICC (1994, pp. 609–621), an abbreviation for the Proceedings of the Third International Conference on Creationism.

Another example is from the article "What did Noah's Ark Look Like?" wherein the question of "how could they fit all those animals on the Ark?" is answered by material from two books and a website all written or sponsored by Creationist organizations (von Buseck N.d.a.). Encyclopaedic material like "scientists have named and classified more than 1 1/2 million animals" (von Buseck N.d.a.), is brought in as a launching point for the discussion, but the reasoning for how and which of those animals were fit on the Ark is provided by books such as *Noah's Ark, A Feasibility Study* (1996) which was published by the Institute for Creation Research. Another source, *The Genesis Flood* (1961), was noted as being written by "Doctors" John C. Whitcomb and Henry Madison Morris. The authors' titles lend credibility to their assertions, but it is never made clear that Whitcomb's doctorate is in theology (Answers in Genesis) and Morris' doctorate is in hydraulic engineering (Dao), items of interest that would surely diminish readers' perceptions of their authority to speak on geology and natural history.

Indeed, there is material in these articles that genuinely comes from peer-reviewed scientific disciplinary sources, but it is generally in the form of succinct facts that are then placed into context by pseudo-scientific sources. It is a tactic described by Olav Hammer as the "Rhetoric of Rationality", whereby one's claims of logic are shored up by the simple insertion of mathematical calculations, which offer the illusion of scientific fact and authority (Hammer 2001, pp. 243–44).

The insubstantiality of this rhetoric may be partly explained by the previously mentioned history of divisiveness between evangelical Christians and the scientific community. This antagonism against disciplinary science, frequently felt on CBN's campus, both explains and is compounded by a continued, pervasive ignorance about actual scientific theory and approach. This is not surprising, given the lack of comprehensive education in or exposure to science per se. Yet it does not stop the development of pseudo-scientific arguments for religious belief or against scientific theories.

The result of this estrangement is a type of "imagined" dialogue, wherein CBN participants actively recruit material from or construct arguments against imagined, and therefore non-responding, scientists

over various issues of public debate. The lack of representative scientists is not entirely the responsibility of CBN; hostility among academia and science member groups often discourages scientists from even visiting religious campuses. An example is at another Virginia Beach religious organization, the New Age organization, Association for Research and Enlightenment, an astronomy professor speaking at a conference about astronomy and astrology recounted how his colleagues warned him not to attend because he would “get a reputation” as a fringe scientist. He reportedly decided to risk being so labelled, responding that “someone had to go and give them the correct information” (May Chandre, interview with author, November, 29, 2009).

Nevertheless, the lack of interaction on campus with scientists produces two main effects. First, there is no rebuttal by scientists to the depictions of scientific process or knowledge, so CBN participants often build “straw man” arguments based on misinformation. A common example of this is in conversation regarding evolution. Literal biblical interpretation is shared by many members of the CBN community, and the theory of evolution with its extended historical timeline is considered one of the greatest slights to biblical history. Whether in commentary on the *700 Club*, in writings at CBN.com, in classrooms at Regent, or in everyday conversation on campus, evolution is constructed and deconstructed.

In a Government class at Regent University, the professor, Wayne Milton, was articulating “Christian” (defined according to Regent’s core tenets) influences on American law and politics and was contrasting them with the atheistic or naturalistic philosophies of famous political theorists such as Hobbes and Rousseau. As frequently happened, the lecture turned to commentary on contemporary politics as Professor Milton argued that Darwinism was dangerous.

With no God, the foundations for ethics goes away...God could design the universe or you could find “chance” causing the universe, but “chance” is no answer—it’s what we say when we don’t know. It’s an acknowledgement of ignorance...Look at the terms [of evolution]: “Random Mutation”—A fish develops lungs—and drowns...Random mutation is typically lethal; if you do have non-lethal ones, the problem is it doesn’t result in useful mutation. As Christians, we know this is a flawed worldview. The components have the ring of truth but taken together it’s implausible.¹⁶

¹⁶ Author’s notes from class at Regent University, September 13, 2006. See also Colson 1999.

Professor Milton's understanding of evolution was deeply flawed, conflating the process solely with mutation rather than characterizing mutation as one of several effects on species reproduction, including gene flow, genetic drift, biased variation, transposable elements, or nonrandom mating, which produce variations that undergo natural selection in a constantly shifting environment (Mayr 2001). Yet this misunderstanding was pervasive on campus, and in class students exchanged knowing nods during the discussion.¹⁷ As with this example, these arguments often become detailed enough to give an impression of a technical understanding of the material when in fact the arguments are simply reproducing jargon without proper definition.

The misrepresentation of evolution is frequently paired with rational arguments against it and, as was presented on one episode of *700 Club*, instructional information on "how Christians can use logic to point Darwin followers to God" (Comfort 2009a). During this segment, Pat Robertson interviewed fellow evangelist and author Ray Comfort, who used examples such as the following to point out what he believed to be the ridiculous nature of evolution:

Robertson: What are some of the significant flaws in the theories of evolution that he is advocating?

Comfort: Let's pretend I'm a believer in evolution. There's a big bang, life form begins, and over millions of years a dog evolves. It's the first dog. It's got a tail, teeth, legs, eyes, and it's good that he has eyes because he needs to look for a female. He's been blind for millions and millions of years but now he can see and he's got to find a female. She's got to be evolved in the right place at the right time with the right reproductive organs and she's got to have the desire to mate. Because without the female, he's a dead dog.

Robertson: [Laughs] . . . the whole idea is "You Can't Make Them Think" [sic, quoting Comfort's book title *You Can Lead an Atheist to Evidence but you Can't Make Them Think*]. What else do they have to think about besides the missing female (Comfort 2009a)?

Comfort's analysis indeed makes evolution appear ludicrous and immature. However, his argument shows a profound lack of understanding of the tandem evolutionary development of males and females, ignores the fossil record that shows interim species progression between

¹⁷ This conflation of evolution with mutation is also common in other popular and religious (mis)understandings. For example, in a film that was popular among New Age groups in 2006, *The Indigo Evolution*, had at least one reference to future human evolution as progressive mutation towards improved ability.

single-celled organisms and modern-day dogs, and fails to consider the billions of extinct species (dead dogs?) that illustrate how evolutionary theory accounts for how challenging survival is. Comfort's argument, which he takes from his book, sardonically entitled *You Can Lead an Atheist to Evidence but You Can't Make Him Think* (Comfort 2009b) creates a straw man argument that sets up a distorted and inaccurate depiction of the theory of evolution, then attacks the depiction in the absence of any scientific authorities knowledgeable enough to speak on the subject.¹⁸ Straw man arguments against science permit speakers a particular authority, having "out-logged" the field of logic, and contributes to the second effect of imagined dialogue: the construction of the "Other."

The imagined "Other" of science, reflected in numerous references I collected in interviews, classrooms, media, and casual interactions on CBN's campus, is a construct of a powerful force in secular society, a partially obscured community with a political agenda that is at best dismissive to Christians and at worst openly hostile to them. Scientists, evolutionists, and atheists are frequently grouped together in this category, as when Ray Comfort referred to "bad atheists" as evolutionists devoted to ridding the public sphere of Christianity (Comfort 2009a), or, as earlier mentioned, when Robertson accused evolutionists of worshipping atheism (Robertson 2005). These depictions operate to simultaneously put a face to and depersonalize "the enemy." On one hand this process makes it easier to disparage the scientific Other, such as when a senior *700 Club* reporter blogs that the unseasonably cold winter of 2008 "could use more global warming":

Seriously, you gotta admire, or feel sorry for, the dedication of the climate change crowd. They've been braving all kinds of cold, nasty weather this winter to get out the message that it's actually *warming*. It's a remarkable ability to persevere in spite of the obvious (Hurd 2008).

The author continued, remarking cuttingly that, "I guess it must take at least a PhD to understand how dangerous all this global warming stuff is" (Hurd 2008).¹⁹ More directly, Robertson invoked the danger and

¹⁸ Preceding the interview with Robertson, *700 Club* viewed clips of Comfort interrogating "average Americans" on the street about their belief in evolution, pushing them to defend the mechanics of evolution, in which they clearly not grounded.

¹⁹ Much confusion about global warming is shared by the general public, leading environmentalists to produce articles such as, "If Global Warming Is Real, Why Is It So Cold?" (Shapley 2010).

stupidity of the scientific Other when problem-solving with Ray Comfort over how to counter the “bad atheists” (Comfort 2009). Comfort stated, to Robertson’s amused agreement, that “God gave us six senses. The sixth sense is common sense and that’s what the atheists and the evolutionists lack” (Comfort 2009). As Robertson signed off the interview, he ended with the supportive admonition to Comfort: “Don’t let the bad guys overwhelm you” (Comfort 2009).

These types of remarks dehumanize a vaguely structured community of atheistic scientists, stirring fear and consolidating a powerful social threat against which the social movement can rally. Yet at the same time the Other is drafted as hopelessly flawed, lacking in logic and common sense. As a result, science is approached frequently as a philosophical adversary that can be defeated through rational argument. The notable exception is, as stated earlier, when the evidence produced through scientific means is in accordance with a core tenet at CBN, in which case it is enlisted to support said tenet.

The seemingly contradictory engagement with science is due largely to the fact that, as Olav Hammer points out, even the most fundamentalists Christians have been “modernized” by the Enlightenment project and will, when necessary, “attempt to support their positions by arguing from the same basis of historical scholarship and rational debate as their liberal critics” (Hammer 2001, p. 4). The mark of modernism can be seen in CBN’s use of scientific data on health, history, and nature to support their core theology, such as with archaeological evidence supportive of biblical description of Noah’s Ark. However, modern thought can also be seen in CBN’s frequent forays into Creation Science, during which they borrow the language and methodological (or pseudo-methodological) approach of science to, ironically, gain power as an alternative to occidental “mainstream” science.²⁰

²⁰ According to Hammer’s four avenues of religions’ modern engagement with science, CBN seems to alternate between conflict (positioning themselves against science) and scientific, which is defined in this context as the active positioning of one’s own claims in relation to the manifestations of any academic scientific discipline, including, but not limited to, the use of technical devices, scientific terminology, mathematical calculations, theories, references and stylistic features—without, however, the use of methods generally approved within the scientific community and without subsequent social acceptance of these manifestations by the mainstream of the scientific community through e.g. peer reviewed publication in academic journals (Hammer 2001: 202–03).

The resulting blend of half-rational, half-faith argument, just as in the *700 Club* interview with Ray Comfort, works largely to position science in relation to the core religious faith shared at CBN. In the following CBN interview of a Creation Scientist, science is characterized, according to its own logic, as subservient to Christian belief:

Science requires that there's a logical, orderly universe. And that only makes sense if there's a logical, orderly God who created that universe and maintains it in a logical, orderly fashion. You see, if the universe were just an accident, a by-product of a Big Bang, then why would it have any order at all? Why would it obey laws like the laws of physics that you've heard of? Well, you see, that makes sense if God made the universe, if there's a mind behind it. And that's what the Bible teaches. So science actually requires the Bible to be true in order to work (Lisle 2007).

Arguments like this one contain all the trappings of scientific thought and rationality but inevitably contain leaps of faith and gaps in reasoning because they are goal-motivated: rationales are designed pursuant to an evangelical Christian belief in the literal truth of biblical record.

What is most important is not the rationality of the argument but its form. CBN media and the *700 Club* does not look like other televangelist media. Like the Moral Majority, CBN was designed to merge political and religious discourses. However, Robertson's innovation was to transform CBN from a clearly designated religious institution to one that matched secular institutions in broad appeal, style, and authority. When I was a Navy brat in high school in 1990s Virginia Beach, relatively unaware of CBN's existence, never mind close proximity, my friend Scott drew my attention to broadcasts of *700 Club*. "I forgot it wasn't the 'real' news," he commented sardonically, "until Pat Robertson mentioned that Bill Clinton was Satan." Politics aside, Scott's comment pointed out how well CBN's media cornerstone, despite its religious and political mission, had adopted the look and expression of mainstream media.

What does this accomplish? Wouldn't Robertson and others at CBN want to mark themselves as Christian in order to better serve their members? The problem with marking oneself as Christian is that it

This is a different use of the word "scientism" from that used by participants at CBN. The latter's definition, adopted by this paper, will be explored shortly.

limits one's reception, and therefore one's impact, in the public sphere. Impacting the public sphere is precisely what CBN visionaries hope to accomplish.

Understanding how and why CBN discourse strives for neutrality and authority may be illuminated through a brief foray into sociolinguistics. Borrowing from Bourdieu's concept of *habitus*, which provides the "potential to generate homologous formations across different cultural fields," linguistic *habitus* creates a recurrent grouping of stylistic, thematic, and constructive features, which are understood as *genres* (Hanks 1987, p. 677; Bourdieu 2003[1977]). The term "speech genre" or "discourse genre" is a descriptive term that is "greater than the single utterance but less than a language" (Hanks 1996, p. 242).

Genres, through their particular construction, impart certain expectations of the speaker and hearer. Regardless of the content of the material, the mere fact that it is transmitted in the style of a particular genre provides information to the listener, often signalling a political or social position which may lend to or detract from the speaker's authority. Guha gives us an example of this in historical text, an official British document reporting on India. Although, from its form the document appears to be a neutral recording of a political situation, Guha argues that "the indices in this discourse...introduce us to a particular code" which speaks with "the voice of committed colonialism" (1994, p. 346).

Bakhtin distinguishes primary genres, consisting of just one kind of practice, from secondary genres, which combine two or more primary ones. (Hanks 1996, pp. 242–43) Primary genres include greetings, jokes, assertions, questions, giving directions, taking oaths, and ordering food, whereas secondary genres typically blend these simpler genres into practices like novels, sermons, closing arguments, public lectures, and debates. CBN, with its blending of various institutions from educational to charitable to media to legal activist, is a wealth of secondary genres. In just one episode of *700 Club*, for example, the show offers information presented in formats that the American public would recognize as News, Entertainment reporting, Commercials, Sermon, Telethon, Talk show, Advice-columnist/guru, Political commentary/lobbying, and Missionary/charity work.

The use of the "News" genre is particularly significant. As with the Rhetoric of Rationality, the "Rhetoric of News Media", as one might call it, is also used to import ideological neutrality. As one author who reported on CBN said, "The collage techniques by which



Figure 4. CBN corporate building and global satellite system.
(Copyright Author)

today's television news programs tell the stories of the day were long ago perfected. Truth is too subjective a term; credibility *is* the truth. And CBN News's [segment] so far seems—if not particularly detailed...perfectly credible, perfectly *reasonable*..." (Foege 1996, p. 25). The news desk, complete with generic anchor, accompanying graphics, and Standard English, news-pattern voice-overs, brings the "opinion" out of the news by presenting it in a "fair and balanced" way.

This supposed neutrality allows for easier imparting of judgment because it is unseen. The fact that "the news might not tell us what to think, but it does help determine what we think about" allows for a certain degree of influence over the audience's thinking (Beale 1997). As an example, many authors have pointed to the news media's ability to "prime" or "activate" audience attitudes during news programs, such as race attitudes in crime reporting (Valentino 1999). The direction of persuasion aside, the effectiveness of this invisible persuasiveness is a result of the way that the genre of mainstream news reporting in general has cultivated an appearance of impartiality, using "neutral" language that actually brings in hidden meanings. As Guha points out, even texts produced in supposedly neutral genres "are not the record

of observations uncontaminated by bias, judgment and opinion. On the contrary, they speak of a total complicity" (1996, p. 346).

The characteristics of the "news" genre, just as with any other secondary genre, are defined in a particular way and cannot be confused with the other; however, secondary genres themselves may be blended. The "news" genre in American mainstream news programs, for example, can be blended with another identifiable secondary genre to become what critics call "infotainment"—a blend of traditional news reporting and gossip-driven entertainment reporting. As one author notes, "[t]he lines separating actual tragedy, important public events, and dramatic entertainment have become blurred, as have the difference between personalized tabloid titillation and substantive legal or political information" (Fox and van Sickle 2001, p. 55). A format intended originally for "straight news or in-depth analysis" has been transformed through the presentation of more tabloid and sensationalized content. The mainstream media "have abandoned many of their self-imposed standards for avoiding tawdry and sensational topics", although the news format has remained fairly unchanged (Fox and van Sickle 2001, p. 55). An example is the finding that news programs now present true crime stories as dramatic entertainment; "[r]arely is there an attempt to place them into the context of the real workings of the legal system the findings of scholars, or general trends in U.S. society" (Fox and van Sickle 2001, p. 78). Thus there is both an expectation for entertainment and a lack of expectation for context by the audience, both of which work well for producers who have an agenda to convey.

In similar fashion, whether in classrooms, through blogs, or on television, participants at CBN frequently employ what Hammer observed as the "Rhetoric of Rationality," blending religious belief with the neutrality and authority of scientific data. Without losing the signals representing the truth of Christian belief, speakers strengthen their statements by imparting this scientific authority, as though it were a testimonial. Further, the supposed neutrality of science, just like that of news broadcasting, is brought to bear as well, making an overt religious statement appear more benign and nonpartisan.

However, because CBN's broader statement of faith is so rooted in belief derived from a solitary source (the Bible), science may serve to legitimize the truth of the Bible but ultimately is not necessary to many believers, as any contradiction of fact may be interpreted as a test of faith, and it is science that is presumed to be faulty for not

matching up to the biblical record. So why would CBN participants so frequently turn to scientific and pseudo-scientific sources to justify their belief in the Bible?

This answer may lie, at least in part, in Bakhtin's statement that every utterance contains an idea of the audience to whom it is addressed (Bakhtin 1999[1986], p. 132). Focusing on this aspect allows for interpretation of utterances both to understand who a speaker's imagined audience is and to interpret change in production as a response to audience reaction. Using this observation to read these examples of science-speak at CBN, there are strong indications of their intended, if imagined, audience(s).²¹ CBN as a whole speaks not only to the converted Christian but to potential religious converts; not only to devout political conservatives but to potential political converts. They succeed through many avenues, one of which is by putting argumentative weight behind their posited truth.²² Rather than falling into genres that immediately marked them as members of an exclusive club, CBN media chose instead to speak to a broader audience by adopting a tone of neutrality and expertise.²³ By doing so, they can effectively reach doubting believers who are influenced by the overwhelming pressures of secular society (e.g. how to teach your kids about Creationism when they are in public school), believers engaged in missionary work (e.g. how to argue with an evolutionist), and nonbelievers who are potential converts (e.g. science proves we're right).

To this end, there are benefits to neutrality; a wider audience listens without defensiveness and without the discrediting of their perceptions of the world being relegated to the back room of "religion". CBN works to remain relevant to today's lives. Its cornerstone program,

²¹ Because people are involved in multiple endeavors/practices at any given time, they participate in, or at least understand, multiple genres that connect them to other people. Bakhtin describes more specific forms of intertextuality, including "heteroglossia", where discourses are borrowed from other languages or linguistic registers, and "heterology", where discourse genres are juxtaposed (Mannheim & Tedlock 1995 p. 16). As Bakhtin states, genres organize our communicative expression unconsciously, but different genres may also be mixed deliberately (Bakhtin 1999[1986] p. 124). In this case, CBN media may benefit by mixing traditional fundamentalist Christian genres, such as gospel televangelism, with identifiable secular genres such as mainstream journalism, scientific reporting, etc.

²² Other avenues include various emotional and spiritual connections.

²³ An important side benefit to this public neutrality is perhaps an avoidance of public condemnation. As one CBN employee and Regent student said, when asked by the author what message he would want the greater public to receive about CBN, "Tell them we're not freaks" (Interview with author, March 30, 2006).

700 Club, is broadcast across the United States on publicly accessible network channels like FOX and NBC, and on cable network channels like ABC Family Channel. It is even transformed into different regional broadcasts around the globe, with local hosts who translate the issues into accessible form in numerous languages. It has adopted a mixed format of mainstream news broadcast and talk show, presenting information factually (as in the examples above), then frequently commenting on how viewers should understand the material and its social and religious relevance. The neutrality of the format is so convincing, to its target population anyway, that Glenda, an older viewer of and donor to *700 Club*, described the program to me as the *only* unbiased news program. Unlike CNN or MSNBC, she posited, the *700 Club* did not skew their reports, speaking honestly and clearly to viewers on issues of international politics, the latest scientific advances, and domestic legal battles.

A huge part of this depiction of neutrality is the use of scientific language and material to support statements. CBN can't ignore science yet engage public audiences—media, university, and other participants have to acknowledge some of the contradictions that drive people towards science and away from faith, as when scientific theories provide compelling alternative explanations to biblical material, i.e. evolution versus creationism. Appearing neutrally persuasive, rather than persisting in statements of faith, helps one strengthen faith by incorporating voices from “outside” the faith. Because of the presence and authority of science and regardless of whether individuals actually understand scientific theory and fact, such as those individuals targeted by Comfort in his attempts to make evolutionists look foolish (Comfort 2009), CBN participants appear compelled to address the competing scientific worldview.

Many at Regent and CBN characterized the scientific worldview as dangerously misleading. In addressing naturalism (which is frequently conflated with science and scientific worldview), Professor Milton commented “We are constantly making gods; we are god factories. Hence the First Commandment.²⁴ Satan loves himself most of all, and loves to make himself into a false god.”²⁵ Since science is regarded, as one

²⁴ You shall have no gods before me (Deuteronomy 5:7, New Revised Standard Version).

²⁵ Author's notes from class at Regent University, September 13, 2006.

student stated, “as authoritative fact”, other worldviews and forms of knowledge are made to appear biased next to it. Therefore, to effectively present what those at CBN might describe as Fundamental Truth and what outsiders might describe as a competing Christian Worldview, they must use the language of the dominant paradigm to, as one CBN news articles reports, “fight science with science” (Lisle 2007).

Taking the Scientism out of Science

This “fight” against science becomes much more complex as the definition of science is further articulated. Many CBN participants lump everything scientific into one category, where the difference between good and bad science is deemed self-evident: the authority and benefits of science are pervasive even as the institution is demonized. But at least some of the members of CBN tease apart these differences.

In theory, science as a methodological approach to natural phenomena is fundamentally different from the evangelical Christian approach prevalent at CBN: the former addresses “how” the mechanics of the natural world operate while the latter postulates on “why” they operate in that particular fashion. This difference is reflected in British anthropologist Evans-Pritchard’s famous description of witchcraft among the Azande: “The Zande mind is logical and inquiring within the framework of its culture and insists on the coherence of its own idiom... (1976, p. 16). Witchcraft provides them with a natural philosophy by which the relations between men and unfortunate events are explained” (p. 18). Evans-Pritchard was speaking to an audience who dismissed witchcraft as irrational, something he argued was clearly untrue. Instead, his insight was as to how a belief in the supernatural filled the gaps left by science. In his famous example, Evans-Pritchard described how when a granary collapsed, causing injury or death,

Every Zande knows that termites eat the supports in course of time and that even the hardest woods decay after years of service... [However,] why should these particular people have been sitting under this particular granary at the particular moment when it collapsed?... We say that the granary collapsed because its supports were eaten away by termites... We also say that people were sitting under it at the time because it was in the heat of the day and they thought that it would be a comfortable place to talk and work... [But] we have no explanation of why the two chains of causation intersected at a certain time and in a certain place (pp. 22–23).

Witchcraft, like religion, "can supply the missing link" (Evans-Pritchard 1976, p. 23) by explaining the metaphysical meaning for happenings that would otherwise default into the categories of chance or coincidence.

Reflecting this idea of segregated domains, Stephen Jay Gould, the spokesman for science both in *The Simpsons* and in college classrooms everywhere, offered his solution to the issue of conflict between science and religion, an issue "so laden with emotion and the burden of history that a clear path usually becomes overgrown by a tangle of contention and confusion" (1999 p. 3). His suggestion, which he presents as "nothing original" (Gould 1999, p. 3), proposes a reinforced segregation of the domains of science and religion, marked by respectful non-interference and intense dialogue, through the "Principle of NOMA, or Non-Overlapping Magisteria" (p. 5). This is, he suggests, a resolution to a conflict that never should have existed by properly dividing the domains of authority, with religion responsible for "questions of ultimate meaning and moral value" and science responsible for the empirical realm (Gould 1999, p. 6).

Although Gould, along with many other commentators, persist in arguing that science and religion are compatible because they address different realms (e.g. physical versus metaphysical or logical versus ethical), the influence that scientific thought has over secular society sets up a privileging of certain questions, foci, and processes of knowledge production. The scientific method focuses attention on questions that can be asked and answered in particular, physical, quantitative ways, thereby disregarding questions and entities that cannot be assessed in this manner. It is an easy step for many to conclude that questions that cannot be addressed by science are irrelevant and/or involve imaginary constructs whose existence can never be proven and which therefore should be dismissed.

As a result of this devolution from testable questions into moral judgments on that which cannot be tested (like the supernatural), science has provided the basis for an extreme form of secularism wherein any belief system that includes an understanding of metaphysics is false and must be excluded from secular institutions such as government, law, and education. Defending their right to be in the public sphere, conservative Christian universities and political organizations, including CBN, charge the opposite: that scientific thinking has encroached upon private and religious domains to the point that the supposed "secular" scientific perspective has become a religion itself. Professor

Stowe, a faculty member in the department of Government at Regent University, put it most succinctly when he distinguished, “I don’t have a problem with *science*. I have a problem with *scientism*.”

Scientism posits that the “formal and natural sciences are the only or most important measure of what counts as knowledge” (Savage 1988 p. 6; cf. Bernstein 1983).²⁶ It is “a scientific worldview that encompasses natural explanations for all phenomena, eschews supernatural and paranormal speculations, and embraces empiricism and reason as the twin pillars of a philosophy of life appropriate for an Age of Science” (Shermer 2002). Because it expands beyond scientific method or gaze into a philosophy predicated on the basic scientific approach, scientism has less to do with the practices of disciplinary science and more to do with the culture of science that is the target of so many of CBN’s critiques.

Charles Colson, the founder of Prison Fellowship Ministries, has written extensively about scientism as a culture and competing religion. Colson, a former aide to President Richard Nixon who spent time in prison for his role in the Watergate scandal (The Chuck Colson Center), penned a dramatized tome on the conservative Christian worldview entitled *How Now Shall We Then Live* (1999), which is used as a textbook in some Regent graduate-level classes. Both in the book and in subsequent writings which have been republished by CBN, Colson argues that scientism is rooted in Darwinism, reporting that:

Tufts University professor Daniel Dennett writes that Darwinism, rightly understood, is a “universal acid” that dissolves away all traditional moral, metaphysical, and religious beliefs. For if humans have evolved by a material, purposeless process, then there is no basis for believing in a God who created us and revealed moral truths, or imposing those moral views in any area of life (Colson N.d.).

Evolution and Darwinism are thus reviled because they are thought to promote an alternative philosophy for understanding life’s meaning. As one CBN reporter remarked, “Many leading evolutionists claim there is no purpose and no intelligence behind biology—which are actually religious statements about the nature of reality” (Sitton 2006). It is for this reason that Robertson, speaking on the *700 Club* in 2005, accused

²⁶ As mentioned earlier, this is a different usage of the word “scientism” from when it refers to the Esoteric use of science to “prove the validity of the religious point of view” (Hammer 2001, 203).

evolutionists of worshipping atheism, proclaiming, "I mean, it is a religion, it is a cult. It is cultish religion, and whenever you start talking about the origins of life, you now get into religious matter, and theirs is just as much religion" (Robertson 2005).

It is hard to disagree with Robertson, despite the incendiary nature of his accusations, when defenders of scientism make statements like the following in mainstream science journals: "*Scientism* is courageously proffering naturalistic answers that supplant supernaturalistic ones and in the process is providing spiritual sustenance for those whose needs are not being met by these ancient cultural traditions" (Shermer 2002).

Unlike the use of the scientific method as only one mode of reaching knowledge, scientism claims that science alone can render truth about the world and reality. Scientism's single-minded adherence to only the empirical, or testable, makes it a strictly scientific worldview, in much the same way that a Protestant fundamentalism that rejects science can be seen as a strictly religious worldview. Scientism sees it necessary to do away with most, if not all, metaphysical, philosophical, and religious claims, as the truths they proclaim cannot be apprehended by the scientific method. In essence, scientism sees science as the absolute and only justifiable access to the truth (Public Broadcasting System).

Atheist/agnostic organizations such as *Freedom from Religion Foundation*, in their attempts to parody religion, draw attention to how their scientific worldview supplants religion rather than, as Gould so hopefully insisted, "dividing the domains of authority" (1999, p. 3). Their advertisements, seen on billboards and buses, call for exactly what Robertson accuses them of, the worship of Charles Darwin. Even accounting for creative irony, the organization's materials are undeniably patronizing about the primitive nature of religious belief. One advertisement calls for people to "Praise Darwin: Evolve Beyond Belief" (Freedom From Religion), a derisive pun intended to suggest that "believers" are less evolved than atheists. The Freedom from Religion co-president Anne Laurie Gaylor remarked about the Foundation's mission:

We think it's a scandal in this country that so many people are illiterate when it comes to science and that they reject...the information that's right in front of them about evolution and instead think that...they should swallow the Genesis story that we were created in six days (Secular Group Launches Anti-Religion Campaign).

There is no overlapping magisteria here; clearly the group believes that literal interpretation of the Bible is false and should be supplanted by a cosmology rooted in scientific research.



Figure 5. Billboard sponsored by Freedom from Religion.
(Copyright www.ffrf.org)

The primary concern expressed by members of CBN is that scientism hides behind the politically neutral label of “science.” Ironically, the neutrality of the scientific genre that Robertson and others at CBN borrow to convey their truth is precisely what they contest in their complaints against scientism. Just as pseudo-science often relies on the Rhetoric of Rationality to present belief as having a basis in scientific knowledge production, scientism “is supported by discourse conventions giving the impression that method yields truth or verifiable fact, that reality may be described objectively, that the most important audience for research is the disciplinary community” (Savage 1988, p. 6).

Although many CBN members draw this distinction between science and scientism, scientism draws its authority and attraction from the way it is interwoven with scientific methods, facts, language, and discipline practices. The seeming contradiction of CBN members wanting to “fight science” while simultaneously relying on its technologies and authority in other situations actually speaks to the difficulty of segregating the philosophy of scientism from the study of science.

As a result, the scientific worldview is one that many at CBN believe is a wolf in sheep’s clothing: rather than just a methodology it is a culture, a religion without the trappings. Robertson appears in mainstream media to be foolish and fanatical when arguing that:

[E]volutionists worship atheism. I mean, that’s their religion. And evolution becomes their religion.... So this is an establishment of religion contrary to the First Amendment of the United States Constitution... It is cultish religion, and whenever you start talking about the origins of life, you now get into religious matter, and theirs is just as much religion. The only difference is that even questioning, questioning that—the

ACLU says even if you question our religion, you are guilty of violating the First Amendment.²⁷ I mean, give me a break.

However, this does raise important questions about the secular and how it operates for all religions and religious-like philosophies. Is it an umbrella for the protection *of* all religions or a domain protected *from* them? Either way, the secular movement theoretically posited equal treatment of all religions, without the privileging of one over the other. If the secular has become infused with the religious-like cosmology of scientism, how then should religion be addressed in the public sphere?

In the end, the task CBN institutions appear to take is to reframe the public role of science. CBN reporters and Regent professors alike comment on the way that science's presumed neutrality masks hidden agendas, philosophies, and biases, which they feel are necessary to unveil. Pundits and academics at CBN frequently discuss the "boundaries" of science, particularly as they relate to the "evils of scientism". Yet despite the criticism and policing of science, CBN also demonstrates a desire to become relevant alongside the authority of scientific knowledge production by changing the social and historical context by which "science" is understood as a category. As one article lauded, "Christianity's role in promoting scholarship and science has a long history—an amazing history of significant influence on the foundations of intellectual endeavor," praising "Science, a Creation of God" (Totheroh).

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²⁷ The First Amendment of the U.S. Constitution offers both a protection of religious freedom and a separation of religion from the State. Since the adoption of the Constitution, federal courts have struggled to define the boundaries and contexts of these edicts. The formal text is as follows:

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances (U.S. Constitution, amend. 1).

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CHRISTIAN SCIENCE, NEW THOUGHT, AND SCIENTIFIC DISCOURSE¹

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Introduction

Among the more insistent proponents of the claim that scientific and religious systems of knowledge complement and reinforce each other are Christian Science and the various New Thought groups. New Thought and Christian Science emerged as alternatives to mainstream American Protestant movements during late 19th and early 20th century. As their names suggest, Christian Science and the New Thought movements, including Divine Science, Religious Science, and the Unity School of Christianity, understood themselves to be premised on what they considered scientific understandings of the world and of the divine forces that they believed controlled the world. This chapter explores the use of science in those movements. It focuses on healing testimonials in Christian Science and healing methods in New Thought, especially the Unity School of Christianity. Both Christian Science and New Thought testimonials and healing practices demonstrated reliance upon a specific type of popular scientific epistemology.

Christian Science and New Thought were centrally influenced by late 19th century America's increasing emphasis on material explanations for the world. As a result, both systems developed strategies for dealing with the material world that depended on the assumptions

¹ This chapter is derived from a larger body of work on embodiment issues and cultural influences in Christian Science and New Thought. I first presented portions of this research at the 2008 meeting of the American Academy of Religion in Chicago. I published related work in an article analyzing vegetarianism in the development of the Unity School of Christianity, "Eating for Unity: Vegetarianism in the Early Unity School of Christianity," *Gastronomica* Vol. 9, No. 2 (Spring 2009); and in the forthcoming "Corresponding to the Rational World: Scientific Language and Rationales in Christian Science and the Unity School of Christianity," *Nova Religio: The Journal of Alternative and Emergent Religions*. My thanks to James R. Lewis, who both encouraged me to pursue this line of research and whose work on legitimizing strategies in new religious movements is formative to my thinking about this topic, as well as to Benjamin Zeller, who has provided many helpful comments on drafts of the *Nova Religio* paper that have aided me in constructing the arguments in this chapter.

and modes of science. Although neither Christian Science nor New Thought understood the mundane, material world as the ultimate reality upon which their systems of belief and practice must be based, both did understand that world to indicate a larger reality where salvation was possible.

Christian Science emerged in the late nineteenth century when Mary Baker Eddy (1821–1910) believed she healed herself of a devastating injury by reading her Bible. Eddy began an investigation of scripture and eventually composed *Science and Health with Key to the Scriptures*, the textbook of Christian Science, first published in 1875. Eddy's system was clearly influenced by her experiences with Phineas Parkhurst Quimby (1802–1866), a healer generally considered the father of New Thought. New Thought coalesced as a movement with the work of Emma Curtis Hopkins (1849–1925), an early Christian Science apostate, and the development from 1899 to 1904 of the International New Thought Alliance, an umbrella organization that promoted many of the small, New Thought-inspired religious movements that were emerging at that time. However, clearly the longest lasting, largest, and most influential New Thought group is the Unity School of Christianity (henceforth Unity), which was born in 1889 in the wake of Myrtle Fillmore's personal healing experience. Unity will be the primary example of New Thought in this chapter.

Both Christian Science and New Thought leaders wrote about their religious beliefs and practices in a manner meant to invoke scientific principles and procedures. For example, they argued that their beliefs and practices were based on logical observation of the world, and they framed religious concepts in terms of causes and effects. They contended that their observations led to laws about God and the universe, and held that by understanding the basic laws through which God operated, an individual practitioner could manipulate his or her place in the world for the better. Christian Science and New Thought focused heavily on healing as both a result of engaging in their practices and as a demonstration of the power of their principles. Testimonials to healing and practices intended to facilitate healing became the primary method to demonstrate the "scientific" basis of both movements. An examination of how these two important alternative religious movements dealt with the issues of the emerging modern world reveals that by incorporating some of the most basic premises of that world into their developing religious systems both groups negoti-

ated a new space on the map of late 19th and early twentieth century American Protestantism.

When Christian Science and New Thought appealed to the authority of science in their discourse, they were employing one type of legitimation strategy. A legitimation strategy is a type of discourse intended to establish a person's, or a group's, right to exercise authority over others. In his 2003 book *Legitimizing New Religions*, James R. Lewis, following Max Weber's classic three part schema for authority, outlines three basic strategies used by new religious movements to legitimize themselves: the charismatic appeal, the rational appeal, and the traditional appeal. Those legitimation strategies are, according to Lewis, largely directed toward the "new religion's immediate audience, namely the followers and potential converts." (Lewis 2003: 14–15) In other words, legitimation strategies are not the same type of discourse a new religious movement engages in when it is trying to defend itself from its detractors in public. Rather, legitimation strategies are more properly understood as a tool for proselytizing, a way that adherents speak to potential converts to make their claims seem authoritative.

Legitimation strategies are the rationales that a person, or a group, might use to explain and to justify the exercise of power. By convincing the follower or potential follower of a special link with the divine or sacred, the rationality of the new teachings, or the link of the new teachings with ancient and reliable sources of authority, the leader is making a claim of authority to the follower. As we will see with Christian Science and New Thought, that claim to authority was intimately linked with a set of assumptions about the material world and how to understand it that were shaped by nineteenth-century popular understandings of science.

*Christian Science, New Thought, and Religious Reactions to the Rise
of Materialism*

Christian Science and New Thought share a number of characteristics. Both focused on the healing experience as part of their religious teachings. Women played important roles in founding the various groups. Both movements are "metaphysical religions" that premise their beliefs and practices on a theory of correspondence between an all-good, all-powerful God and human beings. (Albanese 2007: 1–18) Both groups used scientific-sounding language as way of explaining practices the

founders believed were justified based on their experiences. They argued that their beliefs and practices were based on rational observation of the world and followed the logic of cause and effect. They contended that their observations led to the discovery of laws about God and the universe, and that understanding the basic laws by which God operated would allow the individual practitioner to manipulate his or her place in the world for the better. In short, both Christian Science and the various New Thought groups tried to legitimate themselves using science, at least science as each understood it.

A critical aspect of understanding the role of science in legitimating Christian Science and New Thought is the developing role and status of science in late nineteenth- and early twentieth- century American culture. The cultural context clearly spoke a language of science. Science had been coalescing as a positive social force in America since at least the beginning of the nineteenth century. In addition, both movements came into existence in the wake of the upheavals and transformations brought on by the industrial revolution. The technology that was the product of scientific research completely transformed people's everyday lives. Science and all that it wrought were basic facts of everyday existence for early Christian Science and New Thought adherents. In essence, what both Mary Baker Eddy and the various New Thought founders did was appealed to a deity that they named and discussed using traditional Protestant terms, but in doing this they linked it to a "scientific" worldview that they inherited and cultivated. Science was the primary method for encountering and interpreting the world as well as a systematic body of knowledge that could support their religious claims.

The founders and early adherents of both Christian Science and Unity understood the realm of legitimate knowledge as one based upon Baconian science, the idea that the scientific method rested on basic observations of common sense facts and direct experience of the material world. Through inductive reasoning one could arrive at universal truths about the world. Thus science could be practiced by anyone capable of observing and recording plain facts and thinking through what they demonstrated. Baconianism and its inductive method were enthusiastically adopted by popular American Protestant culture as what some scholars have called the "village Enlightenment." That term refers to the popularization of the scientific method as a process of common sense guiding the analysis of plainly observable facts. As religion scholar Craig James Hazen observed, many

nineteenth-century new religious movements “embraced popular scientific ideas to gain an authoritative foothold for their new religious views.” (Hazen 2000: 7) Certainly, both Christian Science and the various New Thought groups were shaped by this new scientific world.

Both Christian Science and New Thought also blended a set of idealistic philosophical notions with those scientific influences. According to Charles Braden (1963, pp. 26–46), the philosophical precedents and development of New Thought should be traced to the early nineteenth-century American transcendentalists. According to Braden, whose primary research was derived from statements published by the Metaphysical Club of Boston and the various incarnations of the group eventually known as the International New Thought Alliance, the term “New Thought” referred to a wide array of social and religious movements that accepted several basic premises: ideas are real things that have actual effects in the world; mind is primary, while matter is secondary; humans are “Spiritual citizens of a divine universe”; the way to cure all individual and societal problems is by understanding and using metaphysical principles; God is an “immanent, indwelling Spirit, All-wisdom, All-goodness, ever present”; because of those divine characteristics, and because humans are intimately connected with God, evil cannot have a permanent place in the world, or in individual human lives; and all religions have some truth and value. (Braden 1963: 9–11)

While he acknowledged a wide variety of philosophical and religious sources, Braden emphasized the ideas of the Transcendentalists, and especially of Ralph Waldo Emerson, in the formation of the New Thought movement. That influence can be very directly established since, as Braden points out, many New Thought writers quoted and cited Emerson extensively as well adopting many of Emerson’s philosophical and religious hermeneutics. Emerson’s conceptions of God as the all-encompassing source of the universe and of the natural and intimate connection of humans with God, particularly as those were expressed in his essay “The Over Soul,” were especially influential on the New Thought conceptions of God, humanity and the relation of between the two. Moreover, Braden presented evidence that suggested that early New Thought practitioners believed that Emerson practiced a type of mental healing that foreshadowed New Thought healing techniques. Emerson also, according to many early New Thought leaders, understood intuition to be a basic source of the knowledge of ultimate reality, advocated the idea that humans are essentially divine,

and taught that the mind controls all matter, all of which are basic premises for New Thought. (Braden 1963: 35–37)

While all of those philosophical precedents are important in the development of Christians Science and New Thought, both movements are also clearly indebted to the work of one man. Phineas Parkhurst Quimby (1802–1866) was a clock maker in Maine when he attended a lecture and demonstration on hypnotism by a French mesmerist sometime in 1838. Quimby was fascinated by what he saw and soon began to study and practice hypnotism. He met a young man named Lucius Burkmar on whom he practiced hypnotism for several months. Quimby eventually came to believe that while under hypnosis Burkmar possessed clairvoyant abilities, and that Burkmar could diagnose and prescribe treatment for disease while hypnotized. The two began to work together healing patients. “Thus Quimby quite naturally became for a time a ‘mesmerist’ healer.” (Braden 1963: 49) Quimby’s method of mesmerist healing involved an idealist approach to the material world that would significantly shape the later, more “scientific” approaches of Mary Baker Eddy and the New Thought proponents.

As he continued to work with Burkmar, Quimby developed doubts about the role of hypnosis in healing. Burkmar’s prescriptions frequently consisted of simple remedies such as a single herb or some tea. Quimby suspected that this might mean that the treatment’s effectiveness was based, at least in part, on the effect it had on the patient’s mind. Quimby confirmed this suspicion to his satisfaction when Burkmar treated Quimby for a back ailment. Doctors had told Quimby that he had a diseased kidney. Under hypnosis Burkmar confirmed the diagnosis and treated Quimby by laying his hands on Quimby’s back and assuring him that the kidney would be healed within a couple of days. Two days later, again under hypnosis, Burkmar told Quimby that he was healed, and Quimby confirmed the proclamation. For Quimby, these events meant that the cures he and Burkmar had been performing had more to do with manipulating the patient’s state of mind than clairvoyant discovery and treatment of illness.

Quimby began to experiment again and discovered that the same results could be achieved without hypnosis. Disease, Quimby decided, was the result of misinformation.

Disease is what follows the disturbance of the mind or spiritual matter. . . . This disturbance contains no knowledge or thought. . . . It embraces mind without truth or error, like weight set in motion without direction. . . . So

is mind set in motion by spiritual power. Both are governed by laws of truth or error, the fruit shows which of the powers governs.... Disease is what follows an opinion, it is made up of mind directed by error. (Quimby 1921: 180–181)

In other words, disease was caused by an incorrect perception planted in the mind. The mind was open to suggestion and if the suggestion received, perhaps from a doctor, was one about illness, then a person would develop the illness.

Quimby's cure was a logical result of his premise about disease. If disease was caused by an incorrect perception in the mind, then the perception must be corrected. Quimby treated his patients "partly mentally and partly by talking till I correct the wrong impression and establish the Truth, and the Truth is the cure." (Quimby 1921: 194) By getting his patients to see that the errors in their minds caused their troubles, Quimby was able to cure people once he convinced them of the inherent healthy condition of the matter that made up their bodies. Thus Quimby's claims depended on using healing as an empirically verifiable experience, at least for the individual who experienced it, in order to suggest evidence for his non-verifiable claims about the nature and origin of disease.

Quimby's method of healing is the basis for all New Thought healing. But as Beryl Satter (1999, p. 60), points out, "Quimby's influence was indirect, through his students, not through his writings." Quimby's manuscripts were not published until 1921, fifty-five years after his death. He did write a few articles and circulate some pamphlets to his students, but the majority of his writings were not widely known until Horatio Dresser published them. Quimby influenced some of the people he cured by inspiring them to follow in his footsteps. Two of those people who followed Quimby into healing did write and publish during their lifetimes and did become well known: Warren Felt Evans and Mary Baker Eddy.

Warren Felt Evans (1814/1817?–1889) was the first person to write systematically about New Thought ideas. According to Braden (1963, pp. 89–90), little is known about Evans's life. He was a New England Methodist minister who had been suffering from an unidentified ailment when he consulted the prominent healer P. P. Quimby. After a second visit to Quimby, Evans believed he was completely healed and was so taken with Quimby's method that he became a disciple. Evans set up a healing practice based on Quimby's teachings in Claremont, New Hampshire. Meanwhile, he had begun to read the works of

Emanuel Swedenborg, and in 1863 he joined the Swedenborgian Church of the New Jerusalem. Evans continued to practice successfully Quimby's healing method, first in Boston, where he opened an office in 1867, and then in Salisbury, Massachusetts, where he opened an office in 1869 and continued to practice until his death in 1889.

Evans blended the more idealistic strains he inherited from Swedenborg and the Transcendentalists with the practical healing approach of Quimby. Although he published six books, Evans's basic content is similar across the books. It is this, more than the number of his publications, that is most relevant to understanding his influence on New Thought. Evans was clearly the first person to write down many of the ideas that later become important to the basic religious ideas of New Thought. He emphasized a separation between the historic Jesus and the Christ. The man Jesus was not born as a Christ; rather through intense personal effort he became a Christ. Evans taught the preexistence of the soul and that the body was a projection of the soul. He also taught that sin was an error of ignorance, not a condition into which all humans are born. Like Quimby, Evans believed disease was the result of wrong belief and that if the belief changed the disease would be cured. He believed he was rediscovering the methods of Jesus. Evans supported affirmations as a method to change one's condition. Finally, Evans employed "absent treatment"; he treated patients who were not even in his office. (Braden 1963: 89–128; Teahan 1979: 63–80; Satter 1999: 70–73) All of these ideas became basic tenets for most New Thought groups.

Mary Baker Eddy (1821–1910), the founder of Christian Science, was also directly involved with Quimby and his healing methods. Quimby healed Eddy in 1862, after she had suffered from serious health problems for much of her adult life. Inspired by Quimby, Eddy went on to write *Science and Health with Key to the Scriptures* (1875). (Satter 1999: 62) Eddy argued that God is all and God is good; therefore evil cannot be real. Evil, sin, and disease are the result of the lesser human mind creating an illusory world. Humanity is not made up of matter, but of spirit. Matter is an illusion of the lesser human mind. The only true reality is the spiritual reality of God. The problem, therefore, is that the human mind is separated from the divine mind. Healing in Christian Science involves stopping the force of the mortal mind with the divine mind. Eddy's technique for accomplishing this was remarkably similar to Quimby's healing method. The patient had to be convinced that the disease was a result of a false belief and so it had no reality.

Eddy worked diligently for many years spreading her Christian Science. The work progressed slowly at first, but in 1879 Eddy and a small group of followers founded the Church of Christ, Scientist in Boston. Christian Science quickly became a widespread movement that included an educational institution, the Massachusetts Metaphysical College, and a magazine, the *Christian Science Journal*. One of Eddy's early students and workers was a woman named Emma Curtis Hopkins (1851–1925), a woman whose influence on the development of New Thought was profound.

Hopkins is known as the teachers' teacher in New Thought circles because so many important New Thought leaders took her classes and were ordained by her, including Malinda E. Cramer (1844–1906), Annie Rix Militz (1856–1924), and Charles (1854–1948) and Myrtle Fillmore (1845–1931). But Hopkins was first affiliated with Mary Baker Eddy's Christian Science. Satter writes that Hopkins "was a sickly thirty-two-year-old housewife and mother married to a debt-ridden and violent husband" when she met Eddy at a mutual friend's house in Manchester, New Hampshire, in 1883. The women discussed Christian Science, and Hopkins became enthralled with it. The neighbor, Mary F. Berry, used Christian Science techniques to cure Hopkins, and Hopkins next decided to take a class from Eddy. A woman whom Satter describes as "articulate, well-read, and beautiful," Hopkins quickly rose through the ranks of the new Christian Science organization and within a year of her initial introduction to Eddy and Christian Science, Hopkins was editor of the *Christian Science Journal*. (Satter 1999: 81)

Barely over a year later, however, Hopkins was thrown out of the movement altogether by Eddy. Eddy was apparently upset about an article Hopkins wrote in which she suggested that she (Hopkins) might have also had a divine revelation. Shortly afterwards, Hopkins moved to Chicago and began to teach her own versions of Christian Science classes. In Chicago, she also founded the Hopkins Metaphysical Association. That group began to affect the New Thought movement, such that, as Satter puts it (1999, p. 82), "By December 1887 there were at least seventeen branches of the Hopkins Metaphysical Association in cities across the nation."

Hopkins travelled to centers around the country and published in journals, in addition to continuing her work in Chicago. Hopkins was not only becoming immersed in New Thought, the major rival to Eddy's Christian Science, but she was helping to shape the growing movement. Her writings appeared alongside those of Warren Felt

Evans; she was the darling of the 1887 “mental science” convention in Boston; and most importantly, she was teaching people her ideas. Late nineteenth-century New Thought leaders all over America were taking her classes, hearing lectures by her students, and being ordained by the school she founded.

While early Christian Science and New Thought leaders may have facilitated the spread of their movements via conventional methods such as publishing, organizing institutions to train and to ordain followers, and public speaking, it was the experience of practicing Christian Science and New Thought that brought in new members. Both New Thought and Christian Science depended on a verifiable healing experience to legitimize their religious claims; in other words, religious claims could be put an empirical test. By couching their claims in the language of science and depending on a self-verifiable experience like healing, both Christian Science and New Thought found ways to legitimize themselves to adherents and potential converts.

The Science of Healing in Christian Science

Mary Baker Eddy had a difficult early life. She suffered from poor health throughout her childhood and youth and was the victim of both bad luck and poor decisions in marriage. Eddy’s life was far from ideal. She experimented with several types of healing in order to relieve her physical and emotional troubles. When Eddy did manage to solve her health problems, it was the result of, according to her, a systematic and persistent investigation into the principles that shaped the world and its ultimate reality. Eddy claimed from the very start of her religious mission that her system of healing was based on a scientific investigation that led her to conclusions about reality that could help humans recover from illness and find salvation.

Mary Baker Eddy’s teachings reflected the village Enlightenment version of the science that dominated the nineteenth-century culture in which she grew up. She understood science as a paradigmatic system of knowledge that could verify almost any fact about the world. For Eddy, “science was a prestige-laden word connoting the ideas of authority, universality, and infallibility.” (Gottschalk 1973: 26) Eddy’s very use of the term “science” thus implied a desire to link her religious discoveries and teachings with a source of authority beyond claims of revelation.

Eddy's view of science was more complicated than that of a mere outside source of authority that could be used to verify her claims. Rather, according to the historian of Christian Science Stephen Gottschalk (1973, p. 26), Eddy understood science in three related ways. First, science referred to the clear and certain knowledge of the laws by which God governed and operated the universe. Arising out of that understanding of the basic meaning of science was a methodological meaning. Eddy claimed that her teachings amounted to "a method or rule for demonstrating universal divine law." Third, Eddy believed that "science" referred to the certainty of her methods when consistently and properly applied. Hence Eddy's system was properly named Christian Science because it referred to both a body of absolutely true knowledge and to the methods by which an individual could demonstrate the truth of that knowledge. That Eddy understood science as a central part of any valid system of knowledge is clear from her own stories about the discovery of Christian Science.

Eddy's story of the discovery that led her to Christian Science is centered on those scientific understandings. In her own words in the chapter "The Great Discovery" in *Retrospection and Introspection*, her "spiritual autobiography" (1891, pp. 24–25):

The discovery came to pass this way. During twenty years prior to my discovery I had been trying to trace all physical effects to a mental cause; and in the latter part of 1866 I gained the scientific certainty that all causation was Mind, and every effect a mental phenomenon. My immediate recovery from the effects of an injury caused by an accident, an injury that neither medicine nor surgery could reach, was the falling apple that led me to the discovery how to be well myself, and how to make others so. Even to the homeopathic physician who attended me, and rejoiced in my recovery, I could not explain the *modus* of my relief. I could only assure him that the divine spirit had wrought the miracle—a miracle which later I found to be in perfect scientific accord with divine law.

Here Eddy portrayed herself as an experimentalist who, after much research and investigation made a key discovery sparked by an accident. The research she conducted after she solved her problem led her to the belief that her healing was "in perfect scientific accord with divine law." By using this language to describe her experience, Eddy wanted to link her religious movement with the investigative techniques of science. In her account, Eddy began with a description of a healing from a serious injury attested to by a witness. Her injury was a "plain fact," as was her healing from the injury. Eddy therefore did

the research, based on those facts, to discover the principles that facilitated her healing. Through the remainder of “The Great Discovery,” Eddy combined village Enlightenment-style inductive reasoning and classic religious revelation composed using words and phrases meant to invoke “science.”

Once Eddy had grasped and understood some basic principles about the nature of God, the universe, and humanity, it was a simple, logical step to her notion of healing:

It became evident that the divine Mind alone must answer, and be found as the Life, or Principle, of all being... He [God] must be ours practically, guiding our every thought and action; else we cannot understand the omnipresence of good sufficiently to demonstrate, even in part, the Science of the perfect Mind and divine healing. (Eddy 1891: 28)

Healing had become, for Mary Baker Eddy and her early converts, the best method to demonstrate Eddy’s claim about the nature of God as a principle that can be accessed and used by anyone who understands that basic premise about the divinity.

Eddy also consistently used what Olav Hammer (2001, pp. 243–245) has called the “rhetoric of rationality” in her discussions of healing. In “The Great Revelation,” the chapter in *Retrospection and Introspection* in which Eddy presented her argument that Christian Science could eliminate evil by demonstrating the illusory nature of the material world, she used this somewhat strained mathematical analogy:

The word *Life* never means that which is the source of death, and of good and evil. Such an inference is unscientific. It is like saying that addition means subtraction in one instance and addition in another, and then applying this rule to a demonstration of the science of numbers; even as mortals apply finite terms to God, in demonstration of infinity. *Life* is a term used to indicate Deity; and every other name for the Supreme Being, if properly employed, has the signification of Life. (Eddy 1891: 59)

Eddy used mathematical analogies because she wanted her concept of God to be understood by followers and potential converts as a consistent and logical system of principles. If one properly applied those principles to the problems and ailments of the material world, the ailments would disappear. An important part of this rhetorical strategy was Eddy’s use of language meant to invoke consistent and logical systems such as mathematics.

In *Science and Health with Key to the Scriptures*, Eddy elaborated her full theological system and its implications for religious life and for heal-

ing. She also tried to show how, through inductive reasoning, a person could demonstrate that God's nature is completely spiritual. Physical healing was, again, the crucial fact in Eddy's argument. For example, in chapter six, "Science, Theology, Medicine," Eddy wrote that she concluded that because she was able to heal herself using only prayer and Bible study, the fact of her healing must lead to the conclusion that the true nature of God is spiritual:

After a lengthy examination of my discovery and its demonstration in healing the sick, this fact became evident to me, that Mind governs the body, not partially but wholly. I submitted my metaphysical system of treating disease to the broadest practical tests. Since then this system has gradually gained ground, and has proved itself, whenever scientifically employed, to be the most effective curative agent in medical practice. (Eddy 1875: 111–112)

Eddy argued that healing was a logical result of understanding both the ultimate truth that spirit is the only reality, and the scientific method of properly employing her methods to demonstrate that reality. To paraphrase Eddy, healing is the lesser demonstration proving the greater demonstration of the entirely spiritual nature of God.

Science and Health, like *Retrospection and Introspection*, has many examples of the rhetoric of rationality. Eddy tied familiar Protestant tenets and practices to words and phrases that recalled mathematic and scientific principles. But that rhetoric of rationality was used to point to a body knowledge that refuted what both mainstream science and traditional Christianity said about the nature of God, the nature of humans, and the relationship between the two. In the first chapter, "Prayer," Eddy wrote (1875, p. 3), "Who would stand before a blackboard, and pray the principle of mathematics to solve the problem? The rule is already established, and it is our task to work out the solution." Prayer was like a mathematical formula, but one that required the individual to put the principles to work to find the solution to the problem. The implication here would be unmistakable for any well-versed Protestant: it was not God who acted on prayers, but humans who made use of pre-established principles in order to heal. In other words, Eddy used scientific-sounding language to legitimize claims that ran counter to conventional science's understanding of the world.

In the chapter "Atonement and Eucharist," Eddy claimed Jesus' resurrection was an example of the workings of "divine science." The resurrection was an experimental demonstration, and for Eddy it was "The final demonstration of the truth which Jesus taught." But Jesus'

science did not confirm human science either; rather, “The Science Jesus taught and lived must triumph over all material beliefs about life, substance, and intelligence, and the multitudinous errors growing from such beliefs.” (Eddy 1875: 43) Eddy’s version of true science led to a demonstration of healing from physical maladies because it showed the false premises of limited, conventional human science and religion.

Eddy believed that the demonstration of her principles through healing was important enough to the legitimacy of her system that the last chapter of *Science and Health* is entirely devoted to healing testimonials. “Fruitage,” is 100 pages of healing testimonials that follow a remarkably similar pattern. The writer declares that for some amount of time he or she suffered from some physical problem (constipation and eye trouble are frequent complaints, but the complaints range from tuberculosis to broken bones). Then the writer discovered *Science and Health* and immediately upon reading it began to feel better. The writer was healed and no longer needed any of their old medicines or treatments. That language of healing in terms of cause and effect, in which a disease that yielded to no treatment until the ritual of reading *Science and Health* came into the writer’s life, invokes the village Enlightenment idea of truth based on plain, observable facts. The testimonials were meant to provide the evidence for the accuracy of Eddy’s claims and practices, therefore creating the conditions for a non-materialist empiricism in which science ultimately proved that the phenomenal world was, in fact, unreal.

Christian Science’s discourse about the nature of God and the nature of humans was thus legitimized through an appeal to a verifiable experience in the lives of the individual convert—healing. The very bulk and repetition of the testimonials in “Fruitage” lends credence to the notion that science was a legitimation strategy for Eddy and early Christian Science converts. Like any good experiment, the repeatability of the process of healing by reading *Science and Health* proved the basic truth behind the system. But what healing ultimately demonstrated, at least according to Eddy, was that the material world, the very place where healing was needed, was ultimately unreal. So while Eddy’s methods and words may have been those of the conventional scientific and religious world of nineteenth-century America, what they demonstrated, according to Eddy, was that the basic assumptions of that world about the absolutely real and the methods by which it operated the universe were wrong. God was not an anthropomorphic

being whose powers could be called upon to alter the course of events in an absolutely real material world. God was the spiritual principle shaping an entirely spiritual ultimate reality. Thus Eddy was not only making a powerful religious claim, she was also denying the legitimacy of the conclusions drawn by the scientific world.

Unity's Use of Scientific Language

As with Christian Science, the major New Thought movement the Unity School of Christianity also cites a healing as its beginning. When, sometime during the spring of 1886, Myrtle Fillmore and her husband Charles attended a lecture on Christian Science in Kansas City, Missouri, Myrtle Fillmore was very concerned about her own physical state. She believed she was afflicted with tuberculosis, she suffered from incessant hemorrhoids, and she wanted relief. Fillmore found the relief she sought. She left the lecture with the affirmation "I am a child of God and so do not inherit sickness," in her mind, and, in conjunction with prayer and meditation, used this affirmation to heal herself. She began to practice her healing technique with friends and neighbors, eventually convincing her somewhat skeptical husband that her healing techniques and beliefs warranted further investigation. Fillmore began a formal healing practice, and in 1890 Myrtle and Charles Fillmore founded their first magazine, *Modern Thought*. Thus was born the organization that would become the Unity School of Christianity. (Freeman 2000: 21–110; Vahle 2002: 5–70) Both Fillmores contributed significant amounts of writing to Unity's various publications, and by examining excerpts from several different sources it is possible to see how this central New Thought movement used science to legitimate itself to adherents and potential converts.

Like Eddy, Myrtle Fillmore employed the "rhetoric of reason" to structure many of her discussions of the nature of Unity's religious beliefs and practices. She used a metaphor made up of both educational and mathematic images to describe Unity's religious life. For Fillmore, understanding God was matter of sufficient study of "spiritual science." That spiritual science was "as exact in its requirements, as logical in its deductions, and as demonstrable in its workings as the science of mathematics." Truth students must use "exactness and pure reason" to understand the principles and practices involved in Unity so that solutions such as healing would result. Fillmore believed

that the requirements for success in spiritual science were the same as those of mathematics: understanding fundamental principles, pure and unbiased reasoning, and the ability to demonstrate the workability of the principle. (Fillmore 1956: 25–27)

Charles Fillmore used a similar rhetoric of rationality when he described several of Unity's basic tenets. For instance, Fillmore explained the Unity idea that mind creates reality by using language intended to invoke natural laws: "But principles do not change; man makes his heaven or his hell, just as he did two thousand or two million years ago." (Fillmore 1926: 17) Mind creating reality was simply a law of the function of the universe, perhaps comparable to gravity. The nature of the I AM, that part of the human that was most intimately connected to God, was best explained, at least according to Fillmore, using mathematical language. Writing in *Talks on Truth*, Fillmore claimed (1926, pp. 76–77), "It [the I AM] is like the mathematical one. All the combinations of figures that were ever conceived are but the repetitions of this digit. It is the son of the principle, mathematics." Whether the mathematical comparisons were clear or cogent is not as important as the fact that Fillmore used them to try to explain his claims. The rhetoric of science and mathematics lent an aura of credibility to his claims because those systems of knowledge and practice were widely known and considered authoritative by Unity practitioners and students.

According to Charles Fillmore, Christians would eventually adopt a scientific understanding of Jesus' basic teachings. He wrote (1926, p. 115),

Now a new consciousness, a new understanding of this great teaching of Jesus is needed. We are beginning to understand it scientifically. Our physical scientists are showing us in their laboratories that life should be continuous. They tell us that the functions of our body are self-perpetuating if rightly directed. There is no reason why it should be destroyed. All about us are the forces that enter into the body, and the elements that are found in chemistry are also in the body of flesh.

Physical science demonstrated that Jesus' claims about eternal life were correct, and if people could only deal with the body correctly, then eternal life would be possible. This would be the ultimate evolution of Christianity. These claims show a major split in the use of science between the New Thought-based Fillmores and Mary Baker Eddy. For the Fillmores, conventional science demonstrated the truth of both

traditional Christian claims and their claims about the nature of the body. But for Eddy, such an understanding of the nature of the body was simply wrong. The material body had no ultimate reality, according to Eddy. This led to a major difference between the Fillmores and Eddy in practices surrounding the body. Eddy, believed and taught that healing the body was merely the first step in a larger process of educating oneself about the spiritual nature of God and humans. The Fillmores, like most New Thought adherents, believed that the new understanding of God pointed the way to a newer, better existence in the material world as it was conventionally understood. For the Fillmores, a major manifestation of this new understanding was the practice of vegetarianism.

Charles Fillmore portrayed vegetarianism as an experiment that could prove the hypothesis that Unity posited about the operation of the universe, one shared by many other New Thought proponents. Catherine Albanese (1977) calls the basic idea informing Unity's practice of vegetarianism the theory of correspondence, which posits this world as a microcosm of a larger, more perfect macrocosm. Through thinking the right way and practicing the right techniques, humans can contact and make use of the macrocosm to better themselves in the microcosm. For the Fillmores' religious practice that meant eating a vegetarian diet in order to align oneself with the pure realm of God. The practice of vegetarianism would therefore result in both spiritual purification and bodily renewal.

Unity writers invoked scientific rationales in their discussions of vegetarianism. Becoming a vegetarian, although it was also discussed as an ethical issue, was frequently portrayed as the logical conclusion to the study of bodily regeneration. The Fillmores claimed that by conducting the experiment of vegetarianism, a person could test the hypothesis that the body's overall state corresponded to the nature of the food it consumed. Anybody who wanted to heal herself needed vegetarianism to cope with the pitfalls of the material world. Vegetarianism was both an opportunity to test the Fillmore's hypothesis about the material world and a religious practice that responded to the problems confronting individuals in the material world.

Unity's teachings on vegetarianism began to be codified in Charles Fillmore's October 1903 article, published in *Unity Magazine*, entitled "As to Meat Eating." Fillmore (1903, p. 195) argued that diet made a vital difference to one's spiritual progress, "It is found that food does

have a part in body structure, and that the metaphysician must take it into account if he would reach the higher substance demonstrations.” The remainder of the article is a series of comparisons and metaphors based in cause and effect claims about eating and its results that also incorporated New Thought claims about the power of the mind to create reality. Fillmore argued that food itself was life. He described a force he named “the life idea,” which was part of all life forms. If that life idea was withdrawn, whatever the material form was would collapse and die. Using the same line of thinking, any substance that one consumed that used to contain the life force, but no longer did, would negatively affect the consumer. Logically, that led Fillmore to conclude that food must be pure and free from any semblance of death or decay, “If we are eating aggregations of life ideas hid within the material forms, we should use discrimination in choosing those forms. Our food should be full of life in its purity and vigor. There should be no idea of death and decay connected with it in any degree.” (Fillmore 1903: 195)

Fillmore’s description, filled with images of cause and effect and of science and technology, clearly illustrated the “scientific language” he used to discuss vegetarianism. He wrote about becoming a “conscious vital battery” as a result of the vibrations in his “sympathetic nerve centers” and the quickening of his “subconscious mind,” all of which led him into a heightened state in which he felt that his emotions and appetites were in fact increasing. Fillmore prayed for guidance, but instead of a divine response that ended his tribulations, his answer came in the form of “a system of communication set up with the higher realms of consciousness.” This communication system showed Fillmore that food had to be regenerated by the body and by the consciousness in order to be effective in the larger process of spiritual regeneration. Fillmore was shown “just how to carry on this regenerative process” by using “the various subconscious centres” to build “the new body in Christ.” (Fillmore 1903: 196)

In good scientific fashion, Charles Fillmore next explained, using biological language, how this system worked. Each living cell contained a “vitalizing element” that dead cells lacked. Because individuals appropriated whatever form the food they ate carried, be it vitalizing or enervating, the effect that these appropriated cells would have on the individual depended on the nature of food. But the system was not passive and the eater was not incapable of affecting how food

functioned in the body. Individuals did have the ability to regenerate even dead cells. However, it took a great conscious effort to do so. People who simply ate without thought derived some benefit from the system's function to absorb food and thus sustain life, but the real benefit of food was best obtained by those individuals who could consciously regenerate the cells they consumed. Fillmore described regenerating food as the process of putting the individual's mark on the nature of the food, "The stamp of individual identity...upon it [cells in the food consumed] [comes] through a concerted effort of the I AM." (Fillmore 1903: 197)

The process of regenerating cells was aided by the individual consciously cooperating with it by consuming food with a character of the "highest and purest." Eating degraded or decaying food cells, for instance those from a dead animal, caused a person to consume "corruption and decay." Such corruption and decay caused real problems for people, but most did not realize it, "Yet ignorant man loads his system with these elements of discord and decay and expects to get life out of them. No wonder his body dies." (Fillmore 1903: 197) The correspondence was clear for Fillmore: eating meat was introducing chaos into an ordered system, and it would eventually cause the body to break down and die. Vegetarianism was thus not only a spiritual practice, but also an experimentally tested healing method.

By the early 1920s, science had become a common term of discourse in Unity writings and lectures, and the Fillmores were moving toward trying to incorporate science and Christianity in more overt ways. In lecture he gave on 6 July 1923, Charles Fillmore argued that Christianity itself had always been a science, albeit not one that was recognized as such. According to Fillmore, the only reason that the Gospels did not use "scientific terms" was because "there was no scientific cult. Man hadn't studied what they call science." (Fillmore 1923: 1) Fillmore tried to legitimate the claims of his version of Christianity by interpreting Jesus' story as that of a pioneering scientist. Fillmore's implication was clear: Christianity as taught by Jesus and as Fillmore practiced it has always been scientific. The idea of science had become the ultimate legitimizing tool. By seeking to convince his followers of the scientific basis of both his claims and of traditional Christian claims, Charles Fillmore was seeking to reinterpret the basis of religious legitimacy from one dependent on traditions and scriptures to one dependent on self-validating experiences in the material world.

Conclusion

Christian Science founder Mary Baker Eddy and New Thought advocates such as the Fillmores understood science as a positive social force as much as they understood it as a method for empirical investigation of the material world. Science was a force to be reckoned with not just because its methods could be used to explain the material world, but also because its use conveyed social prestige to those who could credibly align themselves with scientific discourse. Christian Science and New Thought adherents sought to do both of those things. As such, the ways in which Eddy and the Fillmores incorporated science into their larger discourses reveals important aspects of both movements' relationships with the mainstream world and, in turn, the movements' attempts to legitimize themselves. For Christian Science and New Thought adherents, religious claims and practices became subject to the claims of the empirical, scientific world, and so they must be legitimized by those claims.

The founders of Christian Science and New Thought saw the modern, scientific conception of the world as the center around which the religious world must be interpreted and understood. Instead of accepting traditional religious descriptions of God, humanity, and the universe, the true nature of these things was to be discovered, described and used by observing and interacting with the world. The village Enlightenment conception of science was an accepted fact for these religiously creative people, and they made use of that set of cultural tools as they went about creating their religious systems and negotiating their place in the ever-shifting American religious world.

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THE UNIFICATION MOVEMENT: SCIENCE, RELIGION, AND ABSOLUTE VALUES

SARAH M. LEWIS

When the scientific nature of the world is observed, it can be concluded that God, the Creator, is the very origin of science (*Divine Principle*, 1973, p. 14).

The Unification Movement is not normally associated with the advancement of science, but it prides itself on having done just that, or at least in providing the opportunity for scientific advancement. In 1972, Sun Myung Moon held the first International Conference on the Unity of the Sciences (ICUS) inaugurating a forum that would bring together eminent scientists from all over the world. The 1981 ICUS in Seoul saw the participation of 800 scientists, a significant growth from the 20 participants in 1972.

ICUS was

An interdisciplinary academic forum dedicated to examining the important issues confronting our contemporary world. ICUS is sponsored by the International Cultural Foundation, Inc. (ICF), which is a non profit organization set up to promote academic, scientific, religious and cultural exchange among the peoples of the world. ICF was founded in 1968 by the Reverend Sun Myung Moon (icus.org).

The Unification Movement's need to address these "important issues confronting our contemporary world" is at the core of its teachings and the reason why Sun Myung Moon has created so many forums for debate. ICUS was to unify the sciences and unite science and religion, as a part of God's plan for humanity and the creation of the Kingdom of Heaven on earth.

The Unification Movement

The Holy Spirit Association for the Unification of World Christianity was founded by Sun Myung Moon in Korea in 1954 and became known as the Unification Church. Its institutional successor is the Family Federation for World Peace and Unification (FFWPU), created

in 1996 (familyfed.org). The emphasis of the movement, regardless of name, is unification, of people, countries, and cultures and so on; it aims to bring unity to the world. The central belief of Unificationism is that humanity has become separated from God and must reunite with God through joining together as one family, and the new name of the movement makes this more obvious.

Moon said that the name change was necessary as he had never intended to create a new church or different denomination of Christianity (UPF, 2008, p. 74). It is likely that the specific reference to one religion, Christianity, was felt to be too narrow, particularly as Moon believes he fulfils the central role of all religions, and not just of Christianity. And, of course, the wider Christian community did not recognise his perceived centrality to world-Christianity. The change in name was significant and symbolised an opening up of the Unification Church and a decision to embrace even those who did not support the theology of the movement. The FFWPU has members and supporters who do not necessarily follow the theology of the Unification Church, but who do support the wider values and aims of the movement. That is, they do not accept that Moon is the Messiah but they do support his humanitarian work. There is now no need for a person to convert to Unificationism and accept Moon as the Messiah; a person can remain within another religion or none but lend support to the wider aims of the group. In support of this, the Blessing ceremony (which is discussed later) has been open to non-members since 1992. The aim of Moon's Unification Movement is to create God's Kingdom of Heaven on Earth and much of this is done through social endeavours for the betterment of society. What must also happen is that humanity must join the Perfect Family that Moon and his wife, Hak Ja Han, have created through taking part in the Blessing ceremony which consolidates their commitment.

Gordon L Anderson (1983, p. 215) a Unificationist, explains the incarnation of Moon's vision, stating that Moon has a two-fold commitment. First, missionary work to lead people to God and second, social work to lead the world to unity. It is the second part of the commitment that is of concern here. Through the various organisations he has established, Moon believes that "all truth can be united to guide the world toward peace and harmony" (Anderson, 1983, p. 217).

The International Conference on the Unity of the Sciences

ICUS was one of the largest platforms, probably the largest for many years, on which the world's greatest scientists could meet, promote their ideas and listen to those of their colleagues, whom they would normally only come into contact with through the written word. Scientists at ICUS were talking about issues such as climate change, problems in Africa and nuclear power long before such topics were widely debated, let alone known in the mainstream. The 1990 ICUS in Washington, co-chaired by Professor Paul Badham¹ of University of Wales and Professor Claude Villee of Harvard Medical School, led to the subsequent book *Ethics on the Frontiers of Human Existence* (Badham ed, 1992). This conference and subsequent publication was dealing with issues such as genetic engineering and assisted dying long before they came to public consciousness.

Committee chairs of ICUS were not members of the Unification Movement and had absolute authority on who to invite, from anywhere in the world. Some of those who attended were Nobel Prize Winners and most were distinguished people; the list of participants at ICUS over the years is a very impressive one. Many participants, including some of the Nobel Laureates, attended ICUS on more than one occasion. The papers given at each conference would be published and a journal also emerged from the gatherings. Alvin M Weinberg (ICUS XX, 1995, p. 27)² states "They are like no other meeting anywhere, or possibly that have ever been held, combining as they do a universality not only of subject matter but also of participation. Where else can one sit at lunch with an African sociologist, a Pakistani physicist, a Chinese engineer, and an Indian theologian?"

Although the conferences were attended by Sun Myung Moon and at the end of each conference there would be an optional Questions and Answers session on the beliefs of the Unification Movement, active proselytizing was not on the agenda. However, as one of the more controversial new religious movements it was inevitable that not only was ICUS criticised but so were those who attended. Irving Louis Horowitz (1978, p. 262) states that the attendance of ICUS by some

¹ I am grateful to Professor Paul Badham for his comments during the writing of this paper.

² Alvin M. Weinberg was Distinguished Fellow, Institute of Energy Analysis, Oak Ridge Associated Universities, Tennessee.

of the most significant names in the scientific community simply gave legitimisation³ to Moon's movement. This he gives as one of the reasons why some scholars, himself included, declined an invitation to attend.

The time when ICUS was at its largest, from the late 1970s to the early 1980s, was the time of peak anti-Unificationist activity. 1978 had been the year of Jonestown, which brought NRMs into the media in the most unfavourable way possible and assumptions were made about all NRMs on the basis of what had happened to Jim Jones' People's Temple. Some scientists had concerns about the sponsorship and some decided not to participate even if they had done so previously. Criticism was also made because the conferences were always held in pleasing venues and all expenses were paid. Critics accused Moon of "buying" legitimisation from scientists, and participants were accused of compromising their principles in exchange for the opportunity for exotic travel. In truth, it is not unusual for organisers of conferences to want the best possible surroundings for their participants if they can fund it. In practical terms, the conferences were so busy there was rarely any time to explore outside of the conference venue. Most poignantly, however, is that without Moon's sponsorship, many scientists from Africa, India, Latin America and the former Soviet Union would have not have been able to fund travel to international conferences of this kind at that time.

Many of those who did decide to attend sought assurances from committee chairs that their participation would not be taken to imply agreement with or endorsement of Moon's religion. It seems the case, therefore, that in spite of being aware of the controversy surrounding the sponsors of ICUS, the participants still chose to attend and felt that the benefits outweighed the concerns.

From the perspective of the Unification Movement, ICUS was essential in fostering dialogue between the sciences in the hope that common ground and unity would be found between the sciences and eventually between science and religion. The ultimate aim of any religious movement is to fulfil its theology. If Unificationism believes that the creation of heaven on earth cannot happen unless science and

³ See Lewis, James R. 2003, *Legitimizing New Religions*, New Jersey, Rutgers University Press, for a detailed study of how new religious may gain legitimisation.

religion are united and working in harmony, then clearly it is going to work towards this unification.

I attended the twentieth ICUS in 1995 in Seoul. The theme for that ICUS was "The Origin and Human Responsibility". There were seven committees each with their own topic: "Scientific Objectivity and Human Values", "Science, Nature and the Sacred", "Genetic Knowledge, Human Values and Human Responsibility", "Values, and the Social Order: Order by Rules and Rules by Order", "Re-Visioning the Aging Society: A Global Perspective", "Pursuits of Beauty: Biological Foundations of Aesthetics" and "Towards the Harmony of Cultures". One piece of literature we were given was a booklet commemorating 20 years of ICUS in photographs. I was struck by how many significant people had attended in previous years. The first ICUS in 1972 was a small affair with only 20 participants. ICUS II, in 1973, included Sir John Eccles, Nobel Laureate (Medicine), who gave two papers. ICUS III in 1974 included Lord Adrian, Nobel Laureate (Medicine) and Chancellor of the University of Cambridge and Archer JP Martin, Nobel Laureate (Chemistry). ICUS IV in 1975 included Robert Mulliken, Nobel Laureate (Chemistry), and Eugene Wigner, Nobel Laureate (Physics). ICUS V in 1976 included Brian Josephson, Nobel Laureate (Physics). ICUS XII in 1983 included Friedrich von Hayek, Nobel Laureate (Economics). The final pages of this commemorative booklet give "Reflections from Participants", none of whom are members of the Unification Movement (ICUS XX, 1995, p. 25).

Kenneth Mellanby (ICUS XX, 1995, p. 25)⁴ said that "ICUS is important among conferences for three reasons. First, it is completely interdisciplinary... Secondly, those attending are completely free to express their views without any restrictions other than those imposed by their own intellectual integrity. Thirdly, it is international, bringing together people from all continents..."

Friedrich von Hayek (ICUS XX, 1995, p. 25)⁵ noted that "I am now convinced that, whatever may be popularly said or believed about the basic religious foundation of ICUS, the scientific character of the meetings, and their presentation and organization, are... thoroughly and admirably respectable".

⁴ Kenneth Mellanby was Director Emeritus, Monks Wood Experimental Station, England.

⁵ Friedrich von Hayek was Nobel Laureate and Professor Emeritus of Economics, University of Freiburg.

Morton Kaplan (ICUS XX, 1995, p. 25)⁶ felt that “Nowhere in the history of intellectual movements has there been a series of conferences so concerned with interdisciplinary matters that affect the human condition as this one...I don’t have to tell you what is happening in our own universities. Regrettably a physicist can’t talk to a chemist, and quite often he can’t even talk to another physicist...The Ford Foundation has not done anything about this; Carnegie has not done anything about this; the Johnson Foundation and the MacArthur Foundations have not done anything about this. One man had the vision to put these conferences together, the Reverend Sun Myung Moon”.

Of course, it is impossible to know what a person’s motives are for their actions. It is impossible to know what attracted each and every person who attended ICUS and it is impossible to know the motives of Moon for creating the forum.⁷ What is clear, however, is that ICUS represented an unparalleled opportunity for global interchange of views between scientists, philosophers, theologians and others, at that time. ICUS ran for 25 years and it is unlikely that it was solely the Unification Movement that benefited.

Science

Creating ICUS was the most obvious way in which the Unification Movement showed its belief in the importance of science and the need for unity between science and religion. The Unification Movement does not draw on the specifics of science to support its theology nor does it really make an appeal to science for legitimation. It does, however, make science an essential and integral part of its theology in that science and religion must work in unity and their common goals acknowledged. Both science and religion are viewed as having the same goal, that of solving the ills of the world, but one is not superior to the other and both need the other for success and both, of course, are seen as vehicles of God.

⁶ Morton Kaplan was Professor Emeritus in Political Science, University of Chicago.

⁷ See Chryssides, George D. “‘Heavenly Deception?’ Sun Myung Moon and *Divine Principle*”, in Lewis, James R. and Hammer, Olav, eds, 2008, *The Invention of Sacred Tradition*, Cambridge Eng. University Press for discussion of some of the controversies surround Moon and his movement.

The twentieth ICUS stated that

Neither sciences nor religions and philosophies have provided adequate solutions to humanity's contemporary material and spiritual problems. However, if science is to fully address itself to the human situation, it must develop a greater appreciation for values and integrate this appreciation into the search for universal knowledge and well-being. Otherwise, the increase of scientific knowledge could very well lead to destruction (ICUS XX, 1995, p. 30).

In 1981 a volume of 10 seminars was published by the Unification Movement as *Research on the Unification Principle* (Lee, 1981). This resulted from discussions between 49 scholars, largely scientists (from physics and microbiology to parasitology and chemistry) but also tutors in philosophy, journalism, literature and law. The Preface states that

...Unification Principle presents a system of ideas which provides a powerful impetus for a harmonizing of religious values and scientific advancements, and a resolution of the struggle between idealism and materialism, both of which tasks have come to have major import in this century. Throughout its entirety the Unification Principle demonstrates an attitude of openness to scientific investigation—an attitude certainly appreciated by scholars.

Secular science, for the Unification Movement, has become too focussed on its own success, success for the sake of it and not with a view to actually using all of the knowledge for the good of humanity.

Eun Soo Kim⁸ emphasises this

...further development in science is not needed for the time being. The current situation of the world is that the people of the world are dying of hunger not because the world does not know the method of production but because the food monopolization, inadequate distribution and political conflicts. Only when there is spiritual enlightenment will the world be able to cope with limited natural resources, pursue the right direction of growth and create an ideal society (Kim, 1981, pp. 145–6).

Anderson (1983, p. 209) argues that “Religions are pitted against one another, scientists cannot accept religious truths, there are crises in personal meaning, and nations war. These fractures result in untold human poverty and suffering. Rev Moon's vision for healing these fractures has motivated many of us to work for restoration of the world to God's originaly intended harmony”.

⁸ Eun Soo Kim was Professor of Microbiology, Yonsei University.

Sang Hung Lee (1973) also a Unificationist states that the different culture in the world can only be harmonised if absolute values are created, that is, values that are universal and unchanging and ICUS is “committed to the quest for Absolute Values and the Unity of the Sciences” (ICUS XX, 1995). “Unification Thought is committed to the view that in the final analysis there can be no clash between the knowledge gained through science and the absolute values it sees as enshrined in the world’s religions” (ICUS XX, 1995, p. 6). But these cannot be values that come from a dominant religion or culture. They must be values that emerge from interreligious and intercultural discussion, and the Unification Church provides many platforms upon which the creation of these Absolute Values can take place. However, the co-operation of humanity is essential and without humanity’s recognition of the ideal framework inside which to formulate these Absolute Values, God’s purpose in creation cannot be fulfilled (Wilson, 1995). Hence, the appearance on earth of the Second Coming of Christ, the Lord of the Second Advent, to guide humanity in the right direction.

Unificationist Theology

In Unificationism, God’s purpose for Creation is to be realised *on earth*, with the creation of God’s Kingdom of Heaven on earth and this can only happen if science and religion are united as both play an equal, although different, role in this. It is necessary to know something of the theology of the Unification Movement so that the interpretation and role of science (and religion) may be understood. There also needs to be some acknowledgement of the Korean background to the movement and how this has influenced the theology.

Divine Principle (1973, pp. 3–4), a key scripture of Unificationism that outlines The Principle, explains how the Fall of humanity meant that humanity fell into ignorance. According to *Divine Principle*, the Fall was in two parts, spiritual and physical, or internal and external, and as each individual person is comprised of two aspects, spiritual and physical, there are also two aspects of knowledge, spiritual and physical and two aspects of ignorance, spiritual and physical. Since the beginning of history, humans have tried to overcome this ignorance and restore knowledge. It is through religious belief that internal knowledge has been attempted and through science that external knowledge has been sought. Both science and religion, therefore, are essential to humanity

in its attempt to restore themselves to God, with Science being the “external form” and religion the “internal character”.

Se Won Yoon states

According to The Principle the fall of man⁹ means, *inter alia*, mankind fell into ignorance. Principle describes religion as arising from the search for “internal truth”, for the purpose of moving from inner ignorance to inner knowledge. As humans have a body as well as a mind, the human search for truth includes science as well as religion”. The object of scientific pursuit is “external truth” in order to move mankind from “outer ignorance” to “outer knowledge” (1981, p. 125).

However, for various reasons, most of humanity came to believe that religion and science are two separate paths, mutually exclusive. Yoon states that “It was inevitable that science would struggle to free itself from the yoke of religious doctrines” (Yoon, 1981, p. 126) as increasingly in the past science and religion were not seen as compatible and it was science that suggested it could disprove the infallibility of the Bible. Science appeared to make religious explanations obsolete and it was felt that only one path could be followed as they led in different directions and scientists are not usually comfortable engaging in religious dialogue. As Richard Rubenstein said of scientists,

We are most comfortable studying derivative accounts of religious inspiration and revelation in books and manuscripts. Engaged in this labor, we are interested in our subject matter; we are calm; we are dispassionate and without inner disturbance. The situation is radically transformed...when we are confronted by an inspired religious leader whose vocation is in the process of unfolding in our own times and even before our very eyes. We are not accustomed so such a manifestation of spiritual power and charisma. Our scientific and professional training has not prepared us for the encounter. Hence, we guard ourselves against it by inventing psychological categories to neutralize its potency as well as out discomfort before it. Nevertheless, the spiritual power is there, and, whatever may be the religious tradition in which we are rooted, we feel it (UPF, 2008, p. 73).

Further, the majority of people have chosen to follow science and to believe that it is science that will eventually have all the answers and bring “salvation” from the problems of the world. Science, however, has become caught up in material matters and while humans may be

⁹ I retain the exclusive language.

comfortable physically, they still find themselves lacking in something, and this is spiritual knowledge. "Until now, scientific research has not embraced the internal world of cause, but only the external world of result..." (*Divine Principle*, 1973, 5). At the same time, religion has been attempting to answer the fundamental questions of life and to put an end to suffering, but has met with its own problems as it has been trying to work without the partnership of science. Religion does not deal with external knowledge and science does not deal with internal knowledge, so it follows for Unificationism that they are both necessary approaches and must be embraced together. *Divine Principle* goes on to state that "...a new expression of truth must appear" (*Divine Principle*, 1973, 9). Further, that "...the quality of teaching and the method and extent of giving the truth must vary according to each age, for the truth is given to people of different ages, who are at different spiritual and intellectual levels". These points tell us two things. First, Unificationism believes in progressive revelation and the need to disclose only as much as the recipient will be able to understand at any given time. Second, the Bible does not contain the ultimate truth, but only what God felt his followers could cope with at that time. Now that Christianity has progressed from the New Testament age, and we are, according to Unificationism, in the Completed Testament age, we are in a position to receive revelations that we would not have been ready to understand previously.

The story of the Fall of Adam and Eve is of primary importance to the Unification Movement in explaining the existence of evil in the world, and providing a task for the Lord of the Second Advent in having to eradicate this evil. The Unification Movement interpretation of the Fall is that it was the result of a spiritual relationship between Eve and Satan. The immediate result of the Fall was a feeling of severe guilt within Eve (Kim, 1980, p. 103). She realised that she had formed a relationship not with Adam, her true partner, but with a false partner. Eve then thought that through uniting with her true partner, Adam, she could eradicate the sin she had committed with Lucifer. This action meant that Adam and Eve became husband and wife before they were mature and without God's blessing (Wilson, 1988); their union was therefore sinful. This act between Adam and Eve represented the second stage of the Fall, the physical fall, while the act between Eve and Satan was the spiritual fall. In Unificationism, therefore, there are two types of death: spiritual death and physical death, since humanity was created with both a spirit-body and a physi-

cal body. The physical death is the literal one, whilst the spiritual death is when humanity is separated from God.

At the Fall, humanity's relationship with God was destroyed and a false relationship was formed instead with Satan. Redemption in Unification theology is the restoration of the original creation, that is, the establishment of True Parents at the head of humanity, the position that Adam and Eve would have fulfilled had they not fallen. After Adam and Eve failed to establish the Kingdom of Heaven, God sent Jesus, as the Second Adam, to reverse the Fall. As the belief is that Adam and Eve were to marry, centred on God, it follows that Jesus too should have married and had children and thus created the Perfect Family, centred on God, creating the Kingdom of Heaven on Earth. However, because Jesus was crucified he was not able to do this and what God required of him was unfulfilled. Unificationism argues that if the Jews had accepted Jesus as the Messiah two thousand years ago, God's Ideal of Creation would have been realised then. However, humanity did not fulfil its portion of responsibility and God's providence that centred upon Jesus was not fulfilled. As a result, history has always been the history of sin, re-creation and restoration and God's Ideal remains unfulfilled. Since humanity fell both spiritually and physically it has to be reborn both spiritually and physically. Jesus was not and is not able to bring physical salvation because he died physically and therefore has only a spirit body; Jesus brought only spiritual salvation. A new, living Messiah is now required to complete Jesus' mission and bring physical salvation through the creation of the Perfect Family. Unificationism teaches that the Lord of the Second Advent will be the True Father to establish a spiritual and physical trinity (*Divine Principle*, 1973, 369). According to Kim (1980, p. 237) the only way God is able to triumph over evil is for him to find someone who can conquer evil through service, humility and love and this person will be the Lord of the Second Advent.

In August 1992, after many years of messianic secrecy, Sun Myung Moon declared himself the Messiah through announcing that he had fulfilled the role of the Lord of the Second Advent. The announcement came at a Unification Church conference in Korea, entitled "Becoming the Leaders in Building a World of Peace" (Moon, 1992). And Moon's speech was titled "The Reappearance of True Parents and the Ideal Family" and explained that when the Lord of the Second Advent establishes the Perfect Family, Original Sin will be removed and humanity will be fully saved.

The idea of a purified blood lineage is vitally important in the belief system of Unificationism, and Unificationists work physically to create such a lineage through participation in the Blessing. The True Family is the ‘redemptive unit’ from which other God-centred families will extend. Through their holy mass weddings, the Unification Church believes that it is creating a new heavenly family tradition. It is trying to heal the broken relationships that have arisen not only in the family but also in society and the whole world. The Blessing of Holy Marriage is a sacrament given by Moon and Hak Ja Han as the True Parents, which allows people to separate from the love of Satan and connect to God’s love. Through receiving the Blessing, couples can establish true families as God originally intended for all of humanity (familyfed.org).

With the establishment of Sun Myung Moon and Hak Ja Han as the True Parents, the Lord of the Second Advent has completed his task in being the Messiah¹⁰ in that he has provided humanity with its True Parents and established the Perfected Family. He has also extended this divine family through engrafting people onto himself and Hak Ja Han. The transference of divinity takes place from Moon and Hak Ja Han to their “adopted” children at the Blessing and this is how Original Sin is removed and the Kingdom of Heaven established.

According to Roy Wallis (1984), there are three types of NRMs, world-affirming, world-accommodating and world-rejecting. He argued that the Unification Church is a “world-rejecting” NRM, seeing society as having centred itself on Satan and being in urgent need to refocus its priorities and affiliations. Bromley and Shupe (1979) argued that the Unification Church was more accurately described as a “world-transforming” NRM, believing as it does that society is in need of transformation and that this can be done through the Unification Movement. The Unification Church certainly is not “world-rejecting” in the sense that it has withdrawn from society as some other NRMs did, but it does hold most of the characteristics that Wallis gave to the “world rejecting” NRMs. However, the Movement is also very well described as a “world transforming” NRM, with the

¹⁰ Moon insists that the Messiah is a *couple*, and that his wife, Hak Ja Han, is co-messiah with him. It is also the reason that Jesus was not able to fulfil his messianic role, he did not marry and raise a family. However, Moon continues to describe the messiahship in singular, masculine terms.

belief that the world can and must be transformed through acceptance of Unification Church teachings if it to return to God and thus become God's Kingdom of Heaven on earth. Unificationists do not wait for the end of the world and a transition to the spiritual world; they believe that an earthly kingdom must be created and that they are to play a key role in creating that.

A Korean Movement

On examining Unificationism in the context of its Korean heritage, many of the beliefs share common ground with other Korean NRMs that were contemporary with Moon's own movement. Many new religious movements appeared in Korea during the same period and they were each not only influenced by Korea's indigenous religions of Shamanism, Buddhism, Confucianism and Taoism, but also by Korean Christianity and Korean nationalism.

When the Korean War ended in 1953 Korea experienced division, unrest, dissatisfaction, poverty, oppression and social injustice. When Korea was divided into two on the 38th Parallel, families that were once close were never to meet across the border again, and people of the same ethnic identity became enemies. On an economic level, most of the power and mineral resources and all the major industrial towns were in the north, so South Korea was about to embark on a time of great poverty.

Gernot Prunner (1980) argues that the existence of new religious movements in Korea follows the pattern of first, a diagnosis of the present problems in the world; second, a suggestion of the ideal; and third, the propagation of ways to rectify the situation. He argues that the three-hundred or so new religious movements that have emerged in Korea since the mid-nineteenth century have done so in response to the social conditions of the country; the aim of such movements has been to establish that which they view to be God's ideal.

The more recent Korean new religious movements (post-Korean War) have a number of common traits. They believe strongly in the Fall of humanity and that humanity is thus alienated from God, and they place emphasis on Korea as the chosen nation to initiate the salvation of humanity. Leaders of Korean NRMs of that period were often seen as messiah figures, and each contained ideas from the indigenous religions of Korea and the synthesis of Christianity with the indigenous religions of Korea was not unusual.

Sang-hi Mun (1971) highlights this syncreticism, the belief in the advent of a future world and the belief in the possibility of paradise on earth. Members of these new religions believe that new life begins in the movement and a new society and new world can result; the emphasis is this-worldly. As with most post-1945 new religions of Korea, the Unification Church requires that its members work *physically* for the purification of society and the consequent (re)establishment of God's Kingdom. Unificationism does not believe that heaven is simply a place for the righteous to inhabit after death. Heaven may be created on earth, now.

Moon's background in electrical engineering combined with aspects of Korea's indigenous religions, Korean Christianity and Korean nationalism, led to the creation of a diverse theology. For example, Confucianism's emphasis on the family has clearly influenced Unificationist theology as has Taoist teachings on yin and yang and the ensuing harmony in all aspects of nature. The unique aspect of Unificationism was that it spread out of Korea to the West, and indeed to many parts of the world, soon after its development, as a result of intense missionary activity. Moon adopts non-Koreans into his 'family' and members are the nucleus of a renewed and purified nation, whether they are Korean or not.

Outreach

One of the ways in which the Unification Church attempts to address the "important issues confronting our contemporary world" noted earlier is through the creation of numerous humanitarian and social organisations. It is through these organisations, all focussed on improving the moral and social standards of society, that Moon believes the purpose of God's creation *in this world* will be fulfilled.

There have been many organisations of varying themes, all with the underlying aim of supporting Moon's theology and bring improvements to societies. One of the earliest was The Collegiate Association for the Research of Principles (CARP), established in 1955 with the aim of gaining interest from the student population. In 1963, Moon established the Little Angels, a children's folk ballet and in 1974 he established The Little Angels Arts School in Korea. In 1973 the Professors World Peace Academy (PWPA) was created, aiming to bring together leading figures with a focus on working through the causes of disunity

among the people of the world. Since 1974 Moon has been developing marine business ventures to safeguard food supply. He has also developed the International Relief Friendship Foundation to educate people in Africa and other growing nations, in agriculture and conservation (unification.org).

In 1992, the Women's Federation for World Peace (WFWP) was founded with Hak Ja Han at its head. This very much reflected the Movement's traditional views of women as it emphasised the important role that woman have in creating a society focussed on family values. The WFWP is an on-going project that has spawned various other activities including the Bridge of Peace Ceremony, the Interracial Sisterhood Project and the Women's Middle East Peace Initiative (familyfed.org). In 1994 Moon established the World Peace Institute of Technology that develops industrial technology and transfers it to the developing nations. Also in that year the Youth Federation for World Peace (YFWP) was created.

Arguably the most significant and potentially enduring organisation is the Universal Peace Federation (UPF) inaugurated by Moon in 2005.

The Universal Peace Federation (UPF) is a global alliance of individuals and organizations dedicated to building a world of peace in which we live in freedom, harmony, cooperation and co-prosperity for all. The UPF is guided by a vision of humanity as one global family of God, living in accordance with universal principles (peacefederation.org).

The UPF has "chapters" all over the world and is involved in a vast number of social and cultural projects, all aimed at improving the world and bringing unification in all spheres.¹¹ The UPF embraces non-Unificationists and there is certainly an enormous amount of support from people who want to be involved in this initiative but who do not accept the theology of the movement.

These are just a few examples of the organisations that have emerged out of the Unification Movement. Many more have existed and are still in existence and many spawned their own offshoots. Unificationism does not present a theology where followers simply wait for the End Times. It presents a theology where members must

¹¹ The main UPF website is <http://www.upf.org> although there are also sites specific to different countries. The UK site is <http://www.uk.upf.org/>.

be active and a theology that is to be fulfilled *on this earth*. Moon states: 'My efforts of 40 years in developing interfaith, academic, educational, ideological, cultural, artistic, media-related, scientific, technological and business projects worldwide, are all directed towards this purpose' (Moon, 1994).

Conclusion

The interpretation of science in the Unification Movement is very much Moon's own interpretation of science. Science is unlikely to "prove" Unificationist theology as this theology is a pre-biblical criticism theology that does not even accept evolutionary theory which so much of modern science presupposes. It may have been a hope of Moon's that the pure scientists he so obviously admired would realise that Unificationism's view of science (and religion) was the true one, but this has not happened. However, for the time being it just needs to be shown that, although different, science and religion are actually treading the same path. The goals of both, to bring "salvation" to humanity in this life, are the same even if the perspectives are different. Science usually thinks in term of improving and advancing human well-being; working for the sake of humanity. Whereas in Unificationist religion, the aim is to reverse the Fall of humanity and restore joy to God.

Not all religious movements are solely interested in the afterlife and the transience of life in this world. ICUS, as well as the many other Unificationist organisations, showed that the Unification Movement is a religious movement that is concerned with the here and now. Heaven and hell in Unificationism are not other-worldly but exist on earth. To move humanity away from its relationship with Satan and back to God and thus establish the Kingdom of Heaven on earth, requires a unity between science and religion as they each address a specific part of God's plan. In Unification thought, humanity fell away from God in both a physical, external way and a spiritual, internal way. To fully restore humanity's relationship with God, science and religion are required to work in harmony, as science deals with the "external form" and religion the "internal character".

Unlike religious movements such as Christian Science and Scientology, the Unification Movement does not make an appeal to science for legitimisation nor does it contain any overtly scientific mate-

rial in its belief system. The Unification Movement does not draw on science to support its theology, but it does give a role to science. It states that science plays an essential and integral part, alongside religion, in the Divine Plan. Sun Myung Moon has done all he can to establish the Kingdom of Heaven on earth in that he has appeared as the Lord of the Second Advent and given people the opportunity to accept him and join his True Family; it is for humanity to recognise this. He is obviously confident with his beliefs and his role and defends them passionately. If anything, Moon is likely to believe that rather than his religion turning to science for authority, he is actually giving authority to science.

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SPIRITUALISM AND SPIRITISM

SPIRITUALISM AND PSYCHICAL RESEARCH

CATHY GUTIERREZ

Introduction

Spiritualism as a religious movement self-consciously sought an alliance with science that would eventually lead to its own downfall. Despite Spiritualism's resemblances to many prior instances of mystical experience or ghostly contact, the movement is traditionally dated to 1848, when two young sisters, Kate and Margaret Fox, attempted to communicate with a poltergeist in their home in Hydesville, New York. Using a home-spun version of Morse code called "alphabet raps", the girls inaugurated what would become a trans-Atlantic phenomenon of séances and table tipplings, making international sensations of some and endorsing domestic attempts for all (Braude 1989, pp. 10–12; Cox 2003, pp. 6–7). Spiritualism posited that the dead continued to exist on an advanced plane—usually seven graduated tiers of heaven—where they could be contacted for advice and solace. Progress was the hallmark of heaven: not instantly perfected at death, spirits continued to grow in knowledge and morality. Moreover, Spiritualism proposed that everyone went to heaven—all religions, races, and temperaments were destined for the same afterlife. One's deceased kin and the sages of history were all available to help the living. The desire to talk to the dead caught the imagination of the era, and the desire to prove scientifically that this was possible followed immediately in its wake.

From the outset the practitioners of Spiritualism wished for this new form of communication to be embraced by the scientific community. Spiritualism came to life in an era when the daily implications for new technology were very apparent but their causes were not: steam could make trains run and forces like electricity and magnetism were clearly present but not at all clearly understood. Only four years before the Fox sisters' rappings, Samuel Morse had sent the first transmission, "What hath God wrought?" across an electrical telegraph from Washington, D. C. to Baltimore, Maryland. Ushering in a century of revolutionary communications, the telegraph allowed instantaneous international news for the first time and was the first widespread, practical use of

electricity. The ability to create instant and invisible communication across space was the cutting edge of technology: the ability to do so across the threshold of death seemed for many simply a logical next step.

In this case, however, it was a human who functioned as a telegraph between the lands of the living and those of the dead. The new quasi-religious position of medium was well-suited for the young republic: eschewing credentials and training, Spiritualists believed that in theory anyone could become a medium between the worlds. This, too, was predicated on vague notions about electricity. Women were thought to be especially apt for mediumship because they were believed to be negatively charged, and as the spirits were positively charged, women were generally more attractive vessels of communication. Alphabet raps proved too laborious to sustain—and probably too boring to watch—and new methods of communication developed wherein the medium would enter a trance state and arise with the spirit of the dead speaking through her.

Heaven functioned as a model for earth, and although the dead were not perfect they were still culturally superior and provided guidance on all aspects of living. Spiritualists fervently believed that their endeavour would be allied with science and staked claims to a number of scientific and pseudo-scientific pursuits. The body and its discontents, technology to prove or perfect communication with the dead, and the rise of psychology all provided fertile ground for Spiritualist explorations.

Mesmerism and Medicine

Franz Anton Mesmer, a German doctor in the eighteenth century, developed a theory called “animal magnetism” that he desperately wished to be accepted by the medical establishment of his day. Mesmer argued that a magnetic fluid ran throughout the universe, accounting for the rotation of planets in their orbits as well as the pull of the ocean’s tides. According to the theory, this fluid also flowed in human beings and ill health could be attributed to it becoming blocked in the body. Mesmer repeatedly sought the imprimatur of the Parisian Academy, with his method undergoing sustained testing by commissions that included Benjamin Franklin and Antoine Lavoisier. Despite the fact that Mesmer had literally hundreds of cures to his credit, the

commission concluded that animal magnetism amounted to the combined effects of touch and imagination (Crabtree 1993, pp. 23–32).

Mesmer was by no means alone in his search for a single cause and its attendant single cure. According to John Harley Warner, specificity in describing diseases and locating their aetiologies comprised the primary medical innovation of the nineteenth century. Prior to that, “The systems of medical practice...embodied the remnants of the Enlightenment hope that some unifying medical principle would be found, a law of disease and treatment that would prove as fertile for medicine as the law of gravity had for the physical sciences. A unified, rationalistic explanation of pathology characterized such systems, which often distilled the apparent diversity of disease phenomena into a single pathogenic process” (Warner 1997, p. 40). Mesmer’s search for a solitary panacea, however, would be eclipsed by a proto-psychological development that erroneously bore his name and completely overshadowed his hopes for scientific acceptance.

Both Mesmer and his early pupils had noticed an occasional trance state that occurred while ministering animal magnetism; akin to sleep walking, this state allowed the patient to move and speak but he would have no recollection of the episode when returned to his waking state. While Mesmer ascribed these occurrences to strictly natural phenomena, many of his students and competitors would embrace “magnetic somnambulism” as the therapeutic instrument rather than as merely a by-product of animal magnetism. Moreover, and much to Mesmer’s chagrin, many were intrigued by the paranormal implications of this second state, and magnetic somnambulism became popular among Swedenborgians, Freemasons, and other mystically-minded groups in France and Germany (Crabtree 1993, pp. 67–72; Monroe 2008, pp. 67–72).

Unlike many post-Freudian constructions of the unconscious as antisocial, earlier experimenters with magnetic sleep found the second state to be more refined and morally apt than the waking one. The marquis de Puységur, an early student of Mesmer’s and a later rival, noticed among his patients that not only did inducing magnetic sleep help their physical and emotional problems, but it also brought out a more perspicacious and even articulate self. Puységur recognized a special relationship between the magnetizer and the patient under magnetic sleep that he called being “en rapport”. A predecessor to hypnotic suggestibility, rapport required upstanding morals on the part of the magnetizer.

The Spiritualists relied upon the trance state for mediums to enter into contact with the denizens of heaven. However, Spiritualists dispensed with the need for a magnetizer, inducing these states without external aid or authority. The second self was also understood by Spiritualists differently from Mesmer and his generation: trance states produced not an alternative consciousness of the subject but rather the portal for the spirits of the dead. Many voices travelled through the instrument of the entranced body but none were intrinsic to the medium's core self. Spiritualists were so adamant that the voices were not epiphenomena of the waking subject that they often used speech acts as a litmus test of the medium. If a medium were understood to be too young or too uneducated to discuss science and politics, then surely this was the spirit world talking through her. The popular medium Cora Hatch would submit to external testing of this ilk. A committee asked her questions about the divinity of Jesus and the functioning of gyroscopes. The judges' incredulity that a young woman could answer such questions lent the air of objectivity to Spiritualist claims (Fornell 1964, p. 81).

Spiritualists routinely supported animal magnetism as a physical cure well through the American Civil War and extended their interest in medicine to a host of emergent and alternative practices. Hydropathy and homeopathy were championed by believers and Spiritualist newspapers frequently serialized new books on the topics. Andrew Jackson Davis, one of the foremost leaders of Spiritualism and arguably its most cogent theologian, wrote columns and books on health and served his final years as a country doctor. Davis forwarded a single-cause theory himself, this one explicitly tied to mystical endeavours: the health of the body was exclusively dependent on the spiritual knowledge of the subject (Davis 1909, pp. 48–54). While Christian Science turned to a faith-based model for health, Spiritualism proposed a knowledge-based system: moderation, physical exercise, and the harmony of the soul and body would produce a long and plentiful life.

Machines

Spiritualists ardently believed that science would prove the truth of their claims. As the telegraph revolutionized communication across the nation and then the Atlantic, so too did photography provide a new and apparently miraculous way to communicate across time

and space. Spiritualism conscripted both of these new technologies and tried their hand at developing their own. While mediumship was modelled originally on the telegraph and that metaphor retained currency for decades, the use of people as the instrument of communication was still subject to human error. Spiritualists sought out and built machines designed to eliminate that margin, often with the help of the spirit world which they believed both contained the finest minds of history and was itself temporally ahead of the mundane world in the march of progress.

In 1855 the most prestigious chemist in America converted to Spiritualism. Dr. Robert Hare, professor of chemistry at the University of Pennsylvania, was attempting to disprove the claims of Spiritualists when he was accidentally convinced of their veracity. Unfortunately Hare's conversion ultimately cost him his reputation as a scientist but the initial event and the 1856 publication of his book, *Experimental Investigations of the Spirit Manifestations*, gave the scientific community and the general public pause. Hare began building machines to test the objectivity of mediumship: using a treadle like a sewing machine attached by pulleys to a circular plate with the alphabet printed on it, the medium would spin the wheel in a complicated version of a Ouija board. Hare would also quiz the spirit world about erudite matters and expect a high level of knowledge from certain spirits. The alleged spirit of his father, for example, was able to spell out Latin phrases from Vergil as he would have in life (Hare 1856, p. 53).

The quest for scientific verification of spiritual claims seemed to come to complete fulfilment with the advent of spirit photography. Photography appeared to most people to be the perfect objective medium: a photograph reproduced reality, and when ghosts started appearing in photographs, Spiritualists were delighted to claim them as proof of the continued existence of the dead. Spirits, they argued, existed just outside of the light spectrum the human eye could see. Cameras were depicted as mechanized eyes, the perfected technology of seeing. People's inability to see ghosts was eclipsed by the camera's supposed ability to capture them.

In 1861 William H. Mumler stumbled into history by accidentally creating the first ghost photograph. Mumler was learning the process of wet-plate photography when he developed a self-portrait with another figure in it. Attributing the event to his own inexperience, Mumler showed a Spiritualist friend the photo as a joke. Shortly thereafter he found himself and his "discovery" being extolled in Spiritualist

newspapers up and down the eastern seaboard. Mumler converted to the cause and became a specialist in spirit photography, charging the then-exorbitant rate of ten dollars a sitting. In 1869, Mumler was also the first to be brought up on charges of fraud for his spirit photographs. Despite the prosecution bringing out P. T. Barnum to declare spirit photography humbug and demonstrating ten different ways the photographs could be altered with wet-plate photography, Mumler was acquitted on all counts. In addition to Mumler, the trial raked Spiritualism over the coals, with the real battle being whether the movement was a threat to the tenets of Christianity (Cloutier 2004, p. 22).

Photography shifted the ground of Spiritualist communication with the afterlife. Mediumship, dominated by women and requiring no formal training, became accompanied by a masculine profession that played to the wealthy and their love of novelty. As Mumler had set the terms, he served the dead, and did not control them. Trance mediumship implied that the spirits of the dead wished to be in constant contact with their living kin and to offer advice and solace to the living. In spirit photography, one was not assured of even getting a ghost one knew: in fact, in some of its more embarrassing lapses, sometimes one would not get a ghost at all but an identifiable living person. In photographs, the dead were silenced and the domestic bonds that séances continued were not guaranteed. The apparent objectivity provided by the camera came at the cost of an on-going and reciprocal relationship with the dead.

Not all Spiritualist machines were designed by humans; heaven, being both benevolent and more advanced technologically, sometimes sent ideas for machines to Spiritualists. The most famous case was that of the Reverend John Murray Spear, a colourful figure who fought for progressive politics on every front. Known as the Prisoner's Friend for his work on prison reform, Spear was a Universalist minister who converted to Spiritualism after reading Andrew Jackson Davis's work. In 1853, Spear undertook the construction of the New Motive Power near Lynn, Massachusetts. This machine was to be a gift from the spirit world for the betterment of humankind. Following the instructions given to him by a spirit association called the "Electrizers", whose spokesman was the spirit of Benjamin Franklin, Spear endeavoured to build a machine 170 feet tall with copper and zinc costing an astonishing two thousand dollars. The New Motive Power had body parts that related to human ones and was designed to be brought to life.

As recounted in the Spiritualist weekly paper the *New Era*, an unnamed woman performed ministrations to the machine and underwent pains similar to labour. This “Mary of the New Dispensation” was to give birth to a mechanical messiah at the intersection of the spiritual and the technological. Some at the scene even claimed to see the machine move a little on its own. However, since full vivification was not accomplished and reports of the birthing process cast it in unsavoury and even salacious light, the machine never brought forth the expected benefits it promised and was eventually destroyed by an alleged band of unbelieving Spiritualists (Hardinge 1870, pp. 227–228; Buescher 2006, pp. 120–127).

Other machines sent from the spirit world included perpetual motion machines, weather machines, and even weapons designed to end war because no one would wish to go up against them. Spear spent his final years attempting to sell a magical sewing machine, and in one of the more successful collaborations in 1873 the spirit world taught Amanda Theodocia Jones a canning process that revolutionized the field. From the whimsical to the extraordinary, however, Spiritualist machines spoke to believers’ fervent desire to ally science and religion in the pursuit of progress. With the wisdom of heaven at their service and with the wonders of magnetism and electricity changing their daily lives in myriad ways, Spiritualists were convinced that technology was the natural partner of spirituality and that the two would march into the future together.

Consciousness Debates

Mesmerism was resurrected for scientific investigation largely by the Scottish doctor James Braid who coined the term “hypnosis” and used it to distinguish a therapeutic trance state from Mesmer’s claims that animal magnetism could cure any disease. In his 1843 work, *Neurypnology; or, the Rationale of Nervous Sleep*, Braid carefully disentangles the universalist claims as well as the mystical overtones of Mesmerism from hypnosis; he personally attributes a number of cures to his new method and was largely responsible for getting the scientific community to reconsider magnetic sleep in its new guise.

Spiritualism had always flirted with diagnoses of madness. When women in particular fell into dissociative states and had multiple voices speaking through them, such run-ins were inevitable. Moreover, when

those voices declared a final judgment null, the non-existence of hell, and the salvation of all races and religions, the ground was fertile for conflict. For most of the nineteenth century women could be summarily institutionalized by their husbands with no legal recourse. Letters snuck out of asylums to relatives or the press were frequently the sole form of hope to have a patient's case reconsidered. Furthermore, a new nosological entity called "monomania" appeared in the first half of the century, a diagnosis whereby a patient could be declared mad in one respect only—she could be fully functioning in all other manners but have a single symptom of madness. In America, monomania was diagnosed almost exclusively on the basis of religious beliefs: if a woman disagreed with her husband on religious tenets or embraced the Shakers, Millerites, or Spiritualists, she ran a serious risk of being institutionalized against her will.

Spiritualists understood the threat of nascent psychology to its movement and launched a counter attack against claims of madness. Altered states of consciousness offer an interpretive battleground for determining whether religious phenomena imply possession, insanity, or mysticism. Spiritualists fervently argued against early constructions of an unconscious, claiming that belief in a "subliminal mind" would hamper mediumship and even court insanity. Some even agreed that hysteria and mediumship came from the same source, but insisted on a theological rather than pathological understanding of that—the hysteric was a thwarted medium. Ian Hacking has noted that psychological diagnoses require cultural "hosts," and that the designation of schizophrenia (here meant as the nineteenth-century version of dissociative identity disorder rather than its current diagnostic definition) died out with Spiritualism (Hacking 1995, pp. 135–136).

Certainly the pioneers in psychology understood trance states to be the root and the cure for many pathologies. Jean-Martin Charcot, in charge of a wing of hysterics at the Salpêtrière asylum, could both induce and relieve the symptoms of hysteria in his patients using hypnosis. His students included Pierre Janet, who would become a major player in discussions of hysteria and multiple personalities, as well as a young Sigmund Freud and Josef Breuer. All three would continue to employ their teacher's use of therapeutic hypnosis and Janet would forward the theory that a traumatic memory stuck in the "subliminal mind" caused hysterical symptoms.

Freud and Breuer's famous *Studies on Hysteria* in 1895 would add that the affect associated with the traumatic event was also repressed; all agreed that hypnosis could help unseat the memory and Freud and

Breuer went as far as to define hysteria as unwilling hypnosis. While Janet asserted that hysterical symptoms referred only back to the self, he does still bear traces of the esoteric legacy of Mesmerism when he argues that crystal gazing, talking in one's sleep, and automatic writing can affect the repressed memory. Freud would eventually abandon hypnotism in favour of the talking cure, a phrase provided to Breuer during their explorations into hysteria by one of his patients. Dreams, slips of the tongue, and primarily free association would become Freud's replacement for hypnosis—the embedded memory and its attendant emotions could be pushed into consciousness by language. The return of the memory would itself cure the hysteria, dislodging the problem that had taken hold of the body and delivering it back to the mind.

In all of these cases, however, the early psychotherapists maintained that phenomena like hysteria and hypnosis referred to a part of the psyche that was not otherwise accessible to consciousness but pertained solely to the subject. Janet's subliminal mind would compete with Freud's unconscious that was teeming with antisocial drives and sexual impulses, but both located alternative states firmly within the self. While Spiritualism's claims that experiences during trance states referred to beings outside of the self—contact with the dead—Freud's construct of the unconscious as their source would hold sway for the better part of a century. Freud himself, a confirmed atheist, mentions the Spiritualists in passing in *The Future of an Illusion*, that while still deluded by religion, he did admire them for attempting to empirically verify their claims.

The moment, however, was not yet ripe for scientific claims to eclipse Spiritualist and other religious explanations for altered consciousness. The first American reviewer of *Studies on Hysteria* was fairly unimpressed by the book, writing that it was largely a rehash of Janet's earlier work and that sexuality was improbable as the centrepiece of the psyche. He and his British counterparts would provide a critical bridge into the twentieth century, before science and mysticism were critically exclusive discourses and before discussion of the brain overtook explorations of the mind.

Enter William James

According to Christopher White in his book, *Unsettled Minds*, mid-century Americans were undergoing a crisis of faith that made many

amenable to the language of psychology in spiritual pursuits. While more traditional, Calvinist-influenced Protestantism focused on the total depravity of all sinners, more liberal Protestantism emerged in response to this constant state of spiritual anxiety. Characterized by a belief in universal salvation (or at least the denial of exclusive claims of salvation), a positive evaluation of human nature, and a hope for the mutual efforts of science and religion, these groups broke the ground for psychology to coexist with spiritual articulations. Spiritualists, Universalists, Swedenborgians, and other liberal strains contributed to this transition. White writes, "Psychological sciences were becoming the alembic transforming older, theological formulas, the methodology that uncovered the original essence of religious truth. The natural world and human nature were revealing new things, tearing down and building up. If properly understood and used, our mental faculties in particular could produce certainty about God and spiritual matters" (White 2009, p. 37).

William James was born into a privileged and erudite family that allowed him to experience first-hand the confluence of science and religion in Europe and America. Widely known for his spiritual bent, the elder Henry James espoused a Swedenborgian mysticism that flourished alongside Romanticism. Individual conscience rather than imposed morality and a utopian vision of the future marked James senior's religious perspective and influenced his son. Science was still expected to uphold the claims of religion, and when William James was considering his educational options both he and his father assumed a complicity between the two endeavours. As William experimented with a number of vocations ranging from art to medicine, he found himself torn between the purely materialistic explanations he wished to reject and the lure of religion for which he could find little empirical evidence. The seriousness that he applied to this quandary resulted in existential despair and a depression that lasted two years.

The breaking point arrived with Charles Darwin's 1859 publication of *On the Origin of Species*. According to Paul Croce, in *Science and Religion in the Era of William James*, Darwin's work rent the father and son on the subject of religiosity and caused William to forever give up on the quest for certainty in either scientific or spiritual matters. Coming out two years before William entered Harvard to study chemistry, Darwin's watershed theory disturbed more than the harmony of the James family: it drove science and religion into opposing corners. The prospect that humans evolved rather than were created whole by a

divine being rattled many to the core as did the implications the work had for ethics. Croce writes:

Darwin's account of the origin of species was also disturbing to religious believers because it seemed to deny morality. The means for species change, Darwin argued, was the "struggle for life," the amoral and sometime ruthless way living things survive and reproduce by controlling limited resources and adapting to gain a dominant position in their environment. (Croce 1995, p. 104)

James would embrace a fundamental uncertainty as his stance in negotiating the new science of psychology at the crossroads of physiology and consciousness. Initially housed in the Philosophy Department at Harvard, James worked diligently to create acceptance for this new hybrid psychology against the protests of the theologians and the natural scientists. Employing laboratory experimentation and empirical data, James navigated between mechanistic and material explanations for states of the mind and human agency. He found among his colleagues similar endeavours abroad.

Psychical Research

Spiritualism had arrived early in England when the American medium Mrs. Hayden impressed Lord Dunraven in 1852. Subsequent investigations of the phenomena associated with Spiritualism generated positive responses and attracted the attention of Charles Darwin's son George—a Fellow of the Royal Society—and noted psychologist Frederic W. H. Myers. This atmosphere in which the aristocratic and the learned fostered the scientific examination of spiritual claims made for a very different atmosphere than the Spiritualism that flourished in America. In 1882, scientists and philosophers from Trinity College in Cambridge founded the Society for Psychical Research.

Professor Henry Sidgwick, England's foremost philosopher of utilitarianism, founded the society with the earliest members including Alfred Tennyson, John Ruskin, Mark Twain, and Lewis Carroll. William James would become its first American president in 1894 and would found the American SPR in 1885. Later presidents would include Sir Oliver Lodge and the philosopher Henri Bergson. The publication of the *Proceedings* of the SPR began in 1883 followed by a *Journal* the following year. The first circular asked for members to aid with collecting information on clairvoyance, haunted houses, dreams,

and spectres; it also suggested methods to test transference, or mind reading, by using cards with different colours and shapes on them. From the outset the SPR was leery of paying mediums, thinking that the use of professionals would compromise whatever evidence they found.

The significant overlap between psychical research and psychology, at least in terms of those interested in the fields, illustrates several decades of fruitful converse between them. In 1889, Frederic Myers and Henry Sidgwick attended the first International Congress of Experimental Psychology in Paris, of which Charles Richet was the secretary, Charcot the president, and attendees included Francis Galton, father of eugenics, and William James. The SPR asked to conduct a Census of Hallucinations, a series of questions about sensations that did not have a physical cause to explain them. They collected the results of these questionnaires for three years and from all corners of the world. The results indicate that psychology was not yet disjunct from its religious predecessors. According to Renée Haynes in her history of the SPR:

Nevertheless the authors conclude that ‘between deaths and the apparitions of dying persons a connexion [*sic*] exists which is not due to chance alone’; and very cautiously hazard the suggestion that if telepathic communication with the living has a non-physical cause, this shows that the mind is independent of the brain, and thus makes more probable the idea of communication with the dead (Haynes 1982, p. 43).

The SPR began investigating Spiritualist claims and brought mediums in to be tested. In 1885, the society hired Mrs. Leonora Piper to be its test subject. For William James, Mrs. Piper became his “white crow”, the evidence he required to confirm the possibility of Spiritualism’s claims: not all crows need to be white in order for a white crow to exist, but at least one must be shown to exist. Mrs. Piper’s consistent results and above-reproach reputation made her an ideal candidate for study. The proper test subject made the issue much more palatable to many SPR members but questions remained about the referent of trance communication. Both Myers and Sir Oliver Lodge enjoyed the respectability conferred by Mrs. Piper and came to consider Spiritualism as an appropriate object of inquiry, but whether the contact came from spirits, a subaltern self, or interpersonal psychic communication were still speculations.

In 1890, William James’s *Principles of Psychology* was published, adding America to the fray for defining the parameters of psychology and

consciousness. James was obviously open to many of the claims made by Spiritualists and sponsored the printings of some of their works. He also recognized that Spiritualism was able to achieve real psychological healing. However, his theories of the unconscious were closer to twentieth-century psychology than to theology. Eugene Taylor writes:

James's conjecture was that this altered state was somehow related to sleep and dreaming. Hypnotism, he thought, evoked and enlarged upon the hypnagogic state...[in which] all abstract thought becomes highly pictorial; mental images rather than ideas are the rule; dream sequences, colorful visions, and constantly transforming pictures related more by association than logic dominate the field of attention (Taylor 1996, p. 38).

Debates about the construction of consciousness and the aetiology and uses of alternative states continued at the juncture of psychology and psychical research. Charcot and his school continued to proffer that the hypnotized state was pathological in its onset and needed curing, some through therapeutic hypnosis and others, like Freud, through linguistic associations. Myers, however, was willing to consider that dissociative states may be not only "natural" but even beneficial. His theory of the subliminal self incorporated many of the same tenets as Charcot, Richet, and the French school, but the dissociative state included for Myers that possibility that the second self could be preferable to the waking state. The dissociative state was by no means necessarily pathological: Myers incorporated into his theory the possibility that supernormal cognition may be inferred, and he theorized that multiple selves, none of which should claim primacy as the "normal" self, were possible.

Echoing his predecessor Puységur, Myers conjectured that a dissociative state with higher intellectual and moral aptitude was entirely possible. For his template, he alighted upon the daemonion of Socrates: surely the father of science and metaphysics would not fall into a base state but rather ascend to an enlightened one. And Myers was willing to argue for the applicability of his theory not just in the historical record but in therapeutic reality. Regarding a very famous case of a double personality, *Félida X.*, whose waking sense was morose, physically troubled, and fractious, Myers argued that she should be allowed to stay in her alter, a cheerful personality that did not exhibit any of the unpleasant aspects of her first one. Myers takes umbrage with the concept of "normal" here, insisting that what is usual is not necessarily what is better. In advocating multiple possible selves with no necessary

core personality as well as dissociative states referring to higher, not lower, instincts, Myers attempted to medicalize and legitimate many of the theological claims that Spiritualism and its related currents had articulated (Gutierrez 2009, pp. 169–171).

Freudian constructs of the psyche, devoid entirely of theological content and pointing toward baser impulses, would dominate much of the twentieth-century understanding of the unconscious. However, dynamic psychology itself—wherein the act of therapy took place between patient and doctor—was also soon to be eclipsed. For the Spiritualists and the *fin-de-siècle* SPR members, therapeutic psychoanalysis would have looked bleakly materialistic: with no referent greater than the self, and nothing found there other than “common unhappiness”, psychology was a disenchantment of the mind. By the late twentieth century, the idea of a mind became disenchanted, replaced by neurophysiology and an even higher order of strict materialism centred on the brain and advances in pharmaceutical cures to mental discomfort.

The Society for Psychical Research continues today and many of their current publications are aimed directly at the meta-materialism of the brain. A 1988 pamphlet published by the SPR articulates the new directions for this conversation and points toward a new scientific landscape for explanations—physics. John Beloff writes,

Thus, from the physicalist standpoint, mind is an epiphenomenon; brain alone is what actually determines everything we do, say, think or feel. ...psychical research alone attempted to challenge the physicalist position on strictly scientific and empirical grounds....

Some [parapsychologists] maintain that, when physics has attained a yet more advanced stage, psi phenomena will be understood as physical phenomena of a special sort. Some of the bolder theorists have even suggested the direction which this development might take, making quantum theory their point of departure” (Beloff 1988, pp. 2–3).

The hope for new answers to be found in theoretical physics is a direction taken by many contemporary theorists and believers interested in paranormal phenomena and supra-material explanations for extraordinary experiences. As science turned toward making religion an object of investigation, many still maintain that science will ultimately corroborate their claims.¹

¹ For a detailed exploration of the SPR and its legacy, see Asprem, this volume.

The Paranormal Today

Popular culture was not far behind in the pursuit of consciousness. The sixties' counterculture was open to explorations of alternate states, the possibility of the paranormal, and the expansion of consciousness through the use of hallucinogens. A landmark of that coalition, the Esalen Institute, was founded in 1962 with a mission to explore parapsychology, mind-expanding drugs, and creativity. Michael Murphy, co-founder along with Richard Price, had long been enamoured of Frederic Myers and the SPR as well as some of Freud's writings on telepathy. The possibility that the frontiers of consciousness could be explored best on an experiential and recreational basis shifted the discussion again to the religiously minded who expected eventual scientific confirmation of their claims about the paranormal.

In 1968, Sheila Ostrander and Lynn Schroeder published *Psychic Discoveries Behind the Iron Curtain*, in which they made the sensational argument that the Soviet Union and the Eastern Block had been avidly testing the use of extrasensory perception for the purposes of espionage. The claim that the Soviets were heavily immersed in the paranormal stoked the Cold War flames in America and psi investigations took on a new cast as a necessary branch of military defence. In 1972, the Central Intelligence Agency launched its first foray into developing ESP as a tool for spying. While the CIA had long been interested in paranormal claims, it took the initiative of Doctors Harold Puthoff and Russell Targ of Stanford Research Institute to secure a working relationship between psychical research and the American military. This collaboration would come to focus most heavily on remote viewing, a phrase coined by the psychic Ingo Swann while he was working at the American branch of the SPR.

Remote viewing refers to when the subject's consciousness moves outside of its body and observes distant geographical locations (later some would add that one could remotely view the future as well but initial investigations were centred on space, not time). Swann convinced Puthoff of the possible efficacy of psychic seeing with his own ability to identify objects in boxes or otherwise obscured from his physical sight. Puthoff enlisted Targ, a fellow physicist who had been interested in the paranormal, and they devoted a then-sizable grant from the CIA to examine psychic espionage. Two methods were developed for remote viewing: first was the use of a "beacon", or a person in the field looking directly at the object in question with the remote viewer

describing it back in the lab. Then Swann suggested “coordinate” remote viewing, in which the viewer was supplied the longitude and latitude of the object. While this latter method obviously had more potential as an espionage tool, it also had more potential for chicanery as maps and photography could be employed to fake results.

However, the Scanate Project—scanning by coordinates—was put into place with Swann and another psychic, Pat Price, as the primary research subjects. Project Stargate, as the CIA had dubbed the paranormal investigations, achieved mixed results until the untimely death of Price in 1975 which largely ended the CIA’s sponsorship of remote viewing experiments. Various other government agencies continued paranormal investigations in one guise or another until Project Stargate was officially closed in 1995 when the CIA declassified the work done at Stanford and the information was made available through the Freedom of Information Act. Since then both Puthoff and Targ have published histories of the Scanate Project as well as their recollections of the participants and the experiments. Both remain convinced of the existence of psi abilities and the efficacy of remote viewing.

In 1979 and 1980 Michael Murphy and a cadre from the Esalen Institute travelled to the Soviet Union to examine first-hand the situation of the paranormal explorations in the U.S.S.R. According to the foremost historian of Esalen, Jeffrey Kripal, “What the Esalen associates discovered on their trips in 1979 and 1980 was certainly less grandiose than what Ostrander and Schroeder had claimed to find in the late 1960s, but they found something real nonetheless. They found that the Russians were steeped in the supernatural, and that these interests often pushed them to combine their Marxist materialist doctrines and their mystical convictions in strange, and often humorous, ways” (Kripal 2007, p. 330). The paranormal allowed metaphysics to flourish inside the closed Communist rhetoric of being opposed to formal religion.

At the time of this writing, a recent experiment has been conducted by Richard Wiseman, a psychology professor at the University of Hertfordshire, employing the social networking tool, Twitter, to test remote viewing using random volunteers from the internet. In June of 2009, Professor Wiseman went to four different locations and asked participants on Twitter to describe what he was seeing. He then issued a photograph of the location as well as four decoy photographs and asked them to vote on which was the real site. According to the *Wall Street Journal* on June 10, 2009, over seven thousand Twitter volunteers

participated in the experiment. Professor Wiseman notes that the results were not promising for remote viewing—the vast majority of participants failed to correctly identify the location. The results for the use of technology and social networking for global, real-time experiments, however, were extremely promising.

Religious beliefs and spirituality have recently come under the scrutiny of science as an object of study. New branches of evolutionary psychology, among others, now question the purpose of religious ideas in the development of contemporary humanity with answers ranging from the idea that religion is an outmoded understanding of the world to its being a necessary step in ethics and social cohesion. Believers in the paranormal continue to invest hope, mostly in quantum physics, that science will one day verify what they have claimed all along—that the ways of the world and human experience exceed what can be captured in the limits of rationality.

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POPULAR EPISTEMOLOGIES AND “SPIRITUAL SCIENCE” IN EARLY TWENTIETH-CENTURY BUENOS AIRES

GUSTAVO ANDRÉS LUDUEÑA*

At the turn of the twentieth-century Latin America, Catholicism was easily the most significant religious tradition. Different from Europe, where secularization and modernisation were gaining terrain because of a weak Catholic Church (among other reasons), Latin America was both a land of mission for consecrated men and women and a society characterized by receptive nation-states to a growing ecclesial influence—mainly as a result of a deeply renewed institution (Di Stefano and Zanatta 2000; Ludueña 2007b, 2009b). Notwithstanding, many people from the social elite as well as from the popular sectors of Argentina initiated a secular strategy for fighting against Catholic hegemony. Principally, this battle was fought upon the terrain of both spiritual doctrine and knowledge about the otherworld. In other words, it was a struggle against what was understood as dogmatic thinking which had been widely promoted by the Church. Particularly, this happened in a period of consolidation and restructuration—i.e., Romanisation—of the Catholic Church world-wide.

Therefore, and coincidentally with the development of modernity and scientific activity in Argentinean society, a positivistic epistemology appeared as the most evident strategy for contesting Catholic ritual authority, doctrine and discourse. Principally, such battle acquired its highest point with the diffusion of a popular positivism among subaltern sectors through the action of a new Spiritist trend, namely, the Basilio Scientific School (*Escuela Científica Basilio*). It popularised the dialogical interchange with spirits and the spiritual world. Like classical Kardecism, that was not only possible but also ‘scientifically’ verifiable. Thus, positivism lost its monopolisation by the social elites and was accessible and changed by other sectors of society. It became, instead, a popular epistemology about otherworldliness that, amongst

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other aims, contested Catholic dogmatic truths. To sum up, this article is intended to analyse the processes of appropriation of this singular positivism in this particular trend of spiritual religiosity.

Within a broader horizon of discussion, the question that this article addresses is about the conditions of possibility that allowed—at the level of meaning—a relation between science and religion. This work argues that there are objective components that are beyond those strictly given by the definition—and self-identification—of a religion as science, as we will see in the case of Spiritism in Argentina. In this regard, it is assumed that there are elements of cultural and historical nature that, in a specific place and time in history, are coincident in supporting the interchange between these realms of activity. Besides, it would seem that such a coincidence emphasises the symbolic authority of religion as science, at least for some audiences. By focusing on the case of the Spiritism promoted by the Basil Scientific School, this article addresses the emergence of a ‘popular scientific imagination’ in the ‘religious field’ (Bourdieu 2006) of early twentieth-century Buenos Aires. It is analysed the relation with prevailing science—i.e. ‘normal science’ (Kuhn 1962)—as well as its effects on this novel, popular epistemology about otherworldliness. It is an assumption of this article that authority in science—as in other spheres of action—is something constructed by the convergence of given historical conditions.

In order to approach these arguments, I will first present the main Spiritist expressions of the period. Secondly, the processes whereby science becomes authoritative and a legitimated discourse in society will be succinctly discussed. Thirdly, the assumption of participation in religion and the emergence of the figure of the knowledge-producer will be emphasized. Finally, the last part will focus on the development of a spiritual psychology of the self in order to illustrate the means of articulation with normal science and its authority.

Argentinean Spiritisms at the Turn of the Century

Spiritism is one of the most extensive religions, after Catholicism and Protestantism, in Latin America. In the Argentinean experience—and most probably in many others—Spiritism claimed to be a *ciencia espiritual* (i.e. ‘spiritual science’). This was the direction promoted by the *Escuela Científica Basilio* (Basil Scientific School). Born in Buenos Aires in 1917, this organisation adopted many of the principles developed by Allan

Kardec (1804–1869), a French teacher, specialist in pedagogy, and widely acknowledged as the founder of Spiritism. In spite of this ideological relation, as we will see below, the Basil School—with a very strong Christian basis—soon developed a singular doctrine about the spirit.

In terms of cosmology, it shares some important conceptions with traditional Kardecism. This institution holds, for example, a monotheistic vision of religion, it believes in the existence of a reality beyond the physical world, material reparation of faults for ensuring evolution and thus the return to God, and worldly incarnation of the spirit in a human body. There is herein an important definition: human beings are imperfect spirits incarnated in human—i.e., material—bodies to allow personal evolution and, then, return to a lost state of—original—purity. On the other hand, by spirit is understood a unit of divine creation that, composed by a so-called spiritual fluid, is characterized by three main attributes: love, freedom, and consciousness. I will come back below to these attributes when I introduce the native classification of spirits and the psychology of the self. Now it is necessary to look at the whole religious milieu of early twentieth-century Buenos Aires, in particular, the emergence of Kardecism as the religious doctrine closest to the Basil School's cosmology.

Kardecism came to Argentina as a result of European immigration during the late nineteenth-century. It was through the action of a Spanish migrant, Justo de Espada, that Spiritism became known in Buenos Aires (see Mariño 1963). Firstly, this diffusion was carried out by the activities of a small society of Spiritist experiments. Its members were men related to commercial activities as well as professional ones like engineers, doctors, and so forth. Therefore, social adherents to this form of Spiritism were—generally speaking—people that belonged to a small urban bourgeoisie trained in elementary and—most times—academic education. At the end of the nineteenth century, Spiritists started to organise themselves in the form of societies. For example, in 1877 the former Society *Constancia* was founded and, in 1880, the Society *Fraternidad*. In this period, many Spiritist centres like these appeared with the objective of contacting and communicating with spirits. Even when this sort of organisation into societies seemed to grant them homogeneity and coherence, problems arose and science was—even when it was not unique—at the core of the conflict.

In this regard, the fact that they claimed to be scientists brought up some problems between them. One of these conflicts was exemplified by the case of the separation of a group that, headed by Joaquín

Trincado Mateo (1866–1935), was formed in 1911, the *Escuela Magnético Espiritual de la Comuna Universal* (Spiritual Magnetic School of the Universal Commune), which subsequently had wide diffusion in different Latin American countries (e.g., Mexico, Puerto Rico, Venezuela and Nicaragua, among others). The members of the separatist group claimed to be *real* scientists instead of *false* Spiritist adherents who failed to explore and produce knowledge about the world of spirits.

In spite of this segmentation, Kardecism experienced ongoing development through the establishment of different societies without a unified organization or a clear unity beyond the adoption of the doctrine created by Allan Kardec. Cases of this process were illustrated by the foundation of Spiritist societies like *Caridad y Trabajo* (Charity and Work), *Regeneración* (Regeneration), *Luz de La Pampa* (Light of La Pampa), *Hermanos Unidos* (United Brothers), *Victor Hugo, Fraternidad* (Fraternity), and many others. In 1900 the desire of unification into a confederation of societies resulted in the foundation of the so-called *Confederación Espiritista Argentina* (Argentinean Spiritist Confederation) in Buenos Aires.

A characteristic of this sort of Spiritism was that it presupposed the presence of individuals with an—at least introductory—education in science in order to be effective in terms of the proposed interests of spiritual research. It was mainly through this educational experience that investigation and experimentation into the otherworld was possible. This was certainly the case of the urban elites, but also of professional and instructed elites. Contrarily, the situation of popular sectors was characterised by a lack of education, which started to be reduced by the emergence of public schools as a result of the action of the state as well as the Catholic Church.¹ One of the direct consequences of instruction in science was the susceptibility of individuals to the discursive power of the scientific message, as well as its ability for envisioning reality through the glasses of science. In so doing, sci-

¹ This period was characterised by a prominent presence of many and different Catholic religious orders and congregations (Di Stefano and Zanatta 2000). These orders, coming principally from Europe, were addressed to the improvement and support of the local Church; besides, they gave origin to an aggressive and militant evangelization of inhabitants of Argentina either immigrants or natives. In this terrain, a common strategy of insertion in the social tissue of society was the establishment and foundation of schools, in some cases, agrarian schools that pointed out the modernization of the countryside through the teaching of innovative techniques as was the case of the Benedictine monks (Ludueña 2007b, 2009b).

ence started to become for people a sort of 'regime of truth' (Foucault 2004). This was so in the sense that, according to Michel Foucault (2004), society controlled the character of enunciations about some realms of knowledge by leaving behind things that, apparently, could not be proved by the positivistic method of inquiry.

The public school, from this perspective, was at the forefront of the creation of a consciousness of legitimate knowledge being science as the quintessential component of this process. Along with this, there was another significant element given by the sudden development of the editorial industry, which was significantly promoted among popular sectors as a consumer good. Concomitantly, similar effects led to the creation of the *bibliotecas populares* (i.e., popular libraries) along with the urban growth of the city of Buenos Aires, which accompanied the development of neighbourhoods (Gutiérrez and Romero 2007). In a society at the threshold of modernity, science, technology and education became the forefront of interests of sectors that were undergoing the possibility of progress through the improvement and rising in the social and economic structure. In fact, it was science along with technology that are the quintessential characteristics of modernity (Sarlo 1988, 1992). Thus, education made people more receptive to the discourse of science.

The elementary school not only worked as a public sphere of diffusion of scientific knowledge—being simultaneously an institution instrumental in legitimising science—but also, and certainly because of its symbolic force in the popular sectors, worked as a metaphor for some of the emergent Spiritist groups. At least this was the case of the Basil School, which was formerly connected with the role of schooling in society. In particular, after the sanction in 1884 of the Law 1.420 of universal education promoted by the liberal political elite in the government, the school gained a new presence; specifically, because of its condition of non-paid, obligatory, non-religious, graded and economically supported by the state. This allowed the process of education to include a higher percentage of the population, to contribute to the making and homogenising citizens of different cultural and social backgrounds—mainly as a result of the growing migratory presence—and to facilitate the familiarisation of children with literacy and science. This was not a minor element in the creation of new religious expressions that, like the Spiritual Magnetic School of the Universal Commune, the Basil Scientific School, or the cult to the *Madre María* (Mother Mary) whose temple was considered as a 'school'

(Cueto n.d.), took the figure of the latter as a metaphor of a temple of scientific knowledge.²

This means that the Basil School was intended to become a place of learning of the teachings of Jesus of Nazareth about the real world of spirits. Science played herein an important role in the sense that it was supposed that one could recover those past teachings by means of 'spiritual science'. It was perceived as an instrument of relationship with others in society and, as we will see, the authority of science rose in this case as a consequence of its pragmatic application for actors in their everyday life. Science and religion were not thought of as conflictive fields; contrarily, it was soon discovered that they might simultaneously coexist by occupying terrains that were very close to one another. In other words, it was soon felt that everyday life could be scientifically understood and faced through the scientific and spiritual knowledge of the social environment. In order to do this, it was pertinent to explore what was called 'mediumistic psychology of the self'. Before this, nonetheless, it is important to approach the processes whereby science constructed its authority and legitimacy in Argentinean society.

Legitimacy and Legitimizing Science

According to Jean-Pierre Vernant (1982), the distinction in the ancient Greek between *logos* and *mythos* was intended to show the difference between 'rational' and 'true' reasoning as opposed to the fantastic and mythical discourse. In doing so, Vernant argued, myth started to be thought of as a false or fictitious construction contrary to truth. In the light of this thinking, we can assume that—for the Argentinean case, and most probably for others too—Spiritism promoted the passage of spirits from the reign of *mythos* to the one of *logos*. This was indeed the case of the Basil School with the promotion of a popular epistemology.³

² These religious groups were not only contemporary to the growing of the elementary education but also included basically popular sectors, had an urban basis centred in Buenos Aires, and suggested in their rhetoric the tandem master-teacher as a way of emphasizing the role of their temples—when no directly schools—as places for learning novel knowledge about the otherworldliness.

³ According to Gregory Bateson (1991) 'epistemology' can be understood as a specific 'form of knowing'. In this definition, all being living in the world holds its own way of knowing its environment. By means of this epistemology these beings produce a useful knowledge about the environments in which they live. It will be shown below that formal science and Spiritism proposed different 'forms' of approaching the world as well as distinct definitions about it.

This move was accomplished through the adoption—though in a *sui generis* way—of the scientific reasoning. However, this strategy was not free of obstacles.

The opposition to positivism—as a philosophical perspective developed by August Comte (1798–1857)—was strong and it was seriously criticised, at least for the main exponents of local Kardecism. This was because of a radically different metaphysical vision of the world. Positivism is—Spiritists argued—‘materialist’ because of its concentration on empirically verifiable facts of the ‘physical’ world; on the other hand, Spiritism envisioned the latter as ruled definitely by spiritual principles. Under these diverse ontologies of the world, Spiritism adopted, notwithstanding, a positivistic practice of the scientific method by perceiving the world as intrinsically spiritual in nature. In this regard, it began to be conceived of as an alternative epistemology that contested the dominance of the institutional science. This was exemplified by the resonant public debates between representatives of the ‘normal science’ (Kuhn 1962) and well-known Kardecists like, for instance, Rafael Hernández (1840–1903) (see Mariño 1963). According to Thomas Kuhn, *normal science* “means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice” (1962: 10).

These confrontations were carried out because of a preconception that labelled Spiritism as lacking legitimacy and validity; the term ‘science’ became a signifier under discussion; a semiotic arena of debate. Thus, an important aspect of normal science is that there is no real legitimacy without an institutionalisation of the message, which means the incorporation of scientific discourse into legal and official institutions—either on the basis of a state or not. This is, in other words, the problem of who can speak in the name of science.⁴ Then, a complex network of organizations began to be part of this process of constituting what we may denominate, according to Pierre Bourdieu (1990), a ‘scientific field’. Some of the most relevant representatives of this novel social space of practice were the *Academia Nacional de Ciencias de Córdoba*, 1869 (National Academy of Sciences of Córdoba); *Sociedad*

⁴ It is worth to mention, in this regard, that in 1869 the state promulgated the Law 322 whereby it was legal the contract up to twenty foreign professors for teaching sciences in the university and national schools. This was addressed to extend and develop the scientific research into the territory.

Científica Argentina, 1872 (Argentinean Scientific Society); *Academia Nacional de Ciencias Exactas, Físicas y Naturales*, 1874 (National Academy of Exact, Physical and Natural Sciences); *Academia Nacional de la Historia*, 1893 (National Academy of History); *Academia Nacional de Agronomía y Veterinaria*, 1909 (National Academy of Agronomy and Veterinary); *Academia Nacional de Ciencias Económicas*, 1914 (National Academy of Economical Sciences); *Asociación Argentina para el Progreso de las Ciencias*, 1933 (Argentinean Association for the Progress of Science); *Academia Nacional de Ciencias de Buenos Aires*, 1935 (National Academy of Sciences of Buenos Aires); *Academia Nacional de Ciencias Morales y Políticas*, 1938 (National Academy of Moral and Political Sciences). These institutions, and many others, were transformed into legitimate and official points of production and enunciation of scientific thinking. Therefore, it might be assumed that at the turn of the century an authorised voice was consolidated in the Argentinean scientific field.

As Bourdieu states (1979, 1990, 2006), on the other hand, each field of activity establishes its own social logic of practice and *habitus*. Also, the field is always characterised by what Bourdieu denominates as ‘symbolic capital’ which is, so to speak, legitimacy. The latter belongs, in a wider sense, to other ‘symbolic systems’; these “are instruments of knowledge which exert a structuring power insofar as they are structured. Symbolic power is a power to construct reality which tends to establish a gnoseological order” (Bourdieu 1979: 79). It is assumed that in all fields of practice (e.g., politics, religion, culture, etc.) there exists an ongoing fight amongst actors for gaining more quotas of that symbolic capital. In the case of Spiritism, a fight took place not only with representatives of the scientific field but also with actors of the religious field in the process of constitution. The Catholic Church was unquestionably the principal interlocutor in efforts to discredit Spiritism as a science. This happened with Kardecism but was stronger with the Basil Scientific School because of its public and open promotion of not only a spiritual science, but also its non-divine vision of Jesus (Escuela Científica Basilio 1987). However, Spiritism—in any of its plural expressions—was clearly more interested in proving publicly the existence of life after death than in gaining more authority and legitimacy as spiritual science in order to compete with normal science. Normal science, it is argued, “is predicated on the assumption that the scientific community knows what the world is like” (Kuhn 1962: 5). This was precisely the point taken up by Spiritism in relation to normal science because Spiritism’s proposal was to demonstrate the

existence of a world radically different and separated from the physical one (the chief object of research of the positivistic science).

Another possible connection between religion and science in the case of Spiritism is the institutionalisation of a message in the voice of public organisations, or, at least, in the practice promoted by them. Put in another way, an important condition of possibility of science and religion in Spiritism is legitimacy (see, for instance, Lewis, 2003). This means to become a discourse authorised by society and state which is possible by holding a symbolic capital. As Bourdieu argues, "[t]he power of words and commands, the power of words to give orders and bring order, lies in belief in the legitimacy of the words and of the person who utters them, a belief which words themselves cannot produce" (1979: 83). Such a process is not divorced from authority. According to Max Weber (1996), three kinds of authority can be identified that correspond with supporting forms of legitimacy. Thus, the effectiveness of authority depends on the symbolic value given to that authority. The first kind of authority is the 'traditional' type; the second one is 'bureaucratic' authority; and the third is 'charismatic'. Closely related to this classification of authority and forms of domination, Paul Ricoeur (1994) stated that what is at stake in these formations is the legitimacy provided by ideology.

Legitimacy depends, in this sense, on regimes of authoritative discourses. Therefore, one can expect that in places where science is part of people's everyday life its rationality and discourse can become elements of legitimacy. In these cases, the authority of scientific statements is not naturally given but circumstantial and relative to the social and cultural environment. Moreover, these scientific discourses—and their authority—should be seen in relation to wider discursive horizons of the society in which a religious expression is being envisioned. In other words, science is a discursive formation among other many possible formations (see Foucault 2004). Even though its symbolic power might be taken as contextual—depending on the social or cultural setting—politics, religion and certainly science itself clearly could be understood as the most relevant discourses in society. In Argentinean Spiritism, however, enhancing legitimacy does not seem to have been the main objective of spiritual science but a secondary result. There was, notwithstanding, a clear alignment with science that allowed—as we will see below—the production of a popular spiritual knowledge. Science as synonymous with progress, legitimacy and accuracy about the (spiritual) world provided a fundamental reason for identifying with it.

As stated earlier, important agents of this process of legalisation, reproduction and diffusion of an imaginary of science were the school (far the most important), and the state itself, through the promotion of innovative technologies. For instance, a singular situation was that of the modernization of the countryside which was developed through the implementation of new techniques for the peasantry (Hora 2002). Almost simultaneously it was the emergence of industrial activity, technological imagination, and the figure of the 'inventor' which were reflected in the literature of the period (see Sarlo 1992). All these prior elements pushed the creation of specific representations about science. Also worth mentioning was the role of a novel popular literature that stressed the importance of science (Gutiérrez and Romero 2007). Along with this were mass means for diffusing the image of science as an authority in terms of providing knowledge about reality. Popularisation through the media was thus important, mainly by means of magazines and newspapers. This contributed to the production and reproduction of an ideology about the value and truth of the scientific discourse. It is worth noting here the role of publicity in the making of such an ideology about science. The publications with the best circulation amongst popular sectors, like the magazines *El Hogar* and *Atlántida*, included ads in which science was the *leitmotiv* of the—almost magical—success of drugs, creams and products for the body, or modern cars, or stuff for homes.

Nevertheless, the extension of this scientific thinking amongst popular sectors through disparate means was only possible because of the strong previous influence of public education on these same actors. Also, it was the result of the action of state mechanisms of civil socialisation for a changing population reshaped by a migratory process. This educational process became a significant importance in a society which, like the Argentinean, was mostly from overseas. To sum up, religious expressions like Kardecist societies, Spiritual Magnetic School of the Universal Commune, Mother Mary cult, and the Basil Scientific School itself, amongst many others, represented 'alternative' epistemologies that, in some particular contexts, could turn into 'contesting' epistemologies according to the degree of implementation of the scientific—as well as other forms of—authority.⁵ For these rea-

⁵ 'Alternative' refers to the presence of non-dominant paradigms contemporary to the hegemonic theory in times of 'normal science' (Kuhn 1962). On the other hand,

sons, it can be understood why Spiritism and other esoteric groups in Argentina represented crisscrossing cultural expressions between the religious and scientific fields (this, to be sure, from an *emic* perspective). At this point it is necessary to explore the role of the knowledge-producers of such a singular spiritual science.

Participation and Popular Knowledge-Producers

Along with the above mentioned conditions of the relationship between science and religion—education, institutionalisation of a message, and application—in the portrayal of Spiritism as science, another characteristic was the participation of social actors in the process of producing knowledge about the otherworld. This was part of a difference as well in relation to the elites, which not only were mostly educated in the university, but who also promoted a dialogue (although sometimes discussions) with the academic (i.e., normal) science. Many of them had been active in culture, politics and science as well.⁶ In contrast with the popular sectors, there was a difference even in its appropriation of the term 'science'. In this regard, this sort of Spiritism had the novel result of making people protagonists of the creation of scientific knowledge. In fact, the success of this sort of Spiritism was—in an important degree—a formula that combined simple doctrine, deep contents, and easy access to everyone. This was also accompanied by the chance of freedom in the selection of readings and interpretations as well.⁷ Concomitantly with this element of accessibility, another

'contesting' comes from the idea of disputes in the terrain of discourse—either sacred (Sallnow and Eade 1991) or other (Voloshinov 1992)—and point out the role of fight for the symbolic capital in a given social field of activity in history (Bourdieu 1979, 2006).

⁶ Some examples are provided by the famous chemist Ovidio Rebaudi (1860–1931), the before mentioned Rafael Hernández (brother of the well-known author of the *Martín Fierro*), and the engineer and politician Felipe Senillosa who emphasized the relations between science and Spiritism in his book *Concordancias del Espiritismo con la Ciencia* (1894). Many other cases can be found in other Spiritist expressions (mainly Kardecist) of Latin America, notably Brazil, México, Nicaragua, Cuba and Venezuela.

⁷ In spite of that the Basil Scientific School produced its own material for study, many adepts also looked beyond it in order to enhance self instruction by learning about literature, philosophy, science, and other religious doctrines. For example, the most intellectual statements of the Basil movement encouraged not only the readings of the famous works of Allan Kardec, León Denis (1846–1927), and Amalia Domingo del Soler (1835–1909), but also studies on religion in Ancient Egypt, theosophy,

important aspect of the identification of science and religion was the need of the figure of what it might be called the explorer-researcher (i.e., the *free-thinker*). That is, religion needs to give place to individual agency in the production of new knowledge, both for justifying an assumed condition of creativity and for its description as a science. In other words, this is to promote a kind of horizontal structure of knowledge in order to allow and push the dialogue and interchange between members.

This possibility led to the emergence of a sort of *bricoleur*, in Claude Lévi-Strauss' terms (1962), in the sense that members felt they were makers of—or at least involved with—new knowledge about the world, which also nurtured their feelings about the transcendence of that knowledge. This crafter, this *bricoleur*, was responsible for articulating new ideas and conceptions. The milieu presented by early twentieth century Buenos Aires offered this religious figure a fertile terrain for imagining and creating innovative knowledge. This allowed the emergence of a new religious synthesis in systems of (more or less) coherent and believable doctrines, principles, and practices that were appropriated and resignified by particular sectors of society. The resultant accommodations of these ideas to the Argentinean context rebuilt the authority of science by redefining the empirical world; this means, they invented a new epistemology. In sum, the imaginary components that formerly integrated the realm of *mythos*—following Vernant's distinction (1982)—underwent the possibility of being reordered in a novel way. In this regard, there was a sort of transit from *mythos* to *logos* through a creative *bricolage* (Lévi-Strauss, 1962). Spirits and spiritual world suffered the passage from one realm to the other by being mutated into researchable things—meaning reasonable and demonstrable from a point of view that reconceptualised 'the empirical' in a *sui generis* direction.

They rediscovered—and to be sure redefined—the empirical world. Along with this novel conception of the empirical, they brought a different method of approaching that reality. Mediumship, understood as a human ability for establishing contact with the world of spirits, came to the forefront of a practice addressed to determine rules and models

parapsychology, and so forth. The commitment with spiritual science and high-standard expectations of the institution over doctrinal aspects placed it in the direction of promoting a *Espiritismo Superior* (Superior Spiritism).

that could provide a better comprehension of both the material and spiritual world. In so doing, there was an appropriation of the rhetoric of science that functioned to provide a strong explanation for personal experiences hitherto not completely understood. In these cases, the authority of science came not from an institutional adscription—university, state office, etc.—but from its discursive power, which was based on the capacity of creating legitimacy by invoking the name of science itself. It was a sort of a 'symbolic efficacy' (Lévi-Strauss 1987) in the sense that using its name might represent 'the truth of the saying' as a mere process of enunciation but, more importantly, also 'the truth of the said' as a discursive fact by its own right. In other words, the connotation of invoking science would ensure the reality of the enunciate itself.

The identification with science forced Spiritism to face a 'double confrontation' through discursive struggles in the religious and scientific fields; it was viewed as an illegitimate religion as well as, not surprisingly, an illegitimate science. Whereas Kardecism fought against representatives of the second front, popular expressions of Spiritism—like that incarnated by the Basil School—did so against members of the first front—particularly the Catholic Church. This was basically so because of a growing diffusion of the latter in a sphere pursued by Catholics. These agents—institutional science and Church—held control and authority over the 'order of discourse' (Foucault 2004). For historical and political reasons and because of its proximity to state agencies of policy making, the Church was the authorized—i.e., legitimate—producer of discourse in the religious field. However, a really active religious and scientific imagination operated in society to encourage the production of new discourses—others than those hegemonic ones—about the otherworld. These discourses came from popular sectors, most of them still in process of getting settled in the country.

The authority of the Church was as institutional as that of the scientific academy. Kardecism fought against the second one while the Basil School had to deal with the first one. This was so because of the pretensions of assuming the status of science by Kardecists, and the attempts of Basil School members to identify themselves as the holders of the real spiritual—and non-dogmatic—knowledge given by Christ in Judea. In some way, the strategy of the *bricoleur* in using the authority of science was to neutralize—from an *emic* perspective—the dogmatic presentation of constructed Biblical truths. Thus, Kardecism debated

with normal science (Kuhn 1962) by employing the same discursive rhetoric and methodology but under a redefinition of the empirical paradigm. On the other hand, the Basil Scientific School employed the same model of the empirical, but it deployed the confrontation of science versus religion for coping with dogmatism (i.e., revealed truths without self-verification).

It can be assumed that the authority of spiritual science in Spiritism—and most probably in esotericism—had to cope with the fact of making more believable a set of theories self-declared to present the truths of the otherworld. Having emerged in a social and cultural setting accustomed to the presence of a powerful congregation as was the Catholic Church in Argentina—and Latin America in general—these movements carried on innovative strategies. According to the Church, all religious knowledge—supposedly already written in the Bible—should be institutionally given, without individual participation. Spiritism—and other denominations as well—changed the rules by promoting the figure of the ‘spiritual-seeker’. On the other hand, the practice of this spiritual-seeker was ‘scientific’, which was, at the time, strongly legitimating, granted not only by the academy but also by the elementary school and media. In this regard, public schools supported by the state played a fundamental role in the institutionalisation of scientific knowledge. Simultaneously, it was promoted in the public sphere by the growing participation of the public. All these factors contributed to create confidence about science among popular sectors of society, making it believable in terms of producing real results. As stated earlier, it was a time in which science—along with technology—was gaining prestige as effective tools for obtaining useful knowledge for everyday life. Consequently, its prestige lays in its pragmatism and potential for sensible results.

Concomitantly, the notion of progress was important in the sense that through science it was supposed to be possible to ensure the improvement of the life conditions of people. That was particularly so in the case of technology because it allowed one to envision that progress. The most popular magazines published articles about discoveries in science and technology and showed innovative and curious inventions for making everyday life much better for people. The well-known magazine *El Hogar*, for instance, contained a section of ‘scientific diffusion’ which included articles about new scientific discoverers. Progress, and therefore a better life standard, was then certainly possible. Another publication, the magazine *Atlántida*, showed in the

section 'steps of progress' the invention and application of new technologies for the improvement of everyday life routines, mainly at work and home. Along with a strong publicity campaign that made science part of the popular acceptance, there was a significant literature that supported its rising image. In this vein, its former field of application and the one area particularly achieving this status was medicine. Also, legitimacy in the field of health care was an arena of dispute between official medicine and so-called false medicine (i.e., *curanderismo*⁸), which resulted in the public accusations against some religious activities of practicing dangerous health care.

Even though the all changes above mentioned we distant from science as such, they reinforced popular representations about the scientific knowledge and its authority given by empirical research and the practices of legitimated institutions. These elements came together to make science not only a thing of common sense for popular sectors but also a sort of 'magic' characterized by a symbolic efficacy. Under this process science began to be part of popular science and thinking. In some ways, this popular thinking was very similar to that highlighted by Lévi-Strauss (1962), which was ruled by a 'logic of sensible qualities' or, rather, a 'concrete logic'. Despite this, there was no opposition between supposedly scientific thinking and popular spiritual thinking—in Lévi-Strauss' sense regarding 'savage thinking' versus 'scientific thinking'. In this case, instead, they operated in a complementary manner under a logic of a mixture and collaboration. As we will see below, popular spiritual thinking did not reject at all the role of normal science but it attempted, instead, to illuminate dark or even unexplained areas left aside by the latter. This was possible thanks to the introduction of both mediumship as a key element in the study of the otherworld and the conception of mind. This notion, particularly, allowed the construction of an alternative authority to cope with normal science and dogmatism too.

⁸ *Curanderismo* was a negative term, mostly used by those aligned with formal medicine, for referring and accusing to those supposed to be involved in the spurious application of healing. It was conceived of a certain class of shamanism with unpredictable consequences for human health. For this reason the state started to control more closely the exercise of this sort of practice carried out by certain groups, some of which were object of denounces. A well-known case was that of the cult to the Mother Mary. At the beginning of the twentieth-century this popular movement was object of police inspection, accusation, and finally favourable permit for exercising its practice after proving its innocence and absence of illegal medical practice (see Cueto, n.d.).

Making a Scientific and Spiritual Psychology of the Self

Indeed, it was through the promotion of the mediumship—understood and employed as a sort of technology of the self (Foucault 1991, 1993, 2007)—that the Basil Scientific School, as it had been the case with the Kardecists before, began systematic researching the otherworld. Mediumship became the mainstream of an epistemology about the numinous world of the spirits. Also, mediumship would provide evidence about the events that characterised the life of Jesus during the diffusion of what was understood by the members of the institution as the ‘New Idea’. Worth mentioning were the public clairvoyance performances that, carried out in the fifties and sixties, took place in a huge stadium with the aim of gaining knowledge about the extraterrestrial life (Ludueña 2009a). However, it was precisely the study of the mind, as we will see, envisioned as an intermediate component between body and spirit, which marked the production of a well-known psychology of the self inspired by a philosophic, spiritual and—as it was declared—scientific perspective. The field of the study of mind provided support for the employment of an alternative authority and legitimacy which, parallel to that of held by normal science, granted certainty and value to knowledge of the self.

Herein I conceptualise Weberian ‘charismatic’ legitimacy (Weber 1962) as one of the possible expressions of a wider kind of legitimacy, simultaneously distinct from those given by tradition and bureaucracy, which might be understood broadly as a ‘symbolic’ legitimacy. In this regard, faith—or, better—‘proved faith’ (as was soon defined by Basil School’s members), provided support for giving authority to their statements about the self.⁹ More exactly, a particular spiritual knowledge might contribute to the making of legitimacy and, consequently, to creating authority. In other words, while Weber intended to explain authority and legitimacy by predominantly pointing out impersonal systems and structures—for the case of bureaucratic and traditional forms, for example—and personalized models—as the case of charisma anchored in single persons—I propose also to look at the role of situations, feelings and objects (either material or ideological).

⁹ The *fe comprobada* (proved faith), as a principle held by adepts, showed eloquently the will of no renunciation neither science nor religion. Also, it demonstrated the mixture between these realms in the production of knowledge about the spirits’ world.

In this vein, the knowledge produced by adepts of the Basil Scientific School proved able to compete—at least in some spheres—with that represented by normal science.

An unpredictable result of such a process was the origin of an alternative epistemology as well as an alternative authority. However, it cannot be assumed that this alternative science was entirely divorced from normal science; such fact demonstrates an interesting aspect of this Spiritist expression and, probably, of other spiritual scientific manifestations. That is, it did not proceed in Kuhnian terms by replacing—or even proposing to replace—mainstream science's paradigms for comprehending reality. Instead, it did by providing theoretical elements for understanding aspects of reality hitherto unexplained that were not subject to falsifiability or refutability for normal science—which is the demarcating criterion between science and non-science (Popper 1959). This highlights the acknowledgment of certain sectors of society—in this case subaltern statements—to the authority of science but, certainly too, to the relativity and limitation of that authority. This is, at least, in the pretention of the institutionalized science and its authority of being systems of explanation of the wholeness. Such a complementary position to the normal science can be exemplified by looking at the development of the conception of consciousness.

In this sense, it is worth noting that in Spiritism it is the spirit that rules everyday practice by using the mind for understanding human experience through language, memory, reason, and so forth. In this play of the spirit performing practices as an incarnated human being, consciousness comes to the forefront. Certainly, according to the conceptions of the Basil School, it is the only part of the divine light lost by spirits in their renunciation to God. Therefore, it always remembers the spirit in its 'real' (i.e., original and purified) condition and convenience of returning to such state. In this vein, consciousness becomes a sort of space of self-reflection about its own history in the divine creation. For this reason, it plays a significant function in the process of spiritual reparation and progress. With this objective, consciousness turns into the only guidance of its existence in order to ensure the right way—i.e., morally appropriate (Ludueña forthcoming)—and minimizes faults which might be spiritually expensive for its own evolution. This is predominantly present in ritual practice. For instance, when a spirit is materialized (when it takes over a medium's body). The person in charge of the ritual (the director of the practice) suggests that it listen to its own consciousness; or, to put it in other terms, to

listen the words of good spirits which participate in helping the spirit in its evolution. While this dialogue takes place under the supervision of the director the spirit initiates a journey not only through its action but also through its own history and memory.¹⁰ As a consequence, consciousness works as a historical reservoir of the spirit's past ontologies or existences. This fact, specifically, is close to the idea of *archane concientiae* highlighted by Michel Foucault in early Christianity (2007). Likewise in past existences, in this arcane consciousness, secrets of the self are kept hidden until they are revealed.

Spirits are substantially different and the basis for this distinction is evolution. Nonetheless, the closeness to God—and therefore purity—is what defines the degree of evolution. It is this proximity which delineates a myriad of spiritual worlds and spirits. In the Basil School goodness and evil are global categories for dividing the whole world of spirits, which is conceptualized under the names of 'Goodness' (*el Bien*) and 'Wrongness' (*el Error*). These spheres are also segmented into sub-groups of spirits according to their spiritual background. For example, the Goodness is composed by 'spirits of light' (those who never took a material body nor went through reparation of faults), 'venerable spirits' (those who accomplished particular missions in Earth), and 'purified spirits' (those who underwent incarnation and advanced in their evolution). On the other hand, the Wrongness is integrated by spirits organized in large categories, groups, and sub-groups of units set in close hierarchical structures of power. Therefore, the natural atmosphere between these groups is one of an ongoing clash for dominating the others. It was precisely through these altercates that the so-called 'spiritual particles' originated. Such particles integrate the domain of animals, vegetables, and minerals. Rather, because of this condition of parts of spirits they hold—in proportional terms—the same attributes of love, freedom, and consciousness. While love refers to the greatest quality of all spirits whether perfect or imperfect, incarnated or in the spiritual space, freedom is addressed to the Augustinian sense of free will; that is, each single spirit or particle is absolutely responsible and

¹⁰ The native term for referring to this process is *comprobación* (testing), in which it is supposed that the spirit is able to prove itself its own mistakes and wrong behaviours in past existences. Not surprisingly, it presents a clear association with both the prior idea of 'proved faith', and the relation with science as it involves the practice of testing and verification. This means that the spirit—when wrong—is able to prove scientifically its own wrongness; for members, this is perhaps the first and strongest evidence about the possibilities of reaching a scientific approach to the otherworldliness.

able of executing its own actions. Finally, consciousness has more to do with a spiritual condition of human beings than with the psychological dimension of the individual. The result of this is a whole order in reparation and evolution.

In spite of this fighting in the spiritual world, a relative order of peace can be reached by contextual or long-term alliances involving different groups for building a new dominant network of spirits. This state of things undermines the expression of the attributes before mentioned; as a result, love is neglected, freedom is cut down, and consciousness is underestimated. This knowledge was widespread among members and sympathizers through the edition and diffusion of the well-known series of *Psicología del Ser* (Psychology of the Self) and the *Conferencias* (Conferences). Both publications, particularly the first one, provided elements for building an alternative authority about the knowledge of the otherworld. Rather, people made efforts for taking this knowledge to the everyday life in order to use practical tools for dealing with other people.

Given that there exists kin ties between the spiritual and the material conditions, human behaviour is directly influenced by the spiritual world. So to speak, if we take a spirit inclined to the pleasures of the material world in situation of incarnation, it will probably refuse to leave the earth during the agony of its bodily recipient. Even death, the same spirit—now without body—might suggest to human beings its own inclinations and desires in order to reproduce the same wrong conduct. More importantly, it is in everyday life as incarnated spirit in a human body that this person will demonstrate the same behaviour looking for material satisfactions. In this regard, the human world appears as a blueprint of the spiritual world; there is a dynamic avenue of interconnection between them. The same connections exist between the spirit and the body that belongs to it. This relationship works as a highway with active feedback in both directions. However, between these points the mind works as a translator of human experiences. Thus, there are two important doctrinal principles in relation to human mind for Basil's adepts: the mind is different from the spirit; and consciousness does not belong to the reign of the mind.

This means that consciousness is an intrinsic part of the constitution of the spirit. In this regard, it is important to highlight its connections with human mind. According to different psychological theories—for instance, psychoanalysis—consciousness belongs to the domain of the human mind (e.g., Gedo and Goldberg 1980; Ballin Klein 1989). In spite

of being of spiritual nature, this knowledge about the self was not separated at all from that of normal science, notably, psychology. Then there was a fluid feedback between the *savoirs* produced by secular psychology and science in general and those produced in the context of the Basil School. This was so because members never rejected either the authority of normal science or the authority of their own spiritual principles in providing elements for understanding the material life. In their definition, while spirits appear as metaphysical subjects, consciousness seems close to a metaspiritual condition. It is like a space of self reflection about the own history and situation. In this regard, consciousness is presented as a mechanism of spiritual transit. Its mission, as the continuous remembering of the very essential reality of the spirit, is the divine guidance of the human beings to their primary status of eternal peace. Thus, invested with a strong sense of symbolic efficacy, this spiritual knowledge about the mind and human behaviour served to build an alternative authority to that of normal science.

Conclusion

By focusing on a specific phase Spiritism, this article was intended to demonstrate that authority and legitimacy in science and religion are constructed processes that necessarily involve culture, power, and history. In this sense, the action of creating alternative 'sciences', like the spiritual one promoted by the Basil Scientific School, might also derive from—or even in—the emergence of alternative authorities. Such authorities are different from those represented by the normal science held by the academy and the state, basically, because of a lack of symbolic capital and discursive power for establishing—following Foucault (2004)—a regimen of truth. The case showed that there could not be authority of science in religion without the primary authority of science in society. Nonetheless, it was also stated that there are some important conditions for allowing normal-science-authority into the religious field. These circumstances are given by the education and instruction of potential members of a group with the intention of establishing a religious science; legitimacy predominantly given by means of an institutionalization of the scientific message; assumption of participation and involvement of actors in the project of a religious science; and, last but not least, the appearance of the figure of the explorer-researcher who will seek for alternative or contesting epistemologies and authorities.

The authority of science might be directly appropriated without change as was the case of Kardecism, or adopted with the reformulation of some elements, as in the redefinition of the empirical in the Basil case. In spite of its Christian as well as supposed scientific and Kardecist basis, this form of Spiritism brought a popular understanding to the otherworld. Legitimacy provided by the rhetoric of the scientific discourse could compete in some degree against, as Basil's adepts declared, dogmatic truths imposed by the Catholic Church. Accordingly, the inclusion of science had three concrete values. It was against dogmatism; it provided legitimacy and social acknowledgment; and, finally, it provided a real explanation about certain situations of everyday life. In this sense, a *sui generis* scientific authority competed with and contested Biblical authority from the intersection defined by the field of science and religion, which was mainly carried on thanks to a redefinition of faith by incorporating the idea of testing knowledge or proved faith. The Basil Scientific School, and one might say the same for other religious expressions that include science as part of their practice and self-identity, necessarily needed to engage with the discourse of science as well as with a sort of scientific rationality.

To sum up, a broader problem addressed by this work was the question of why some religions decide in a given moment in history to construct its activities as scientific or, rather, to identify themselves as a science. An answer to these queries might be given by the importance and effects of a scientific and authorised discourse in the context of subaltern sectors in process of transformation as happened in Argentina. Science as the rational discourse of modernity *par excellence* can be appropriated with disparate aims. In the group herein studied it seems that such process amongst popular sectors had the object of promoting and accompanying a whole process of social and economic mobility within a society going through sudden and deep change. To be a protagonist of that process—as was the case of many native and immigrants gaining positions in the society of the time—meant to reach symbolic values hitherto held by accommodated and established sectors. The authority of producing a legitimate discourse in the terrain of religion was part of this symbolic fight. Sacred knowledge was no longer the patrimony of elites; subaltern representatives were also able to be creators of other epistemologies about an otherworld scientifically reached, and not solely consumers of knowledge produced by others.

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PARAPSYCHOLOGY: NATURALISING THE SUPERNATURAL, RE-ENCHANTING SCIENCE¹

EGIL ASPREM

Introduction

Parapsychology has helped facilitate a modern discourse on purportedly “occult” and “supernatural” phenomena in which the authority of science occupies the high seat. In this article, parapsychology is defined as the organised attempt to create a scientific discipline out of a field of knowledge typically associated with the occult and supernatural. Taken in this sense, we may date its beginnings to the establishment of the Society for Psychical Research (SPR) in England in 1882, representing a group of scientists, philosophers and other scholars organised on the model of the scientific society or club, striving towards serious recognition by other scientific communities and professional societies.² In the early decades of the 20th century the approach of the SPR spread to other countries, spawning a discourse which transformed, in the 1930s, into modern professional parapsychology, famously headed by Joseph Banks Rhine at Duke University.

The attempt to establish a discipline for scientific research on phenomena typically considered “supernatural” attests, on the one hand,

¹ The research for this article was carried out as part of a PhD project on “Esotericism and Scientific Naturalism in the 20th Century”, supported by The Netherlands Organisation for Scientific Research (NWO). The chapter title has been audaciously borrowed and adapted from Frank Podmore’s *Naturalisation of the Supernatural* (1908), one of the earliest histories of psychical research written by a sceptical insider.

² Genealogies of psychical research can however be drawn in several different ways. A more comprehensive and global study would likely want to begin with mesmerism in the late 18th century, its reception in German *Naturphilosophie*, and the scientifically oriented segments of romanticism. The famous episode of the Swabian physician Justinus Kerner (1786–1862) and the mesmeric experiments with his patient Friederike Hauffe, the “seeress of Prevorst”, is one relevant early episode, while Baron Karl von Reichenbach’s (1788–1869) theories on the vitalistic “odic force” emanating from organic matter is another. For the present purposes I am more interested in the developments connected with what may be called “classical” psychical research, embodied in the psychical research societies of the late 1800s, which gave way to professional parapsychology in the 20th century. This story may conveniently be started in Britain.

to the central presence of the panoply of esoteric religious practices in the Victorian “occult revival”, especially spiritualism.³ On the other hand, organised psychical research also bears testimony to the unparalleled authority of the scientific project around the turn of the 19th century. Psychical research was born from an encounter between the scientism of the Victorian naturalists, who considered the methods of science the *via regia* to robust knowledge, and the worldview, practices and rhetorical claims of spiritualists, occultists and liberal Christian reformers (cf. Turner 1974; Oppenheim 1984). This nexus gave rise to a discourse in which the invocation of scientific authority remained the primary legitimising strategy, while the ontology and worldview of scientific naturalism came under contestation.

Opting for a thematic approach to the history of parapsychology, I will look at three interrelated types of questions:

- I *Philosophical* issues, of an epistemological nature, raised or implied by the project of “naturalising the supernatural”;
- II Sociological issues concerning the *professionalization process* of parapsychology, and;
- III Strategies for *claiming and maintaining legitimacy* for what was, and still remains, a contested field of knowledge.

Assessing the final impact of parapsychology and the degree to which its strategic choices and alignments succeeded I argue that the project largely failed in its intended ambitions of creating a “science of the supernatural”. Instead I suggest that it has been highly influential in the context of contemporary religion and popular culture. By relating parapsychological discourse to the analytical concepts of “paraculture” (Hess 1993) and “occulture” (Partridge 2004/5), I argue that parapsychology has been central to the dynamics of disenchantment and re-enchantment playing out in the late modern West. While it originally set out to naturalise the supernatural, the cultural significance of parapsychology is rather that it facilitated a re-enchantment of science and secular culture in the process.

³ For the context of spiritualism and the question of science and verifiability, see Cathy Gutierrez’ article in the present volume.

*Naturalising the Supernatural: Philosophical Issues**The Birth of Psychical Research from the Spirit of Naturalism*

The discourse of psychical research emerged from the engagement of occultism and spiritualism with the ideology and epistemic assumptions of Victorian scientific naturalism.⁴ Following intellectual historian Bernard Lightman (1987, p. 28), scientific naturalism emerged as “the English equivalent of the cult of science in vogue throughout Europe during the second half of the nineteenth century”.⁵ The philosophical influence of the British empiricists, particularly Locke and Hume, together with interpretations of Kant helped form the epistemological foundation of the movement, while the major scientific theories and discoveries coming out of the physical and life sciences were used to construct a consistent, monistic worldview.

The new perspectives on man’s place in nature suggested by evolutionary biology, the workings of the cosmos as uncovered by an expanding mechanistic physics, and the increasingly more refined laws of thermodynamics, were coaxed together and used in a polemical campaign to establish the authority of professional science in society (e.g. Barton 1998; Luckhurst 2004, p. 13; Turner 1993c, p. 181). Combining “research, polemic wit, and literary eloquence”, Frank Miller Turner (1993b, p. 131) writes, people like T. H. Huxley and John Tyndall “defended and propagated a scientific world view based on atomism, conservation of energy, and evolution”. Victorian naturalism became more than just a worldview and philosophical position, resembling an *ideological settlement* in Bruno Latour’s sense (1999, p. 310; cf. Luckhurst 2004, p. 12). By the 1870s the naturalists had largely succeeded in binding together and proposing answers for “the epistemological question of how we can

⁴ The term “scientific naturalism” is typically used with several meanings. Primarily, I distinguish between two: 1) the Victorian intellectual movement described here, and 2) a set of philosophical positions that developed during the 20th century, some passing on the torch from the Victorians, others relying more on other intellectual developments, including American pragmatism and Vienna-circle logical positivism. For the latter variety, see Kitcher 1992; De Caro & McArthur, eds., 2004; Flanagan 2006.

⁵ Corresponding developments on the Continent include German (Prussian) scientific materialism (Gregory 1977), and Comtean “positivism” in France (Hecht 2003). For an overview, see Olson 2008.

know the outside world, the psychological question of how a mind can maintain a connection with the outside world, the political question of how we can keep order in society, and the moral question of how we can live a good life" (Latour 1999, p. 310). "Agnosticism" was put forward as the proper epistemological and religious attitude; the soul was nailed to the material brain, itself a product of natural selection; varieties of social Darwinism and related evolutionisms offered solutions to societal problems; and a whole programme for educational, industrial and governmental reform was put forward as the way to advance Imperial ambitions and alleviate poverty and disease (Lightman 1987; Turner 1974, pp. 8–37; 1993b; Olson 2008, pp. 240–3).

The naturalists initiated an expansionist policy which aimed to introduce scientific thinking to all compartments of society, from medicine and education, to industry, economy and politics. This policy affected the founders of the SPR, and underpinned the project of psychical research (e.g. Turner 1974; Gauld 1968). While often revolting against certain implications of the naturalistic worldview, the early psychical researchers generally took the naturalistic *project* very seriously. In a sense, they took it to an extreme, holding that the obscure category of the "supernatural" could become a legitimate object of scientific inquiry; it was possible to naturalise the supernatural.

In order to fulfil the ambition of making a proper scientific study out of allegedly "supernatural" phenomena early psychical researchers needed to claim and redefine the category so that it could be accommodated within a naturalistic approach. In doing this, they were positioning themselves against a number of opponents, from various religious spokespersons to competing naturalistic perspectives. Indeed, even outside of the psychical research discourse the category of the supernatural had become a site of contestation in the 1880s, which was especially visible in the controversy over Christianity and agnosticism which followed in the wake of naturalist attacks on the authority of religion.⁶ In the following I will consider some of the major epistemological fault lines in the debates over naturalism and the supernatural.

Philosophically, naturalism is a somewhat elusive concept which has proved difficult to define (e.g. Stroud 1996; Putnam 2004; Flanagan 2006). On any reading, naturalisms across the board are opposed to

⁶ The papers collected in Huxley, Wace et al. 1889 testify to the significance of the late Victorian debate on agnosticism and the possibility of supernatural agency.

supernaturalism, leaving perhaps the real discussion at how each position defines “nature” (e.g. Stroud 1996, pp. 43–4; Flanagan 2006, pp. 432–3; cf. Kitcher 1992; Papineau 2007; De Caro & Macarthur, eds., 2004). Putting this question aside for the moment, it should be noted that naturalists have tended to disregard supernaturalism in a *specific sense*: it is primarily the inference of supernatural agency in *explaining* and *accounting for* occurrences in the natural world which is problematic. An “objectionable” kind of supernaturalism, argues the philosopher Owen Flanagan (2006, p. 433), is one that holds all of the following three statements to be true:

- i There exists a “supernatural being or beings” or “power(s)” outside the natural world;
- ii this “being” or “power” has causal commerce with this world;
- iii the grounds for belief in both the “supernatural being” and its causal commerce cannot be seen, discovered, or inferred by way of any known and reliable epistemic methods.

In other words, “naturalism” and “supernaturalism” are not to be seen as pairs of a strict dichotomy, but rather as extremities on a continuum. Since the objectionable supernaturalism holds *all* of the above, it is still possible to retain some concept of the supernatural without leaving the naturalistic project altogether. Differently put: there is not one, but several different ways in which the “supernatural” can be naturalised. Against this background we can make sense of the various solutions that were advanced in the late 1800s, homing in on the particular disagreement between the strict scientific naturalists and psychical researchers.

Huxley’s Agnosticism

The position most commonly associated with scientific naturalism in the late Victorian period explicitly rejects (ii) and (iii), while keeping the possibility of (i) open. This is the view of T. H. Huxley’s agnosticism; the facts counted, it differs from atheism (the rejection of all three) only in its suspension of judgment regarding the possibility of an entirely “unknown and unknowable God”. However, agnosticism remains free to emphasise the absence of any *reasons for belief* in such a deity. For this reason, critics often saw the two types of unbelief as indistinguishable.

Agnosticism for Huxley meant the absolute faith in an *epistemic principle*:

This principle may be stated in various ways, but they all amount to this: that it is wrong for a man to say that he is certain of the objective truth of any proposition *unless he can produce evidence which logically justifies that certainty*.... That which agnostics deny and repudiate as immoral is the contrary doctrine, that there are propositions which men ought to believe, without logically satisfactory evidence; and that reprobation ought to attach to the profession of disbelief in such inadequately supported propositions. (Huxley 1889b, pp. 96–7. My emphasis).

While the agnostic position does not dismiss *a priori* the possibility of “supernatural agency” of some sort, it is important to appreciate the qualifying statement: certainty should not be stated *unless* one can produce evidence which “logically justifies that certainty”. Huxley’s agnosticism stressed the importance of suspending judgment in situations where the reasons for some phenomenon remain unknown. This principle was meant to contravene “God of the gaps” arguments, which jump to conclusions regarding supernatural agency in situations where explicable natural causes have not, as of yet, been forthcoming (e.g. Huxley 1889a, pp. 15–16). In the case of Huxley, this leads to a *de facto* or *a posteriori* denouncement of supernatural agency in the form of Flanagan’s second proposition. Huxleyan agnosticism may in this sense be described as “qualified disbelief”.

The psychiatrist Henry Maudsley’s tellingly entitled *Natural Causes and Supernatural Seemings* (1886) provides a good illustration of the naturalist’s expulsion of supernaturalism. Taking a reductionistic approach Maudsley concluded that claims about the supernatural could be accounted for by man’s inherent tendencies towards “malobservation and misinterpretation of nature”, sometimes coupled with genuine psychological disturbances; hallucinations, hysteria and the sort (Maudsley 1886, p. 354). Maudsley illustrates the Huxleyan point that one should start to look for explanations of seemingly inexplicable occurrences (and claims of such) among mechanisms that we *do* know something about. In Maudsley’s case, secure ground was found in our established knowledge of human nature, perception, and psyche.

From “Supernatural” to “Supernormal”

The naturalising strategies of hardliners such as Huxley and Maudsley stressed finding well-established natural causes for claimed supernatural occurrences to the extent where the category dissolved altogether.

Psychical researchers, seeking to establish an autonomous science of the supernatural, could not go so far. They needed a kind of naturalisation that could accommodate the phenomena without reducing them away as mere epiphenomena, illusions, or inferential errors.

Much of the intellectual effort to redefine the supernatural in the context of the SPR was carried out by the erudite classicist Frederic W. H. Myers (1843–1901), one of the founders of the society. With his Latin and Greek erudition, Myers composed a whole regime of neologisms to serve as technical terminology for the prospective discipline, most of which are listed in the glossary accompanying his posthumously published *Human Personality* (1903). Together with established psychological and biological terms we find such words as “panæsthesia”, “telæsthesia”, “cosmopathic”, and “metetherial”, along with the more enduring concept of “telepathy” (Myers 1903, Vol. 1, pp. xiii–xxii).⁷ To cover all these phenomena, states and pathologies, Myers introduces the concept “supernormal”, explicitly coined to replace the problematic “supernatural”.

Trying to get around the problem of contrariety with nature and natural law inherent in the concept of the supernatural, the supernormal refers instead to a deviance from “normality”. As Myers explained:

The word supernatural is open to grave objections; it assumes that there is something outside nature, and it has become associated with arbitrary interference with law. Now there is no reason to suppose that the psychical phenomena with which we deal are less a part of nature, or less subject to fixed and definite law, than any other phenomena. (Ibid., p. xxii).

Similar to the strategy of the agnostics, Myers proposes a definition that moves away from the *unexplainable* towards the as of yet unexplained. We start to see the contours of a *residual* category: psychical research simply considers experiences and phenomena that fall outside the pale of established science. Implied is the claim that science has missed something.

Whereas Huxley had called for a patient suspension of judgement concerning such phenomena, the psychical researchers were not afraid to start theorising, and were also less concerned with restricting explanations to well-understood mechanisms. When Myers wrote that

⁷ Myers attaches an asterisk to the words that he claims to have personally coined. All the terms mentioned here appear with asterisks.

the supernormal comprised any “faculty or phenomenon which goes beyond the level of ordinary experience, in the direction of evolution, or as pertaining to a transcendental world”, he opened up for an entirely new order of explanations. This becomes clear when he adds that some psychical phenomena

appear to indicate a higher evolutionary level than the mass of men have yet attained, and some of them appear to be governed by laws of such a kind that they may hold good in a transcendental world as fully as in the world of sense. In either case they are above the norm of man rather than outside his nature. (ibid., xxii)

In terms of Flanagan’s propositions, Myers accepts both (i) and (ii), but rejects (iii) by boldly placing any incursions from a “transcendental world” within man’s epistemic reach.

This does not mean that Myers and the other psychical researchers had to take claims about ghosts and spirit communications during séances at face value. The most popular explanatory models proposed for “supernormal” activity by psychical researchers in the 1880s and 90s did in fact imply a kind of reductionism of its own. The concept of *telepathy*, Myers’ most successful neologism, was put forward as the researchers’ pet theory for explaining the psychical phenomena of spiritualism, as well as some claims about apparitions, ghosts, and apparently “clairvoyant” dreams (e.g. Luckhurst 2002). To attach some conceptual flesh to these epistemological bones we should briefly look at the development and theorisation of telepathy in the SPR.

Telepathy: Towards a Naturalistic Model

Telepathy was coined, conceptualised and given an evidential basis through experiments early on in the SPR’s history, during the winter of 1882/3 (see Luckhurst 2002, pp. 69–75). Defined as “the communication of impressions of any kind from one mind to another, independently of the recognised channels of sense”, telepathy was hardly a satisfying explanatory *model* in the scientific sense. However, the oxymoronic “distant touch” (*tele-pathein*) that it signified provided a starting point for alternative accounts of how mediums in “trance” seemed to know intimate details about deceased relatives. If they did not communicate with the dead there was still the possibility that they could read minds—in some cases perhaps even the minds of people not present at the séance.

After rudimentary experiments with people who claimed to possess the ability to read minds, most notably the infamous experiment with the priest daughters Creery of Derbyshire, the SPR hastily concluded that there was indeed evidence for a telepathic effect. The conclusion would appear much too hasty: the young Creery sisters soon revealed by their own account that they had been using a simple signalling system to forge the impression of thought reading (for an early exposé, see Blackburn 1884). Nevertheless, telepathy immediately acquired a solid position in the psychical research programme, and its application as an explanatory model spread rapidly. In the most important major publication of the early SPR, the monumental *Phantasms of the Living* (1886), telepathy was brought in as explanation for hundreds of anecdotal reports of “apparitions” of the newly dead. The researchers hypothesised that instead of ghosts, it could be that hallucinations were produced through spontaneous cases of long-distance telepathy at the moment of death (Gurney et al. 1886, Vol. 1, p. xii).

However, as long as telepathy was not supported by an explanatory theory, and its evidential support was weak and questionable, the psychical researchers would have to tolerate the reluctance of colleagues. All they did, it seemed, was to replace one obscurity by another: *obscurum per obscurius*. To establish legitimacy it therefore became paramount for the scientists of the SPR to postulate some appropriate mechanism.

While psychical research has later come to be associated primarily with fringe psychology, it is worth pointing out that at this time, the main strategy was to make incursions into the territory of physics. The late 1800s was a period of great and startling discoveries in physics, the full significance of which were far from clear. In this context, psychical researchers found scientific “discursive levers” in the physical puzzles related to electromagnetism, the luminiferous ether, and the strange waves and rays that proliferated from physics laboratories (Luckhurst 2002, pp. 75–92; Noakes 1999; 2004; 2008b). It has even been suggested that psychical research in this period can be seen entirely as “an episode in late-classical physics”; the attempted explanatory models came from physics, and were related to state-of-the-art research (Noakes 2008b, pp. 326).

The most central mechanical model in the 1880s and 1890s concerned postulated “brain waves” and “fields” of consciousness. This theory was fleshed out by William Crookes (1892), E. J. Houston (1892) and J. Knowles (1899), pioneered by the leading SPR physicist

Oliver Lodge. Lodge was a leading researcher of wireless telegraphy and radio technology, an authority on mechanical ether physics, and one of the central characters in the group of physicists that explored Maxwell's equations and enhanced his theories on the electromagnetic field (Hunt 1992; Rowlands 1990; cf. Jolly 1974). This expertise was invested in his approach to psychical research as well (e.g. Grean Raia 2005; 2007).

Although he claimed not to support any definite theory of telepathy, Lodge offered the following suggestive analogy in 1884:

Just as the energy of an electric charge, though apparently on the conductor, is not on the conductor, but in all the space round it; just as the energy of an electric current, though apparently in the copper wire, is certainly not all in the copper wire, and possibly not any of it; so it may be that the sensory consciousness of a person, though apparently located in the brain, may be conceived of as also existing like a faint echo in space, or in other brains, though these are ordinarily too busy and pre-occupied to notice it. (Lodge 1884, p. 191).

With the development of wireless telegraphy and the discovery of strange phenomena such as Röntgen's "x-rays" and Becquerel's uranium emissions, the linking of telepathy to Maxwellian physics seemed plausible and convincing to many.

But one problem proved fatal in the longer run: there seemed to be no correspondence between the distance of the communicating minds and the accuracy of the effect. This was troublesome to physicists and philosophers with an understanding of classical mechanics. It clearly violated the inverse-square law, which states that the force of any physical effect is inversely proportionate to the square of the distance from its source. If telepathy were indeed an electromagnetic phenomenon, occurring within mechanical physics, its effect would be expected to decrease with distance. By the early 1900s the leading physicists of the SPR were forced to conclude on this basis that telepathy was just as badly in need of an explanation as any spiritualist hypothesis (e.g. Lodge 1902; Barrett 1904; cf. Noakes 2008b, pp. 327–8). Indeed, the explanatory failure helped facilitate a new regard for spiritualism which was going on within the psychical research communities in the early decades of the 20th century.⁸ It was not until the 1920s and

⁸ Lodge played a vital role in this development for other reasons as well, through his immensely popular book *Raymond* (1916).

1930s that serious attempts were again made to link psychical research with the professional sciences.

Paranormal Professionalism: From Psychical Research to Parapsychology

Networks, Boundary-Work, and Professionalisation

In the 1920s, after 40 years of organised psychical research, there was still no consistent “research programme”, in the Lakatosian sense (Mauskopf & McVaugh 1980; cf. Lakatos 1970). Researchers could not agree on fundamental issues such as what constituted proper methodology, what should be the frame of interpretation, or even what kinds of phenomena properly belonged to the program (Mauskopf & McVaugh 1980, pp. 1–24). The common view is that it was the work of Joseph Banks Rhine (1895–1980), at the experimental parapsychology lab at Duke University in the 1930s, which presented the first real “paradigm” for psychical research (e.g. Collins & Pinch 1979; Alison 1979; Mauskopf & McVaugh 1980: 102–130; Beloff 1993, pp. 125–51).

While J. B. Rhine is often seen as the father of modern professional parapsychology, the stage had been set for professionalization already. This was largely due to the strategic choices of the somewhat overlooked British psychologist and social critic, William McDougall (1871–1938). McDougall launched a professionalising campaign in the 1920s, following the pattern of earlier professionalisers. He argued the importance of his field for allegedly threatening social and scientific challenges; he attacked rivalling disciplines, and challenged epistemological assumptions in a similar manner as the naturalists and early psychical researchers had done. On the one hand McDougall engaged in scientific “boundary-work” (Gieryn 1983; 1999), positioning psychical research vis-à-vis opponents and competitors. On the other, he attempted to conscript allies and build networks extending to other prominent discourses, including politics, ethics and religion. The importance of enlisting and mobilising extensive networks to scientific professionalisation is especially emphasised in approaches within science studies inspired by “actor-network theory” (ANT) (e.g. Latour 1985; 1999; 2005). The successful establishment of a scientific discipline depends on conscripting allies from extra-scientific as well as scientific discourses, in order to accumulate the necessary degree of social, cultural, and economic capital (cf. Bourdieu 1986).

Some of the abovementioned features are recognisable already with the early SPR. Indeed, the SPR's relative success may primarily be explained by three factors, all of a social character. First, it was constructed over the model of a scientific society or club. It had regular meetings where papers would be presented, it published proceedings, ran a journal, and various scientific committees. The founders took considerable care to emulate the social form of professional sciences, which made it easier to establish legitimacy. Secondly, the SPR managed to recruit among strategically important constituencies, mobilising an influential network. In addition to the Cambridge based founders were important physicists like William Barrett and Oliver Lodge, as well as later Nobel laureates Lord Rayleigh, J. J. Thomson, Charles Richet, and Henri Bergson. The network was extended to the realm of politics through Arthur Balfour, Sidgwick's brother-in-law and later Prime Minister of the U.K.

The social and cultural resources thus pooled together were crucial for establishing credibility and legitimacy for the pursuit of psychical research at the *fin de siècle*. Even if many of the scientific celebrities of the society were less than active members, sometimes even quite sceptical of the more enthusiastic members' research, sporting their names on the membership list provided the SPR with a cultural legitimacy-by-association which made the pursuit of psychical research impossible to neglect. A third reason for the SPR's success in this period was that its boundary-work towards spiritualist and occultist communities was swift and effective. Under the leadership of the ever more sceptical Henry Sidgwick it dissociated itself completely from the interpretations of the spiritualists, and was ready to dismiss the most extravagant claims associated with the "physical mediums" (i.e. those claiming to produce physical phenomena, such as levitation, rappings, and spirit manifestations) as universally fraudulent. In light of these factors it is interesting to note that the frail cultural legitimacy of psychical research largely disintegrated with the death of central members such as Henry Sidgwick, Frederic Myers and William James and the ensuing generational shift (collapse of network), together with the reorientation of the society towards spiritualism (collapse of boundary-work).

McDougall's Professionalising Campaign

Although interesting developments happened in European psychical research in the early decades of the 20th century, the professionalis-

ing campaign which concerns us here took place in the USA.⁹ William McDougall arrived in Boston in 1920 after being offered William James' prestigious chair of psychology at Harvard. He was elected president of the American SPR in 1921, a position he used to combat the avid interest in spiritualism which at that time characterised the society. Instead he used public lectures and pamphlets to insist on a renewed alliance with the professional sciences, urging that psychical research be accepted as a university discipline. Going through the arguments McDougall advanced in the 1920s we may identify three integrated (and by now familiar) strategies:¹⁰

- I Aligning psychical research with other scientific, political and ethical discourses (creating networks);
- II Attacking competing disciplines within the universities (boundary-work), and;
- III Contesting epistemological principles seen as barring the inclusion of psychical research.

In his attempt to argue the relevance of psychical research McDougall linked the discipline to several discourses that today largely belong to the scrapheap of superseded or rejected ideas. McDougall was not afraid of defending controversial standpoints, and his attempts to knit psychical research together with other scientific and social discourses led quite unavoidably to several fascinating links. He was simultaneously a proponent of the Lamarckian theory of evolution, a neo-vitalist, a dualist with regards to the mind/body problem, and an ardent supporter of eugenic policies and reforms (Asprem 2010). Immediately after arriving in the US he delivered a series of lectures which were later published with the provocative title *Is America Safe for Democracy?* (1921). Here he argued the need for eugenic policies to improve the American genetic stock. This made him rather unpopular, even earning him the epithet "an American Nietzschean reactionary" (McDougall 1924, p. vii; cf. Jones 1987; Alvarado & Zingrone 1989).

⁹ See for instance Lachapelle 2005 for developments in France, and Gruber 1978, Wolfram 2003, 2006 for Germany. For overviews, see Beloff 1993, pp. 93–124; Mauskopf & McVaugh 1980, pp. 1–44.

¹⁰ For a thorough discussion of McDougall's role in the professionalisation of parapsychology, see Asprem 2010.

In his 1922 support of scientific method in psychical research McDougall confessed that eugenics and psychical research were two of his greatest hobbies, adding that most people in the audience would probably find this an odd combination. Not so for McDougall, who contended that “these are the two main lines of approach to the most vital issue that confronts our civilisation—two lines whose convergence may in the end prevent the utter collapse which now threatens.” (McDougall 1934 [1922], pp. 58–9).

The perceived threat was that of biological *degeneration*, a concern that had haunted many critics since the late 19th century—*especially* those holding Lamarckian views on evolution (Olson 2008, pp. 277–94). These feared that a serious demographical imbalance would result from declining birth-rates among the educated classes. Since Lamarckians believed that social ailments such as alcoholism, crime and illiteracy had a strong hereditary basis, there was a concern that the imbalance would perpetuate, spin out of control and lead to social collapse. The response was found in eugenics.

McDougall argued that psychical research could assist eugenics in counteracting degeneration in two different ways. First, eugenics would seem more persuasive if Lamarckian evolution could be established as a fact. But a serious problem for Lamarckism was its incompatibility with the mechanistic conception of life, demanding instead some teleological theory. If properly established, the data of psychical research suggested some non-mechanical, perhaps vitalistic theory of mind and life that could better accommodate the principles of Lamarckian evolution. McDougall’s own theory of mind (which he termed “animism”) resembled the neo-vitalisms of Henri Bergson and Hans Driesch, and was, as theirs, defended partly on evidence from psychical research (McDougall 1961 [1911], pp. 347–54). The first role of psychical research, then, was as the empirical branch of a new non-mechanistic science of life, which could in turn act auxiliary to Lamarckian evolutionism and eugenic policies.

The second way in which psychical research could help eugenics in counteracting degeneration was more direct, and closely connected with the question of religion. Ever since the 19th century attacks on religion in context of the professionalisation of the sciences people had feared that a decline in religious sentiments under the growth of a materialistic philosophy would lead to a withering away of ethics. Indeed, the founders of the SPR had considered psychical research a possible way to counter this trend by finding reasons to believe in

the existence of something like an immortal soul. Throwing in a bit of boundary-work towards other university disciplines, McDougall argued that psychical research was superior to both theology and philosophy in this regard, since it was truly scientific in character, and not merely speculative as the others (McDougall 1934 [1922], pp. 56–8).

But the argument to religion and ethics took a different turn as well, enforced with the logic of eugenics. The real problem with scientific materialism was, according to McDougall, that a materialist might see no reason to procreate. Materialists are not compelled to considering the “sanctity of human life”, which had been integral to Christian civilisation, and thus they feel no moral obligation to keep populating the world with new generations. McDougall saw this as perpetuating the demographical problem because, according to him, loss of faith and morals due to materialism was most widespread among intellectuals. Providing the intellectual elite with new reasons to procreate was paramount, and psychical research could do exactly this (McDougall 1934 [1922], p. 59).

As part of an argument for the professionalisation of psychical research and its inclusion as a university discipline, it was, in short, presented as a possible saviour of Western civilisation amidst the impending dangers of a loss of religion and the degeneration of society.¹¹ As McDougall put it with regards to the importance of eugenics in 1927, the “western civilization declines and decays”, while it soon remains “for some non-Christian people to carry on the torch of civilization” (McDougall 1927b, p. 304). Similar to the strategic manoeuvres of the 19th century publicists in science, McDougall had linked the pursuit of psychical research to the future welfare of the state and its people (cf. Turner 1993c; Gieryn 1999, pp. 37–64; Olson 2008, pp. 240–3).

While a sense of urgency and utility was communicated by linking psychical research to problems that were simultaneously social, ethical, and religious, there were still other important issues to address in the professionalising campaign. At a seminal 1926 conference at Clark University, McDougall read a paper on “Psychical Research as a University Study” (1927a). The speech contained further attempts to legitimise the presence of psychical research in a university setting,

¹¹ Neither was his synthesis of Lamarckism, vitalism, religion and eugenics entirely idiosyncratic; as Bowler (2001, pp. 160–90) has shown, their convergence received much attention among scientists, philosophers, critics, and politicians in the early decades of the 20th century.

including polemical attacks on the established sciences and disciplines. He rebutted accusations that psychical research harbours irrationalism and a lack of critical sensibilities. To the contrary, he argued that psychical research, properly conducted, demands such amounts of critical thinking, reflection over presuppositions and limitations of observation, etc., that it is especially well suited as a university discipline (McDougall 1927a, pp. 150–1).

He continued by discussing what the proper functions of a university should be, consequently showing how psychical research could fulfil all of these. The three primary functions of any university, according to McDougall, are providing education, exerting “a controlling influence in the formation of public opinion on all vital matters”, and extending the bounds of knowledge through research (*ibid.*, p. 152). The first function was eminently fulfilled through the thorough methodological training that McDougall envisaged for professional psychical research, and the second we have already seen exemplified through the role that it could have in forming qualified opinions on religion and ethics. In addition, McDougall felt that the universities had a responsibility to provide the public with qualified opinions on such popular topics as spiritualism, ghosts, and psychic phenomena. Even if the verdict on their genuineness would happen to be negative, the university’s opinion would only be legitimate if it had been established through carefully directed investigations (*ibid.*, p. 160).

The last function, concerning research, was a more sensitive subject. Even McDougall was forced to recognise that psychical research seemed completely barren if judged from the number of breakthroughs, novel predictions, or practical applications it had led to over its nigh 40 years of existence. Instead of focusing on results, McDougall directed his attack against the *epistemic foundations* of science, by returning to the problems associated with agnosticism and the core principles of naturalism.

McDougall opened a direct polemical diatribe against unremitting scientific sceptics with a defence of the familiar “absence of evidence is not evidence of absence”-type: even if results have not been forthcoming so far, there is nothing *a priori* that prevents a possible breakthrough in the future. He went on to claim that any opposition to psychical research must simply

arise from narrow dogmatic ignorance, that higher kind of ignorance which so often goes with a wealth of scientific knowledge, the ignorance which permits a man to lay down dogmatically the boundaries of our

knowledge and to exclaim "*ignorabimus*." This cry—"we shall not, cannot know!"—is apt to masquerade as scientific humility, while, in reality, it expresses an unscientific arrogance and philosophic incompetence. (ibid., 154).

McDougall takes on the very principle of methodological agnosticism in the sciences, or, as he insists, that "higher kind of ignorance" which tries to state authoritatively where the boundaries of possible knowledge go. But the kind of agnosticism that he attacks is *not* equal to that heralded by Huxley. It is rather the kind of agnosticism that withdraws "the supernatural" from the "natural", and states dogmatically (or by recourse to the *a priori*) that the former is, by definition, unreachable, ineffable, transcendent. This is a crucial distinction, because it separates the question of what we *do* not know from what we *cannot* know.

Indeed, McDougall speaks with all the epistemic optimism of an empirical naturalist when he states that

To cry *ignorabimus* in face of the problems of Psychical Research, and to refuse on that ground to support or countenance its labour, is disingenuous camouflage; for the assertion that we shall not and cannot know the answers to these problems implies a knowledge which we certainly have not yet attained and which, if in principle is attainable, lies in the distant future when the methods of Psychical Research shall have been systematically developed and worked for all they may be worth. The history of Science is full of warnings against such dogmatic agnosticism, the agnosticism which does not concern itself with the frank and humble avowal that we do not know, but which presumes to assert that we cannot know. (ibid., 154).

The gist of the argument is that most knowledge is empirical; even epistemology, or "knowledge about knowledge", how it is, or whether it can be, obtained, is empirical to begin with.¹² Ironically, "dogmatic agnosticism" succumbs to a specific kind of supernaturalism in holding some types of (claimed) phenomena to be beyond the pale of empirical inquiry. In the picture that McDougall seeks to portray, psychical researchers are "more scientific" than that, holding that the question of whether or not positive knowledge about these phenomena can be obtained is itself an issue which only persistent and critical empirical inquiries can establish.

¹² For similar reflections on the basis of knowledge among contemporary naturalising philosophers, cf. Kornblith 1994; Flanagan 2006, pp. 430–1.

Towards an Autonomous Discipline

McDougall's professionalising campaign succeeded in 1927, when he was offered the position as head of the newly established psychology department at Duke University. The appointment was largely due to his knitting together the discourses of psychical research, vitalism, Lamarckism, eugenics and religion, pitted up against "mechanistic-materialism" and the dominant behaviourism in psychology. The young university in Durham, North Carolina, had a distinctly conservative outlook, and McDougall was head-hunted by its president William Preston Few much because of his emphatic opposition against materialistic and mechanistic philosophy generally, and American behaviourism specifically (Mauskopf & McVaugh 1980, pp. 133–4).¹³

In the position to develop policies and administer budgets, McDougall could authorise research projects that were dear to him. This led to the commencement of Lamarckian and parapsychological experiments, side by side in the new psychology department.¹⁴ It was at this point that McDougall embraced Louisa (1891–1983) and Joseph Banks Rhine (1895–1980), an ambitious botanist couple who, inspired by McDougall's earlier pleas for the institutionalisation of psychical research, eagerly wanted to conduct such work in a university setting.¹⁵ Their cooperation with McDougall led to the foundation of the first autonomous research institute for parapsychology at an American university, marking the beginning of the discipline as we know it today. Psychical research was about to transform into modern professional parapsychology.

Claiming and Maintaining Legitimacy: The Contested Status of Experimental Parapsychology

While McDougall prepared the ground for the professionalisation of parapsychology, it was up to J. B. Rhine to give the new research programme its specific form and content. Occupying a disputed space on

¹³ For his role in the controversy over behaviourism, see e.g. McDougall & Watson 1929.

¹⁴ For McDougall's Lamarckian experiments—which caused a temporary stir due to their apparent success—see McDougall 1927b; 1930; Rhine & McDougall 1933; McDougall 1938; cf. 1934b, pp. 209–10.

¹⁵ See McDougall's (1934b) foreword to *Extra-Sensory Perception* (Rhine 1934) for some details about this history.

the borders of the scientific enterprise Rhine and later parapsychologists have continuously needed to resort to a range of strategies for claiming and maintaining legitimacy for their project. I will list four different types of strategies.

1. Most importantly, parapsychologists from Rhine onwards claim the scientific method, signified by an emphasis on *experimentalism*, the creation of *taxonomies*, and an increasing emphasis on *instrumentation*. In short, this strategy entails using the whole panoply of the “symbolic and technical hardware of science” (Collins and Pinch 1979, p. 242).
2. *Popular appeals* have continued to be important for parapsychology, through the publication of popular science books and pamphlets, the use of radio shows, and even marketed products.
3. Linking the discipline to political, religious and ethical issues has also continued in the post-Rhine era, even providing an important channel for financial support.
4. Lastly, in the face of constant professional criticism parapsychologists typically resort to a strategy which may be characterised as a philosophically fuelled antagonism to the “scientific establishment”, particularly in the wake of Thomas Kuhn’s (1962) work on paradigms and incommensurability in scientific revolutions.

In the present section I will discuss these four strategies, interspersed in a historical narrative of the development of modern parapsychology.

From Anecdote to Experiment: Claiming Scientific Legitimacy

Rhine’s work at Duke was part of a move away from anecdotal to experimental evidence in psychical research (e.g. Thouless 1972). Even though crude experiments had been performed at an early stage in the history of the SPR, the main strategy to gain evidential support had been to gather anecdotes, systematise them, and make theoretical speculations. This approach had been at the basis of both Gurney et al.’s *Phantasms of the Living* and Myers’ *Human Personality*.

Rhine’s project also signalled a move away from qualitative to quantitative methods. Telepathic ability had commonly been thought of as evenly distributed in the population, although possibly more developed in some than others. While amateur psychical researchers were typically interested in observing mediums (presumed “super-psychics”)

performing tricks in darkened rooms, the university discipline imagined by McDougall and the Rhines needed to move investigations into proper laboratories, repeat experiments on a mass of subjects, and employ rigorous statistical analyses to the data produced.

Rhine was not the first to take these methodological steps. One important precursor was the extensive experimentation conducted by John Edgar Coover at Stanford between 1912 and 1917. Coover's systematic and rigorously designed tests of telepathy using playing cards have even been identified as the first consistent use of randomisation in addition to control and blinds in the history of scientific experimentation (Hacking 1988, pp. 445–9). Over the course of five years Coover conducted some 10,000 tests of telepathy which were analysed and published in a volume of more than 600 pages, fully equipped with tables and statistical calculations (Coover 1917). His conclusion was negative: a hypothesis of supernormal perception could not be substantiated.

Rhine's method, as expressed in his paradigmatic *Extra-Sensory Perception* (1934) also centred on variations of card-guessing. He had the psychologist of perception Karl Zener produce a set of five distinct symbols, which should be easy to recognise and memorise. The symbols (star, circle, cross, square, and waves) were printed in 25-card decks for use in the experiments, later known as "Zener cards". By deploying a specially designed standard deck of cards it would be easier to repeat experiments and calculate probabilities.

In addition to streamlining experimental procedures, Rhine was concerned with making distinctions between various types of extrasensory perception (ESP) and creating taxonomies. In his 1934 book he introduced a distinction between two main types: telepathy (ESP of mental conditions) and clairvoyance (ESP of physical objects) (Rhine 1934, p. 14). In addition to these "differentiated" types, Rhine worked with a category of "undifferentiated ESP" for experiments where clairvoyance and telepathy could not be clearly distinguished from each other as explanatory mechanisms. The inventory of technical terminology and experimental procedures was expanded in the years that followed (see Mauskopf & McVaugh 1980, pp. 169–83; Beloff 1993, pp. 140–2). Rhine had already mentioned the possibility of a temporal dimension to ESP in *Extra-Sensory Perception* (1934, p. 14). Further development of that idea gave rise to the terms *precognition* (knowledge of the future) and *retrocognition* (knowledge of the past). Although Rhine would later acknowledge that no support of retrocognition had been forthcoming,

precognition became one of his favourite effects (e.g. Rhine & Pratt 1957, pp. 13, 55–9, 69–70, 123). Experimentation also started on the more spectacular *physical* phenomena, re-invented as *psychokinesis* (PK): “the direct action of mind upon matter” (ibid., p. 13). Since research had now ventured beyond perception as such, the general term *psi* was introduced, encompassing both ESP and PK phenomena. At this point, the basic nomenclature of modern parapsychology was in place.

In addition to introducing experimental methodologies, statistical figures, and differentiating taxonomies, parapsychologists have developed an increasing focus on instruments of measurement. Instrumentation is a particularly persuasive aspect of scientific activity because it seems to provide a way out of the subjectivity and fallibility of the human observer, producing “objective data” presumably unmediated by human agency (e.g. Galison 1997; Latour & Woolgar 1979). Instrumentation *translates* the confusing mishmash of nature to simple, ordered signs that can be read, tabulated and interpreted by the scientist. As Peter Galison writes, laboratory machines are

dense with meaning, not only laden with their direct functions, but also embodying strategies of demonstration, work relationships in the laboratory, and material and symbolic connections to the outside cultures in which these machines have roots (Galison 1997, p. 2).

The Zener cards may be seen as an early and crude form of instrumentation in parapsychology, and due to its visual simplicity it has remained one of the most efficient and persuasive ones. Technologically more advanced forms of instrumentation have later been developed. Rhine’s telekinetic test protocols relied on machines to roll dice. A more advanced form was introduced in 1961, by employing radioactive decay as a truly random system to be influenced in PK experiments (Beloff & Evans 1961). The aim would be to mentally slow down or increase the speed of the radioactive decay; in more contemporary research this system has been developed further, through computerisation, into “random number generators” (RNGs) which the test-subject tries to influence with psi (cf. Bösch, Steinkamp & Boller 2006, p. 500). Similarly, tests of ESP have moved from card-guessing trials to the more advanced “ganzfeld”-trials, incorporating a range of technological equipment, from white noise generators and cameras to video players and computers. These forms of instrumentation attest to the willingness of parapsychologists to adopt the symbolic and technical hardware of science, embodying the staunch experimentalism of the discipline.

Maintaining Legitimacy: Handling Criticism and Response

The results Rhine (1934) claimed to have obtained at first captivated both laymen and professional psychologists. A network of correspondents emerged, including both professionals and amateurs interested in setting up experiments and attempting replication (Mauskopf & McVaugh 1980, pp.183–90). Building on the interest, Rhine established the *Journal of Parapsychology* (*JP*) in 1937, aiming to create a peer-reviewed forum for additional scientific recognition. The first issue even featured what seemed to be an independent replication of some of Rhine's findings (*ibid.*, p. 187).

Certain responsibilities follow from seeking scientific recognition through a peer-reviewed journal. One of them is that, when it starts to publish reports of radical breakthroughs, colleagues will want to critically analyse the data, look for flaws, inconsistencies or experimental error, and seek alternative hypotheses. The establishment of *JP* in 1937 marks the beginning of a wave of critical responses to parapsychology, mostly coming from the discipline that it most sought to attach itself to: experimental psychology.

Several features of Rhine's published experiments made critics suspicious. R. H. Thouless, himself both a psychical researcher and a psychologist, criticised Rhine for being imprecise in describing the procedures that had been followed and the controls used in the series of experiments published in *ESP*, a criticism that was quickly followed up by other professionals (Mauskopf & McVaugh 1980, pp. 191–2, 256–72; cf. Thouless 1972, pp. 76–7). An even graver allegation was levelled by B. F. Skinner, the behaviourist, who had made the acute observation that both the original homemade Zener cards and the commercially produced decks were designed such that it was possible, under certain conditions, to see the symbol of a card from the back (Mauskopf & McVaugh 1980, pp. 260–3). This indicated a highly problematic source of error, especially when combined with the imprecise descriptions of how apparently successful experiments had been conducted. It would seem that sensory cues could not be properly discounted, throwing all the results into doubt.

Selection bias was brought forwards as another probable source of error for many of the findings. The mathematician and sceptic Martin Gardner (1952, pp. 302–8) suggested that the way Rhine selected his famous "high scorers" was a simple way of generating a seemingly positive, but entirely artificial result. Later there has been much concern

with Rhine's stated policy for the *JP* that "little can be learned from a report on an experiment that failed to find psi" (cited in Broughton 1987, p. 27). This policy suggests that the journal consistently avoided publishing negative results, an obvious problem for the sake of statistical meta-analyses.

In the early reception there was also much concern with the statistics used by Rhine and his companions (cf. Mauskopf & McVaugh 1979). One correspondent, R. R. Willoughby, pointed out that some of the "astronomical odds" Rhine conjured up from his data were in fact so astronomical as to warrant *ipso facto* suspicion; if they had been calculated correctly, ESP would even appear better established than the prediction that the sun will rise the next morning (Mauskopf & McVaugh 1980, p. 196).

In short, Rhine and his collaborators had a tough time maintaining their newly won professional recognition. To make matters worse, the Duke parapsychology laboratory lost its university funding in the mid 1930s, as McDougall stepped down. These disappointments made alternative strategies necessary in order to maintain the legitimacy of the field. The most significant one was a turn towards lay people (Allison 1979, pp. 283–8). Parapsychology was of ever growing popular interest, and Rhine turned out to be a deft publiciser and fundraiser. Media coverage of the unusual research at Duke peaked in 1937–8, when Rhine published his popularising *New Frontiers of the Mind*, appearing as a Book-of-the-Month-Club selection. The book was further marketed by a commercial radio show broadcasted by the Zenith Radio Corporation. For a year they ran weekly ESP-"tests", often featuring Rhine himself in the studio. Zener-cards were commercially produced and sold, appearing with J. B. Rhine's copyright (Mauskopf & McVaugh 1980, pp. 160–3, 256).

The massive media coverage brought parapsychology to everybody's lips. Incidentally, this made it easier to raise funds as well; over the years, contributions from various "rich uncles" (mostly requesting more research on post-mortem survival) piled up. Rhine's later independent research lab, the Foundation for Research on the Nature of Man, comfortably presided over two million dollars by 1968 (Allison 1979, p. 283). These channels of funding, unconventional and with strings attached, made parapsychology an even easier target for its critics. Indeed, parapsychologists have never had problems with a lack of funding; the problem has rather been the *source* of that money (Collins & Pinch 1979, pp. 254–5).

There are two other significant strategies that should be mentioned, the first of which is closely connected with the public appeal. As David Hess (1993, pp. 52–3, 96–8) has noted, Rhine was anxious to portray parapsychology as a mediator between religion and science, while simultaneously linking it up with notions of “American values”. In his 1953 popularisation of parapsychology, *The New World of the Mind*, Rhine forged links between parapsychology and “The American Way of Life”, pitting it up against the “un-American” ideologies of communism and totalitarianism (ibid., pp. 96–8). Not only did Rhine argue that parapsychology privileges mind over matter, but this is furthermore presented as a “natural” and “scientific” argument for the philosophical position of voluntarism, and even the “correct” political view of American liberalism. Thus, at the height of McCarthyism, parapsychology was sold to laymen and would-be private financiers as a cure for America’s “spiritual ailments” and as a battle station against the impending dangers of materialism and communism.

The last significant strategy to maintain the legitimacy of parapsychology is somewhat more recent, and is linked up with intellectual developments in the history and philosophy of science. In particular, Thomas Kuhn’s *Structure of Scientific Revolutions* (1962) introduced the concepts of paradigms, revolutions and incommensurability into talk about competing views of science. These concepts, which went through a radicalisation when they were put to use by sociologists of science in the 1970s and 1980a (cf. Hacking 1999, Zummito 2002), were taken up by parapsychologists as well, disgruntled by their non-acceptance into mainstream scientific discourse. By the 1980s parapsychologists were claiming that an epistemic revolution was needed to replace the current “paradigm”, urging that parapsychology should be the pioneer discipline bringing about such a transformation (Hess 1993, pp. 79–81). This analysis even gained some support by sociologists of science; Collins and Pinch (1982), for instance, argued that parapsychologists and sceptics could not reach agreement because of a very real “ontological incommensurability”. Despite claims to neutrality, this account is effectively a strategy which empowers parapsychology and undermines “scientific orthodoxy”; in short, it comes very close to the parapsychologists’ emic understanding of their conflict with the “establishment” (cf. Nickles 1984; Northcote 2007, pp. 127–31).¹⁶

¹⁶ Cf. the concluding discussion of this chapter.

New Generations, Old Issues: The Status (Quo) of Parapsychological Research

The history of parapsychology after Rhine's initial attempts at Duke largely continued in the same vein. Claims of new and promising results are followed by critical appraisals that typically expose lacking experimental controls, bogus statistics, or even fraud (e.g. Markwick 1978). Russell Targ and Hal Puthoff commenced their much-discussed "remote viewing" experiments at the Stanford Research Institute in the 1970s, a re-invention of clairvoyance which caught much public attention (Targ & Puthoff 1977). Meanwhile, the American mentalist Kreskin and the spoon-bending Israeli Uri Geller boosted interest in paranormal topics, filling a similar role for post-war parapsychologists as mediums had done to earlier generations. With the massive publicity of "paranormal" topics, there was also a marked increase in organised sceptical responses. The Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) was established in Boston in 1976.¹⁷ It attracted many professional psychologists, and its associated publishing house, Prometheus Books, has been responsible for several important critical appraisals of parapsychology written by professionals (e.g. Hansel 1980; Marks & Kammann 1980; Kurtz, ed., 1985; Hyman 1989; Blackmore 1996).

Despite much professional resistance, parapsychology went through another phase of international expansion in the post-war era. Research carried out in Japan, India, South-America, South Africa, and various European countries largely followed Rhine's experimentalist programme without adding much new (Beloff 1993, p. 159). There are nevertheless two exceptions that are worth mentioning, since they reveal something of the contingency of the interpretations, agendas, and significances found in parapsychology. While Rhine and the wider Anglo-American model casts the discipline as a battle station against materialism, reductionism, atheism and other perceived spiritual and moral dangers, it is significant to note that this conception differs when we move to officially atheist countries such as the Soviet Union and the People's Republic of China. What little existed of psychical research in Russia at the time of the revolution was at first banned by the Stalinist regime. In the context of the Cold War it re-emerged when (spurious!) rumours reached the Kremlin that the Americans had been using

¹⁷ See Asbjørn Dyrendal, "'Oh No, It Isn't.' Sceptics and the Rhetorical use of Science in Religion." Pp. 879–900 in this volume for a closer analysis of the conceptions and strategies of the modern sceptics' movement.

telepathy to direct their first atomic submarine, Nautilus, safely across the icy waters of the North Pole in 1959. A laboratory was opened in Leningrad; significantly, however, the Soviet researchers rejected the Western term “parapsychology”, choosing to name their discipline “psychotronics” instead (Vasiliev 1976 [1962]; Ostrander & Schroeder 1970). This was supposed to reflect that the alleged phenomena were extensions of *physical* science, rather than anomalies to be counted against materialism. Similarly, parapsychological research blossomed in China shortly after the Cultural Revolution. Here, too, researchers rejected the idea that their phenomena were “paranormal”, choosing to talk about “exceptional human body functions” (EHBF) instead (Zha & McConnell 1991; cf. Beloff 1993, pp. 155–61). The contention that psi phenomena would be connected with spooky activities of “consciousness” seems in the end a “Western” bias, arguably an entirely arbitrary one (e.g. Blackmore 2001).

The main controversies in post-war parapsychology have remained the issue of replication, the design of experiments, and the use of statistics. The psychologists David Marks and Richard Kammann attempted to replicate the apparently successful remote viewing experiments of Targ and Puthoff (1977; Marks & Kammann 1980). They did not succeed; instead they were able to localise flaws in the design of the original experiments, which seemed to explain the discrepancy in results (Marks & Kammann 1980, pp. 26–41). Nevertheless, remote viewing experiments became the subject of what is probably the largest public investment in parapsychology of all time, and indeed the closest the discipline ever got to “Big Science”. Starting in 1972, laboratories at the Stanford Research Institute (SRI) and the Science Applications International Corporation (SAIC) conducted research on remote viewing for the US military, in what has been known as the “Star Gate” programme. As late as 1995 the CIA was asked to evaluate the research that had been carried out with government funding for two decades. The report concluded that replication was still lacking, and pointed out that the research had not yet amounted to any practical applications for intelligence operations (Mumford, Rose, & Goslin 1995). Star Gate was disbanded that same year, much to the dismay of its coordinator, who suspected political rather than scientific reasons behind the decision (e.g. May 1996, pp. 21–2).

The most promising case for the parapsychologists in recent history has been the so-called “ganzfeld” experiments. Developed in the 1970s, the ganzfeld is a technique to test psi that relies on total

sensory deprivation under rigidly controlled circumstances (Honorton & Harper 1974). The “recipient” is put in a soundproof room, with white noise on headphones, halves of ping-pong balls covering the eyes, and flooded in red light. Sensory deprivation is good for two things: it serves as an extra safe-guard against sensory leakage, while at the same time producing what is supposed by most parapsychologists to be a “psi-conducive state”. While the receiver is so seated, the sender is in another soundproof room, presented with a target to be “sent” through psi. The targets used are typically pictures or short video clips, which, ideally, are picked out from a pool of packets by some random process. The receiver has been instructed to continually report what she is experiencing of visual imagery or hallucinations while in the ganzfeld, and is later presented with a packet of pictures or video clips. At this point she is told to pick out the one that most resembles any experiences during the deprivation; this forms the basis for determining hits and misses.

There has been much controversy over the results generated from ganzfeld experiments. Psychologist Ray Hyman published a critical appraisal of 49 such experiments in 1985, finding statistically significant results, but also significantly inadequate randomisation in the design (Hyman 1985). A highlight in the debate between parapsychologists and their critics resulted, when Hyman and the parapsychologist Charles Honorton co-authored “A Joint Communiqué” on the ganzfeld controversy, agreeing on a proper protocol that should be adopted for further studies to count as valid (Hyman & Honorton 1986). The outcome was the “autoganzfeld”, a variety of the old experiments employing more rigid randomisation and blinding by using computers for the selection and presentation of targets.

Honorton went on to use this protocol in new experiments, and caused a temporary sensation when he published a mildly positive meta-analysis in the mainstream journal *Psychological Bulletin*, apparently replicating the results of earlier ganzfeld experiments (Bem & Honorton 1994). Sceptics gave the optimists no rest, however; Honorton’s article was followed by a commentary by Hyman (1994), suggesting that the results were still due to artefacts. A new meta-analysis a few years later found that the results had not been statistically significant in the first place (Milton & Wiseman 1999).

In stark contrast, the prolific parapsychologist Dean Radin (1997, p. 88) wrote in his enthusiastic popular introduction to the field that the positive results of ganzfeld research were “unlikely with odds against

chance beyond a million billion to one”, echoing Rhine’s fantastic statistical figures. The dispute has rolled since, and there seems to be no overall agreement between the opposing camps (e.g. Bierman 1999; Parker 2000; Storm & Ertel 2001; Blackmore 2001; Bösch, Steinkamp & Boller 2006; Radin et al. 2006). With researchers still debating over whether or not the effect of psi is even traceable through statistical meta-analyses, the mathematical statistician Frederick Mosteller’s (1991, p. 369) judgment remains apt: if there is something like ESP, it does not look like it will replace the telephone very soon.

Paranormal Re-Enchantment: Parapsychology and Contemporary Religion

Whereas professional parapsychology has had little or no substantial influence on institutionalised scientific disciplines, it has made a deeper impact in other segments of modern culture. Through its popularising strategy parapsychology has helped facilitating a distinctly late modern discourse on certain types of “unchurched religion”. Through continuing quarrels with scientists and sceptics, in popular media rather than scientific forums, parapsychologists have been integral to forging the discursive formation which Hess (1993) has termed the “paraculture”. By extension, I submit that parapsychology plays a central part in the mode of (pop-) cultural re-enchantment which Christopher Partridge (2004/5) recently called “occulture”. Parapsychology has been an important supplier of ideas, concepts, arguments, themes, and, perhaps ironically, “scientific” legitimacy for a variety of emergent forms of religion. In this last section we shall look briefly at the connections and the significance of parapsychology to the contemporary religious landscape.

Occulture, Paraculture, and Re-Enchantment

Partridge recently introduced the term “occulture” to describe a mode of re-enchantment which emerges against the backdrop of a general structural secularisation of Western societies. Expanding Colin Campbell’s (1972) influential concept of the cultic milieu, occulture signifies a “reservoir of ideas, beliefs, practices, and symbols” (Partridge 2004, p. 84), but also includes the sites and channels through which these are mediated, disseminated, and consumed, from Hollywood movies, pop-music, and graphic novels, to festivals, fairs, and fringe magazines. A distinctive feature of Partridge’s claim is that occulture is not merely a “subculture” or a marginal “milieu”, but an emerging, significant culture

in its own right. When it comes to content, the occulture comprises “those often *hidden, rejected* and *oppositional* beliefs and practices associated with esotericism, theosophy, mysticism, New Age, [and] Paganism”, furthermore listing so diverse currents, themes and topics as “extreme right-wing religio-politics, radical environmentalism and deep ecology”, along with belief in angels, spirit guides, channelling, astral projection, human potential spiritualities, astrology, healing, earth mysteries, tarot, alternative science, esoteric Christianity, UFOs, alien abduction, etc. (ibid., pp. 68, 70; italics original).

A decade earlier Hess (1993) argued that there exists a discourse on the paranormal—a “paraculture”—which is largely shared and co-created by the opposing views of New Agers, parapsychologists, and sceptics. The paraculture may be seen as a discursive formation created by the mutual constructions and projections of “noble Selves” and “demonic Others” during polemical clashes between opposing positions on the paranormal (ibid., pp. 43–69). The argument was recently taken up and expanded by sociologist Jeremy Northcote, who sees the participants in the “paranormal debate” as divided into a variety of ideational positions (2007, pp. 55–82). These positions are divided over belief and disbelief in paranormal phenomena, but also over claims to rationality and the degree to which they seek scientific legitimacy. Both Hess and Northcote suggest that participants in clashes over the paranormal get socialised into certain patterns of strategic positioning, and certain modes of rhetoric (e.g. Hess 1993, pp. 43–69; Northcote 2007, pp. 120–85). Thus, for instance, both New Agers and parapsychologists will tend to portray themselves as revolutionary, utopian underdogs vis-à-vis a repressive scientific orthodoxy, while attempting in various degrees to use the paranormal as a mode of scientific re-enchantment (e.g. Hess 1993, pp. 70–85). Sceptics, on their part, see only the growth of irrationalism, and may indeed feel that it is *scientific* values that are really becoming marginalised in (post-) modern society (ibid., pp. 87–9; cf. Hammer 2007).¹⁸

I suggest that the paraculture is integral to the wider occultural re-enchantment posited by Partridge. The dynamics of parapsychology in its public aspect, including religious appropriations and sceptical attacks, has been a generator of premises that find their way into occultural currents. It has provided a form of popular “*doxa*”, a set

¹⁸ Cf. Dyrendal, this volume.

of cultural assumptions regarding “the paranormal” that are widely distributed in society (cf. Hess 1993, pp. 14, 92; Northcote 2007, pp. 140–5). Although this is hardly the place to examine all the manifestations of parapsychological aspects in the occulture, I will outline some important historical and thematic connections in the concluding section below.

Conclusion: Diffusions of ESP

The role of telepathy, clairvoyance and psychokinesis in various forms of “New Age science” is among the more evident ways that paraculture has influenced contemporary occulture. The “New Age” is a notoriously promiscuous concept, but in most definitions and genealogies there is room for psychical research and parapsychology, even though it is typically understated. Wouter Hanegraaff (1996; 2007) has argued that, historically, the roots of New Age thought is found in a secularisation of esotericism which occurred after the Enlightenment. Steven Sutcliffe (2007, p. 54) recently traced the origins of New Age ideas to the concretisation of “a distinctive discourse” in the period between the wars; a formation where theosophical, spiritualist, mystical and occult currents came together in a certain way. On both these readings, psychical research should be regarded as important. Through its struggle to redefine the supernatural, by conscripting and naturalising spiritualism, psychical research was a motor for the secularisation of esotericism in Hanegraaff’s sense. The centrality and popularity of psychical research in the 1920s and 1930s was demonstrated in this article, and it seems that the discourse on vitalism and psychic phenomena in the context of the SPR and the professionalisation of psychical research in the period is an important component which, if taken into account, would sustain Sutcliffe’s argument.

Thematically, we find parapsychological discourse to have been highly influential in the New Age’s “sacralisation of psychology”, and its emphasis on “holistic science”. Intellectual currents such as transpersonal psychology and the Human Potential Movement are often mentioned in connection with New Age; increasingly, the use and importance of psychedelics has come into focus as well (e.g. Hammer 2001, pp. 70–8; Hammer 2005; Partridge 2005, pp. 82–134). In this connection, mention should be made of the Esalen Institute, established in 1962 in Big Sur, California. Associated with names such as Aldous Huxley, Stanislav Grof, Terence McKenna, Carlos Castaneda

and Fritjof Capra, Esalen was central to all the above-mentioned developments, and had fundamental influence on the formation of the New Age movement *sensu lato* (see Kripal 2007; Hanegraaff 1996, pp. 94–111). Parapsychology has figured prominently in the history of Esalen as well. A seminar series running in the early years from 1962 to 1964 was dedicated to “exploring recent developments in psychology, psychical research and work with the ‘mind-opening’ drugs”, and again in the mid 1980s the institute hosted several five-day conferences on parapsychology (Kripal 2007, pp. 98–108, 340–3).

Esalen played a major role in bringing about New Age “holistic science”, a branch of modern re-enchantment where parapsychological ideas figure prominently. Lawrence LeShan’s *The Medium, the Mystic, and the Physicist*, published on Esalen’s Viking Press in 1966, was an early book in the genre. Its basic argument stated that ESP had been well-established by parapsychology (invoking scientific legitimacy), that clairvoyant abilities existed, and that this pointed us towards a new worldview. He proceeded to compare quotations from “mystics” and leading physicists, indicating that parapsychology, mysticism and physics were converging. This parallelism, of course, was popularised about a decade later, with Capra’s commercially successful *Tao of Physics* (1975), a classic of New Age science.

Furthermore, the utopian call for a new, non-reductionist, non-materialist paradigm that is so central to New Age science was prefigured in the earlier discourse of psychical researchers and parapsychologists. J. B. Rhine took on “materialistic science” and carefully presented parapsychology as a discipline that could reconcile science with religion, in a fashion similar to the later New Agers (e.g. Rhine 1937). As we have seen, parapsychologists also took up Kuhn’s concepts of paradigms, revolutions and incommensurability, arguing that their discipline would only be accepted after a grand revolution where mechanism and materialism were finally thrown out. Often this brought the parapsychologists’ rhetoric problematically close to that of the New Agers, associating the coming “paradigm shift” with the advent of a social, spiritual and ethical utopia as well (e.g. Hess 1993, pp. 79–81).

Granted these discursive similarities it is hardly surprising that parapsychology has remained an interest to New Age discourses of science. Rupert Sheldrake, for example, made his name in New Age circles with his neo-vitalist theory of “morphic resonance” (1987), but has since gravitated towards parapsychology and has written several books on psychic powers and related phenomena (e.g. 1999, 2003).

Finally, a central feature of occultural re-enchantment is the importance of popular culture. The consumption of popular (oc)cultural products, as agents of re-enchantment, is paramount to the diffusion of emerging occultural religiosity. Again we find the paraculture baked into the process. Parapsychological concepts are frequently mediated through popular culture; a complete list of Hollywood movies figuring some kind of ESP would be extensive indeed.¹⁹ The omnipresence of parapsychological motifs in popular culture is, furthermore, symmetrical with statistical findings indicating that 60% of the American population believes in ESP.²⁰ Data such as these strongly suggest that parapsychology and paraculture are shaping the re-enchantment process which currently sweeps the late modern West.

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¹⁹ Partridge (e.g. 2004, pp. 119–40; 2005, pp. 165–206) includes an extensive treatment of paranormal and occult topics in film, focusing specifically on "supernatural horror" (particularly vampire movies), and films and shows that sacralise (or demonise) extraterrestrials (from *2001* and *Close Encounters of the Third Kind* to *The X-Files*). Similarly, Hess discusses the place of paraculture in Hollywood by looking at popular movie franchises such as *The Exorcist*, *Poltergeist*, *Amityville Horror*, and the *Ghostbusters* series (Hess 1993, pp. 120–41). A closer study of psi in popular culture seems a promising way to bring the analytical concepts of paraculture and occulture together.

²⁰ This figure appears in the National Science Foundation's report on scientific literacy (April 2002), quoted in Shermer 2002, p. 35. A Gallup poll from 2001, however, found that 50% of the American population believed in ESP, with another 20% expressing uncertainty on the issue. According to the same poll, 42% believed in haunted houses, 32% in pre- and retrocognition, while 28% believed in the possibility of communicating with deceased persons (Newport & Strausberg 2001).

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NEW AGE AND OCCULT

THE “SCIENTIFIC” PRESENTATION AND LEGITIMATION OF THE TEACHING OF SYNCHRONICITY IN NEW AGE LITERATURE¹

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For New Agers, the universe is full of meaning. Life is anything but a random collection of events, and the personal spiritual journey is embedded in and informed by grander processes and principles. One pervasive idea is that the deeper meaning of one's life story becomes manifest through 'synchronicity', or 'meaningful coincidences'. The concept has its origin in the work of C. G. Jung (1969, 417–531), who coined it to describe instances where an extraordinary co-occurrence of events in the external world marked a major psychological breakthrough. Jung's best-known example is an episode where a patient was relating a dream in which she had received a piece of jewellery in the form of a scarab beetle. At that moment, a real scarab appeared at the window. As a mythological symbol, according to Jung (1976, 541), the scarab represents rebirth, and the experience marked a turning point in the patient's development. This article examines the teaching of synchronicity as put forward by New Age authors, arguing that emic accounts of the concept present it as scientific in two main ways: firstly, because they are rational explanations of how the world works; secondly, because appeals to cutting-edge science provide a strategy for corroborating the veracity of the teaching.

The conviction that coincidences are not purely accidental figures in a variety of ways in New Age spirituality. At one end of the spectrum, there is a varied discourse hinting more or less explicitly at the existence of a purpose that connects the events of a person's life to form a unified whole—the personal spiritual journey. Anecdotes may be related that convey a feeling of being 'guided' or being 'supposed' to do something—read a book, meet a person, visit a place—without the phenomenon being more specifically conceptualised or labelled

¹ Surprisingly few more detailed discussions of synchronicity in New Age can be found in the scholarly literature. See e.g. the descriptions in Hanegraaff (1996), 251, 339; the critical comments in Hammer (2004), 307, 430–32.

as ‘synchronicity’. Shirley MacLaine, for example, in *Out on a Limb* (1983), the account of her ‘conversion’ to New Age, reflects pensively on the events that are leading her to revise her worldview: “there’s too much happening to me lately to believe in accidents any more” (147). A more settled conviction is evident in the following episode from Marianne Williamson’s *Gift of Change* (2004):

One day I heard about a woman I had known many years earlier. She had suddenly stopped speaking to me, and I didn’t know why. Then I thought about it, and I did know why. I had made a comment about her that had probably reached her ears. It wasn’t a vicious or cruel comment, but it wasn’t gracious either. I’d put it in the category of unconscious and unkind. So here I was, over ten years later, and she had just done something really wonderful. I wanted to acknowledge her, and I also wanted to tell her how sorry I was for having made such a wrong-minded comment all those years earlier and ask her to forgive me. I didn’t know her address or whether or not she would read my letter. But in my heart I atoned. I really got that I had been less than the person I should have been, and I was eager to make amends.

The very next day I was called by a reporter for a major European newspaper. They were writing an article about her, and they asked my opinion. I had the opportunity to go on and on about how wonderful she is, what good things she’s done—in a venue where I could be fairly certain it would reach her eyes. Synchronicity is the handwriting of God: as soon as I atoned, the entire universe was programmed to catch up to my corrected perception. (83)

Heeding the White Queen’s remark to Alice in Lewis Carroll’s *Through the Looking Glass* (1977) regarding “a poor sort of memory that only works backwards”, a popular strategy among authors is to look back on their own careers to demonstrate to readers, through brief reflective comments or more developed retrospective analyses, that there is a ‘thread of continuity’ in their own lives and how they seem to have been ‘guided’ along their path (Chopra 2003, 24–26; Myss 1997, 7f; Myss 2002, 12). At the opposite end of the spectrum, whole monographs are devoted to teaching readers how to tap into the power and meaning of what is termed ‘synchronicity’ (Begg 2004; Chopra 2003; Graff and Joseph 1999; Hay 2007; Hopcke 1998; Watkins 2005). There is virtual unanimity among New Age authors about the basic idea of what synchronicity involves: there are no coincidences or accidents—everything happens for a purpose. Synchronicity is also synonymous with what is commonly seen as miracles or good luck (Chopra 2003, 124). In particular, what is in view here are unusual, strange, quirky, amazing or uncanny experiences:

Perhaps you were cleaning out a closet and found a gift from someone you hadn't spoken with in years, then an hour later, out of the blue, that person rings you on the phone. You might have read a newspaper article about an experimental skin cancer treatment, and for no apparent reason you decided to save that particular newspaper. A month later, a relative calls to say that he just received a diagnosis of skin cancer—and that information in the article you saved influences his choices and ends up saving his life. Or perhaps your car breaks down on the side of a deserted road, and just when you had resigned yourself to being stranded for hours, the very first vehicle that comes along is a tow truck. (Chopra 2003, 19)

Some incidents of synchronicity can be quite spectacular. "After years of note-taking", Deepak Chopra (2003, 141) classifies coincidences "as tiny, medium, whoppers, and double-whoppers". The following episode from his *SynchroDestiny* would surely qualify as a 'double-whopper' and illustrates how a personal message is contained in what looks like a freak occurrence:

David was in love with a woman named Joanna. He was utterly in love, but a little tentative about commitment and marriage. He finally decided that he would take Joanna to a park and propose to her. He was still leery of commitment, but when he awoke that morning he felt overcome by a feeling of peace, a sense that all would be well. David set out the picnic blanket and was just getting up the nerve to pop the question when a plane flew overhead trailing an advertising banner. Joanna looked up and said, "I wonder what that banner says" Without thinking David blurted out, "The Banner says, 'Joanna, marry me.'" They both looked more closely, and there indeed was a banner that read, JOANNA, MARRY ME. She fell into his arms, they kissed, and at that moment David knew that marrying her was exactly right for him. The next day, they read in the local newspaper that someone else had proposed to his girlfriend, Joanna, with a banner over the park; the plane just happened to be overhead at exactly the right moment for David. This remarkable coincidence was a clue to David's future, a miracle. The two remain happily married to this day. (Chopra 2003, p. 123)

Eckhart Tolle (2005, 194) puts it succinctly: "Behind the seemingly random or chaotic succession of events in our lives as well as in the world lies concealed the unfolding of a higher order and purpose". For Redfield (1999, 11; cf. Redfield 1997, 26, 28), "perceiving this mysterious flow [is] *the central experience* of real spirituality, *direct evidence* that something deeper [is] operating behind the scenes of human drama."

It is clear that synchronicity is a philosophically realist concept. Synchronicities are created for a specific individual. A higher intelligence is at work here creating "a cosmically choreographed opportunity"

(Myss 2004, 204). The term denotes an objectively existing state of affairs. It is not in any way similar to insight gained through lateral thinking, clever reasoning or creative use of circumstances; synchronicity is not something created by humans. It is, as Olav Hammer (2004, 430) observes, “part of the way in which the world is organized”. This illustrates the precarious balance between individualist and universalist ontologies, and subjectivist and objectivist epistemologies, in New Age: meaningful coincidences carry a binding significance for a particular individual rather than humanity at large (although they happen to everyone), and the spiritual journey they help to construct is always unique to the person concerned. However, synchronicity involves the notion of being guided, and as will be seen, in the majority of cases the underlying assumption is that synchronicity allows individuals to access the learning experiences and developmental challenges that have been appointed for them. Thus, as a method of knowing, synchronicity involves discerning the existing ‘text’ of one’s destiny that is unalterably given to be accepted and complied with. Note that when New Age authors talk about ‘destiny’ and related concepts (‘life-script’, ‘mission’, ‘task’), they are keenly aware that we can fail to achieve our destiny. Thus what is unalterable and objective is the provision of opportunities and resources, but more or less judicious use can be made of them, and this is what spirituality is all about. The ‘law of synchronicity’ exists absolutely objectively and applies to every person’s life, but what it does is provide information that is tailor-made to the person concerned. Deepak Chopra (2003, 124f) captures these two aspects when he says that “the sum total of the universe is conspiring to create your personal destiny... There’s a conspiracy of coincidences that weaves the web of karma or destiny and creates an individual’s life”.²

One of the most pressing issues that arise is undoubtedly how to distinguish synchronistic events from non-synchronistic ones. While the majority of authors suggest that not everything that happens is meaningful in the more acute sense, there are some comments that imply it might be. Marianne Williamson (2004, 17; cf. 215f, 217) appears to suggest as much: “Everyone we meet, every situation we find ourselves

² Chopra (2003, 263) uses ‘coincidence’ and ‘synchronicity’ synonymously. Cf. Myss (2002, 199): “while the universe remains an impersonal, mechanistic, and mathematical operating system, each of us is somehow intimately guided.”

in, represents a lesson that would teach us how to take our next step forward in the actualization of our selfhood. Everything that happens is part of a mysterious educational process in which we're subconsciously drawn to the people and situations that constitute our next assignment". Also consider Eckhart Tolle's (2005, 41)³ remark that "life will give you whatever experience is most helpful for the evolution of your consciousness. How do you know this is the experience you need? Because this is the experience you are having at this moment". Caroline Myss, too, seems to espouse this wider view. She emphasises that "there are no coincidences or accidents" (Myss 2004, 58)⁴ and her notion of the 'Sacred Contract' (Myss 2002) is built on the assumption that everything that happens is relevant to the learning experiences we are meant to complete as part of our set 'mission' in life. Significantly, there is no separate index entry for 'synchronicity' in her *Sacred Contracts*. That said, the broader view that all events are meaningful seems to be covered by a different concept of Myss'—that of 'symbolic sight' (Myss 2002, 4f; Myss 2004, 49f)—and she does point out the existence of especially significant "choice point[s]" or "contract moment[s]" (Myss 2002, 17f), singling out "coincidences and signposts" (Myss 2004, 50) as a special class of events. A similarly ambiguous situation is encountered in many New Age texts: the differences between synchronistic and ordinary events are less than rigorously demarcated.⁵

To emphasise how character is developed and put to the test through the myriad of small interactions and events that make up the fabric of everyday life would perhaps be the psychologically more exciting and fruitful approach, yet it is not what the concept of synchronicity is meant to denote. Nothing is meaningless, but some events are decidedly more meaningful than others. In Chopra's account (2003, 119), the challenge of spotting synchronicities adds an extra amount of fun and excitement to life: "To talk about coincidences as coded

³ Tolle does not, however, use the term 'synchronicity' here.

⁴ Cf. MacLaine (1983), 134, 147, 201.

⁵ For example, consider the following passage from Deepak Chopra's *SynchroDestiny* (2003, 124) "When you begin seeing coincidences as life opportunities, every coincidence becomes meaningful. Every coincidence becomes an opportunity for creativity. Every coincidence becomes an opportunity for you to become the person the universe intended you to be." The attentive reader will note that every *coincidence*, not every *event*, is meaningful. 'Whoppers' and 'double-whoppers' might be easy to spot, but specifically where is the line that separates ordinary events from 'tiny' coincidences?

messages... makes life sound like a mystery novel. Pay attention, watch for clues, decipher their meaning, and eventually the truth will be revealed. In many ways, that's exactly what happens. After all, life is the ultimate mystery." If it was not for this comment of Chopra's, the fact that this is the very attitude that comes over in James Redfield's novels might have been taken for poetic licence. The plot of *The Secret of Shambhala* (Redfield, 1999) in particular is structured around the occurrence of synchronicities which provide clues to the protagonist and his friends as they go about solving their mystery. As synchronicities exist independently of anyone perceiving them, they can be missed, and this is the one big fear which the protagonist has. Alas, he is not always able to catch all of the synchronicities provided for his benefit (Redfield 1999, e.g. 15 *et passim*). His mentor informs him that the consequences of missing a synchronicity can be grave: "Everything bad", from personal misfortune to torture, "occurs because we missed some synchronistic opportunity to avoid it" (Redfield 1999, 115).⁶ However, there is also a clear positive incentive for trying to spot synchronicities. According to Caroline Myss (2004, 204), synchronistic events may be "emergency interventions" helping us out of a tight spot or at times of crisis, but "they are also a creative force, opening new worlds and opportunities". Marianne Williamson (2004, 17) speaks of "arising to heightened dimensions of talent and intelligence. We will meet each other in magical ways. We will right the wrongs that had seemed unrightable". And Deepak Chopra (2003) with typical confidence raises the prospect that by working consciously with synchronicities we could "redirect and improve our lives materially, emotionally, physically, and spiritually" (18), "create specific outcomes in our lives" (28), and indeed "achieve the spontaneous fulfillment of our every desire" (21)⁷—even though "the ultimate goal of synchrodestiny is to expand your consciousness and open a doorway to enlightenment... Each stage brings new wonders, new ways of perceiving and living in the world" (260).

⁶ Redfield (1999), 115. Note, though, that on querying, "Doesn't that assign blame, say, to someone who has a terminal disease, thinking that it's his own fault he's sick because he missed the opportunity to find healing?" his mentor assures him: "There is no blame" (115).

⁷ Chopra (2003), 18, 28, 21; cf. also 131, 260, 263, but note the important qualifications on 112, 117f: the more a wish springs from a desire for mere self-gratification, the less the potential for synchronistic fulfilment.

A common concern for New Age authors is that most people are not exploiting the full potential of synchronicities. A variety of potential pitfalls and problems surround synchronicity. Obviously, the most basic one is simply our lamentable tendency to dismiss them as mere coincidences, as “a random occurrence in a chaotic world” (Chopra 2003, 19). Simply making oneself aware of their existence can do much to address this point, but spotting and interpreting them correctly is said to be made difficult by the fact that we are often attached to particular outcomes. However, “what we get in life is always slightly different from what we want” (Redfield 1999, 114); in other words, the challenge is to open ourselves up to the will of synchronistic intelligence and not allow our passions and desires to override it. A further problem is encountered, according to Caroline Myss (2004, 205), in people who complain “that the help they received was ‘just not enough’”. Such a claim springs from a misconception about the nature of synchronicity, Myss explains (205), for passivity is definitely not condoned: “The gods will meet us halfway, but they will also leave room for us to pull our end of things—to exercise our faith, will, and intention”. Indeed, in this sense, crises, stress and discomfort can be opportunities, propelling us into “mustering up the willpower finally to try something new with our lives” (205). Lastly, thinking about the past a lot can have a negative impact:

The coordination of a synchronistic event requires an enormous amount of energy. You increase the frequency of synchronistic experiences in your life if you make it a practice to live in present time. As a medical intuitive, I have learned that people who are stuck in the past are hampered in their ability to live and to make decisions. They can't retrieve their energy from their history, and their lack of energy keeps their minds, bodies, and spirits from working together; it also makes them slower to heal. To have your spirit spread out across forty years of history, still ‘processing’ experiences that are decades old, drains your life force. I call this ‘psychic weight,’ and the more psychic weight you have in your mind and heart, the longer you have to ‘wait’ for things to happen in your life, including spontaneous forms of assistance coming to you when you need it. . . . When your past is more alive and real to you than the present, synchronistic events are less likely to come together, if for no other reason than you lack the power to recognize them or to take advantage of their appearance. (Myss 2004, 203f)

This extract raises an important question concerning, as Myss puts it, the possibility of ‘increasing the frequency of synchronicity’. Myss’ last sentence is less than clear and leaves open two possibilities: either

synchronicities *subjectively seem to become more frequent* when a person becomes more adept at spotting and taking advantage of them, or *more synchronicities actually form*. The same tension characterises many New Age texts about synchronicity⁸ but is rarely discussed in more detail, perhaps because the effect is the same in either case in that greater benefit accrues for the person concerned. However, it is worth further investigation because the issue has important ontological implications: how far is it possible to ‘re-write’ the ‘text’ of one’s destiny?

Virtually all New Age authors are agreed that, as mentioned above, those who do not know about synchronicities or do not believe in them are liable, not only to fail to enjoy their full benefit, but also not to notice them when they occur. Hence, there is no doubt that a great deal depends on the individual’s ability to identify them and interpret them correctly, and a great amount of guidance is offered to readers to help them refine the requisite skills. Chopra (2003, 27), for example, recommends a three-step programme: firstly, studying the phenomenon in theory by looking at the synchronistic organisation of all life; secondly, tracing the ‘thread of continuity’ by retrospectively analysing one’s own life; thirdly, catching the synchronicities at the moment they occur.⁹

Typically, however, New Age authors at least hint strongly that more than this is possible, even though more rigorous conceptualisation is rarely attempted. One version works with the idea of answered prayer, suggesting that help will come to those who need, and are open to, it. Caroline Myss (2004, 206f), for example, makes much of the way synchronicities can arise in response to a crisis situation, advising readers to “let your prayer go [and] allow the laws of attraction and cause-and-effect to pull together a synchronistic response”. Marianne Williamson (2004, 208) gives a different rationale: “If we’re vibrating at a low energy, we’ll attract low-energy situations (how many times have we stubbed a toe or banged a finger when we get angry?); if we’re vibrating at a high energy, we’ll attract miracles. People will call out of nowhere; situations will just seem to improve; abundance of all kinds will just appear”. In fact, although it chimes with general New Age

⁸ See e.g. Williamson (2004) 18f.

⁹ Chopra (2003), 27. See also the advice given by Redfield, *Celestine Vision*, ch. 8. Redfield basically presents intuition as the ability to perceive synchronicities. This is a view which is encountered frequently in the sources.

discourse, this comment is rather poorly connected to the remainder of Williamson's thought in *Gift of Change*, where 'guidance' and 'help' are usually understood against a theistic backdrop as coming from God,¹⁰ sometimes (2004, 18f) even described as the 'gifts of the Spirit' geared specifically to a person's situation. Yet remarks like these do convey the impression that more synchronicities occur for those who develop the right skills and attitudes as they journey along their path.

However, it is one thing to say that more synchronicities will be encountered if we make wise use of the opportunities we get for developing skills, and quite another to suggest that humans can somehow attain control of the process and actually create the synchronicities they want, or even change their destiny. This is the stark polarisation that emerges from Deepak Chopra's *SynchroDestiny*. Chopra is unequivocal that spiritual development means that the number of synchronicities actually increases, and this starts a sort of virtuous cycle: "putting your attention on coincidences attracts more coincidences... More coincidences provide more clues to guide our behavior. We start to enjoy more opportunities. We have more 'good luck'" (2003, 138, 142). But what is more, Chopra (2003, 28) claims that synchronicities can in fact be deliberately brought about to "create specific outcomes in our lives": "by understanding the forces that shape coincidences, you can come to influence those forces and create your own set of meaningful coincidences, take advantage of the opportunities they present, and experience life as a constantly unfolding miracle that inspires awe in every moment" (2003, 20). Chopra's *SynchroDestiny* is a rare example of a fully developed account of the mechanics of synchronicity, rooted in a specific theory of the constitution of reality, and legitimised through an appeal to cutting-edge science. The remainder of this article focuses on examining how his theories are legitimised and what their ontological implications are.¹¹

According to Chopra, science suggests that reality is three-tiered. The first level is the physical domain. This is "the visible universe... what we call the real world. It contains matter and objects with firm boundaries, everything that is three dimensional" (35). The second level is

¹⁰ See e.g. the episode in Williamson (1999), 71f, where Williamson receives the proofs of a friend's book on dealing with feelings of failure at a moment when she is feeling depressed, and draws great strength from the text.

¹¹ Unless referenced otherwise, the following account is based on Chopra (2003), 33–58, 75–117.

the Quantum domain, which comprises “your mind, your thoughts, your ego, the part of you that you typically think of as your ‘self’” (36). Even though we know these things to be real, they are invisible—the Quantum domain is a ‘soup’ of pure energy and information. The third level of reality is the nonlocal domain: “This is where information and energy emerge from a sea of possibilities.... The intelligence of the spiritual domain is what organizes ‘energy soup’ into knowable entities. It is what binds quantum particles into atoms, atoms into molecules, molecules into structures. It is the organizing force behind all things” (43f). The direction of Chopra’s argument is clear: it is by tapping into the processes of the nonlocal domain, which create physical actuality out of the potentiality of the energy and information of the Quantum domain, that events in the world can be influenced and synchronicities created.

Chopra sees synchronicity as inherent in the operation of the nonlocal domain, describing how the functioning of the human body, of natural ecosystems, and indeed of the universe itself involves a myriad of interlinking, mutually dependent and mutually supporting processes. Even apparently simple activities like baking a cake are bound up within wider contexts:

Let’s say I’m going to a party, and I plan to bake lots of pastries and lots of cakes. In preparation I have bought sugar, flour, and all the other items that I need.... If we step back and take a wider look at this scenario, we see a conspiracy of related events. They all co-arose and co-created each other. In order for this drama to occur, wheat and sugarcane must be grown. That involves farms, farmers, rainfall, sunshine, tractors, consumers, retailers, wholesalers, truckers, railroads, financial trading markets, grocery stores and their employees, investors,... The number of individual minds is enormous. (108f)

Chopra asks, who is influencing what? Underlying the appearance of many individual intentions, he explains, is an overarching unifying intention: “the ‘I’ that orchestrates all these events is the nonlocal, universal ‘I’. This organizing force is coordinating and synchronizing an infinite number of events simultaneously” (109). Thus the nonlocal domain is described in three ways: as an ‘infinite field of pure potentiality’, as a ‘sea of interrelatedness’, and as the ‘intent’ (or ‘intention’) that creates and sustains everything. It is “the source of the coincidences that are so important to synchrodestiny” (46).¹²

¹² Chopra (2003), 46.

So why should it be possible for individual human beings—‘local minds’ or ‘local intentions’, in Chopra’s terminology—to shape this whole process? Unfortunately, the point is not fully clarified. Undoubtedly, the intentions of local minds cannot be divorced from universal intention: “Everything that happens in the universe starts with intention... This intention always arises in the nonlocal or universal mind, but it localizes through the individual mind. And having localized, it becomes physical reality. In fact, physical reality would not exist were it not for intent” (94). However, local minds are not, it seems, merely subservient to universal intention. Chopra insists that local minds do possess some agency: “Human beings have the ability, through the local mind, the local ‘I’, to make choices through intention. And the nonlocal mind, the nonlocal ‘I’, takes care of the details synchronistically to fulfill the intention. That is how dreams become reality” (105).¹³ This is where the ambiguities discussed earlier arise again. Given Chopra’s emphasis that even mundane activities such as baking a cake are part of a large-scale orchestration coordinated by nonlocal intention, and his earlier point that the whole of the universe displays evidence of synchronistic design, one would expect that *every* human decision is handled by nonlocal intention. But on the other hand, talk of ‘dreams becoming reality’ seems to suggest that it is in particular extraordinary coincidences—‘double-whoppers’ such as the marriage proposal cited above—that are due to the activity of nonlocal intention. So why is it that not all dreams come true? Not everyone might yet have mastered the skill of ‘thinking big’ to create coincidences, but surely, we all have dreams, and ones that we dream repeatedly.¹⁴ In any case, Chopra’s bottom line is indeed that we must move from being passively governed by the intention of the nonlocal domain to understanding it (by understanding the meaning of synchronistic events) and actively shaping it:

We live like actors in a play who are given only one line at a time, going through the motions without understanding the full story. But when you

¹³ Chopra (2003), 105.

¹⁴ Cf. Chopra (2003), 98: “with repeated intention the pattern in the nonlocal mind is more likely to collapse in the direction of your intention and therefore will manifest as physical reality. This creates the illusion of what is easy and what is difficult, what is possible and what is impossible. That’s why, if you really want to break out of the mundane, you must learn to think and dream the impossible. Only with repeated thoughts can the impossible be made possible through the intention of the nonlocal mind.”

get in touch with your soul, you see the whole script for the drama. You understand. You still participate in the story [being orchestrated by non-local intention], but now you participate joyously, consciously, and fully. You can make choices based on knowledge and born out of freedom. Each moment takes on a deeper quality that comes from appreciation of what it means in the context of your life. What is even more thrilling is that we, ourselves, are capable of rewriting the play or changing our roles by applying intention, grasping the opportunities that arise from coincidence, and being true to the calling of our souls. (90)¹⁵

Again, though, the details are less than straightforward. Never one to deal in anything other than superlatives, on the one hand Chopra holds up the prospect of creating specific outcomes and of the “spontaneous fulfillment of our every desire” (21, 28). On the other hand, the process is characterised as “allowing the will of God to be created through you” (113), and a string of qualifications is added: the precondition is that our intentions are in harmony with universal intention—for “intent cannot be pushed or forced or bullied” (113; cf. 209f). Personal wishes that serve only individual gratification are “out of sync” with nonlocal intention, but wanting to win the lottery “so I can get myself a new BMW” is not a merely self-serving wish as a contribution is made to the livelihoods of those involved in making and selling the car (112). Thus, Mother Teresa’s desire to raise money, because it sprang from a wish to “bring fulfillment to others, to give and receive at a deeper level—to serve the great chain of being”, is described as “more effective” (112). And while the messages conveyed by coincidences are said to be “clues from God or spirit or nonlocal reality” (118), sometimes they are claimed to urge us to break free of familiar ways of thinking and think the impossible (97, 118); and at other times the impression is given that they reveal “the will of the universe” (120f), and that departure from one’s set destiny would be a grave failing (119f, 148).¹⁶ Ultimately, though, it seems that these two options might not be as different as it seems, as one’s destiny is said to be “miraculous” in any case (164).

Thus, synchronicity amounts to a quasi-scientific concept for at least two reasons. On the one hand, teachings about synchronicity are put

¹⁵ Chopra (2003), 90; cf. 114.

¹⁶ Chopra (2003), e.g. 119f, 148, ch. 6. 151: we must take care not to be “lured away from our soul’s destiny...start to desire things that may not be meant for us [and] begin to have intentions that do not match up with the intentions of the universe.”

forward on the basis of a claimed knowledge of the constitution of reality. On the other hand, as illustrated by Deepak Chopra's (2003) account, a claim to be drawing on the findings of science can provide an explicit legitimising strategy. Synchronicity constitutes an interesting case study of an epistemological and ontological balancing act. It is presented as an absolutely and universally valid principle by which everyone is affected, but the information it provides is strictly personal in application. As a method for gaining knowledge it can be used democratically by anyone, and everyone wanting to use it must do so for him- or herself. Sometimes authors talk of a feeling of being guided or describe how retrospective reflection indicates a 'thread of continuity' running through their lives; at other times the image invoked is that of following cues and uncovering the trail that leads towards one's destiny. But in any case it is clear that individuals are seen as bound up in, and bound by, greater frameworks of meaning. Although everyone is responsible for their own spiritual growth by using opportunities wisely, these frameworks are themselves not subject to negotiation. This is true for Chopra's account as well, despite his assertions that synchronicities can be deliberately created to achieve specific objectives. Of course, this is not to doubt his conviction that life is extraordinary, miraculous and sprinkled with 'double-whoppers' when the individual will is aligned with the universal will; the hermeneutic employed in this article does not allow assessment of this claim. As has been illustrated, however, it is hard to avoid the impression that ultimately, his buoyant rhetoric clashes with the numerous and significant qualifications he adds, and that his claim that the scientific findings he adduces provide compelling evidence for accepting his teachings is not fully substantiated. More to the point, thought, Chopra's explicitly claims to offer a fully reasoned-through exposition and objectively valid explanation of how the world works—a scientific account of the nature of reality in method, presentation and remit.

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SCIENCE AS LEGITIMATION FOR SPIRITUALITY:
FROM *THE AQUARIAN CONSPIRACY* TO CHANNELLING
AND *A COURSE IN MIRACLES*

RUTH BRADBY

Introduction: The New Age Critique of Science

Followers of New Age spiritualities¹ are famously critical of Enlightenment rationalism. If they were to adopt a Satan figure, it might well be Descartes. He is thought of as the founder of modern rationalism, the person who gave science a privileged position in Western society thus marginalising aesthetics, philosophy, religion and spirituality. Science, a form of institutionalised rationalism, appeared to admit to no truth except that obtained by the scientific method. Science gave rise to technology, together with a mechanised view of humanity and the cosmos which, according to the New Age narrative, enslaved humankind for centuries, by setting it against itself and against nature.

In his influential *The Tao of Physics*, Fritjof Capra, a physicist turned New Age writer, argued that intuition, experience, even altered states of consciousness are valid, perhaps superior, ways of obtaining knowledge about reality: “Absolute knowledge is an entirely non-intellectual experience of reality, an experience arising in a non-ordinary state of consciousness which may be called a ‘meditative’ or mystical state” ([1976] 1992: 37). In a later book, *The Turning Point* (1983: 37–62),

¹ Use of the term ‘New Age’ for the spiritualities which emerged in the 1980s has become problematic and unfashionable although it continues to have currency in academic writing. Many followers of the new spiritualities (including the publishers of *A Course in Miracles*) object to the term because they associate the ‘New Age’ with superficiality, celebrity glamour and commerce-driven motives which seem alien to the idea of sincere spirituality. For a discussion of the problems involved in using the label ‘New Age’, see James Lewis, ‘Approaches to the Study of the New Age Movement’, in James Lewis and J. Gordon Melton, eds., *Perspectives on the New Age* (Albany: SUNY Press, 1992). More recently, Christopher Partridge uses the term ‘occulture’ in his *The Re-Enchantment of the West*, I, 2005, (London: T. and T. Clark). However, the expression, ‘New Age’, continues to be useful to describe the holistic spiritualities which emerged in the 1980s, because the term was common currency at that time, and continues to differentiate these spiritualities from other popular spiritualities also emerging at the time: paganism, heathenism and Satanism, for example.

Capra criticised Descartes on three counts. First, Descartes believed that only scientific knowledge was certain knowledge. Second, he pioneered an analytical method of reasoning—reductionism—in which complex problems and processes can be understood by breaking them up into component parts. Third, his famous statement—“I think therefore I am”—is thought to reveal a distinction between mind and matter. Mind was associated with the subject and thinking; matter, the object, became a machine. New Age spirituality admits no difference between subject and object. Furthermore, Capra criticised the scientific method itself, linking his criticism with three figures: Galileo for restricting scientific inquiry to material bodies which could be quantified in the language of mathematics, Bacon for introducing inductive reasoning, and Newton for combining the inductive approach of Bacon with Descartes’s deductive method to produce the scientific methodology which came to view the cosmos as a determinate machine.

If science and the network of new spiritualities are anathema to one another, science and traditional religions have also been seen in the popular mind as incompatible with one another. Science for its part has prided itself on its independence from religious dogma. It sees itself as dispassionate, detached, untainted by prejudice, investigating facts about the physical world without any preconceptions. But whereas Christian apologists have developed strategies to accommodate the naturalistic, non-supernatural outlook of modern scientific enquiry, many New Age devotees have seen this stance as a compromise between the old power elite of religion and the new one of science.

Olav Hammer lists four strategies adopted by religions to respond to the increasing dominance of a scientific worldview: 1) God of the gaps in which religion’s domain lies in areas unexplained by science; 2) a conflict stance in which science and reason are subservient to religious revelation; 3) the two worlds argument in which religion is so wholly other that it is immune from attacks from science; and 4) the scientist stance in which science “proves the validity of a religious point of view” (Hammer, 2004: 202–203). This chapter, which deals largely with the fourth strategy, will look at three influential figures of the 1980s New Age network of spiritualities: William Bloom, Fritjof Capra and Marilyn Ferguson. Secondly, the chapter will examine the practice of channelling because it has been influential in the development of central New Age ideas and because it appears to contradict the New Age emphasis on an epistemology of individual experience

with its link to scientific empiricism. Finally, the chapter will look at the legitimisation strategies employed by apologists for the spirituality of *A Course in Miracles*. I have chosen the spirituality of the *Course* (as it is popularly known) because it continues to be influential within the family of New Age spiritualities and because, as a radically world-denying spirituality, it presents a challenge to those looking to science for legitimisation.

Bloom: Quantifying the New Age

Writing at the end of the 1980s, New Age activist William Bloom, perhaps countering the assumption that New Age ideas were a hopelessly diverse, unconnected hotchpotch of ideas, cited six themes common to most forms of New Age spiritualities. Not wanting to box these spiritualities into a new form of dogma, he referred to the six themes as “open-ended scaffolding on to which we can hang our experiences, wisdom and intuition” (1990: 12). Since Bloom writes from an emic perspective, and since he circulated his ideas to other New Age devotees for criticism, approval and suggestions, his “scaffolding” is especially significant for the researcher. It represents a conscious attempt from within a movement which claimed to have no boundaries to define its boundaries using quasi-scientific words such as ‘energy’, ‘multi-dimensional’ and ‘consciousness’. Bloom argued that New Age devotees are united in six beliefs, namely that 1) all life is the manifestation of spirit; 2) all life is interconnected energy; 3) each person has two levels of consciousness—a temporary outer personality and a multi-dimensional eternal inner being (the Higher Self); 4) all souls in incarnation are free to choose their own spiritual path; 5) individuals may seek supernatural guidance from spiritual teachers (angels, guardian spirits, extraterrestrials, spirits of the dead, non-physical beings—all beings who have been released from the cycle of reincarnation) through channelling (1990: 13); 6) there are a greater number of these “enlightened teachers at the present time”, which will raise consciousness to the extent that there will be a shift as great as that of the Renaissance ushering in a New Age of peace and harmony.

There are two significant features of Bloom’s definition: it assumed a belief in reincarnation and, in spite of recognising no authority beyond the Self, it recognised teaching authorities with special knowledge of

spiritual truth helpful to seekers outside the Self. This reliance on teaching from 'outside' (even when that 'outside' is one's Higher Self) constituted a form of authority both in a specific way for the individual devotee but also for humankind. Receiving spiritual wisdom from an authority higher than the individual's consciousness came through the process of channelling.

If Bloom's "scaffolding" revealed a surprising unity and structure within the New Age of the time, it also assumed a unity in what the New Age followers condemn. Bloom saw the New Age replacing and therefore repudiating: 1) the closed rational mechanistic view of the universe based on Newtonian science and the positivist edifice built on this foundation; 2) the Enlightenment belief in the omnipotence of human reason, built on the foundation of the temporary outer human personality; 3) the hierarchical structures and dogmas of traditional religions which are seen to be compromised by, if not constructed and nurtured by, the first and second points above.

For the individual New Age devotee, following the path of a New Age spirituality meant transformation and evolution of the ego-centred personality with its emphasis on individual gain, to a holistic outlook based on the belief in the interconnectedness of all life. This mysticism of interconnectedness was the foundation for the vision of a New Age of all-encompassing unity and love. If the mysticism of interconnectedness was the foundation of the spiritual vision, it also became the means of validating that vision by references to Capra's (amongst others') use of holography and the new physics and systems theory whereby a system of universal interconnectedness encompassed the mind as well as other phenomena including matter and social systems (see Hanegraaff, 1996: 128–139).

Bloom's definition revealed a core of non-negotiable beliefs which positively united New Age followers as well as at least three outlooks toward which they were united in opposition. It was significant that Bloom believed that the increase in the number of authoritative, enlightened teachers imparting spiritual wisdom by channelling would usher in the "paradigm shift" described in Marilyn Ferguson's New Age manifesto, *The Aquarian Conspiracy*, bringing in new scientific, political, religious and philosophical systems (1982: 26–31). Like Ferguson in the 1970s and 1980s, Bloom in the early 1990s had a millennial vision of the cosmos evolving towards a New Age.

The Aquarian Conspiracy *and the Appeal to Science*

Therefore I was surprised on two counts recently in rereading Marilyn Ferguson's foundational (albeit very American) text, *The Aquarian Conspiracy*; first, the book does not mention channelling, even as a spiritual activity, and second, her central appeal for legitimation for the coming paradigm shift is to science. Mystical experience is described as

the mirror image of science—a direct perception of nature's unity, the inside of mysteries that science tries valiantly to know from the outside. This way of understanding predates science by thousands of years. Long before humankind had tools like quantum logic to describe events that ordinary reason could not grasp, individuals moved into the realm of paradox through a shift in consciousness. And there they know that what cannot be *is*. Millions living today have experienced transcendent aspects of reality and have incorporated this knowledge into their lives. A mystical experience, however brief, is validating for those attracted to the spiritual search. The mind now knows what the heart had only hoped for (1982: 398).

Mystical experience, or altered states of consciousness (ASC), derived from drugs is also described in quasi-scientific terms. She refers to Aldous Huxley's experience of not understanding the phrase 'God is love' until he was under the influence of mescaline (1982: 412), but mystical experience derived in this way is seen to take place as a controlled experiment:

Psychiatrist Stanislav Grof, who has guided over three thousand LSD sessions and has had access to eighteen hundred records of sessions conducted by his colleagues, sees psychedelics as catalysts or *amplifiers* of mental processes.... Psychedelics seem to facilitate access to the holographic domain described by Pribram and David Bohm, Grof said. The individual may experience himself as a field of consciousness rather than as an isolated entity. Past, present, and future are juxtaposed. Space itself seems multidimensional, limitless. Matter is no longer perceived as tangible but disintegrates into patterns of energy. Subjects report direct experience of microcosm and macrocosm, vibrating molecules and spinning galaxies, archetypes and deities, the reliving of early experiences, even what seems to be their own birth or uterine existence. In the experiences of consciousness of the Universal Mind and the Void, LSD subjects find the very categories of time, space, matter, and physical laws of any kind to be arbitrary and ultimately meaningless categories. The Cartesian-Newtonian worldview becomes philosophically untenable.... The universe is now seen as a divine play and an infinite web of adventures in consciousness. If it can be demonstrated that subjects in unusual states

of consciousness have access to accurate information about the universe, if they experience it as portrayed by quantum-relativistic physics... these states might be seen as a valid source of information about the nature of the universe and the dimension of the human mind (Ferguson, 1982: 412–413).

I have quoted Ferguson at length to give the flavour of her enthusiastic, quasi-scientific prose. It makes its central appeal and argument through scientific language. Ferguson is introduced at the front of the book as “the publisher of *Brain/Mind Bulletin*, the most widely read newsletter in the areas of humanistic medicine, memory learning, creativity, brain research, biofeedback, pain and the physics of consciousness”. Use of words such as ‘medicine’, ‘brain research’, ‘biofeedback’, and ‘physics’ give the impression of a book anchored in the discourse of science.² The book does not have footnotes in the conventional sense but figures such as Jonas Salk, Carl Jung, Karl Pribram and Michael Polanyi are quoted alongside novelist Saul Bellow, orchestra conductor Leopold Stokowski, historian James MacGregor Burns and the 17th century Christian mystic Francois Fenelon to show how experts from all disciplines are coming together to a similar understanding of reality under the emerging New Age umbrella: “Discoveries from many realms of science—brain research, physics, molecular biology, research on learning and consciousness, anthropology, psychophysiology—have come together in revolutionary ways. If we read the handwriting on the wall of science, we see the critical need to change—to live with nature, not against it” (Ferguson, 1982: 157).

If Bloom conferred a certain credibility on words and phrases such as ‘spirits of the dead’, ‘angels’, ‘guardian spirits’, ‘extraterrestrials’, ‘reincarnation’ by using them alongside more scientific-sounding words such as ‘energy’, ‘consciousness’ and ‘multi-dimensional’, Ferguson employed a similar strategy by using quotations from scientists along with observations from influential people from many disciplines. What Capra referred to as ‘absolute knowledge’, she taught, must be arrived at through personal experience, albeit personal or mystical experience conducted as a controlled experiment. For both, experience is the litmus test for spiritual truth. As Ferguson explained, “Non-linear understanding is more like ‘tuning in’ than travelling from point to point.

² See Hammer, (2001: 236–241) for a discussion of how New Age writers use the word ‘science’ and appropriate words with scientific associations to give scientific legitimacy to views of spirituality.

The scientific discoveries discussed here take us into a country whose cartography is felt rather than traced" (1982: 162).

Channelling: An Appeal to the Supernatural?

In contrast to Capra's and Ferguson's appeal to science and experience, Bloom's definition of New Age spiritualities gave pride of place to channelling. He saw channelling and the greater number of ascended masters as being significant for ushering in the New Age of peace and love. The practice of channelling, whereby searchers for truth may obtain help from disembodied beings who send messages through channellers, is different from experience as the sole criterion for truth. Hannegraaff has written that whereas individual experience is a powerful source of truth in the New Age, "many of the fundamental New Age beliefs have first been formulated in channelled messages. It is therefore fair to say that in spite of the tendency among New Age believers to emphasise personal experience as the exclusive basis of religious truth, New Age religion must to a large extent be considered a religion of revelation, *Offenbarungsreligion*" (1996: 27).

Is there an appeal to science for legitimation in the practice and literature of channelling? Of special interest in the context of this study are the various explanations given regarding the sources of channelled wisdom. Hannegraaff defines channelling as "the belief of individuals that they are able to act as a channel for information from sources other than their normal consciousness" (1996: 23). This source is believed to represent "a level of wisdom or insight superior to that of most humans" and communication with such sources is "sought for the purpose of learning and guidance" (1996: 24). The authority implicit in channelled messages makes a contrast with messages received through mediums in classical spiritualism, where the purpose is communication with a loved one who has died recently. Another scholar defines channelling as a "process through which information is accessed and expressed by someone who is convinced that the source is not his ordinary consciousness" (Riordan, 1992: 105).

A slightly different perspective comes from Jon Klimo's study of channelling. Writing from an emic perspective, Klimo defines channelling as "the communication of information to or through a physically embodied human being from a source that is said to exist on some other level or dimension of reality than the physical as we know

it, and is not from the normal mind (or self) of the channel" (1998: 2). Klimo stressed the importance of the phrase "is said to" in his definition and argued that one's own intuition and inspiration were potentials for channelling (1998: 4, 10). Given the New Age belief in the interconnectedness of all reality with the divine, one's intuition and inspiration and subconscious could also be viewed as divine wisdom coming from that which is greater than the individual self. But Klimo's writing also gives the impression of wanting to give this rather unscientific aspect of New Age spirituality a definition with which a scientist might be comfortable. Another area where those advocating the channelling experience appeal to science is through the techniques taught in order to induce a channelling experience. Channelling is often divided into two categories, the spontaneous and the intentional. In the former, the channeller is at the mercy of the revelation, while for the latter, there are techniques taught in spiritual self help books, CDs, seminars and workshops to teach the methodology of becoming a channel.

Intentional Channelling

These channelling manuals, published largely in the 1980s and 1990s, became a genre of spiritual self help and have a flavour of mixing the spiritual with what are set out as scientifically proved 'techniques' to achieve channelling success, as the following titles suggest: De Alberdi, 1998, *Channelling: What It Is and How to Do It*; Andrews, 1992, *How to Meet and Work with Spirit Guides*; Harmon and Rheingold, 1983, *Creativity: Liberating the Unconscious for Breakthrough Insights*; Neate, 1997, *Channelling for Everyone: A Safe, Step-by-Step Guide to Developing Your Intuition and Psychic Awareness*; Ridall, 1988, *Channelling: How to Reach Out to Your Spirit Guides*; Roman and Packer, 1987, *Opening to Channel: How to Connect with your Guide*.

Tony Neate's channelling manual, *Channelling for Everyone* (1997) begins with a forward by Andrew Powell, MRCP, FRPsych., identified as a psychiatrist and consultant psycho-therapist in the National Health Service of Great Britain. In the Foreword, Dr. Powell writes of meeting the author at a talk he was giving to an audience "of mental health professionals likely to be sceptical at best and adversely prejudiced at worst" about the practice of channelling. Power writes, "From a clinical standpoint, I found myself calling to mind patients whose problems did not fit well into the psychoanalytical framework which

had been my therapeutic background. There were patients who had heard voices, or experienced religious mystical revelations, but who did not show the gamut of symptoms which leads to the diagnosis of schizophrenia". Dr Powell commends the book to readers with these words, "A Substantial amount of down-to-earth psychology finds its way into the pages, interwoven with spiritual content. The exercises given, many of which draw on the creative power of visualisation, are effective and healing in nature." (Neate, 1997: viii, x) The book's introduction tells the reader that one will learn "now to take charge of our psychic energy and how to use it wisely, coming to understand the boundaries of the self and the need to return safely after making a journey outside three-dimensional reality" (1997: xiv).

Another channelling manual, Sanaya Roman and Duane Packer's *Opening to Channel* (1984) emphasises the technical nature of learning to channel: "Channelling is a skill that can be learned. Channelling involves achieving an expanded state of consciousness that allows you to connect with a high-level guide or your higher or source self" (Roman and Packer, 1987: 1). The manual begins with arguments for scientific legitimation: "Is channelling real? There are hundreds of stories about scientists trying to disprove paranormal phenomena and then becoming convinced that there was something more to it than meets the eye. Many became advocates of channelling or channels themselves" (1984: 2). The book then appeals to the test of personal experience: people have experienced personal growth, have been helped in relationships, and have embarked on careers more in alignment with their gifts.

During the course of ethnographic research with followers of the channelled text, *A Course in Miracles*, I have spoken to a number of *Course* students who felt intentional channelling had a therapeutic effect on them. A lawyer in the City of London used the techniques, spending fifteen minutes daily writing down the thoughts that came to her, and claimed this procedure had reduced her stress levels. A geologist with whom I spoke at a *Course* conference in 2007 spoke of the benefits of mixing intentional channelling with the techniques of Buddhist meditation. More recently, a hairdresser told me of using channelling techniques to "centre myself and achieve a balance which has had such a positive effect on my life that it even affects how I relate to my dog". These stories are corroborated by many of the self help texts on channelling. One author writes that "typically people who channel become more self-confident, happier, clearer about their path

and their choices, less selfish, less stressed over life's problems, calmer, more loving and psychologically much stronger" (De Alberdi, 1998:8). When Roman and Packer asked their spirit guides what channelling will do for a person, they received the reply, "You can gain a greater sense of what you want to create and find easier ways to bring it about. If you follow the advice of your guide...changes will occur in your emotional nature and you will less frequently have feelings of depression, anxiety or heaviness" (Roman and Packer, 1987: 16).

While the practice of channelling suggests a pre-modern dependence on supernatural powers and a looking for a connection which goes beyond rational knowledge, there is also the sense in which the dependence on 'proven' techniques suggests that the devotees see themselves as connecting with natural spiritual laws as "certain as the law of gravity", as one informant put it, and "which science is only beginning to understand". Whether the correspondence between the predicted results in channelling manuals and the anecdotal evidence testifying to help received is something more than a *placebo* effect or not, the practice of channelling continues today, perhaps to a lesser degree than in the 1980s and 1990s. The belief that the techniques involved are proved empirically shows a form of scientific legitimisation for what on the surface would appear to be a thoroughly unscientific activity.

Spontaneous Channelling

Beneficial as intentional channelling may be for individuals, Hanegraaff points out that messages which have come through intentional channelling have not commanded the authority which messages from spontaneous channelling have achieved for the wider New Age community. He argues that most if not all core beliefs central to New Age spiritualities have come, not from intentional channelling, but from spontaneous channelling (1996: 31). J. Gordon Melton agrees: "Channelling was the instrument through which the New Age vision was articulated and the supernatural entities who spoke were the authority, at least initially, for the New Age teaching" (1998: 138). Looking further back, scholars often cite Alice Bailey's theosophy movement of the early twentieth century as a source for the New Age ideas that flowered in the 1980s. The idea of a coming 'new age' was originally channelled by Alice Bailey (Melton, 1998: 138). The spontaneously channelled material

of the 1950s contained messages from extraterrestrial beings which spawned various manifestations of UFO religions (J. Lewis, 1995; Partridge, 2003; S. Lewis, 2003; Tumminia, 2005). This was a new area in which spirituality was mixed with the language of science. Hanegraaff views this spontaneous channelling in the 1950s as the precursor to the channelling of the 1970s and suggests that David Spangler, one of the “fathers of the New Age”, was involved with UFO groups in the 1950s. Spangler wrote an influential channelled text, *Revelation: The Birth of a New Age* (1977), which links these two periods of channelling (Hanegraaff, 1996: 95; Hammer, 2004, 415–419).

Whilst intentional channellers have control over the phenomenon, the spontaneous channeller is said to be taken by surprise by the ‘dictation’ coming from a source outside her consciousness. This was true of three of the most influential channelled texts of New Age spiritualities: *A Course in Miracles*, material from the entity ‘Ramtha’ channelled by J. Z. Knight, and Jane Roberts’ ‘Seth’ texts. All three (as well as a handful of others from the 1970s), influenced the development of the 1980s New Age network of spiritualities, but this chapter will look only at *A Course in Miracles*.

A Course in Miracles and the Appeal to Science

A Course in Miracles might appear to be the most unscientific text of the many to emerge from 1970s and 1980s New Age. Almost singularly, it is a world-denying text which teaches that the physical world accessible to our senses literally does not exist. As with 8th century Hindu Vedanta with its concept of *maya* (illusion), the *Course* teaches that this world is a dream, an unpleasant dream, of our own making through the false belief that we can be separate from God. Whereas other New Age spiritualities suggest that there is much more than the world of our five senses, that this world is at best the platform from which we can experience mind-expanding personal development and cosmic evolution, the *Course* is uncompromising in its teaching that this world does not exist and God knows nothing of it. We exist as mind which is one with God but not as bodies, and God knows nothing of this world which we have manufactured with our minds. Yet, the *Course* was given birth in a university science department at Columbia University in New York.

The Genesis of A Course in Miracles

The story of how *A Course in Miracles* was scribed illustrates how authoritative spiritual entities appear to invade ordinary lives in spontaneous channelling.

A Course in Miracles was scribed by Helen Schucman, a research psychologist and associate professor in the Department of Psychology at Columbia University. As a lapsed Jewish atheist, she viewed the hearing of 'voices' as pathological behaviour and found the experience of channelling a disturbing one. In her unpublished autobiography, she describes how she resisted the process and only allowed the material to be published anonymously, fearful that it would damage her professional reputation (Wapnick, 1999: 183–187).

After going through a disquieting period of receiving dream-like visions, in October 1965 Schucman heard an inner voice commanding her, "This is a course in miracles. Please take notes". As Schucman later wrote, "That was my introduction to the voice. It made no sound, but seemed to be giving me a kind of rapid, inner dictation which I took down in a shorthand notebook. The writing was never automatic. It could be interrupted at any time and later picked up again. It made me very uncomfortable, but it never seriously occurred to me to stop. It seemed to be a special assignment I had somehow, somewhere agreed to complete" (*A Course in Miracles*, 1996 [1976], viii). The text implies that the voice is that of the biblical Jesus.

Schucman's head of department at Columbia University, Professor William Thetford, was more open to paranormal phenomena than Schucman, and gladly undertook the task of typing Schucman's manuscript. Photocopies of the manuscript were shown to selected friends who embraced its teaching with enthusiasm. One friend, Kenneth Wapnick, also a psychologist, helped Schucman to edit the *Course* into its present form. In 1976, another friend, Judith Skutch, used her Foundation for Inner Peace to publish the first 1200 page edition of *A Course in Miracles*, consisting of three volumes: *Text*, *Workbook for Students* and a *Manual for Teachers*. Since then more than two million copies of the *Course* have been sold in English and it has been translated into the major languages of the world. Thousands of *Course* study groups have grown up around the globe as well as hundreds of websites and organisations formed to support students of the *Course* and to emphasise one or another aspect of *Course* teaching. There are now also hundreds of

books on various aspects of *Course* teaching as well as verse by verse commentaries on the *Text* of the *Course* (for example, Perry, 1993).

Hammer writes that there are “distinct signs that *A Course in Miracles* has entered the process that leads to the creation of a canonical scripture” (2001: 419) and Hanegraaff has referred to the *Course* as the closest thing the New Age network of spiritualities has to a widely revered sacred scripture (1996: 37–38). Many reading this chapter will not have heard of the *Course*, yet it is unlikely that anyone reading this has not, unknowingly, encountered the teaching and spirituality of the *Course* in one guise or another, most probably through spiritual self-help books inspired by the *Course*. M. Scott Peck’s (1978) *The Road Less Travelled* was the earliest of *Course* inspired spiritual self help books. The success of Peck’s book alerted publishers to the commercial potential of popular spiritual self help, and further books were commissioned, many of them based on the *Course*, and many of them world wide bestsellers.

Legitimation Strategies: Rationalism and Tradition Construction

Given that the *Course* teaches that the physical world does not exist, how can *Course* students appeal to science for legitimation? There are those in the *Course* community who join others in New Age spiritualities by appealing to the new physics:

Regardless of the difficulty of adjusting to the notion of an immaterial world, it’s a challenge that may soon have to be faced not just by students of *A Course in Miracles*, but by humanity at large. For it’s precisely this challenge that is being predicted by advances in the science of physics, which has traditionally sought for the building blocks of physical reality—a search recently producing assessments of reality that sound increasingly metaphysical” (Miller, 2008: 124).

The above strategy is featured in many New Age spiritualities: by imposing a mystical understanding on, for example holography or quantum physics, the claim is made that science proves spirituality. William Thetford himself defended his participation in the scribing of the *Course* by suggesting that the latest findings of physicists prove “the physical world does not exist as it had previously been understood” (*New Realities*, 1984, 7). However, for the most part, *Course* apologists do not appeal to science for legitimation in such an overt manner. Science is viewed as part of the illusory world and as such can prove nothing

about reality as the *Course* understands it. A more fruitful approach may be to examine the *Course's* own legitimization strategies.

It was James Lewis who pointed to the paucity of research into legitimization strategies within new spiritualities and suggested that Weber's three part taxonomy of charisma, tradition and rationalism might provide a useful structure or starting point for such research (Lewis, 2003: 11). In the context of this study, relating legitimization strategies to appeals to science, it is worth noting how arguments from tradition and from rationalism are employed by *Course* apologists.

The Appeal to Rationalism: Logic and Common Sense

Lewis defines rational appeals to legitimization as "a direct appeal to reason/rationality; an appeal to 'common sense' or ordinary experience" and an appeal to the authority of science (2003: 14). The internal logic of the thought system of *A Course in Miracles* is frequently noted by speakers in meetings and in books on the *Course*, both for its elegance and for its legitimating power. Here the *Course* contrasts with the lack of "literary merit, depth of ideas and logical coherence" evident in some self-help literature (Hammer, 2004: 416).

Course ontology posits two levels of reality. Level one is God (the real), and level two is the material world (the unreal). In a much-loved and often-quoted passage from the Introduction to the *Course*, this teaching about two levels of reality is laid out with simplicity (Anonymous, 1976: 1):

Nothing real can be threatened.
Nothing unreal exists.
Herein lies the peace of God.

All that is wrong in the individual and in the world can be traced back to the false belief that separation from the God (level one) is possible; the answer to the problem lies in a return to God/level one (which in reality one has never left as it is impossible to be separate from God). In *Course* cosmology, God is all-encompassing. Logically, what is "all-encompassing" (God/love) can leave room for no other presence: "The opposite of love is fear, but what is all-encompassing can have no opposite" (1976: 1). If separation from God is impossible, what has gone wrong? The mind chose to believe in the possibility of separation from God, thus creating the dream of this material world: "You have chosen to be in a state of opposition in which opposites are possible" (1976: 76).

The world we believe we inhabit, the world of form, time and space, is seen as a dream. "Look at the world, and you will see nothing attached to anything beyond itself" (1976: 542). Since any form of separateness is less than God's whole, the physical individual and nature are seen to be part of level two and unreal. On the other hand, the 'Mind' is the creation of God or, in *Course* vocabulary, "an extension" of God. The answer to the dilemma of living in level two is to realise that one has the power of choice to believe the truth about the reality of level one/God. Choice becomes the leitmotif throughout the *Text*: "You are free to believe what you *choose*, and what you do attests to what you believe" (1976: 7—emphasis in the original). The reader is encouraged to choose that which is portrayed as the only logical possibility, union with God. "My brother choose again.... Learn then the happy habit of response to all temptation to perceive yourself as weak and miserable with these words: I am as God created me (1976: 666–667). The *Text* links the power of 'choice' with strength. This theme of strength through choice has become an empowering theme in popular spiritual self-help books drawn from the *Course* where readers are encouraged to create their own reality.

Course spiritualities also appeal to rationality through what Lewis calls "common sense" and "ordinary experience" (2004: 14). This is particularly true of *Course*-inspired spiritual self-help texts. *Course* spirituality is authenticated by the narratives of experience which readers identify as being close to their own experience. Personal experience is given special significance as proof of one's epistemology. The harrowing stories in self help books are ones with which readers can identify; they offer spiritual hope for someone in a dire situation through the promise that one can change any external circumstance by changing the way one chooses to view it. Proofs are then offered through the medium of the authors' stories of lives turned around (Tolle, 1999), useful altruistic careers found (Jampolsky, 1980) and fortunes made (Williamson, 1996; Hay, 1984).

Another significant feature in *Course* meetings is the teaching that one does not have to believe the teaching of the *Course* to derive benefit from it. Here, *Course* legitimation comes from individual experience, which makes links with scientific empiricism. As one informant told me, "See for yourself if your life works when you practise the lessons in the *Workbook*, and see what happens when you don't". Rosemarie LoSasso, Director of Publications for Wapnick's Foundation for *A Course in Miracles*, appeals to the consistency and logic of the *Course* but

ultimately relies on an epistemology of individual experience: “In the *Course* we are asked only that we contrast what we experience when we forgive, with what we experience when we hold grievances; and if we like the consequences of forgiveness more than we like the consequences of judgment, we should probably continue to practise the lessons of the *Course* (Letter, 14 February, 2003).

Tradition Construction: The Story of the Course

The *Course's* thought system of monism appears to derive from the ancient Hindu tradition of Advaita Vedanta. Thetford, who assisted in scribing the *Course*, had studied the Vedantic philosophy of the eighth century Hindu sage, Sankara, and preferred to see the *Course* as a restatement of Advaita Vedanta spirituality which he believed to be the perennial philosophy behind all great religious traditions (Interview, Judith Skutch, 23 September 2005). Like the *Course* thought system, Sankara acknowledged only one reality, Brahman (God). To deal with the physical world where people live their lives, Sankara posited two levels of reality. First there is Brahman who is identical with the universal Self (atman) and thus never separate from it. Second, there is the lower level where individuals exist, a world of illusion (*maya*) but also a place of learning for those with lower levels of understanding.

But more compelling for *Course* students has been the development of the *Course's* own tradition. Weber saw the development of tradition as a consequence of the end of a phase of charismatic leadership; with the passing of charismatic leadership, “a link with tradition becomes...the most appropriate possibility as a means of connecting to the original charisma” (Runciman, 1978: 237). Weber's understanding of the construction of tradition relates to *Course* spirituality from its earliest days. The development and propagation of ‘the story of the *Course*’ became an important legitimating device for *Course* students and continues to serve this function (Interview, Ian Patrick, 25 August 2005).

The history of the writing of the *Course* is well known to all *Course* devotees. All *Course* literature tells the story and it is often recounted in *Course* meetings and conferences. Great importance is attached to it for at least two reasons. First, the manner in which the material was received and written down is believed to place the *Course* on a par with the revealed scriptures of the great world religions. Second, the story of how it came to be written is thought to provide a living example of

the spiritual principles of the *Course*. By retelling the story of Schucman and Thetford, typing this esoteric text in their department offices in Columbia University, *Course* followers are creating a tradition in the Weberian sense which serves to connect contemporary followers with the original tradition (Runciman, 1978: 237). The story is of two academics at war with one another in an angry department, searching for a “better way” to relate to one another and to others in the department. They appear to find it through “joining together” (a key *Course* phrase), to produce *A Course in Miracles*. Yet this narrative does not produce living proof of *Course* teaching in the straightforward manner one might expect. For Thetford and Schucman were never fully reconciled with one another (Interview, Judith Skutch, 23 September 2005) and Schucman spent her last years as an unkempt, self-absorbed and isolated recluse. She died an angry, possibly psychotic, woman who rejected the teaching of the *Course* (Miller, 2008: 50–53; Wapnick, 1999: 193).

Course hagiographies and speakers in *Course* meetings do not gloss over this aspect of the *Course* story. Most *Course* meetings I have attended feature the story of Schucman’s resistance to the teaching of the *Course* and its inability to help her. In constructing the story of the *Course*, a tradition was created which used the ineffectiveness of *Course* teaching for Schucman to prove the otherworldly provenance of the channelled material. Wapnick, the final editor of the *Course* and Schucman’s biographer uses the language of psychology to explain the dynamics. He sees Schucman’s inner dichotomy as further evidence of *Course* teaching illustrated by the *Course* story. Schucman’s resistance to the *Course* is an example of what psychologists call “the dynamic of dissociation” where one splits apart the two parts of the self that are in seeming conflict, thus allowing them to coexist in the mind. In *Course* teaching, the ego must disappear but the ego’s defence system “protects its thought based on fear by dissociating the love that threatens its existence” (1999: 187).

Conclusion: The Power of Mix and Match

People in the twenty-first century not infrequently feel a conflict between what they know by experience and what they are told has been proved by modern science. In this chapter I have tried to show how figures associated with New Age spiritualities have sought to find a resolution of

this conflict. Capra was a key figure in the development of this discourse. As a practising physicist, he spoke with authority. By attacking Galileo, Newton and Descartes, he was expressing his dissatisfaction with three of the pillars of the scientific tradition which had been carefully fostered through the Renaissance and the Enlightenment. This dissatisfaction led Capra to place greater reliance on intuition, experience and altered states of consciousness. This in turn gave legitimation to a consensus of opinion developing within the New Age movement that if we experience something that appears to contradict Enlightenment science, then our experience must be correct. The litmus test for truth became experience, what scholars came to refer to as an epistemology of individual experience (See Partridge, 1999: 77–95; Wallis, 1984: 100).

Following Capra's lead, Ferguson intentionally tried to blur the distinction between all disciplines, thus elevating the currency of experience. In his definition of New Age spiritualities, Bloom mixed words associated science such as 'consciousness' and 'energy' with non-scientific words such as 'disembodied spirit' and 'mysticism'. Bloom was influential because he provided a coherent framework within which followers of New Age spiritualities could develop their epistemology of individual experience without fear that they risked refutation by reference to the assured findings of Enlightenment science.

Finally, channelled texts such as *A Course in Miracles* took the argument a step further by declaring that certain truths had been channelled and were legitimated by virtue of the supernatural provenance of their sources. It then became the responsibility of science to accommodate itself to the truth as revealed through the channellers. In arriving at this point, the proponents of channelled truth were occupying a position not totally dissimilar from adherents of other belief systems which derive their authority from a text which they claim constitutes divine revelation, including Judaism, Christianity and Islam. However, anecdotal evidence suggests that followers of channelled texts rely ultimately on an epistemology of experience.

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MODERN WESTERN MAGIC AND ALTERED STATES OF CONSCIOUSNESS

NEVILL DRURY

Within their respective domains there is a widely accepted distinction between science and religion: the scientific method is based on rational enquiry and the exploration of testable hypotheses relating to the nature of physical reality, whereas religions in all their various forms reach beyond the physical realm by placing their faith in spiritual powers attributed in turn to transcendent deities or God. From a scientific perspective, religion can make no claim to rationality or empirical ‘proofs’.

Magic, like religion, would appear to be similarly problematical. For the empirical scientist, magic appears to be intrinsically irrational—a body of superstitious pre-scientific thought representing an outdated body of esoteric speculation and metaphysical belief, long since superseded. For some contemporary researchers, however, and I include myself in their ranks, this summation requires substantial revision. I will endeavour to explain why, later in this chapter.

The 19th century anthropologist Sir James Frazer first developed his influential concept of an evolutionary intellectual progression from magic to religion and thence to science by deriving data from pre-literate ‘primitive’ cultures.¹ There is a potential paradox here because the main focus in this chapter is on the phenomenon of *modern* Western magic—that is to say, magical beliefs and practices that have arisen within an urban Westernised context in more recent times. One of the key issues we will consider will be whether the magical revival that began in the West around a hundred years ago² is simply a return to earlier forms of superstition—a relapse, as it were, into some form

¹ Frazer’s hypothesis of an intellectual progression from magic to religion and thence to science was presented in his famous work, *The Golden Bough*, first published in a three-volume edition in London in 1890. An abridged edition of *The Golden Bough* was released in 1896.

² For a historic overview of this phenomenon, see N. Drury, ‘The Modern Magical Revival’ in J. R. Lewis and M. Pizza (ed.) *Handbook of Contemporary Paganism*, Brill, Leiden and Boston, 2009.

of irrational primitivism in Frazer's sense of the word—or whether it should be considered in another light. I will put the case here that the revival of modern Western magic is best understood not as a return to superstition but as a symbolic, ritualised response to the exploration of altered states of consciousness. A study of the origins of modern Western magic reveals that it is essentially *experiential* in nature: its collective quest has been not to formulate doctrines and cosmologies that are fundamentally at odds with science—as we find, for example, with Creationism and other forms of modern fundamentalist religion—but instead to explore the transformative potential of altered states of awareness.

Magic, Superstition, and the Paranormal

The idea that magic automatically equates with superstition has been perpetuated by a group of scientists and social theorists who are sceptical of events or phenomena purporting to be 'metaphysical' or 'paranormal'. According to American physicist Robert L. Park, author of the recently published *Superstition: Belief in the Age of Science* (2008) there is a clear divide between science and superstition and this can be explained through different notions of faith:

Scientists use the word 'faith' to express their confidence that the laws of nature will prevail, beginning with the law of cause and effect. The religious use of 'faith' implies belief in a higher power that makes things happen independent of a physical cause. This defines superstition. The two meanings of 'faith' are thus not only different, they are the exact opposite.³

Park's perspective is mirrored in the writings of the influential humanist philosopher Paul Kurtz, founding chairman of the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP)—an organization formed by scientists and scholars to examine paranormal phenomena. Kurtz maintains that magical thinking is a vestige of an earlier social period when, due to a lack of appropriate rational knowledge, irrational explanations about cause and effect were only to be expected:

³ R. L. Park, *Superstition: Belief in the Age of Science*, Princeton University Press, Princeton, New Jersey 2008: 5–6.

In being unable to find proximate natural or material causes for phenomena, the primitive mind invoked occult explanations. It was not unreasonable to do so, given the level of knowledge. Today it is no longer permissible to do so, though vestiges of occult thinking persist in religious and paranormal areas, so deeply are they embedded in our cultural habits.⁴

Kurtz argues that magical and occult thinking must be rejected within the modern scientific context:

The basic methodological principle of science is that we should seek natural causal explanations for phenomena. The occult or transcendental temptation is antiscientific... The dissatisfaction with ambiguity and the quest for order often tempts us to invoke unknown occult or magical causes.⁵

Kurtz was one of three writers who prepared a short, concise statement titled 'Objections to Astrology' published in *The Humanist* in September 1975. This document was in turn countersigned by 186 leading scientists, including several Nobel Prize winners—among them Linus C. Pauling, Sir Peter Medawar, Sir Francis Crick and Sir John Eccles. The statement linked astrology with the more general category of 'magic and superstition' and included the following observations:

In these uncertain times many long for the comfort of having guidance in making decisions. They would like to believe in a destiny predetermined by astral forces beyond their control... One would imagine, in this day of widespread enlightenment and education, that it would be unnecessary to debunk beliefs based on magic and superstition.⁶

Similar sentiments had been expressed four years earlier by the noted British historian Sir Keith Thomas who prefaced his well-known work, *Religion and the Decline of Magic* (1971) with these remarks:

...this book began in an attempt to make sense of some of the systems of belief which were current in sixteenth- and seventeenth-century England, but which no longer enjoy much recognition today. Astrology,

⁴ P. Kurtz, *The Transcendental Temptation: A Critique of Religion and the Paranormal*, Prometheus, Buffalo, New York 1986: 455.

⁵ Ibid.: 456.

⁶ B. J. Bok, L. E. Jerome and P. Kurtz, 'Objections to Astrology: a statement by 186 leading scientists,' reprinted in P. Grim (ed.) *Philosophy of Science and the Occult*, State University Press of New York, Albany, New York 1982: 14–18.

witchcraft, magical healing, divination, ancient prophecies, ghosts and fairies, are now all rightly disdained by intelligent persons.⁷

Canadian social psychologist James E. Alcock, author of *Parapsychology: Science or Magic?* (1981) has expressed views similar to those enunciated by Kurtz and Thomas. According to Alcock, 'parapsychology is indistinguishable from pseudo-science and its ideas are essentially those of magic.'⁸ Alcock maintains that the term 'paranormal' is used today to describe 'putative phenomena which cannot be explained in terms of presently accepted theories of nature because they violate one or more of the basic assumptions, or axioms, of the current scientific worldview.'⁹ For Park, Kurtz, Thomas and Alcock, magical and paranormal perspectives are, by definition, forms of pseudo-science or superstition.

Interestingly, Kurtz and Alcock have both acknowledged their indebtedness to Sir James Frazer's influential study of magic and religion, *The Golden Bough* (1890, abridged edition 1896). In particular, Alcock endorses Frazer's critique of mental telepathy as fundamentally 'magical':

...belief in the sympathetic influence exerted on each other by persons or things at a distance is the essence of magic. Whatever doubts science may entertain as to the possibility of action at a distance, magic has none: faith in telepathy is one of its first principles.¹⁰

Kurtz similarly shares Frazer's view that magical thinking is based on misinterpretations of natural causality, affirming that this type of thinking has its origins in earlier 'primitive' forms of human culture. According to Kurtz, elements of magical thinking have flowed on to modern times and now feed the current interest in parapsychology and astrology. 'Primeval magic and religion,' he writes, 'is the soil from which present paranormal beliefs spring'¹¹ In a primitive context, says Kurtz, when the causes of dramatic natural events are unclear 'supernatural' explanations may then be invoked to account for them, even though such magical explanations are clearly irrational from a scientific perspective:

⁷ K. Thomas, *Religion and the Decline of Magic*, Scribner, New York 1971: ix.

⁸ J. E. Alcock, *Parapsychology: Science or Magic?* Pergamon, Oxford, UK 1981:196.

⁹ Ibid.: 3.

¹⁰ J. G. Frazer *The Golden Bough*, (abridged edition) Macmillan, London 1922 [1896]: 1922: 25.

¹¹ P. Kurtz, *The Transcendental Temptation: A Critique of Religion and the Paranormal*, Prometheus, Buffalo, New York 1986: 450.

...it is difficult for humans to accept a totally chaotic universe. The mind seeks order and regularity, and so primitive man supposes that there is a cause, though it is occult and unseen. He believes he can modify its otherwise capricious course. Thus magical thinking involves a sequence of causes. But they are hidden, unknowable or unknown. The effect is not deemed causeless: a supernatural, supernormal or paranormal cause is interpolated to account for it.¹²

Kurtz subsequently summarises his response to magical thinking as follows: 'Supernormal, magical, religious thinking... has two ingredients: (1) Our ignorance of the real or natural causes at work, and (2) our supposition that there must be an unknowable cause which we deem miraculous or supernormal.'¹³

It is easy to see why Frazer's key proposition—namely, that magic preceded religion and that both have since been superseded by science—would appeal to social theorists like Kurtz and Alcock. Frazer proposes a clear progression of rational and intellectual ideas based on an increasingly sophisticated analysis of cause and effect in the material world. Overriding all of this debate has been the implicit assumption that as a precursor of scientific thought magic could have no place of value in modern society, especially when we consider that since the Enlightenment—theoretically at least—Western cultures have been associated with reason and rationality.¹⁴ As Warren D. TenHouten and Charles D. Kaplan observe in their book *Science and Its Mirror Image: A Theory of Inquiry* (1973):

Much of modern science is grounded in materialistic philosophy, a doctrine maintaining that the physical world is ultimate reality, and that life and consciousness are manifestations of the physical world. Materialism suggests that biological and social sciences can eventually be reduced to physical laws.¹⁵

¹² Ibid.: 454.

¹³ Ibid.: 455.

¹⁴ S. Greenwood, *Magic, Witchcraft and the Otherworld*, Berg, Oxford and New York 2000:1.

¹⁵ W. D. TenHouten and C. D. Kaplan, *Science and Its Mirror Image: A Theory of Inquiry*, Harper & Row, New York 1973: 2–3.

Frazer's Concept of Magic and the Natural World

Frazer identified several key aspects of the relationship between magic and the natural world in *The Golden Bough*. Here Frazer proposed the *Law of Sympathy*, which states that magic depends upon the apparent association between various phenomena. This law in turn gave rise to two further sub-laws: the *Law of Similarity*, which states that things that resemble each other are essentially the same, and the *Law of Contagion*, which states that things that were once in contact continue to be connected even after the connection is severed.¹⁶ The Law of Similarity gives rise to *imitative magic*, whereas the Law of Contagion gives rise to *contagious magic*.¹⁷ In addition, academics and practitioners generally agree that in the magical world, which is essentially holistic, all events and phenomena—both natural and ‘supernatural’—are perceived as being either directly or indirectly interconnected.

According to Frazer, in pre-literate societies a belief in magic leads human beings to believe that they can affect Nature for either good or evil purposes—even though they may not understand the actual mechanisms that bring about these results—an idea that has been pursued by successive generations of anthropologists. For example, according to Middleton, witchcraft, sorcery, magic, oracular consultation, divination and even many forms of curing, are all closely related.¹⁸ Evans-Pritchard, meanwhile, has suggested that specific ritual forms can be utilised to address social needs in a recurrent pattern from one generation to the next:

To peoples such as the Trobrianders and the Maori the spell is a rigid unalterable formula which is transmitted intact from generation to generation, and the slightest deviation from its traditional form would invalidate the magic.... Knowledge of the magic is knowledge of the spell, the ritual centres round it, it is always the core of the magical performance.¹⁹

¹⁶ See R. L. Stein and P. L. Stein, *The Anthropology of Religion, Magic and Witchcraft*, loc cit.:143.

¹⁷ Ibid.

¹⁸ J. Middleton (ed.) *Magic, Witchcraft and Curing*, Natural History Press, New York 1967: ix

¹⁹ E. E. Evans-Pritchard, ‘The Morphology and Function of Magic: A Comparative Study of Trobriand and Zande Ritual and Spells’ [1929] in J. Middleton (ed.) *Magic, Witchcraft and Curing*, Natural History Press, New York 1967: 3,5

On the basis of his extensive anthropological fieldwork in the Trobriand Islands, Malinowski came to believe that both religion and magic could help individuals endure situations of emotional stress by opening up escapes from situations and impasses that offered 'no empirical way out except by ritual and belief into the domain of the supernatural'.²⁰ Influenced initially by Frazer's *Golden Bough* and later by functionalist models of analysis, Malinowski recognised the significance of the relationship between individual psychology and the cultural and social value of magic. According to Malinowski, magic was essentially about problem-solving:

Magic is to be expected and generally to be found whenever man comes to an unbridgeable gap, a hiatus in his knowledge or in his powers of practical control, and yet has to continue in his pursuit... His fears and hopes, his general anxiety, produce a state of unstable equilibrium in his organism, by which he is driven to some sort of vicarious activity.²¹

In this way, according to Malinowski, magic helps bridge the gulf between empirical reality and uncertainty, allowing the individual to plan for the future and hopefully foresee any unexpected turn of natural events. According to this perspective, magic helps the practitioner to 'master accident and to ensnare luck'.²² The contemporary American researcher, T. M. Luhrmann, author of a recent anthropological study of modern ritual magic in England (1989), takes a view similar to that of Malinowski, even though the magic she is writing about—witchcraft in a contemporary urban setting—relates to a sophisticated form of magical practice associated as much with the subjective inner world of human beliefs and feelings as it is with the external world of practical causes and effects. Luhrmann writes:

Magic is about controlling the uncontrollable world. Esoteric knowledge serves a protective role... It is deeply therapeutic, for it gives the magician some access to his private, perhaps frightening, inner life, offers the hope of compelling those feelings rather than being controlled by them, and provides the symbolic forum through which those personal feelings can be confronted, identified and to some extent understood.²³

²⁰ B. Malinowski, *Magic, Science and Religion*, Beacon Press, Boston 1948: 67.

²¹ B. Malinowski, 'The Role of Magic and Religion' [1931] in W. A. Lessa and E. Z. Vogt (eds.) *Reader in Comparative Religion: an Anthropological Approach*, (third edition) Harper & Row, New York 1972: 68.

²² *Ibid.*: 64.

²³ T. M. Luhrmann, *Persuasions of the Witch's Craft*, Harvard University Press, Cambridge, Massachusetts 1989: 260.

Magic and Religion

The classic distinction between magic and religion described by Frazer in *The Golden Bough* remains influential although, as we will see, several of his major claims have been challenged. Frazer maintained that magic represented the earliest phase of development in the intellectual evolution of humanity—a prejudice that continues to the present day, as exemplified by the quotation from Sir Keith Thomas, referred to earlier. Frazer also believed that an important difference between magic and religion could be discerned in their different approaches to the supernatural universe. Religious views acknowledged a range of potentially ‘variable’ outcomes in Nature: religious devotees could call on their deities to *modify* the outcomes associated with future events, whereas the magical view of the world was necessarily more impersonal and tied in with essentially *unchanging*, almost ‘*mechanistic*’, laws in the natural world that the magician could theoretically harness:

Religion assumes the world to be directed by conscious agents who may be turned from their purpose by persuasion [and] stands in fundamental antagonism to magic as well as to science, both of which take for granted that the course of nature is determined, not by the passions or caprice of personal beings, but by the operation of immutable laws acting mechanically.²⁴

Frazer distinguished between magicians—who believed they could *compel* supernatural beings to act in their favour—and religious priests who adopted a more humble *supplicatory* approach to the divine powers.²⁵ He also identified magic as a *precursor* of religion—indeed, its very foundation—and believed that in modern times it survived only among the so-called ‘ignorant classes’:

Ancient magic was the very foundation of religion. The faithful who desired to obtain some favour from a god had no chance of succeeding except by laying hands on the deity, and this arrest could only be effected by means of a certain number of rites, sacrifices, prayers and chants, which the god himself had revealed, and which obliged him to do what was demanded of him. Among the ignorant classes of modern Europe the same confusion of ideas, the same mixture of religion and magic, crops up in various forms...²⁶

²⁴ Ibid.: 51.

²⁵ Ibid.: 52.

²⁶ Ibid.: 53.

The pioneering French sociologist Émile Durkheim supported Frazer's distinction between magic and religion and added a further two-fold distinction of his own, maintaining that magic tended to be an activity associated with individuals who had a 'clientele', whereas religions were associated with priests, churches and communities. According to Durkheim, all aspects of human activity could be classified as either *sacred* or *profane*²⁷ and only religious acts could truly be deemed 'sacred'. Durkheim's distinction between the sacred and the profane has been taken up by other social theorists, among them Spiro, Pandian and Evans-Pritchard.²⁸ However Titiev and Hsu (1960) maintain that the line of demarcation between magic and religion is not as clear-cut as Frazer and Durkheim have suggested.²⁹ Hsu has commented that 'whichever criterion we employ, we are led to the conclusion that magic and religion, instead of being treated as mutually exclusive entities, must be grouped together as magico-religion or magico-religious phenomena'³⁰ Hsu's position is supported by other influential theorists like Levi-Strauss and Kieckhefer, who similarly believe that the dividing line between magic and religion is blurred and indistinct. Levi-Strauss notes that '...all ritual trends towards magic',³¹ further observing that 'there is no religion without magic any more than there is magic without at least a trace of religion.'³² Kieckhefer, a specialist in medieval magic, similarly notes that co-existent blends of magical and religious practice are quite common:

Magic is connected in multiple ways with mainstream religious practice: prayers are recited over magical herbs, gospel verses are written on bread and then scraped into potions, charms can be virtually identical in form sometimes to blessings and sometimes to exorcisms and the exorcisms

²⁷ E. Durkheim, abridged version of *The Elementary Forms of Religious Life* in W. A. Lessa and E. Z. Vogt (eds.) *Reader in Comparative Religion: An Anthropological Approach*, loc. cit.: 29.

²⁸ See W. H. Swatos (ed.) 'The Anthropology of Religion' in *Encyclopedia of Religion and Society*, Altamira/Sage Publications, Walnut Creek, California 1998.

²⁹ See M. Titiev, 'A Fresh Approach to the Problem of Magic and Religion' [1960] in W. A. Lessa and E. Z. Vogt (eds.) *Reader in Comparative Religion: An Anthropological Approach*, loc. cit.: 431.

³⁰ Ibid.

³¹ C. Lévi-Strauss *Totemism*, Penguin, Harmondsworth, UK 1969: 127–128.

³² C. Levi-Strauss, *The Savage Mind*, Weidenfeld and Nicolson, London 1966: 221.

used to dispel demons can with the necessary adjustments be made to summon them as well.³³

Magic and Science

If the apparently clear line of demarcation between magic and religion is less distinct than Frazer would have us believe, his identification of magic as a form of 'pseudo science'³⁴ has also aroused ongoing debate. Like Frazer, O'Keefe regards magic as 'transitional to logical thought'.³⁵ Lessa and Vogt similarly maintain that 'magic is analogous to science in its use but its premises—its theoretical bases—are supernatural and antithetical to science.'³⁶ Lévi-Strauss views magic as 'a timid and stuttering form of science'³⁷ but while he clearly regards magic as intellectually inferior to science, he nevertheless makes the point that, within its given context, magic

forms a well-articulated system, and is in this respect independent of that other system which constitutes science, except for the purely formal analogy which brings them together and makes the former a sort of metaphorical expression of the latter. It is therefore better, instead of contrasting magic and science, to compare them as two parallel modes of acquiring knowledge.³⁸

Malinowski supports Frazer's concept of the 'sympathetic' and 'contagious' principles in magic but emphasizes that even 'primitive' peoples have their own form of *empirical science* which they then distinguish from 'magic'. Malinowski therefore rejects Frazer's notion of magic as 'pseudo-science':

Magic unquestionably is dominated by the sympathetic principle: like produces like; the whole is affected if the sorcerer acts on a part of it; occult influences can be imparted by contagion... [but] sympathy is not

³³ R. Kieckhefer, *Magic in the Middle Ages*, Cambridge University Press 2000 [1989]: xii.

³⁴ In *The Golden Bough*, (abridged edition) Macmillan, London [1922]: 11 Frazer describes magic as 'a spurious system of natural law as well as a fallacious guide of conduct; it is a false science as well as an abortive art.'

³⁵ D. L. O'Keefe, *Stolen Lightning: the Social Theory of Magic*, loc. cit.: 490.

³⁶ W. A. Lessa and E. Z. Vogt (eds.) *Reader in Comparative Religion: An Anthropological Approach*, loc. cit.: 413.

³⁷ C. Lévi-Strauss, *The Savage Mind*, loc. cit: 13.

³⁸ Ibid.

the basis of pragmatic science, even under the most primitive conditions. The savage knows scientifically that a small pointed stick of hard wood rubbed or drilled against a piece of soft, brittle wood, provided they are both dry, gives fire... There is no sympathy, no similarity, no taking the part instead of the legitimate whole, no contagion. The only association or connection is the empirical, correctly observed and correctly framed concatenation of natural events.³⁹

O'Keefe's Challenge to Frazer's Evolutionary Sequence

In *The Golden Bough* Frazer describes what he regards as an evolutionary progression of ideas from magic through religion to science.⁴⁰ However, in *Stolen Lightning: the Social Theory of Magic* (1983) contemporary social theorist Daniel Lawrence O'Keefe argues that Frazer's proposed evolutionary sequence of magic / religion / science is based on prehistory that 'cannot be proven'.⁴¹ On the other hand, O'Keefe clearly believes that an evolutionary sequence of religion / magic / science *can* be demonstrated. His theory follows on from what he terms 'a close reading of Durkheim'.⁴²

The data prove the thesis in several ways. First, content analysis of magical rites and representation reveals elements which can be traced to immediate or distant religions. Second, throughout the third world we have a vast laboratory in which we can see new magics arising by appropriating religious material. Whatever the unobservable prehistorical sequences, we are confronted every day with these *new* sequences which *can* be observed. And even if the dialectic action gets complicated, as when the magic movements try to turn back into religion, the Durkheim R...M... [Religion... Magic] thesis can be understood as true in a logical sense. Since magic shows itself to be the use of expropriated religious symbolism, religion is logically prior to magic.⁴³

³⁹ B. Malinowski, 'The Role of Magic and Religion' [1931] in W. A. Lessa and E. Z. Vogt (eds.) *Reader in Comparative Religion: An Anthropological Approach*, loc. cit.: 67.

⁴⁰ J. G. Frazer, *The Golden Bough*, (abridged edition) Macmillan, London 1987 [1922]: 711–712.

⁴¹ D. L. O'Keefe, *Stolen Lightning: the Social Theory of Magic*, loc. cit.: 164.

⁴² O'Keefe writes: 'A very close reading of Durkheim shows that... he wrote that magic grows out of religion. Durkheim wrote that magic is stimulated by religion because religion precipitates a supernatural worldview, the world of the sacred, which is different from the natural world, and makes belief in magic possible.' D. L. O'Keefe, *Stolen Lightning: the Social Theory of Magic*, loc. cit.: 124.

⁴³ *Ibid.*: 159.

According to O'Keefe, religion first arises during the Paleolithic era and is expressed initially in collective totemic representations of society that provide survival value in integrating small human groups. Magical practices associated with specific deities arise later during the Neolithic tribal stage associated with 'generalization of mana', when more complex societies use more general symbols that are easier to expropriate, extrapolate and apply to individual or profane ends.⁴⁴ For O'Keefe, the development of magical thought therefore reflects an evolutionary shift from totemic, communally based religion associated with Paleolithic bands, through to the emergence of individual self-awareness associated with the Neolithic period.

Interestingly, O'Keefe's controversial notion that religion precedes magic receives support from a study of magical practices in the 19th century Hermetic Order of the Golden Dawn, which is the focal case study in this chapter. The historical data published in Israel Regardie's four-volume sourcebook of Golden Dawn rituals (1937–1940)⁴⁵ show that the practitioners who belonged to this Order drew freely on imagery from ancient religious pantheons in formulating their magical rituals. However, their magical ceremonies had a fundamentally mystical intent that depended in turn on the relationship between the individual will and ritually induced altered states of consciousness. For these practitioners this particular relationship defined the very nature of magic itself. Also, as we will see, this particular type of magic had very little to do with superstition—as Frazer, Park, Thomas, Kurtz and Alcock would understand it. Instead, the magic practised in the Golden Dawn utilised archetypal imagery and altered states of consciousness in a ceremonial process that can best be described as symbolic self-transformation.

“High” and “Low” Magic

A key distinction needs to be made here between 'low' magic and 'high' magic. In his widely acclaimed work, *The Triumph of the Moon: A History of Modern Pagan Witchcraft* (1999),⁴⁶ British historian Ronald Hutton

⁴⁴ Ibid.: 504.

⁴⁵ I. Regardie (ed.), *The Golden Dawn*, four volumes, Aries Press, Chicago 1937–40.

⁴⁶ R. Hutton, *The Triumph of the Moon: a History of Modern Pagan Witchcraft*, Oxford University Press, Oxford 1999.

distinguishes between the ‘low magic’ tradition of so-called ‘cunning’ men and women, hexers and fortune-tellers—which survived well into the 19th century as an identifiable, largely rural category—and the tradition of ‘high magic’ that developed in 19th century Britain with the establishment of the Rosicrucian Society in England and the subsequent rise of the Hermetic Order of the Golden Dawn before giving rise in turn to the modern post-World War Two witchcraft revival in Britain known as Wicca.⁴⁷

Anthropological critiques of magic in pre-literate societies, from Sir James Frazer up to the present day, as well as unsympathetic evaluations of magic by contemporary scientific sceptics, have focused almost exclusively on various forms of ‘functional’ magic—that is to say, on magical acts intended to produce specific outcomes for good or evil within a range of contexts. However, because the concept of *theurgic* or ‘high’ magic does not arise among pre-literate peoples it has not been addressed by the major social theorists like Frazer, Durkheim, Malinowski and Levi-Strauss. Neither has it been adequately addressed in Luhrmann’s recent anthropological study of contemporary magic in Britain, referred to above.⁴⁸

In the parlance of modern Western magic—that is to say, the magic of the 20th century esoteric revival—‘outcomes magic’ or ‘results-oriented magic’ is ‘low magic’. Low magic is associated in modern occult practice with spells, hexes, charms and fortune-telling—and it is this type of magic, especially, that continues to attract the ire of sceptical scientists intent on dismissing such practices as irrational (see Park, 2008, referred to above). However, ‘low magic’ is not the only form of magic associated with the modern magical revival, neither is it the most characteristic. As I will show, the type of magic practised in the Hermetic Order of the Golden Dawn—and which continues in Wicca (contemporary pagan witchcraft) and the contemporary Goddess

⁴⁷ Hutton also writes that ‘The rituals of the Golden Dawn trained initiates to invoke deities and angels, but with the object neither of presenting them with praise and pleas nor of making them do the will of the person invoking; with neither, in short, of the customary aims of religion and magic. They encouraged the practitioners to empower themselves with incantation, within a ceremonial setting, so that they came to feel themselves *combining* with the divine forces concerned and becoming part of them.’ See R. Hutton, *The Triumph of the Moon*, loc. cit.: 83.

⁴⁸ T. M. Luhrmann, *Persuasions of the Witch’s Craft: Ritual Magic in Contemporary England*, loc. cit.

spirituality movement⁴⁹—involves expressions of ‘high’ magic that cannot simply be dismissed as primitivism. The theurgic ‘high magic’ practised in the Golden Dawn derived historically from the Hermetic and Neo-Platonic traditions and the practitioners sought to identify visually, mentally and spiritually with a god or goddess in a consecrated ritual setting, thereby incorporating the sacred, archetypal qualities of that particular deity within their inner being.⁵⁰ This in turn leads us to explore Western high magic as a type of alternative spirituality—as a type of magic that is neither conventionally ‘religious’ nor ‘superstitious’ in the familiar meaning of these terms. Clearly, high magic in the West is a different sort of magic from that explored and documented by anthropologists concerned with pre-literate societies. It is a form of magic best understood, as I noted earlier, as a symbolic, ritualised response to the exploration of altered states of consciousness.

The Hermetic Order of the Golden Dawn

The Hermetic Order of the Golden Dawn strongly influenced the rise of modern Western magical beliefs in the 20th century and provides us with important data relating to the important distinction between ‘high magic’ and ‘low magic’, noted earlier. The Golden Dawn drew on a range of ancient and medieval cosmologies and incorporated them into a body of ceremonial practices and ritual grades centred on the Kabbalistic Tree of Life, an important symbol within the Jewish mystical tradition. As noted above, in addition to the Kabbalah, the Golden Dawn also drew on the Hermetic tradition which had its roots in Neoplatonism and underwent a revival during the Renaissance.

The Hermetic Order of the Golden Dawn was formally established in London on 12 February 1888 by Dr William Wynn Westcott (1848–1925), Samuel Liddell MacGregor Mathers (1854–1918) and Dr William Robert Woodman (1828–1891). All three were members of the *Societas Rosicruciana in Anglia* (SRIA) and it was through this esoteric organisation that they had met each other. Westcott had acquired a Masonic cipher manuscript that had been discovered among the

⁴⁹ See N. Drury, ‘The Modern Magical Revival’ in J. R. Lewis and M. Pizza (ed.) *Handbook of Contemporary Paganism*, loc. cit.

⁵⁰ See M. Stavish, ‘Assumption of the Godform’, published on-line at www.hermetic.com.

papers of a deceased member of the SRIA, and he invited Mathers to expand the cipher material contained in the document so that it could form the basis of a 'complete scheme of initiation'. Mathers in turn developed the five Masonic grades into a workable system suitable for the practice of ceremonial magic. As a result, the Isis-Urania Temple of the Golden Dawn was established in London on 1 March 1888 with Mathers, Westcott and Woodman confirmed as leaders of the Order. In a relatively short time it would be followed by other branches: the Osiris Temple in Weston-super-Mare, the Horus Temple in Bradford, the Amen-Ra Temple in Edinburgh and the Ahathoor Temple in Paris.

In due course the Hermetic Order of the Golden Dawn attracted a distinguished membership including such figures as the distinguished homeopath Dr Edward Berridge; the Scottish Astronomer Royal, William Peck; Arthur Edward Waite, an authority on the Kabbalah, Rosicrucianism and the Holy Grail legends; the distinguished poet William Butler Yeats, who would later win the Nobel Prize for literature; well known physician and pioneer of tropical medicine, Dr R. W. Felkin; lawyer John W. Brodie-Innes; the well-known fantasy novelists Arthur Machen and Algernon Blackwood; and the controversial ritual magician and adventurer Aleister Crowley. The Order also included within its membership several notable women, among them Annie Horniman, later a leading patron of Irish theatre; artist Moina Bergson, sister of the influential French philosopher Henri Bergson and future wife of Samuel Mathers; Celtic revivalist Maude Gonne; actress Florence Farr; and in later years the Christian Kabbalist Violet Firth, better known as the magical novelist Dion Fortune.

As Freemasons, Westcott and Mathers were strongly attracted to the concept of ritual degrees, and the grades of the Hermetic Order of the Golden Dawn were formulated in a manner that would align them symbolically with the *sephiroth*, or levels of mystical consciousness, upon the Kabbalistic Tree of Life. Four of the five ritual grades had Latin names: Zelator (corresponding to the *sephirah* Malkuth on the Tree), Theoricus (corresponding to Yesod), Practicus (corresponding to Hod), and Philosophus (corresponding to Netzach). There was also a 'Neophyte' grade which, in a symbolic sense, was located *below* the Kabbalistic Tree of Life because at this stage the candidate who had just entered the Golden Dawn had not yet embarked on the magical exploration of the higher spheres on the Tree.

In addition, there were ritual grades associated with the Inner, or Second Order of the Golden Dawn known as the Red Rose and the Cross of Gold: *Rosae Rubae et Aurea Crucis*. These grades were Adeptus Minor (corresponding to Tiphareth), Adeptus Major (corresponding to Geburah) and Adeptus Exemptus (corresponding to Chesed). By passing through the ritual grade of Adeptus Minor the ceremonial magician entered what MacGregor Mathers referred to as 'the Vault of the Adepts'. The candidate was bound symbolically on the 'Cross of Suffering' while also witnessing 'the resurrection of the Chief Adept, who represented Christian Rosencreutz, from a tomb within an elaborately painted, seven-sided vault'. No ritual grades were assigned to the three remaining *sephiroth* on the Kabbalistic Tree of Life.⁵¹

Magical Symbolism in the Golden Dawn

As Israel Regardie notes in relation to the Neophyte grade, for the Golden Dawn magician the ultimate mythic attainment was to come forth ritually into the Light, for this was the very essence of spiritual rebirth.⁵² The process of ascending the Kabbalistic Tree of Life by means of visualisation and ceremonial magic involved powerful acts of creative imagination: the magician had to feel that he or she was fully engaging with each sphere of consciousness in turn. However the monotheistic nature of the Kabbalistic Tree of Life presented the Golden Dawn occultists with a paradox, for while they acknowledged the sacred unity of the Tree of Life in all its emanations they also believed that they had to focus their creative awareness upon a sequence of specific archetypal images if they were to 'ascend' to the Light. Their solution was to regard the Kabbalistic Tree of Life as a matrix upon which the archetypes of the great Western mythologies could be charted and interrelated as part of a sacred unity. It then became possible to correlate the major deities from the pantheons of ancient Egypt, Greece, Rome and Celtic Europe in what was effectively a cumulative approach to the Western mythological imagination. In due course other magical

⁵¹ Sometimes referred to as the Third Order, the spheres of Kether, Chokmah and Binah were said to be the domain of 'Secret Chiefs'—inspirational spiritual masters who were believed to guide the Order from the inner planes.

⁵² Within the Golden Dawn system of ritual grades this would not actually be achieved until the candidate had attained the Second Order 5° = 6° degree associated with Tiphareth, the sphere of 'spiritual rebirth'.

Table of Correspondences

Level	Kabbalah	Astrology	Egyptian	Roman
1	Kether	Primum Mobile	Ptah, Hadith	Jupiter
2	Chokmah	Zodiac/Fixed Stars	Amoun, Thoth	Janus
3	Binah	Saturn	Isis, Nephthys	Juno, Cybele, Hecate
4	Chesed	Jupiter	Amoun	Jupiter
5	Geburah	Mars	Horus	Mars
6	Tiphareth	Sol (Sun)	Ra	Apollo
7	Netzach	Venus	Hathoor	Venus
8	Hod	Mercury	Anubis	Mercury
9	Yesod	Luna	Shu	Diana
10	Malkuth	The Elements	Seb	Ceres

The following perfumes, precious stones and plants were considered appropriate in rituals corresponding to the invoked god or goddess for each of the ten *sephiroth*. They are also listed in *Liber 777*.⁵⁴

Level	Precious Stones	Perfumes	Plants
1	Diamond	Ambergris	Almond in flower
2	Star Ruby, Turquoise	Musk	Amaranth
3	Star Sapphire, Pearl	Myrrh, Civet	Cypress, Opium Poppy
4	Amethyst, Sapphire	Cedar	Olive, Shamrock
5	Ruby	Tobacco	Oak. Nux Vomica, Nettle
6	Topaz	Olibanum	Acacia, Bay, Laurel, Vine
7	Emerald	Benzoin, Rose, Sandalwood	Rose
8	Opal	Storax	Moly, <i>Anhalonium lewinii</i>
9	Quartz	Jasmine	Mandrake, Damiana
10	Rock Crystal	Dittany of Crete	Willow, Lily, Ivy

⁵⁴ Crowley's *Liber 777* listings included several psychoactive plants: opium poppy, nux vomica, mandrake, peyote (*Anhalonium lewinii*) and damiana, a sure sign that these were his additions and not part of the original Mathers/Westcott listings. Moly is a mythical plant: it was given by Hermes to Odysseus to protect him from the magic of Circe. See C. Ratsch, *The Dictionary of Sacred and Magical Plants*, Prism Press, Dorset, 1992:127.

Liber 777 helped codify the modern magical imagination. The listings themselves are of historic significance because they represented an early attempt to systematise archetypal images and ‘mythic’ levels of consciousness at a time when psychology itself was still in its infancy. The Golden Dawn source material in *Liber 777* predates by well over a decade Carl Jung’s work with the ‘primordial’ images of the unconscious mind, later referred to as the ‘archetypes of the collective unconscious’.⁵⁵

From a psychological perspective it is clear that the magicians of the Golden Dawn regarded the Tree of Life as a complex symbol representing the realm of sacred inner potentialities. To simulate the gods and goddesses through acts of magic was to *become like them*. The challenge was to identify oneself with the mythological and archetypal images of the psyche through a process of direct encounter: the act of engaging the gods, whether through ritual or by some other means like visualisation, meditation or magical trance, was essentially a process of discovering one’s inner potential. As Golden Dawn initiate Aleister Crowley observed in *Magick in Theory and Practice* (1929): ‘...the Gods are but names for the forces of Nature themselves’⁵⁶ and ‘the true God is man. In man are all things hidden...’⁵⁷

The magicians in the Golden Dawn had therefore to imagine that they were partaking of the nature of each of the gods in turn, embodying within themselves the very essence of the deity. Their rituals were designed to control all the circumstances which might assist them in their journey through the subconscious mind and the mythic imagination. They included all the symbols and colours of the god, the utterance of magical names of power, and the burning of incense or perfume appropriate to the deity concerned. In Golden Dawn ceremonial workings, the ritual magician imagined that he or she had become the deity whose forms were imitated in ritual. The traditional concept of the gods (or God) ruling humanity was reversed so that it was now

⁵⁵ According to Jung’s colleague, Dr Jolande Jacobi, Jung at first referred to ‘primordial images’ and later to the ‘dominants of the collective unconscious’. It was ‘only later that he called them archetypes’. Jacobi notes that Jung took the term ‘archetype’ from the *Corpus Hermeticum* and from *De Divinis nominibus* by Dionysius the pseudo-Areopagite. See J. Jacobi, *The Psychology of C. G. Jung*, Routledge & Kegan Paul, London 1942:39.

⁵⁶ A. Crowley, *Magick in Theory and Practice* (1929), Castle Books, New York, n.d.:120.

⁵⁷ Ibid.: 152–153.

the ritual magician who controlled the gods, uttering the sacred names that sustained the universe. As the 19th century ceremonial magician Eliphas Lévi had written in his seminal text *The Key of the Mysteries*, '...all magic is in a word, and that word pronounced Kabbalistically is stronger than all the powers of Heaven, Earth and Hell. With the name of *Yod, He, Vau, He*, one commands Nature...'⁵⁸

In passing through the ritual grades from Malkuth to Netzach, the Golden Dawn practitioners focused their magical activities on the mythic levels associated with the lower *sephiroth* of the Tree of Life, specifically the spheres of Malkuth, Yesod, Hod and Netzach.⁵⁹ In doing so, they developed specific techniques for the expansion of spiritual awareness. These included a rich application of magical symbols and mythic imagery in their ritual adornments, ceremonial procedures and invocations, all of which were intended to focus the imagination during the performance of a given magical ritual. In one of his most important books, *The Tree of Life*, Israel Regardie describes magical ritual as 'a deliberate exhilaration of the Will and the exaltation of the Imagination, the end being the purification of the personality and the attainment of a spiritual state of consciousness, in which the ego enters into a union with either its own Higher Self or a God'.⁶⁰

With reference to statements made in the introductory section of this chapter, it is clear that Regardie's approach to magic would be classified by empirical scientists as yet another example of irrational behaviour—Regardie's version of magical ritual shares many qualities in common with mystical forms of religion. However, the key point I would like to make here is that simply dismissing magic as a form of superstition as empiricists like Park, Alcock and Kurtz *et al.* continue to do, clearly misses the mark. As I will show below, the high magic

⁵⁸ E. Lévi, *The Key of the Mysteries*, Rider, London 1959:174.

⁵⁹ The Kabbalistic sphere of Malkuth, for example, was associated with the earth, crops, the immediate environment and living things. Yesod was linked symbolically to the Moon and was regarded as the sphere of 'astral imagery', the dream-world and the element Water. Yesod was also the seat of the sexual instincts and corresponded to the genital area when 'mapped' upon the figure of Adam Kadmon, the archetypal human being. Hod was associated with the planet Mercury, representing intellect and rational thinking, and symbolised the orderly or structured aspects of the manifested universe. Netzach was linked to the planet Venus, and was said to complement the intellectual and orderly functions of Hod. While Hod could be considered clinical and rational, Netzach represented the arts, creativity, subjectivity and the emotions. See also the mythological listings in *Liber 777* referred to above.

⁶⁰ See I. Regardie, *The Tree of Life: A Study in Magic*, Rider, London 1932:106.

pursued in the Golden Dawn involved practical applications of altered states of consciousness—states of awareness which in other contexts have been scientifically investigated⁶¹—so the perception that modern Western magic is, by definition, ‘pre-scientific’ or ‘unscientific’ is difficult to justify based on the Golden Dawn data. What may instead be required is a ‘state-specific’ scientific approach to altered states of consciousness—as noted American psychologist Charles T. Tart has proposed. Tart believes that this has become essential because—with the increasing popular and academic interest in meditation and psychedelic states of awareness since the late 1960s and early 1970s—the nature of ‘mind, consciousness, spirit (and) intention, has transcended physical barriers’.⁶²

“State-Specific” Sciences and Altered States of Consciousness

According to Tart, any state-specific science consists of two parts—a body of observations and a body of theories about the observations—and this applies both to ordinary mainstream science as well as to the scientific study of altered states of consciousness.⁶³ Tart defines an altered state of consciousness as a ‘*radical* alteration of the overall patterning of consciousness such that the experiencer...can tell that different laws are functioning, that a new, overall pattern is superimposed on his experiences.’⁶⁴ Tart also notes that the study of altered states may itself be influenced by the scientific paradigms the observer adheres to. In making this important distinction, he believes it is important to recognize that ultimately all forms of scientific knowledge are *experiential*:

Insofar as science deals with *knowledge* it can distinguish itself from the philosophy of physicalism and deal with experiential knowledge.... The first step in bridging the gap between science and the spiritual...is that we must recognize that since all knowledge is fundamentally experiential, the observation of experience and the refinement of this kind of observation is legitimate and is the foundation of any psychological sciences we

⁶¹ For a recent authoritative overview of the scientific study of altered states of consciousness and the mind/body relationship see Edward F. Kelly and Emily Williams Kelly, *Irreducible Mind: Toward a Psychology for the 21st Century*, Rowman & Littlefield, Lanham, Maryland 2007.

⁶² C. T. Tart (ed.) *Body, Mind, Spirit: Exploring the Parapsychology of Spirituality*, Hampton Roads Publishing, Charlottesville, Virginia 1997: 23.

⁶³ C. T. Tart (ed.), *Transpersonal Psychologies*, Harper & Row, New York 1975: 39.

⁶⁴ *Ibid.*: 14.

will build in this area. We cannot ignore data that is not physical... the orthodox scientist makes an error in dismissing a priori the data of spiritual experience and discrete altered states of consciousness because of his paradigmatic commitments...⁶⁵

Developing a similar line of approach, Australian anthropologist Lynne Hume has proposed in her book *Portals: Opening doorways to other realities through the senses* (2007) that we can regard esoteric cognitive maps like the Kabbalistic Tree of Life as 'portals' to altered states of consciousness, thereby broadening our sense of experiential 'reality':

The everyday reality that we perceive through our senses can be altered dramatically by 'working' the senses using a variety of somatic stimuli, creating a paradigm shift in perception... In my research into altered states of consciousness over several years, I have found not only that the notion of moving through some sort of portal or doorway to access another type of reality is widespread, but that there are certain techniques employed to do so. These techniques are used universally by shamans, monks, religious specialists and lay people, and involve different physical senses... With the aid of the senses, and devices such as mandalas, voice and/or musical instruments, body movements and decoration, physical pain, and olfactory and tactile stimuli, it is possible to move from what we call mundane, or ordinary reality, into alternate reality.⁶⁶

Altered States of Consciousness in the Golden Dawn

Senior initiates of the Hermetic Order of the Golden Dawn documented their exploration of altered states of consciousness—trance states, mystical experiences and out-of-the-body experiences⁶⁷—in a

⁶⁵ Ibid.: 21.

⁶⁶ See L. Hume, *Portals: Opening doorways to other realities through the senses*, Berg, Oxford and New York 2007: 1. Hume also refers specifically to the Kabbalistic Tree of Life as a 'portal'; on p. 29.

⁶⁷ Anthropologists who have studied shamanism in pre-literate societies are especially aware of the highly significant relationship between altered states of consciousness and the nature of magical practice in these societies. See I. M. Lewis, *Ecstatic Religion: an Anthropological Study of Spirit Possession and Shamanism*, Penguin, Harmondsworth, UK 1971, and M. D. de Rios and M. Winkelman, 'Shamanism and Altered States of Consciousness: an Introduction' in the *Journal of Psychoactive Drugs*, 21,1, 1–7, San Francisco, January–March 1989. Shamanic and visionary elements within the Western esoteric tradition have received somewhat less attention but are addressed in N. Drury, *Sacred Encounters: Shamanism and Magical Journeys of the Spirit*, Watkins, London 2003 and A. S. Cook and G. A. Hawk, *Shamanism and the Esoteric Tradition*, Llewellyn, St Paul, Minnesota 1992.

series of documents known as 'Flying Rolls' which, according to historian Francis King, were privately circulated 'among the Adepti of the pre-1900 Golden Dawn'.⁶⁸ The Flying Rolls were not included in Israel Regardie's monumental four-volume collection of Golden Dawn rituals (first published 1937–1940)⁶⁹ and did not become widely known in esoteric circles until the early 1970s.⁷⁰

In *Flying Roll XI*, MacGregor Mathers provides specific instructions relating to a magical method known as 'rising in the planes'—a meditative technique used to facilitate mystical awareness. The technique involved 'rising' through different symbolic spheres—or 'portals', to draw on Lynne Hume's useful term—on the Kabbalistic Tree of Life:

Rising in the Planes is a spiritual process after spiritual conceptions and higher aims; by concentration and contemplation of the Divine, you formulate a Tree of Life passing from you to the spiritual realms above and beyond you. Picture to yourself that you stand in Malkuth—then by use of the Divine Names and aspirations you strive upward by the Path of Tau towards Yesod, neglecting the crossing rays which attract you as you pass up. Look upwards to the Divine Light shining down from Kether upon you. From Yesod leads up the Path of Temperance, Samekh, the arrow cleaving upwards leads the way to Tiphareth, the Great Central Sun of Sacred Power.⁷¹

MacGregor Mathers' account makes it clear that within the Golden Dawn, magical 'ascent' was achieved by visualising oneself coursing like an arrow towards the higher realms of the Kabbalistic Tree of Life. The *sephiroth* (emanations) on the Tree of Life—like Malkuth, Yesod and Tiphareth—were perceived as magical doorways that could be explored in an altered state of consciousness, and the act of 'rising in the planes' itself involved 'rising' or 'ascending' meditatively from one sphere to the next, culminating eventually in the spiritual experience of *Kether* and mystical union with the Godhead. Such acts of high magic were associated fundamentally with mystical light and transcendence. An internal Golden Dawn document warning against the dangers

⁶⁸ F. King (ed.), *Astral Projection, Magic and Alchemy*, Spearman, London 1971: 29.

⁶⁹ I. Regardie (ed.) *The Golden Dawn*, four volumes, Aries Press, Chicago, 1937–1940.

⁷⁰ Specifically when Francis King first published a collection of the Flying Rolls under the title *Astral Projection, Magic and Alchemy*. See bibliography.

⁷¹ S. L. MacGregor Mathers (*Frater Deo Duce Comite Ferro*), 'Flying Roll No. XI: Clairvoyance', loc. cit.: 66.

of the 'dark' or 'negative' energies lurking on the reverse side of the Kabbalistic Tree of Life—a work titled *The Book of the Black Serpent* (c. 1900)—encouraged all initiates in the Order to 'banish thou therefore the Evil and seek the Good...let thy countenance be raised up towards the Light of the Holy One to invoke the Divine Brightness.'⁷²

What the Golden Dawn magicians were attempting was, in effect, a late 19th century version of classical Hermetic mystical practice. Dan Merkur, a scholar well known for his study of Hermeticism and Gnosticism, describes Hermetic 'ascension' in terms that resemble the Golden Dawn conception of 'rising in the planes':

In the Hermetic literature...different varieties of mystical experience were each associated with a specific celestial region on the trajectory of ascension...A single region of the sky might be termed the seven planetary heavens or the twelve zodiacal mansions...The ascension was literal, but mental rather than bodily. The ascent beyond the seven planetary zones of the sensible world was a motion of the mind [and involved] an experiential sense of the mind's detachment from the body.⁷³

In *Corpus Hermeticum XIII*, Hermes explains to his son Tat that in the course of *seeing* 'I went out of myself into an immortal body, and now I am not what I was before. I have been born in mind.'⁷⁴ Elsewhere in the *Corpus Hermeticum* the sense of mystical ascent achieved during an out-of-the-body state is specifically associated with the spiritual will:

Command your soul to travel to India, and it will be there faster than your command. Command it to cross over to the ocean, and again it will quickly be there, not as having passed from place to place but simply as being there. Command it even to fly up to heaven, and it will not lack wings. Nothing will hinder it, not the fire of the sun, nor the aether, nor the swirl nor the bodies of the other stars...You must think of god in this way, as having everything—the cosmos, himself [the] universe—like thoughts within himself. Thus, unless you make yourself equal to god, you cannot understand god.⁷⁵

['god' is spelt lower case in Merkur's quotation]

According to Merkur, for the Hermetic initiate the visionary or 'imaginal' realm was located in the Eighth celestial region, in a 'dimension'

⁷² Anon., *The Book of the Black Serpent*, c. 1900, circulated among initiates of the Isis-Urania Temple in London. Included as an appendix in R. A. Gilbert, *The Sorcerer and his Apprentice*, Aquarian Press, Wellingborough, UK 1983.

⁷³ D. Merkur, 'Stages of Ascension in Hermetic Rebirth' *Esoterica* 1 (1999):82, 84.

⁷⁴ *Corpus Hermeticum XIII*:3, quoted in Merkur, *ibid.*: 85.

⁷⁵ *Corpus Hermeticum XI*:19–20, quoted in Merkur, *ibid.*: 85.

beyond the seven planetary heavens; however, in due course the initiate had to ascend still further, rising eventually to the Ninth cosmic region and achieving union with the pure Mind of the Creator. 'The Hermetic God', writes Merkur, 'was the Mind that contains the cosmos as its thoughts'⁷⁶ and the Hermetic initiate had to proceed 'from vision to *union*',⁷⁷ thereby experiencing the sacred realisation that 'both the universe and self were located in the mind of God.'⁷⁸

In the Kabbalistic Tree of Life the first three *sephiroth* (emanations from the Godhead) transcend the imaginal realm of forms because they are located above the Abyss that separates the seven lower *sephiroth* associated with material Creation. MacGregor Mathers makes it clear that the initiate's task in 'rising in the planes' is to 'Look upwards to the Divine Light shining down from Kether'⁷⁹—the spiritual aspiration of the Hermetic magician is ultimately towards the highest point on the Kabbalistic Tree of Life representing transcendent union with the Godhead.

Building the "Body of Light"

In addition to their practice of 'rising in the planes', the Golden Dawn magicians also developed a technique of willed imagination that employed what was known as the 'body of light'. The body of light has been described within an occult context as a 'magical personality' that is 'deliberately built for a purpose [and] acquired through practice and concentration'.⁸⁰ In a magical context it is the vehicle of conscious awareness through which the magician interacts with 'thought-forms', spirit-entities and archetypal beings on the inner, or 'astral' planes.⁸¹ The contemporary American occultist Dr Michael Aquino has described the role of this 'magical double' in quasi-Egyptian terms as follows:

⁷⁶ Merkur: 90.

⁷⁷ Ibid.: 89.

⁷⁸ Ibid.: 90.

⁷⁹ S. L. MacGregor Mathers (*Frater Deo Duce Comite Ferro*), 'Flying Roll No. XI: Clairvoyance', loc. cit.

⁸⁰ See M. Stavish, 'The Body of Light in the Western Esoteric Tradition', published on-line at www.hermetic.com/stavish/essays/bodylight.html.

⁸¹ Ibid.

The magician constructs within his subjective universe a magical double or *ka*. (Goethe's *Doppelgänger*). This is an idealized entity whose precise characteristics may vary from Working to Working. He then, by an act of Will, transfers his soul or *ba* to the vehicle of this *ka* and then executes his Will in the subjective universe. This may be completely dissociated from the physical body of the magician, or it may be closely aligned with it... At the conclusion of the Working, the *ba* is redirected to the physical body and the *ka* is disintegrated. The elements of the subjective universe specifically summoned for the Working are released into their normal contexts, there to influence their objective counterparts.⁸²

Transferring consciousness to a magical simulacrum or 'body of light' through willed concentration and visualisation is central to the practice of visionary magic in the Western esoteric tradition, and the experience of 'consciousness-transfer' is described in *Flying Roll XXV*, written by *Frater Sub Spe*—a.k.a. Dr John W. Brodie-Innes—who was a prominent figure in the Golden Dawn's Amen-Ra temple in Edinburgh. Dr Brodie-Innes describes the shift in consciousness that occurs when a practitioner focuses meditatively on a Major Arcana Tarot card or one of the *Tattva* symbols of the elements,⁸³ thereby switching personal awareness to the inner world of magical perception:

Gradually the attention is withdrawn from all surrounding sights and sounds, a grey mist seems to swathe everything, on which, as though thrown from a magic lantern on steam, the form of the symbol is projected. The Consciousness then seems to pass through the symbol to realms beyond... the sensation is as if one looked at a series of moving pictures... When this sensitiveness of brain and power of perception is once established there seems to grow out of it a power of actually going to the scenes so visionary and seeing them as solid, indeed of actually *doing things* and producing effects there... The sensation... is first to become, as it were, dimly conscious of a figure walking among the scenes of the new country—or the Astral Plane—gradually to become conscious that it is my own figure that I am looking at—gradually, as it were, to be able to look through the eyes—and feel with the sensations of this *doppelgänger*. Further to be able consciously to direct its motions, to control it, to inhabit it... It is as though my Consciousness had extruded from my own body to take possession of a body which I had either

⁸² M. Aquino, *The Crystal of Set: selected extracts*, loc. cit.: 37.

⁸³ See Chapter Two for references to the Tarot Major Arcana and the five *Tattva* symbols of the elements utilised within the Hermetic Order of the Golden Dawn for meditative purposes and 'inner plane' magical workings.

created for the purpose, or invoked out of the Astral Sphere as a vehicle for myself.⁸⁴

The key elements in this process included concentrating the mind on a specific magical symbol, such as a Major Arcana Tarot card image or a *Tattva* symbol (see next section), and then using it to bring about a transfer of consciousness to the inner, imaginal realm of perception. Sometimes the magician also used various utterances (pronouncement of sacred god-names or one's personal magical name) to reinforce the sense of a transfer of awareness. According to Dion Fortune, who was a member of the Alpha and Omega Temple of the Golden Dawn,⁸⁵ the act of projecting her 'body of light' was greatly assisted by uttering her magical name. As she notes in *Applied Magic*:

In my own experience of the operation, the utterance to myself of my Magical name led to the picturing of myself in an idealised form, not differing in type, but upon an altogether grander scale, superhuman in fact, but recognisable as myself, as a statue more than life-size may yet be a good likeness. Once perceived, I could re-picture this idealised version of my body and personality at will, but I could not identify myself with it unless I uttered my Magical name. Upon my affirming it as my own, identification was immediate.⁸⁶

Following the transfer of consciousness, the magician then experiences the contents of the visionary realm as perceptually 'real'—including mythic landscapes populated by gods, spirit-beings and various other entities. According to *Frater Sub Spe*:

At first it seems as though everything thus perceived were just the product of one's own imagination... But a little further experience generally convinces one that the *new country one has become conscious of* has its inviolable natural laws just as the physical world has: that one cannot make or unmake at will, that the same causes produce the same results, that one is in fact merely a spectator and in no sense a creator. *The conviction then dawns on one that one is actually perceiving a new and much extended range of phenomena; that in fact, which is known as the Astral World or Astral Plane.*⁸⁷ [my emphasis in italics]

⁸⁴ J. W. Brodie-Innes (*Frater Sub Spe*), 'Flying Roll No. XXV: Essay on Clairvoyance and Travelling in the Spirit Vision', in F. King (ed.), *Astral Projection, Magic and Alchemy*, loc. cit.: 73–74.

⁸⁵ Dion Fortune was initiated into the Golden Dawn's London Temple of the Alpha and Omega in 1919. See A. Richardson, *Priestess: The Life and Magic of Dion Fortune*, Aquarian Press, Wellingborough, UK 1987:111.

⁸⁶ D. Fortune, *Applied Magic*, Aquarian Press, London 1962: 56–57.

⁸⁷ J. W. Brodie-Innes (*Frater Sub Spe*), 'Flying Roll No. XXV: Essay on Clairvoyance and Travelling in the Spirit Vision', loc. cit.:73.

Tarot and Tattva Visualisations

According to the cosmology established in the Golden Dawn, the Tarot cards of the Major Arcana⁸⁸ and the Hindu *Tattvas* could be used as ‘symbolic doorways’ granting access to various realms of visionary consciousness on the astral plane. The *Tattvas* were among the few specifically Eastern motifs incorporated within the ritual practices of the Golden Dawn. In their basic form the *Tattvas* are associated with the five traditional elements as follows:

<i>Tejas</i> , a red equilateral triangle	Fire
<i>Apas</i> , a silver crescent	Water
<i>Vayu</i> , a blue circle	Air
<i>Prithivi</i> , a yellow square	Earth
<i>Akasha</i> , an indigo or violet egg	Spirit ⁸⁹

Flying Roll XI describes a Tattva vision by Mrs Moina Mathers (*Soror Vestigia*) which arose as she sat in her ceremonial robes, meditating on a Tattva card combining *Tejas* and *Akasha*—a violet egg contained within a red triangle (Spirit within Fire).⁹⁰ Following her projection of the body of light, the Tattva symbol seemed to grow before her gaze, enabling her to pass into a ‘vast triangle of flame’. She felt herself to be in a harsh desert of sand. Intoning the god-name *Elohim*, she then perceived a small pyramid in the distance and, drawing closer, noticed a small door on each face. She then vibrated the magical formula *Sepharial* and a warrior appeared, leading a procession of guards. After a series of tests involving ritual grade signs, the guards knelt before her and she passed inside:

...dazzling light, as in a Temple. An altar in the midst—kneeling figures surround it, there is a dais beyond, and many figures upon it—they seem to be Elementals of a fiery nature... She sees a pentagram, puts a Leo in it [i.e., a Fire sign], thanks the figure who conducts her—wills to pass

⁸⁸ Golden Dawn member A. E. Waite’s book *The Pictorial Key to the Tarot* (1910, republished by Weiser, New York 1973) remains a standard introduction to the mythic aspects of the Tarot. For details of the use of the Tarot for visualisation and meditation, as distinct from popular fortune-telling, see Paul Foster Case, *The Tarot*, Macoy, New York 1947 (republished by Tarcher, New York 2006) and *The Book of Tokens: Tarot Meditations* (fourteenth edition, with colour plates), Builders of the Adytum, Los Angeles 1989.

⁸⁹ See I. Regardie (ed.) *The Golden Dawn*, vol. 4, Aries Press, Chicago 1940: 12–13.

⁹⁰ S. L. MacGregor Mathers (*Frater Deo Duce Comite Ferro*), ‘Flying Roll No. XI: Clairvoyance’, in F. King (ed.), *Astral Projection, Magic and Alchemy*, loc. cit.: 68–69.

through the pyramid, finds herself out amid the sand. Wills her return—returns—perceiving her body in robes.⁹¹

In this account and others like it, it is clear that the visionary landscape is experientially ‘real’ to the meditator undertaking the projection of the body of light. However the contents of the visionary journey itself are also closely related to the meditative symbol that the magician has used in the transfer of consciousness: the magical entities Moina Mathers perceived in her ‘spirit vision’ were fire elementals—anthropomorphic figures embodying the *essential* properties of Fire.

On another occasion, Moina Mathers employed the Tattva symbols for Water and Spirit. Once again her account demonstrated the connection between the meditative symbol and the visionary beings present in the ensuing vision:

A wide expanse of water with many reflections of bright light, and occasionally glimpses of rainbow colours appearing. When divine and other names were pronounced, elementals of the mermaid and merman type [would] appear, but few of the other elemental forms. These water forms were extremely changeable, one moment appearing as solid mermaids and mermen, the next melting into foam.

Raising myself by means of the highest symbols I had been taught, and vibrating the names of Water, I rose until the Water vanished, and instead I beheld a mighty world or globe, with its dimensions and divisions of Gods, Angels, elementals and demons—the whole Universe of Water. I called on HCOMA and there appeared standing before me a mighty Archangel, with four wings, robed in glistening white and crowned. In one hand, the right, he held a species of trident, and in the left a Cup filled to the brim with an essence which he poured down below on either side.⁹²

In this example, in addition to using the *Tattvas* for Water and Spirit as her meditative symbols, Mrs Mathers also uttered the sacred magical name HCOMA,⁹³ thereby causing an archangel to appear in her visions. She was also utilising the Golden Dawn technique known as ‘rising in the planes’, referred to earlier.

⁹¹ Ibid.

⁹² Quoted in I. Regardie (ed.) *The Golden Dawn* (vol. 4), loc. cit.: 1940: 43.

⁹³ The sacred name HCOMA derives from the so-called Enochian system of angelic magic established by the Elizabethan occultists Dr John Dee and Edward Kelley. Enochian magic was incorporated into the Golden Dawn’s ceremonial practices. See I. Regardie (ed.) *The Golden Dawn* (vol. 4), loc. cit.

Clearly, these types of magical practices—‘high magic’ explorations of altered states of consciousness—cannot simply be dismissed as primitivism or superstition. More importantly, the fact that they involve altered states of consciousness induced by specific meditative, visualisation and mental dissociation techniques means that they also lend themselves, potentially, to scientific evaluation. Scientific studies of the out-of-the-body experience (OBE) and near-death experience (NDE) have been undertaken since the late 1960s and early 1980s respectively⁹⁴ and, theoretically at least, it ought to be possible for empirical scientists to monitor and evaluate the altered states of consciousness accessed through modern magical visualisation techniques, especially when many contemporary practitioners claim to be able to achieve these altered states of awareness ‘at will’. Perhaps at some intriguing moment in the future there may yet be an empirical study of altered states of consciousness that brings science and high magic closer together.

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⁹⁴ For a summary of Dr Charles Tart’s scientific study of a selected OBE subject, referred to as ‘Miss Z’, see Tart, Charles T., ‘A Psychophysiological Study of Out-of-the-Body Experiences in a selected Subject’ (1968) in D. S. Rogo (ed.) *Mind Beyond the Body*, Penguin. London and New York 1978: 103–133. The first scientific studies of near-death experiences (NDEs) were undertaken in the 1980s by Dr Kenneth Ring and Dr Michael Sabom. For further details see K. Ring, *Life at Death*, Coward, McCann and Geoghegan, New York 1980; K. Ring, *Heading Toward Omega*, Morrow, New York 1984; M. Sabom, *Recollections of Death*, Harper & Row, New York 1982 and M. Sabom, *Light and Death*, Zondervan, Grand Rapids, Michigan 1998. More recently, important new NDE research has been undertaken in Britain by Dr Stephen Fenwick and Dr Sam Parnia, and in Holland by Dr Pim Van Lommel. See S. Parnia, D. G. Waller, R. Yeates, and S. Fenwick, ‘A qualitative and quantitative study of the incidence, features and aetiology of near death experiences in cardiac arrest survivors,’ *Resuscitation* 2001: 48, 149–156, and P. Van Lommel, ‘About the Continuity of our Consciousness’, in C. Machado and D. A. Shewmon (ed.), *Brain Death and Disorders of Consciousness*, Kluwer Academic/Plenum, New York 2004: 115–132.

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LEGITIMIZING BELIEF THROUGH THE AUTHORITY OF SCIENCE: THE CASE OF THE CHURCH OF SCIENTOLOGY

RÉGIS DERICQUEBOURG

Introduction

In this chapter we shall attempt to define the notion of legitimization in religion, then we shall demonstrate how it is expressed, particularly in the Church of Scientology. As we shall further see, people use several ways of legitimizing their belief. Among them is the resort to the authority of science. How does this resort to science operate, and, more precisely, what domain of science does it refer to? Is it the prevailing mode used to legitimate a creed?

This is indeed a complex problem, because what we call “science” is not homogenous. Theories sometimes diverge, some of them are opposed, and public knowledge of science is often little more than an idealized image of the scientific domain.

In order to examine the problem of the appeal to the authority of science, we will present a number of considerations on the theme of legitimization in religion. We will try to define the terms of legitimization, validation, authentication, confirmation, which designate the means by which a creed is deemed true, and then we will study the case of the Church of Scientology, which I have been studying since 1986.¹

The Question of Legitimization in Religion

Max Weber describes two positions with regard to belief and assurance. A religious message may be accepted by faith alone (*sola fide*) and provide in itself the assurance of salvation (*certitudo salutis*) with no other justification. Truth may also be perceived through its manifestations in the surrounding world. When we apply these criteria to Protestantism this duality is expressed in the following way: “The religious believer can

¹ (Regis Dericquebourg, 1998), (Dericquebourg, 2001) (Dericquebourg, 2009).

make himself sure of his state of grace either in that he feels himself to be the vessel of the Holy Spirit or the tool of the divine will. In the former case his religious life tends to mysticism and emotionalism, in the latter to ascetic action; Luther stood close to the former type, Calvinism belonged definitively to the latter. The Calvinist also wanted to be saved *sola fide*, but since Calvin viewed all pure feelings and emotions, no matter how exalted they might seem to be, with suspicion, faith had to be proved by its objective results in order to provide a firm foundation for the *certitudo salutis*. It must be a *fides efficax*, the call to salvation, an effectual calling (expression used in the *Savoy Declaration*).

“If we now ask further, by what fruits the Calvinist thought himself able to identify the true faith? The answer is: by a type of Christian conduct which served to increase the glory of God. Just what does so serve is to be seen in one’s own will as revealed either directly through the Bible or indirectly through the purposeful order of the world (...). Only one of the elect really has the *fides efficax*, only he is able by virtue of his rebirth and the resulting sanctification of his whole life, to augment the glory of God by real, and not merely apparent, good works. It was through the consciousness that his conduct, at least in its fundamental character and constant ideal, rested on a power within himself working for the glory of God; that is conduct, at least in its fundamental character and constant ideal, rested on a power within himself working for the glory of God; that is not only willed of God but rather done by God that he attained the highest good towards which this religion strove, the certainty of salvation (...) Thus, however useless good works might be of attaining salvation, they are indispensable as a sign of election. They are the technical means, not of purchasing salvation, but of getting rid of the fear of damnation” (Weber, 1930). A religion with no means for legitimizing belief would be based on the intellectual acknowledgement of a moral, transcendent and distant God, impervious to men’s petitions. The role played by the ‘Great Architect of the Universe’ in the lower degrees of Freemasonry is the extreme example of this phenomenon. Another example is the cult of the ‘Supreme Being’ practiced by Theophilanthropists, widely inspired by Masonic practices. It can also be based on the mystic feeling of being merged into a God of love.

In any case, these attitudes are not widespread. Many believers are not satisfied with the affirmation “God is”. They try to find in the world confirmation of their belief. Max Weber defines this practice as follows: “The most elementary forms of behavior motivated by

religion or magical factors are oriented to this world. 'That it may go well with thee...and that thou mayest prolong thy days upon the earth' (Deut. 4:40), expresses the reason for the performance of actions enjoined by religion or magic. (Max Weber, 1993) (p. 1). He further writes: "The normal situation is that the burden of all prayers, even in the most other worldly religions, is the aversion of the external evils of this world and the inducement of the external advantages of this world". As a general rule: "As magician must keep up his charisma, so too the god must continually demonstrate his prowess". (Max Weber, 1993) (p. 27). We began this article with Protestantism as viewed by Max Weber, but we can find other approaches to validation in the religious field.

Within Catholicism, miracles are part of this process. They are the sign of God's presence, sent to reassure believers and to confirm his existence to the most lukewarm or to unbelievers. We could also mention here popular devotional practices and the Charismatic movement. The benefits obtained function as a proof of the legitimacy of their belief, both to the intercessors themselves and to those who listen to their testimony. The petition sometimes includes a kind of compact with God or saints, such as: "if you grant my request, I'll let people know about it". For this reason, many chapels were built.

Spiritualists always considered the conjuring up of spirits as an experimental proof of the existence of a supernatural world. Father Antoine, the founder of the small Belgian healing movement (1910) named 'The Antoinists' (Dericquebourg, 1993) started off as a disciple of the French mediums Allan Kardec and Leon Denis. Along with his teachers, he declared that spiritualism was a science because it was based upon experiment. Having found in spiritualism proof of the existence of spirits, he invented a religious doctrine through which man could become a medium for God and prove his existence through spiritual healing. Among Christian Scientists, healings prove to the adept that his interpretation of the Scriptures is the true one. In eschatological movements, confirmation of the central belief in a restored paradise can only come from predictions that prove true, even if these were made a long time ago, as is often the case. If confirmation doesn't come as quickly as was hoped, the date of the expected event can be postponed, or the conditions of its advent re-negotiated without affecting the survival of the movement. The announcement of the second Coming of the Lord can be reinterpreted. For example, it can be said that Christ has indeed come back as promised, but that

his presence is invisible. The confirmation can also be shifted to the domain of a required lifestyle: we already showed (Dericquebourg, R., 1979) how Jehovah's Witnesses considered that their lifestyle, based upon an active waiting for the 'Parousia', brought immediate benefits, which, in their opinion, proved that God had entrusted his message to them.

We saw that "*sola fides*" is not the common attitude among believers: it is not unusual for them to look for the proof of the rightness of their belief in the manifestations that should result from them. In this case, legitimizing belief is an integral part of the process of believing.

Legitimization, Authentication, Confirmation

Both terms, "legitimization" and its synonym "validation" come from legal terminology. To legitimize something is to make it legitimate, to acknowledge or to assure that it fulfils all the necessary conditions for legal validity. In the context of religious belief, we may well ask ourselves whether such a legitimization is necessary, and, if so, what is its meaning. What are the expected results which contribute to the debate on the utility of religion? Religion is, by its very nature, a matter of conviction. Faith is evidence both of God and of a doctrine. Should we consider that truth in this domain needs to be proved? What does the expectation mean, that faith will have consequences? Why should it have an influence on reality?

For Max Weber, this legitimizing process inevitably accompanies prophecy. He mentions Charismatic authentication, considering that "in practice meant magic" (Weber, 1993) (p. 47). He affirms that "it must not be forgotten for an instant that the entire basis of Jesus' own legitimization, as well as this claim that he and only he knew the Father and that the way to God led through him alone, was the magical charisma he felt within himself. It was doubtless this consciousness of power, more than anything else, that enabled him to traverse the road of the prophets. During the apostolic period of early Christianity and there after the figure of the wandering prophet was a constant phenomenon. There was always required of such prophets a proof of their possession of particular gifts of the Spirit, of special magical or ecstatic abilities." (Weber, M., 1993). (Weber, 1993) (p. 47).

Legitimization. Authentication. Weber uses another term: confirmation. This term is linked with the psychological benefits produced

by ethical behavior, which is itself determined by religious doctrine. Ethical behavior gives rise to psychological benefits (in the sense of a spiritual disposition), apparent only afterwards (for example: the behavior of a puritan Protestant, his rational and ethical lifestyle help give him the necessary mindset to run his business according to capitalist principles).²

These benefits affect two different types of confirmation: "In all mainstream puritan denominations these psychological benefits were linked with this "confirming" (Bewährung) of the Christian before God, in the sense of an assurance of his salvation, whereas in the independent puritan assemblies, they stressed "testifying" before men, in the sense of giving a social testimony of one's own position". "The premiums were placed upon "proving" oneself before God in the sense of attaining salvation—which is found in all puritan denominations—and proving" oneself before men in the sense of socially holding one's own within the Puritan sects". (Weber, M., 1961) (p. 321). Regarding the capitalist success achieved by the members of a church, Weber writes: "The capitalist success of a guild member undermined the spirit of the guild—as happened in England and in France—and hence capitalist success was shunned. But the capitalist success of a sect brother, if legally attained, was proof of his worth and of his state of grace, and it raised the prestige and the propaganda chances of the sects. Such success was therefore welcome, as the several statements quoted above show" (Max Weber, 1961) (p. 322). To some extent, because Weber's concept of 'confirmation' uses the protestant puritan's effectiveness in the world to testify to his assurance of salvation before God, or to others about his place among the elect, it can be seen as the legitimization of a creed that favors an ethical doctrine of success.

² To repeat, it is not the ethical doctrine of a religion, but that form of ethical conduct upon which *premiums* are placed that matters. Such premiums operate through the form and the condition of the respective good of salvation. And such conduct constitutes "ones" specific "ethos" in the sociological sense of the world. For Puritanism that conduct was a certain methodical, rational way of life which—given certain conditions—paved the way for the "spirit" of modern capitalism (Weber, M. 1961), (p. 321).

When Legitimization Fails

Can the legitimizing process fail? We can ask whether personal commitment to a belief will invent confirming signs in order to keep one's belief structure intact.

Festinger's study (Festinger, L., 1956) on unfulfilled prophecies shows that disappointed expectations can, under certain psychosocial conditions, be intellectually restructured in order to legitimize a belief. Reality is an intellectual edifice; it is thus susceptible of being re-thought in accordance with man's desires. We too know that, in the healing Churches, the failure of practices to obtain healing never discredits the belief in their practitioners. It gives rise to rationalization processes, such as: the patient wasn't ready to be healed; he doesn't prayed in the right way or he should be examined in order to discover what is blocking the healing process. Max Weber mentions the following possibility: "In the event of failure, the magician ultimately paid with his life. On the other hand, priests have enjoyed the contrasting advantage of being able to deflect the blame for failure away from themselves and onto their god. Yet even the priests' prestige is in danger of failing with that of their gods. However, priests may find ways of interpreting failures in such manner that the responsibility falls, but not upon the god or themselves, but upon the behavior of the god's worshipper" (Weber, M., 1993) (pp. 32–33). In any case, the believers may be affected by the failure: "To this day, no decision of church council, differentiating the 'worship' of God from the 'adoration' of the icons of saints, and defining the icons as mere instruments of devotion a devotional, has succeeded in deterring a south European peasant from spitting on the statue of a saint when he holds it responsible for withholding that a favor he sought did not materialize, even though the customary procedures were performed" (12) (Max Weber, 1993 (p. 2). Whether the saint received the same veneration as previously would be interesting to know.

In the end, we see that the research for elements proving that one's religion is true and should be maintained in one's life is a common attitude. Weber presented the different concepts to call it as it appears in the precedent paragraph. That is why in a past study of the church of Scientology, I attempted to demonstrate how the problem of legitimizing or confirming belief concerned the Church of Scientology (Dericquebourg, 1999).

The Case of the Church of Scientology

In the case of this recent Church, the question of the legitimization of belief is interesting for several reasons.

- a. Scientology is on the border of religion and psychology. It offers both a cosmology and a psychological theory. Of course, an implicit psychology or an explicit account of human cognitive activities belong to any religion, but the founder of the Scientology articulated an exhaustive conception of the mental which resemble, in its form, to the Freudian interpretation of mental life. It seemed interesting to find out which aspect would be stressed by the members at a time when the leadership is placing more and more emphasis on the religious nature of the movement.
- b. It describes itself as a pragmatic philosophy without any doubts about what it can produce: "Scientology works", proclaimed founder Ron Hubbard. What is more, it calls itself a "science based on certainty". It will therefore be interesting to see whether the members thoroughly adhere to the theory of total effectiveness, and how they react towards Scientology when failing to obtain the hoped for results.
- c. As far as the sources of the movement's belief are concerned, they are not based upon the interpretation of any text, although the founder, Ron Hubbard, seems to have appreciated Buddhism, while at the same time regretting the religion's lack of effectiveness in the world. (13).³ It would thus be interesting to see if Scientologists legitimate their belief in terms of the founder's pragmatic conception of religion.
- d. Scientology includes a spiritual vision of a "bewitching" cosmos that we would normally not expect to find in a pragmatic worldview. Moving from one plane to the other demands a series of doctrinal gymnastics that lead to a system of techniques. Legitimizing the

³ In a letter of the HCO dated Sept. 29th 1966, Ron Hubbard writes that Scientology Ethics are linked with 'Vinaya-Pikata's "basket of the order" that contains the Buddhist monastic rules.. His letter reproduces a summary of the 'Vinaya', drawn from the 1965 Buddhist annual, that does not deal with Buddhist moral, but with disciplinary rules and procedures of the order in their practical aspect.

practical aspects seems likely to be the first priority. Can Scientology be legitimized as a practical religion?

- e. The teachings of the Church of Scientology include conceptions about the origin of cosmos, the brain, illnesses and their origin; about the link between body and mind. Whether the Church itself and its followers consider that science (the science which they imagine) confirms their doctrine would be interesting to study.

1. *The Self-legitimization of Scientology in its Writings*

In Scientology writings, the legitimization of Hubbard's teachings relies upon two arguments: that applied religious philosophy corresponds to the needs of man in contemporary western society; that these techniques are efficacious.

Firstly, the relation between the correspondence and the legitimization of a theory was examined by Berger and Luckmann (Berger, Luckmann, 1966). With the example of psychology, the authors asked how this discipline could be legitimized in a non-scientific way. In their opinion, a psychological discipline is legitimate if it can be empirically checked, if it passes the test of the everyday experience. For example: "a psychological theory of demon possession has very little chance of being legitimized in the context of an interpretation of identity crisis among lower-middle-class Jewish intellectuals in New York" because they simply don't have an identity capable of producing the sort of phenomena which can be interpreted in such a way. "On the other hand, psychoanalysis is unlikely to be able to interpret problems of identity in the Haitian countryside, while some forms of voodoo psychology may well provide particularly relevant categories of interpretation". In other words, there is a connection between legitimization and interpretative relevance as between legitimization correspondence to cultural context: the psychoanalytical theory is valid when we interpret a nervous disorder in a cultured world, whereas a theory of demon possession is valid when we are interpreting the behavior of a Haitian farmer. From this point of view, psychological theories will be inadequate to explain them. For Berger and Luckmann, there is a dialectical relationship between theory and behavior: when it has been socially established, i.e. legitimized, people take it into account and produce phenomena which correspond to the theory. People who accept the belief in possession may behave as if they were possessed,

which proves that their theory is valid for interpreting a category of phenomena which exists in reality.

Berger's and Luckmann's theory allows us to grasp legitimization in Ron Hubbard's applied religious philosophy. It was not devised as a revealed morality, rather as the result of the right use of human reason—taking on the values and ideals of liberal society: individual success, a morality of competition between individuals in order to avoid savage behavior, the rise of economic power and science and technology which provide improvements in personal well-being, faith in the continuous progress of civilization, in man and his potential, in the possibility of harmony between personal aims and those of civilization as a whole. Faith in these ideals is justified by the nature of the human being: women/men are good; by consequence of which, they long for what is good, i.e. maximum survival. If he or she fails in becoming more powerful or in practicing a morality that encourages progress in civilization, this is because he or she suffers from aberrations that can be cured through special techniques. To sum up, the human race may regain the omniscience and omnipotence of the primordial spirits, thus producing a human race like it was in the beginning of the world. This is a kind of regressive utopia which spiritualizes progress by making it a pilgrimage towards a world of perfect beings that existed at one time in the past. The applied religious philosophy appeals to the man's responsibility and offers him a choice between an increasingly feral society if he does not improve, and a powerful society without war or violence if he agrees to treat his aberrations (Wallis, R., 1976). We can see that Ron Hubbard's ideas of personal responsibility, wealth and personal development are not that far from the philosophy of the Enlightenment which dominates our highly developed society.

Secondly, the legitimization of Scientology comes from the legitimization of its techniques. Here we find two kinds of arguments: personal experiment and expert opinion. Whoever applies the ethical technology and uses 'Dianetics' will inevitably live a better life. The organizations which apply Ron Hubbard's management techniques will increase in power. In the first case, increased well-being and healing indicate success, while in the second case, statistics must be relied upon. The absence of positive results does not discredit the techniques. Rather, such apparent failure invites the user to examine his or her own resistances, his relationship problems within the organization or his faulty use of the techniques. In either case, he or she is invited to

persevere, because there always is a technical solution to any problem: Scientology must succeed. The standard technique can be referred to in a kind of encyclopedia. The application of the techniques is purely mechanical: one only has to follow the instructions step by step, in order to reach the desired result. No particular abilities are required. Legitimization comes through experiencing techniques which cannot be invalidated by failure.

Scientologists also use a selection of experts to legitimize their techniques: Dianetic, tests, purification programs. The results are published (The Church of Scientology, 1998) and always are brought to the attention of the judges when the Church of Scientology is tried before a Court. Success is supposed to prove the legitimacy of the technique, therefore also the applied religious philosophy and the spiritual concepts that go with it.

2. Legitimization of Scientology in a Sample of Confirmed Followers

In 2005, we made an initial survey about the legitimization of Scientology. We wanted to know whether the legitimization of Scientology as described in the official literature was the same as that used by the members. For this reason, we interviewed fifteen Scientologists: the members we interviewed had been in the movement for five to twenty years—because we wanted to have the opinions of experienced Scientologists who do not have the beginners' enthusiasm of new converts. A long time practice of Scientology may provide an overview and reflections on it. They were well read. Their names and addresses were provided to us by the Church of Scientology in Paris. We called them on the phone and asked for an interview with those who had some time to spend with us. We gave assurances to the members and to the Heads of the French mission that the ethical rules of the researcher would fully apply.

We asked them why they thought that Scientology was true and we let the members speak. The interviews were recorded and transcribed.

For a content analysis, we took as an argument: a bit of sentence, a complete sentence or several sentences written in different colors in the transcript of the interview. The only consideration was that there was a unity of meaning corresponding to an idea or an argument. We did not calculate the numbers of occurrences because we only wanted to focus on the nature of the arguments. These can be divided into several categories, which are:

- *Pragmatic Legitimacy*

The Scientologists we interviewed thought that their beliefs were valid because they brought about tangible improvement in their lives, sometimes thoroughly changing their situation. They claimed that their state of health had improved, that their communication with other people was better, that they lived in greater harmony in their family life. They continued in the movement because they saw definite results right from start. For the members, Scientology is a useful religion.

- *Probability in Belief*

Experimental checking leads believers to leave an “unchecked” field. Many Scientologists admit that they haven’t personally checked all Ron Hubbard’s doctrine for themselves and that there remain zones of hypothetical belief. Belief in God is much discussed. It can also be checked. For some of the interviewees, the existence of a supreme being is not to be questioned. They speak of an inner conviction, an evidence for God’s existence which makes up for their differences with the “God of the Catholics” of their childhood. Contact with their past lives during an auditing session left its mark on others, which led them to the notion of an infinite being within themselves (For instance: *‘To start with, I wasn’t aware of it, but as the auditions went on I realized that there really was an eight dynamic that is infinite and exists: I didn’t know at first about it, but now I know it exists’*). For most of the interviewees however, God (‘the eighth dynamic’ in their vocabulary) needs to be checked in the same way as other beliefs. At the same time, they consider God as a probable hypothesis: for one thing, if they checked a part of Ron Hubbard’s teachings, there is no reason why the rest shouldn’t be true. For instance: “I know that there is a creator of all things, of the universe . . . , I believe that there is a supreme being, it’s just a question of time. Does he still exist? At the stage I’ve reached now I have no means of checking. It’s partly faith and partly checking, because when you’ve checked 70 percent of a subject, you think the rest is probably true.” (Scientologist, 20 years standing, aged 47). Still, others think that if Scientologists on higher levels have found God, then he must exist. At the same time, they admit that they are on a search that might not end up with the same discovery. For many Scientologists “The eight dynamic” remains a world that must be explored in order to be fully believed

in. For the moment they are waiting. God is probably there. This can be called faith in probability.

- *Relative Truth*

Where experiments dominate, truth is always relative to the stage reached on the Scientologist's path of development. Two truths mentioned by one of the interviewees illustrate this relativity: the one beyond time and words and the truth of "here and now".

- *Relevance*

Scientologists state that their belief is relevant to reality. One of them spoke about 'being in tune with reality'—while at the same time admitting that he created it himself and that it had become natural for him. For example, one of them perceived Scientology ethics as adequate for understanding others and for dealing with them. Another believer said that she had found a satisfactory method of social reform. Before her involvement with Scientology she had been a militant socialist. She felt that she had found in the Scientologist technology the tools she needed to "thoroughly reform society".

- *The Meaning of Life*

Members claim they have found a meaning for their lives. One of them described himself as 'a sailor drifting on the ocean under a cloudy sky with no compass and no landmarks to guide him, when he found a map and all the navigational equipment he needed'. Scientologists think they have found the meaning of life and the way to go forward. One of them, who gave up studying medicine, admits that he couldn't see the point of all the effort he was making, because the comfortable, middle-class existence he was heading for seemed to be inconsistent with what he felt was the meaning of life; meaning he thought he had found in Scientology.

- *The Importance of Scientology Technology*

Scientology is not so much believed in as practiced. The phrase "doing some scientology" was used several times. In an earlier series on interviews on the subject of defining what Scientology was, members stressed the technology. During the current series of interviews, legitimization relied on the trustworthiness of the technology. Scientology appears to be a practical religion.

- *Referring to a Religious Tradition*

The interviewees talked about religious traditions only to point out their shortcomings (Catholicism, Buddhism). No one mentioned the link between Buddhism and Scientology. It certainly is ambiguous in Ron Hubbard's writings: he underlines what they have in common, but regrets Buddhism's lack of effectiveness in the world. As we shall see, this omission accompanies the omission on science. Believers do not seek to legitimize their beliefs by referring to external factors. They do not feel the need of supporting their belief by referring to others, in theological terms, nor to placing themselves in a tradition of religious thinking, even if Ron Hubbard perceived similarities between Scientology, Buddhism and various ancient wisdom religions. What they have checked themselves seems to be sufficient.

- *Referring to Science*

In our interviews we found no reference to accredited sciences as proof for the doctrine or the technology of Scientology. This is in direct contrast with: a) the expert knowledge required by the leadership and mentioned above. b) Ron Hubbard's statement that "I have to face up to the fact that we have come to the point where science and religion meet, and from now on we should stop pretending to have exclusively material aims. We cannot treat the human soul if we close our eyes to this fact". (19)

To explain the lack of reference to science as an element of validation for Scientology, we can make several hypothesis: a) Compatibility with the accredited sciences is an official doctrine considered as an accepted fact which Scientologists do not feel the need to justify; b) The legitimization of this belief is a question of personal experience rather than an attachment to an official position; c) That, in their mind, Scientology technology replaces science; d) We should also notice that at the time of our interview (2005) the Church of Scientology was changing the way it presented itself. It describes itself more and more as a religion. Its current struggle was to be recognized as a specifically religious movement (20). e) Right from the earliest days of Scientology, science has undergone a "confidence crisis", making it less apt to serve as a reference point legitimizing a particular belief.

The Authority of Science as an Element of the Legitimization of Scientology in a Recent Survey

- *The Survey*

Although the authority of Science does not spontaneously appear in interviews, we again set the problem of the legitimization of the beliefs in a sample of French Scientologists. Our choice of the Scientology is rooted in two facts: 1) the contact with other healing Churches was disappointing. Their leader told us that they did not need to confirm their creed through science because this is material and of no importance (Christian Science, Antoinism) 2) Our former survey about the validation of Scientology by its followers.

In May 2009, when conducting a survey on recruiting in the Church of Scientology, we added, in view of this article, those two questions regarding the authority of science: "1) Do you think that Ron Hubbard's teachings are confirmed by the present scientific discoveries?" Yes/No/nr; 2) "If yes, can you tell me why ? List up your arguments."

The one page questionnaire was sent to 500 French Scientologists, taken at random from the list of members given to us by a Church official. Two weeks later, we shipped 500 questionnaires for a second time, because the return rate of the first shipment had been very low. A total of 144 completed questionnaires were returned to us. The 14.4% return rate seemed pretty low to us, compared with the responses to the first survey we made in 1986, drawing up a profile of French Scientologists. We will here deal only with the answers to the two questions mentioned above.

Results:

To the first question, the answers were: Yes: 83; No: 29;

No reply: 29.

The second question (open question) was analyzed via content analysis, which consists in counting up units of meaning. A unit of meaning is a segment of the written answer that comprises a sentence, sometimes two, or a clause containing an example, or completing and strengthening the first sentence. In short, it is an idea or a clause that provides information, sometimes accompanied by information that does not bring more sense. For instance, an answer such as: "*Briefly, some analysis elements. Medicine taught us that a fetus registers sounds, emotions, that he is able to register 'information', to recognize his mother's voice afterwards etc. M. Hubbard's*

teachings and precautions do not seem strange any more from a medical point of view.” is considered as a unit of meaning because the first introductory sentence does not teach us anything. The first sentence expresses an idea and the third sentence “the teachings...” only strengthen what the first sentence said. In appendix 1, we will provide examples of the way we organized the open answers into units of meaning.

We transcribed the answers to the open question one after the other. Then, during the categorization phase, we tried to group together ideas with the same meaning into the same category, and we attributed to each category a name that specified the grouped units of meaning. Several attempts are necessary with that type of exercise because certain units of meaning are not associated with any category, while others can belong to two categories. Categories must then be made clear, some suppressed, some added or subtracted till we get a chart that incorporates the maximum amount of text.

We can observe that the 83 « Yes » answers (‘Ron Hubbard’s teachings are confirmed by science’) are not always justified by scientific arguments. Some members answer ‘Yes’, but, to the question ‘Why?’, speak about the benefits of Scientology (pragmatic validation) or quote catastrophes (destruction of our planet, war). Those ‘off the point’ answers which do not provide insight into appeals to the authority of science within our Scientologists sample, were eliminated. We then divided the sum of accepted answers into three units.

1. *The Dismissal of Science*

- The clear refusal to resort to the validation of Scientology through science is based on three motives: a) Scientology is spiritual; it is thus in itself validated. b) Non-knowledge of science, expressed this way: “*I am not well-informed on recent discoveries*”; answers that assert that ‘Science’ is too vague an expression. c) Answers that criticize science: “*Scientific discoveries seem to me futile in comparison with the aims of Scientology*”; “*In fact, the majority of present scientific discoveries are technological*”; “*Up to now, no scientific discovery allowed the human aberration to be solved.*” or “*Science is at a standstill*”. (Question no. 75).
- Some Scientologists invert the formula; they answer that Ron Hubbard has an influence over science or the way it is applied (with a positive and non destructive moral), from an epistemological point of view in particular. For instance: “*I think that any present scientific discovery can be confirmed by Ron Hubbard’s teaching, and not the reverse*”. (Questionnaire no. 38).

2. *Pragmatic Truth*

Validation through effectiveness, as already seen in an earlier survey ('fides efficax'): "*I don't really care, what is important for me is that things work.*" Another repeats the Scientologists' slogan: '*Scientology works*'. We called that category: "pragmatic truth."

3. *The Aspects of Scientology That were Checked by Science, That are*

- The mental and cerebral functioning fields. Ron Hubbard's thesis on drugs and psychoactive substances.
- Antenatal life.
- The risks coming from nuclear radiations.
- Psychosomatics, engrams, cellular memory, the origin of diseases.
- Human relations.
- 'Others': in this category, we put all the arguments that could not possibly be classified elsewhere. We can nevertheless distinguish three sub-categories: A) What concerns the method Ron Hubbard used to make his discoveries, the techniques he perfected (mental exercises, audition, purification); B) Magnetism; C) Physics; D) The theory of evolution, vitamins, Near Death Experiences, past lives (which would be verified by science, according to interviewed Scientologists).

Appendices 2 and 3 sum up the answers and their classification.

Appendix 4 presents the statistical analysis of the differences in percentage between categories (Chi square test).

Discussion

Our results call for several remarks.

1. Arguments calling on 'science', or 'sciences' seldom refer either to named scientific theories, to the names of renowned scientists, or precise experiments. We found those kinds of arguments among current New Agers, yet that type of imprecise and general argument is quite old. Spiritualists for instance, used to pretend that 'Soviet scientists' (Russian scientists) had taken pictures of auras (magnetic envelopes around people). Of course, mentioning a 'Soviet science' confirmed even more, in their minds, the existence of these strange facts, because it came from materialist, atheist scientists, who could not be suspected of going along with the spiritualist line. In fact, rank and file Scientologist recourses to a science were built from things heard and read in media,

rather than from the authority of precise scientific facts from academic literature. Such is the example of psychosomatics. One member says: *"The influence of the mental upon the body and the notion of psychosomatic disease are more and more commonly acknowledged"*. Another states: *"Well before 50', for instance, Ron Hubbard pointed out that more than 70% of all physical diseases were caused by mental activities, i.e. were of psychosomatic origin. Presently, one can read on the 'internet' that the greatest scientists are interested today in psychosomatic diseases"*. In common with the New Age, questionnaire respondents did not refer to convincing studies published in scientific academic magazines. The psychosomatic hypothesis is here considered as an established fact, when it has to be demonstrated outside Freud's 'hysterical conversion' phenomenon.

2. The interviewed Scientologists do not, on the other hand, resort to science either to validate their genesis of man and his history, from the fall of almighty and immaterial primeval Spirits (Thetans) into material human bodies, or to validate the crossing of fundamental elements (air, fire, water, earth) typical of esotericism. They do not call to mind the interplanetary wars that could have taken place, and give to the history of our planet an aspect of science fiction tales. We can draw the hypothesis of an absence of scientific validation of the "founding myth" from the fact that the people we interviewed have not reached the grade of operating Thetans (O.T.). They have no knowledge of it. If they know about it, they mustn't talk about it anyway, like the "high ranking" Freemasons who keep their esoteric knowledge secret. They therefore refer to techniques and knowledge that bring about a state of 'clear', which is their present path.

3. It can be also remarked that no interviewee tried to validate Hubbard's ethics and its eight dynamics through science.

4. We can say we face a tautology: Scientologists have recourse to science for justifying Hubbard's anthropology, which comprises cognitive, social and pathological psychology of man, as well as a theory of the inter-dependence between body and mind. Ron Hubbard considered that his anthropology was a scientific one. He gave his doctrine a scientific shape, with laws and axioms; he proclaimed a methodological approach, used an old scientific vocabulary, reused old notions like the engram as well as concepts in physics from his own time. The titles of his works on Dianetics, which, for Ron Hubbard, is a branch of psychology, included the word science: *The Evolution of a Science*. His speech on mental life, the more widespread of which is: *'Dianetics. The*

Modern Science of Mental Health'. (Hubbard, 1950). Dianetics is sometimes laid out as the basis for cognitive activities in Hubbard's "Science of mind" precisely considered by his followers as scientifically valid. Thus, they scientifically validate what is already considered scientific by the founder. At that stage, we must stop to study a paradox: in the first above mentioned survey on the validation of Scientology, resorting to science was almost ignored by Scientologists. Whereas in the second survey, they legitimate their creed through vague yet current scientific popularizations. The presentation of these arguments could be the result of methodological bias. It could be asked whether the investigator's question forces the interviewees to answer 'something' only to give an answer. To this, we will answer: 1) The not inconsiderable percentage of 'No' answers, (29) and of 'no reply' (29) form a total of 41%. This means that the interviewees could show they refused to look into their creed from the legitimization by science point of view. 2) If the answers were 'forced upon people' and if Scientologists had in fact no opinion, the arguments should have been distributed at random among the categories; there should be no signifying differences between them; when the chi square test shows signifying differences between the categories of resort to science, which shows that Scientologists did not answer at random (see chart 4). Therefore, they did not answer only to 'please' the investigator.

5. We can explain these results by the specificity of Scientology, which is a religion of a particular kind, as shown by the recent work edited by James Lewis (Lewis, 2009). Whether it is post-religious (Willms, 2009) or post-modern (Grünschlof, 2009), Scientology appears as multi-dimensional; each Scientologist can stand more or less in a therapeutic dimension, in that of self-development, or in the cosmic dimension. His or her resort to science for validating his or her religion would vary according to his or her choice. Resorting to science is not necessary to validate the story of the Thetans, of the planet, nor for self development; the efficacy of the means for succeeding in life are validated by the very success (it works or it doesn't). Lastly, the vagueness in scientific references brings us back to validations found in the New Age more generally, whose proximity with Scientology exists even though it is called into question (Grünschlof, 2009).

Conclusion

In this article, we saw that Scientologists do not spontaneously refer to science in order to validate their creed. This is due to the diverse ways Scientology uses to present itself (spirituality, development methods increasing self-efficiency and a doctrine relying upon science, indeed even a new science in itself), which is reflected by its followers. Nevertheless, when asked to quote some aspects of science that validate their creed, they resort to a re-appropriated, 'ad hoc' kind of science coming from a 'vulgate' that directly stems from the media—far from academic science. The fact that the faithful who have intellectual means to be interested in scientific knowledge are distant from science and lack the interest in deepening their knowledge, may send us back to the representation of science in the Western world: the scientific and technological paradigm stemming from nineteenth century positivism is still pregnant, yet science was de-sacralized during the 'suspicion years' of the counter-culture. A scientific utopia no longer exists. From a global point of view, it seems that science must be accompanied by values, among which we may count spiritualities.

Appendices

1. *Examples of Units of Meaning*

Annex: example of answer. Slashes: / separate units of meaning

Q1: "Briefly some analysis elements / nowadays, medicine learnt that the fetus registered sounds, emotions, 'information', can recognize his mother's voice afterwards etc. M. Hubbard's teachings and precautions do not seem strange any more from a medical point of view.": we count a unit of meaning, that we place in the part validation through science, in the category: Antenatal.

Q8: "I don't see what discoveries it is all about": a unit of meaning, placed in 'no knowledge of science', because the interviewee sends the investigator back to his lack of precision on the subject of science. It is equivalent with a refusal de recourse to the authority of science.

Q 21: "antenatal memory": allotted to the 'antenatal' category.

Q 32: "It is more and more acknowledged that the origin of a disease lies in the mind./ the accumulation of toxins in the body prevent its optimum functioning./ IQ can evolve/." Those are three ideas stemming

from Ron Hubbard’s teachings that are considered by the interviewee as checked by science. Categories: first unit: ‘psychosomatics’; second and third: mental, cerebral functioning’. Part: ‘recourse to science’.

Q35: “I’m not well aware of the current scientific discoveries / I have nevertheless no knowledge of any that would invalidate Ron Hubbard’s teachings/”. Categories in the first unit of meaning: ‘insufficiency in knowledge on science’ i.e.: refusal of the authority of science. Category for the second unit of meaning: ‘other’.

Q73: “Scientists begin to consider matter as a spiritual goods. It doesn’t exist as such/”. We assign it to the category ‘other’ in the ‘recourse to the authority of science’ part.

2. Table 1. Refusal to Having Recourse to Science in Order to Validate Scientology and Motives of the Refusal. Number of Items and Percentage

refusal	Scientology is a religion, a moral, self-validated metaphysics	11	24
	Because I don’t know science.	3	
	Criticism of science.	10	
	Inversion: Ron Hubbard had influence over science	5	5
	Scientology is validated by its efficiency in my life. It’s enough to me.	19	19
total			48

3. Table 2. Classification of ‘Scientific’ Arguments in Favor of the Belief of Scientologists, Number and Percentage of Items

Validation with science 15,42%		Antenatal life	Consciousness in the fetus. Traumatism of birth	27
23,62%	idem	cognition	Mental functioning, the brain, effect of the drugs on the brain.	30
6,29%	idem	nuclear	The effect of radiations human beings	8

13,38%	Idem	psychosomatics	Engrams cellular memory, emotional origin of diseases.	17
3,42%	Idem	social	Human relations.	6
14,17%	Idem	others	Ron Hubbard was a scientist; he method; technique; laws of cause and effect.	18
7,08%	Idem	others	Physics	9
9,42%	idem	others	Theory of evolution, vitamins, NDE, past lives, magnetism.	12
total				127

4. Table 3. Observed vs Theoretical Numbers

observation	Observed numbers	Theoretical numbers	O-T	(O6T)**2/2
1	27	15,87	11,13	7,80573
2	30	15,87	14,13	12,58078
3	8	15,87	-7,87	3,90277
4	17	15,87	1,13	0,08046
5	6	15,87	-9,87	6,13843
6	18	15,87	2,13	0,28588
7	9	15,87	-6,87	2,97397
8	12	15,87	-3,67	0,94372
sum	127	126,9600	0,040	34,71173

Comment:
chi square test = 34,71173 dl 7 significant at $p < 0,000013$. The difference between the sums of observed and theoretical numbers is significant.

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ALTERNATIVE ARCHAEOLOGIES

NEW RELIGIONS AND THE SCIENCE OF ARCHAEOLOGY: MORMONS, THE GODDESS, AND ATLANTIS

CAROLE M. CUSACK

Introduction

The scientific discipline of archaeology developed in the nineteenth century, a product of the same post-Enlightenment milieu that generated the academic study of religion and the beginnings of the modern proliferation of new religious movements (NRMs). Archaeology as a science is potentially hostile to religion, in that it seeks to concretise the evidence for religious phenomena that are frequently taken on faith. An established subdiscipline such as Biblical archaeology has often advanced “on the assumption that its purpose was to confirm the essential truth of scriptural accounts” (Levitt 2006, p. 271). However, mainstream academic archaeology maintains its scientific neutrality, insisting on its commitment to “the recovery, analysis and interpretation of the physical remains of past human activity” (Fagan 2006, p. 24). Yet Biblical archaeology continues to attract Jewish and Christian scholars, and new religions frequently develop theologies that interact with archaeological material and offer interpretations of archaeological phenomena that are at variance with secular scholarly orthodoxies.

This chapter explores three new religious movements and their relationship with the science of archaeology: the Church of Jesus Christ of Latter-day Saints (Mormons), contemporary Goddess spirituality, and New Age engagement with channelled beings and the lost continent of Atlantis. It will be demonstrated that a complex and ongoing dialogue between alternative religionists and academic archaeologists has developed since the mid-twentieth century. Alternative spiritual interpretations of sites and artefacts are generally dismissed by the scientific community as “cult archaeology” or “pseudoarchaeology” (Stiebing 1995, p. 1), but in recent decades feminist and postmodern voices in Post-Processual archaeology have acknowledged the subjective range of potential interpretations (Meskell 1999a, pp. 83–89), thus opening up the possibility of accommodating alternative views of archaeological phenomena.

This chapter argues that alternative archaeologies of sacred sites, whether they assert the presence of ancient Israelites on the American continent (Southerton 2004, pp. 168–177), the existence of an idyllic goddess-worshipping matriarchy in the Neolithic past (Sjöö and Mor 1987), or the search for lost continents such as Atlantis or Mu, engage with academic archaeology in a number of significant ways. These may include: the complete denial of scientific interpretations and the assertion of other, eclectic scenarios; the selective adoption of elements of scientific archaeology; the use of archaeological analysis to develop new mythologies and theologies; and the adoption of archaeology as a life-practice that confers identity (Holtorf 2005b). Further, Post-Processual and postmodern archaeologists, far from rejecting such creative uses of their discipline, avowedly welcome the contribution of alternative religionists. It is also important to note two further complicating factors: first, new religions may embrace a postmodern openness to interpretation when archaeological confirmation of their position fails to emerge, effectively mirroring the “multivocal” position of Post-Processualist archaeology; and second, scientific archaeology decries alternative archaeology with comparable ferocity to that observed in the repudiation of new religions by established religious traditions, thus creating a “feedback loop” in the interactions between archaeology and new religions.¹

The Science of Archaeology and the Science of Religion

When Robert Johann Koldewey (1855–1925) discovered the site of the ancient city of Babylon in 1899 the discipline of archaeology had emerged from its antiquarian origins in the seventeenth and eighteenth centuries and was becoming established as a science. Parallel scholarly developments at the time included the critical study of Biblical texts and the growth of the “science of religion” (*Religionswissenschaft*). The excavation of Babylon was especially significant for Biblical scholars, in that there was widespread confidence that archaeology would

¹ I am grateful to my research assistant Dominique Wilson for her skill and patience in locating materials, photocopying and taking preliminary notes. My thanks are also due to Don Barrett for his sympathetic interest in my researches and his assistance in clarifying my thoughts during the researching and writing of this chapter.

“prove” the Bible, confirming the truth of Christianity. Nineteenth century Egyptology and Assyriology were both understood in terms of their significance for the study of the Biblical narrative, and scholarly expectations were fulfilled by constant discoveries (Moorey 1992, pp. 2–4). As the comparative study of religion developed, archaeology became important due to its role in verifying the pasts of many religions: Alexander Cunningham published the facsimile *Inscriptions of Aśoka* (1879) which confirmed the Indian origins of Buddhism; Leopoldo Batres excavated Teotihuacan in 1905, enhancing knowledge of pre-Columbian religion; and in 1921–2 Sir John Marshall excavated Harappa in the Indus Valley, a city that might be evidence of the “forts” destroyed by Indra, the god of the invading Aryans, referred to in the *Rig Veda* (Breton 1908, pp. 34–37; Insoll 2004, *passim*).

During the twentieth century, as Western society secularized and the influence of institutional religion declined, academic methodologies became more sceptical and archaeologists became increasingly cautious as to what contribution their discipline might make to the study of religion. Yet the twentieth century’s progress harboured a paradox: secularisation, which in its original sociological formulation was asserted to result in the eclipse of religion entirely and the triumph of scientific materialism, actually generated a plethora of new religions, particularly from 1950 onward (Stark 1999, pp. 262–264). In tandem with this, the Enlightenment model of science, which shares the secularisation thesis’ rationalist underpinnings, gave way to post-modern methodologies which relativised truth, dismantled scholarly objectivity by situating the researcher within the research (deliberately drawing attention to how power and perspective can dramatically alter results), and insisted on the inclusion of previously excluded voices (black, feminist, subaltern and so on) (Lyon 2002).

These intellectual trends significantly affected the academic study of religion (Gill 1994, pp. 970–975) and partially underpinned the emergence of the study of occult and esoteric groups, indigenous traditions, and new religions as a major subfield within it (Faivre and Voss 1995). Where previously a hegemonic approach dictated that certain “world religions” were genuine faiths (generally because they were the traditions that Christianity encountered and had to theologically accommodate during the period of colonial expansion from the sixteenth century onward, for example Buddhism and Hinduism) and other paths and spiritualities were excluded as “magic” and “superstition,” the study of

religion in the twenty-first century comprises many beliefs and activities that would previously not have been recognized as religious at all (e.g. alternative medicine, psychoanalysis, shopping, working out at the gym, and a myriad other “spiritualities”) (Cusack and Digance 2008, pp. 227–241). Further, the “world religions” approach has been exposed as an Enlightenment construct, implying a false comparativism (Jackson 1995, 276–278). These philosophical changes have not, however, produced a uniform “method” adhered to by all; rather, a plurality of theories and methods are now employed within the study of religion.

Within academic archaeology similar trends are observable. Stephen L. Dyson’s 1993 article on methodological developments in twentieth century archaeology is an important reflection on the discipline. He traces a trajectory from traditional Classical Archaeology, grounded in philology and positivist presuppositions, through the New Archaeology of the 1960s and 1970s, in which “young, often irreverent researchers” challenged older models but retained a scientific orientation, to the now-dominant Post-Processualism, in which “talk of symbolism...cultural relativism...[and] the citation of continental thinkers like Derrida, Foucault and Habermas” (Dyson 1993, p. 198) results in a methodologically pluralist discipline. Classical archaeologists used the texts and history of the ancient world to ground their explorations of material culture; New Archaeology, exemplified by the work of Lewis Binford (b. 1930), drew on anthropology and focused attention on prehistory; and Post-Processualism has opened archaeology to the consideration of folklore, the life history of monuments, and heritage parks (Holtorf 2005b). This shift within archaeology is manifested in popular magazines like *National Geographic*, museum exhibits and reconstructions of archaeological findings (television documentaries, interactive computer models and so on). It may have immediate impact on the practice of non-mainstream religion; for example, “[a]t Stonehenge, there is a continuing acceptance, not only of Druids, but also, following a ban, the readmission of ‘New Agers’ and associated groups at the solstice of 2001” (Schadla-Hall 2004, p. 267).

Archaeology and Pseudoarchaeology

The three new religions examined in this chapter are historically grounded, and thus the reception of their dialogue with archaeology is situated within the evolution of that discipline. Before considering

specific case studies, it is necessary to investigate scientific archaeology's relationship with "pseudoarchaeology" or "cult archaeology" (Fagan 2006; Stiebing 1995). Since the mid-twentieth century it has been increasingly simple and inexpensive to publish material through non-academic channels, and the growth of new media (chiefly television and the internet) has encouraged seekers to explore theories on almost all fields of knowledge. Enlightenment science mandated that reliable information should be empirically tested, through repeatable experiment, and submitted to peer review. However, alternative views that are not subjected to the same standard of testing have arisen in virtually all areas of knowledge (e.g. "young earth" creationism, alternative medicine, conspiracy theories, and the diffusion of culture). Schadla-Hall argues that, although there is no hard line that can be drawn between "mainstream" and "alternative" archaeology, the core themes of the latter are a focus on origins, hyper-diffusionism, ancient knowledge and power, astro-archaeology, and the truth of religion and mythology (Schadla-Hall 2004, pp. 257–258). Further, the claims regarding each of these themes are always dramatic and propose revolutionary new understandings, rather than the gradual accretion of information that slowly advances knowledge.

This broad-ranging agenda results in a range of books, television documentaries, websites and discussion forums concerning so-called "alternative" archaeological phenomena. Astro-archaeology is one of the most popular and enduring of these; its best-known exponent, Erich von Däniken (b. 1935) attained fame with the publication of *Chariots of the Gods* (1968). *Chariots* argued that the technologies and civilization of ancient humans were the gift of extraterrestrials, aliens who travelled from distant planets and who were welcomed by humans as gods. Forty years later, von Däniken has established the Archaeology, Astronautics and SETI Research Association (AASRA), and has created Mystery Park in the Swiss town of Interlaken. This Swiss Tourism Award winning theme park presents some of the archaeological "mysteries" of the world, and welcomes hundreds of thousands of visitors each year. Academics interviewing university and college students in the 1970s were alarmed to discover that a large percentage of them accepted von Däniken's theories (Bainbridge 1978, pp. 33–48; Thiering and Castle 1972). It is unsurprising, however, that von Däniken's theories have been so influential, as "with over 65 million sold books, Däniken alone has probably reached more readers than all the writings of professional archaeologists worldwide put together" (Holtorf 2007, p. 88).

Sundry reasons have been advanced to explain why alternative archaeological narratives are so influential. The saturation coverage of popular publishing and media ensures that von Däniken and authors of his ilk have an extensive readership. But simply reading such books does not mandate that people will adopt the arguments presented. However, in the contemporary West personal identity has undergone significant modification, with the consumption of products and the “trying-on” of roles displacing religion, family and community as the prime factors in how people determine who they are. This plastic sense of self is flexible and experimental, and identity is “amenable to infinite reshaping according to mood, whim, desire and imagination” (Lyon 2002, p. 92). This has two effects with regard to the status of information; the individual can choose the explanation that suits him or herself, without concern for whether it is “objectively true,” and is free to discard it when it no longer satisfies. When this realisation is combined with the dense and non-user friendly nature of scientific publications and the degree of specialisation required to understand them, Pascale Boyer’s argument that humans have an evolutionary biological tendency to accept and trust narratives that operate through inference and attribute personal agency as the cause of events (which works equally well for God creating the universe, aliens directing the cause of human history, or ancient Egypt being the source of all civilizations) rather than explanations that posit impersonal forces or complex interrelated factors, receives additional support (Boyer 2001, *passim*).

Holtorf reinforces the significance of this shift in identity construction in his analysis of archaeology’s relationship to popular culture, where the figure of the archaeologist is a detective who solves “profound mysteries and reveals secrets of the past,” or a hero like Indiana Jones, who “finds hidden treasures, makes stones speak and brings lost civilizations back to life” (2005b, p. 33). For Holtorf, popular culture is “how people choose to live their own lives” (2005b, p. 8), and he maintains that within that context archaeology is best understood as a site of experiences of the past, which people reinvent according to their own needs, and through which they have access to authenticity. This is a profoundly anti-elitist understanding, which rejects academic and professional claims to authority. Holtorf argues that sites and artefacts are more important for how they “allow the past to be experienced” (2005b, p. 127) rather than whether experts regard them as genuine. He insists that “if archaeology is popular culture, then we are all

archaeologists” (Holtorf 2005b, p. 160), thus collapsing the boundaries between professional and amateur, between educated and enthusiast. That attractions of this position is evident when scientific archaeology’s assertion of its superiority over non-experts is considered:

[t]hose who know little about archaeology, linguistics, and other scholarly disciplines have difficulty recognizing the erroneous nature of supposedly “factual” claims of pseudoscience and pseudoarchaeology. When told that pyramids appeared simultaneously in many areas of the world, that some American Indian tribes speak a Semitic language, or that the Easter Island statues could not have been carved with stone tools, the average person does not recognize immediately that these assertions are false (Stiebing 1995, p. 6).

Thus, the conventions of science are often perceived by non-scientists to be arcane and restrictive, and the attitudes of its practitioners are experienced as patronising and elitist. Other explanations of scientific phenomena are readily available and the modern individual is empowered to choose them. This simple fact underpins the continued power of religious narratives in the contemporary West, as well as the success of a range of other explanatory systems.

The Book of Mormon and Archaeological Evidence

The Church of Jesus Christ of Latter-day Saints was founded by the prophet Joseph Smith (1805–1844), who claimed to have first had a vision of God the Father and Jesus Christ in 1820, during the period of religious ferment known as the Second Great Awakening. This encounter took place in a grove near his home in Palmyra, in western New York State (Madsen 2006, 54). Three years later, this experience was followed by a vision of the Angel Moroni, in which Smith was told of the existence of a new scripture, which would become known to the world as the *Book of Mormon*. What distinguishes Mormonism’s relationship to archaeology from that of any other religious movement is that from the beginning, Mormonism’s truth claims were rooted in material objects. Moroni told Joseph Smith of a “book actually ‘deposited’ in the ground, consisting of a physical, tangible medium—actual gold plates” (Givens 2002, 12). On September 22, 1823 Smith allegedly walked to a neighbouring hill Moroni had identified and there found a stone box containing the gold plates, a device like spectacles to interpret them, a breastplate, and (according to some accounts) the

sword of Laban and a miraculous brass compass (the *Liahona*) (Givens 2002, pp. 14–15). Smith was forbidden to unearth the records until 1827, but he established a tradition of visiting the Hill Cumorah each year on the anniversary of Moroni's appearance.

The Church of Jesus Christ of Latter-day Saints was officially established on April 6, 1830. The first years of the new revelation were dominated by questions regarding the genuineness of the gold plates and the content of the translation of them that Joseph Smith published. This translation had been effected with the assistance of his distant relative Oliver Cowdery. The *Book of Mormon* is presented as the story of the Nephite people, who journeyed to the Americas from Jerusalem in approximately 600 BC. Mormon history asserts that:

[t]hat group...the family of Nephi's father, Lehi, and others, split into two rival groups...the Nephites (descended from Nephi) and the Lamanites (descended from Laman, eldest son of Lehi). After his resurrection...Jesus Christ came to America and preached to the Nephites and Lamanites. A great Christian commonwealth flourished for a while, but then sin and apostasy created division and a series of internecine battles ensued, culminating in the destruction of the Nephites by the ancestors of the American Indians, the Lamanites, in 400 A.D. Moroni, the last survivor and son of the Nephite general Mormon, deposited the record of Nephites—the golden plates—to be recovered 1400 years later by the first Mormon prophet, Joseph Smith (Nuckolls 2008).

After the *Book of Mormon* appeared missionary work produced large numbers of converts. As a result of persecution, Smith moved the Church from Palmyra to Kirtland, Ohio in 1830, but by 1838 the Mormons were driven to Far West, Missouri (where a community had settled in 1833 after being expelled from Jackson County, Missouri). In 1839 after a period of imprisonment Smith moved the Church to the new settlement of Nauvoo, on the Mississippi River. In 1844 Joseph Smith and his brother Hyrum were murdered in the nearby town of Carthage, and in 1846 Brigham Young, the second president of the Church led the community to the Salt Lake Valley where they built Salt Lake City, which remains the headquarters of the LDS Church to the present day (Pykles 2006, pp. 14–22).

From its inception the Church of Jesus Christ of Latter-day Saints and the *Book of Mormon* were subjected to scientific scrutiny and found wanting by sceptical outsiders. This was in part due to the deeply Christian context in which Mormonism took root, and to the suspicion among Christians of new religions, which they viewed as false.

Contemporary scholarship has demonstrated that the contents of the *Book of Mormon* had been anticipated by publications speculating on the origins of Native Americans since the seventeenth century. The most important of these are Thomas Thorowgood's *Jews in America, or Probabilities that the Americans are of that Race* (1650), John Adair's *History of the American Indians* (1775), Elias Boudinet's *A Star in the West* (1816), and Reverend Ethan Smith's *View of the Hebrews: or The Tribes of Israel in America* (1823) (Givens 2002, p. 94). Joseph Smith actively promoted the *Book of Mormon* as the missing link in the history of America, and revelations and diary entries from Smith's followers indicate that by the 1830s he was claiming North America as the territory of the Lamanites and identifying archaeological finds at specific sites (Givens 2002, pp. 94–95). One important discovery was a male skeleton with an arrow in his back, found during a relief excursion for the Missouri Saints. Wilford Woodruff, a member of the expedition, wrote that:

Brother Joseph feeling anxious about the man, asked the Lord, and received an open vision. The man's name was Zelph. He was a white Lamanite, the curse having been removed because of his righteousness. He was a great warrior, and fought for the Nephites under the direction of Prophet Onandagus (Givens 2002, p. 98).

As LDS Church efforts to vindicate the *Book of Mormon* gained momentum, sceptics questioned the mentions of silk and steel, horses and other animals not introduced till the European conquest, and a range of other incongruities that featured in the text.

For the purpose of this chapter, the key archaeological issue through which the LDS Church interacted with academic archaeology will be the question of the geography of the *Book of Mormon* and whether sites and artefacts from Mesoamerica might be identified as Nephite or Lamanite with any degree of certainty. There are at least two other issues of interest to archaeologists investigating the claims of Mormonism: the present whereabouts of the relics found by Smith (and the status of antiquities which he acquired, such as certain Egyptian papyri), and the restoration and marketing of Mormon historical sites as a form of historical archaeology or cultural heritage management, which will only be briefly touched upon (Madsen 2006; Pykles 2006). Joseph Smith initially conceived Mormon geography as encompassing both the American continents: "North America and South America...[are] the land northward and the land southward, respectively, and the Isthmus of Panama...[is] the 'narrow neck'

of land (Alma 22: 31–33; 63:5). The earliest available map of this traditional, pan-American geographical understanding dates to 1880 and was made by Heber C. Comer” (Larson 2004, pp. 7–8). Later, the Tehuantepec Theory was proposed; this argued that the *Book of Mormon* peoples were situated in Mesoamerica, and that the “narrow neck of land” was therefore the Isthmus of Tehuantepec. This view possibly originally arose as a result of the popularity of John Lloyd Stephens’ *Incidents of Travel in Central America, Chiapas, and Yucatan* (1841), which described ruined cities. Nuckolls (2008) notes that excerpts appeared in a “Mormon publication, *Times and Seasons*, in 1842, and the editor (possibly Smith himself) speculated that the ruins could be Nephite”. A further issue in favour of this geography is that the *Book of Mormon* is a text, and Mesoamerica is the only part of the Americas in which writing was attested. This is now the geography accepted by the majority of LDS Church members (Clark 2006, p. 92).

Attempts to identify specific sites and artefacts as definitively Nephite or Lamanite began in earnest in 1928, when Elder Levi Edgar Young addressed the October conference of the Church, and expressed confidence that the *Book of Mormon* (like the Bible) would soon be “made clearer by archaeologists, as they have done in Mesopotamia, Palestine and Egypt” (Givens 2002, p. 112). The prime mover in this project was Thomas Stuart Ferguson (1915–1983), who first travelled to Mesoamerica in 1946 and, under the influence of M. Wells Jakeman (1910–1998), the founder of the department of archaeology at Brigham Young University (BYU), published an account of the Tehuantepec geography, *Cumorah-Where?* in 1947. Ferguson and Jakeman fell out over Ferguson’s employment of Jakeman’s ideas in this book, but the two men were essentially committed to the same cause. Ferguson’s next book (with Milton R. Hunter) *Ancient America and the Book of Mormon* was published in 1950, and he then joined forces with the non-Mormon retired academic archaeologist Alfred V. Kidder and established the New World Archaeological Foundation in 1952. The LDS Church refused to fund this body until 1955, but committed \$200,000 after Ferguson reported on the 1952 excursion to Huimangillo, Tabasco in Mexico (which he thought was the Book of Mormon land of Zarahemla) (Larson 2004, pp. 42–50).

At about the same time, Wells Jakeman’s student Irene Briggs completed a Masters thesis on the stone known as Izapa Stela 5 (1950). Briggs’ conclusions as to the interpretation of the imagery on the stela differed from Jakeman’s; while she thought it was a symbol of the

Mayan god Itzamna (Quetzalcoatl to the Aztecs), Jakeman was convinced it was a representation of a vision of the Tree of Life experienced by Lehi and recounted in 1 Nephi 8, verses 10–16 in the *Book of Mormon*:

10 And it came to pass that I beheld a tree, whose fruit was desirable to make one happy. 11 And it came to pass that I did go forth and partake of the fruit thereof; and I beheld that it was most sweet, above all that I had ever before tasted... 12 And as I partook of the fruit... it filled my soul with exceeding great joy; wherefore, I began to be desirous that my family should partake of it also... 13 And as I cast my eyes round about, that perhaps I might discover my family also, I beheld a river of water; and it ran along, and it was near the tree... 14 And I looked to behold from whence it came... and at the head thereof I beheld your mother Sariah, and Sam, and Nephi; and they stood as if they knew not whither they should go. 15 And it came to pass that I beckoned unto them... 16 And it came to pass that they did come unto me and partake of the fruit also (*Book of Mormon* 1981, pp. 14–15).

In 1958 a Brigham Young University expedition, headed by Ross Christensen, took a latex mould of Stela 5, the plaster cast of which later became an important exhibit at the Museum of Archaeology and Ethnology at BYU, though it was claimed that the cast was “doctored” to produce a clearer image. Through the 1960s there was continued enthusiasm in the LDS Church that excavations in Mesoamerica would “prove” the *Book of Mormon*. At that time, the Mormons were playing out several of the engagements that new religions have with archaeology; they were selectively adopting archaeological methods and finds with which to validate the theology of the *Book of Mormon*. Small reproductions of Izapa Stela 5 as the “Lehi Tree-of-Life Stone” became cult objects for Mormons, many of who had them in their homes (Larson 2004, p. 64). The BYU University Archaeology Society newsletter published on a range of archaeological topics: Biblical archaeology, the Dead Sea Scrolls, Izapa Stela 5, Mayan hieroglyphs and Mesoamerican calendars, among others, all with a distinctive Mormon slant. A selection from the first eighty-five newsletters was anthologised in 1963 under the hopeful title *Progress in Archaeology* (Christensen 1963).

Disillusionment set in for Thomas Ferguson in the 1970s after he had immersed himself in the study of the Egyptian papyri that had been owned by Joseph Smith. Several of these had been found in the Metropolitan Museum of Art in New York, and had been presented to the LDS Church in 1967. Within the Church they were identified as the originals of the *Book of Abraham*, but Ferguson campaigned for

non-Mormon scholars to be permitted translate them and by 1975 Henry L. F. Lutz and Leonard H. Lesko (University of California, Berkeley), Richard A. Parker (Brown University) and Dee Jay Nelson (an amateur Egyptologist) had translated the hieroglyphics and confirmed that the texts were sections of the *Book of the Dead* (Larson 2004, pp. 91–118). Dee Jay Nelson was expelled from the LDS Church for making his translation. Yet, even in the 1970s the desire for positive proof was waning and dissent could be accommodated. Ferguson remained within the LDS Church until he died, despite the fact that he frequently expressed his doubts about Smith's probity and about early Mormon history, even to virulently anti-Mormon authors including Jerald and Sandra Tanner (the ex-Mormon authors of *Mormonism: Shadow or Reality?* which was first published in 1963). Armand Mauss argues that in the mid-twentieth century the LDS Church withdrew from an increasingly liberal mainstream American society, and that this signalled a reduction of interest in science and empirical proofs (Mauss 1994, *passim*). Reinforcing this position, Eric R. Paul suggests that Mormons:

have stood somewhat outside the intellectual dimensions of normative science and religion...Mormonism's basic claim is that its doctrines constitute a...regeneration of the pristine gospel and the unadulterated principles existing prior to an apostasy that occurred during the early centuries of the Christian era. Since [modern] science...is the product of orthodox Christian culture...it too has become infested with false and misleading principles (Paul 1992, 22).

However, it is also possible to detect the influence of postmodernism generally and Post-Processual archaeology specifically on contemporary Mormon archaeologists. In the twenty-first century the emphasis of the LDS Church has shifted, with emotion and affective religion coming to the fore. The restoration and promotion of early Mormon historical sites under the Presidency of Gordon B. Hinckley (1910–2008) deliberately reversed the traditional LDS attitude that, as Elder Bruce R. McConkie stated in 1966, “shrines play no part in true worship,” to one in which historic sites become “sacred ground” (Madsen 2006, 58, 62). This has implications for identity formation among Mormons: authentic experience of their faith may be attained by visiting historic sites, in a form of religious tourism which combines consumerism and the past being manifested through a specific place (Holtorf 2005b, p. 127). That the Nauvoo Temple was destroyed in 1850 is unimportant; Gordon B. Hinckley's \$30 million reconstruction is experienced

as “genuine”. This parallels a broader social shift, affecting all Western manifestations of religion, where the experience of the self has greater authority and reality than institutional pronouncements, and where affective rather than intellectual proofs are persuasive (Lyon 2002). For Mormons, there is no conflict between true religion and true science, and “when it comes to learning gospel truths, Mormons think with their hearts. The scripture conveys the idea that the final word on truth comes via feelings. This is now a fundamental tenet of Mormonism” (Southerton 2004, p. 44).

Despite the lack of any positive archaeological proof, most Mormons still believe that Mesoamerica is the site of the Nephite and Lamanite lands. Izapa Stela 5 is assessed by contemporary Mormon scholars including Garth Norman and Diane E. Wirth as being of value, whether it is or is not a completely Nephite artefact. Wirth argues that Izapa is “a melting pot of traditions. In this light it is conceivable that portions of the scenario have aspects of Lehi’s Tree of Life vision, together mixed with earlier traditions held by the Mixe Zoque and their predecessors, the Olmec...these emblems were important because they were symbols of power” (cited in Nuckolls), which is a typically multivocal interpretation such is found in Post-Processual archaeology. Stewart W. Brewer’s lavishly illustrated 1999 article presents all the interpretations phenomenologically and concludes that “[t]he process of study that Jakeman began with his first interpretation of the stela 46 years ago is still far from played out, either for Latter-day Saints in general, or for scholars...” (Brewer 1999, p. 21). The question of whether Izapa Stela 5 is in fact a Nephite artefact seems no longer really relevant; since the 1950s Mormons have welcomed it into their homes and hearts, and the scholarly contributions of archaeologists (many of whom are Mormon and yet offer sceptical interpretations) are not likely to change that. That the LDS Church has altered its attitudes towards dissent is seen by the contrast between Dee Jay Brown’s expulsion in 1975 after he published the Smith papyri, exposing that they were not the *Book of Abraham*, and the fact that Garth Norman remains within the Church despite his academic publications that deny the Nephite nature of Izapa Stela 5. It might be objected that Joseph Smith himself authenticated the papyri, but it was only Wells Jakeman who authenticated Izapa Stela 5. However, it seems that it is now recognized that Smith claimed many things (including the now-discredited geography of the Mormon lands which included both North and South America) and that, for many Mormons, Thomas

Stuart Ferguson's disillusioned but loyal conclusion that "the LDS Church 'had the best available brand of man-made religion' and that he did not ever plan to leave it" (Larson 2004, p. 157) suffices. This demonstrates the complex feedback loop that can develop between religion and the wider cultural context in which it develops; despite the LDS Church's desire to remain apart from mainstream American society, the relativism of secular society has penetrated both its scholars and its laity, which results in personal authenticity counting more than undisputed truth in matters of religion, and a Church in which some are belonging without believing.

Goddess Spirituality and Neolithic Archaeological Sites

The contemporary revival of Goddess worship has its roots in the nineteenth century, in which new academic disciplines such as archaeology, anthropology and the science of religion (*Religionswissenschaft*) emerged. Classical mythology was combined with anthropological speculation about the original form of human society, and in 1861 Johann Jakob Bachofen (1815–1887) published *Mother Right: An Investigation of the Religious and Juridical Character of Matriarchy in the Ancient World* which argued that patriarchy was the third and final stage of social development. Prior to patriarchy, humanity had been hetaeric (from *hetaera*, the Greek term for prostitute, in which men had sexual access to all women) then matriarchal (in which women mandated monogamous unions and children's descent was traced from the mother) (Ruether 2005, p. 256). Evidence for these stages was deduced from mythology, particularly that surrounding goddesses who are independent of male protectors, such as Athena, Diana, and Aphrodite. Later romantic speculation on the spiritual and religious capacities of women resulted in the publication by Charles Godfrey Leland (1824–1903) of *Aradia: or the Gospel of the Witches* in 1899. Here, Leland claimed that witchcraft, a religion in the service of the goddess Diana and taught to humanity by her daughter Aradia, was the "old religion" of Europe in the pre-Christian era (Magliocco 2005, pp. 67–69). The Judaeo-Christian religion celebrated a patriarchal God; matriarchal witchcraft celebrated the Goddess.

It is important to note that new religions are not all the same. The LDS Church is an organized religion with an institutional base and clearly articulated doctrines. Thus its relationship with archaeology directly affected matters of faith and doctrine. Revived Goddess

worship is a fluid and wide-ranging phenomenon, which incorporates modern Paganism, Gaia spirituality, and has even impacted upon contemporary Christianity (Cusack 2009, pp. 350–351). The third case study in this chapter, that of channelled entities and messages relating to lost continents, is even more diffuse and personal, though organized groups do exist (Lucas 2001, pp. 343–345). Although there are multiple aspects to the Pagan revival of the Goddess, the focus of this chapter is the Great Goddess, who is believed to have been the deity worshipped by matriarchal societies in the Neolithic (New Stone) Age. She is either worshipped solely, in a virtual monotheism, or vastly overshadows her consort(s) in significance.

The Neolithic era in Europe and Asia Minor is the archaeological focus of Goddess spirituality, with the Anatolian city of Çatalhöyük (Turkish for “forked mound”) near Konya, and the temples and monuments of Malta being of particular significance. Çatalhöyük was excavated from 1961 to 1965 by James Mellaart (b. 1925). The city, which is approximately 9,000 years old, revolutionised academic understanding of the Neolithic era, as it predated the urban centres of Egypt and Mesopotamia by four thousand years, and is very large (probably housing 5,000 to 8,000 people), when the norm for Neolithic cities was much smaller. Mellaart interpreted Çatalhöyük as a centre of worship of the Mother Goddess, which was controversial for Muslim Turkey. He claimed that: “a continuity in religion can be demonstrated from the early Stone Age through Çatal Hüyük and so on till the great “Mother Goddesses” of classical times, the shadowy figures known as Cybele, Artemis, and Aphrodite” (Mellaart 1967, pp. 23–24). It was undeniable that Çatalhöyük was a wealthy city, and that wealth was based on the new cultural phenomena of agriculture, pastoralism, pottery and textile-making, all of which contributed to the Neolithic urban revolution. Mellaart identified a fifth to a quarter of the buildings on the site as shrines to the Mother Goddess, and concluded that power and authority at Çatalhöyük was shared between men and women, as he failed “to find any evidence of central authority...no plaza or palace, no large grain bin or major shrine” (Barstow 1978, p. 9). Wall paintings and figurines found on site were taken as evidence of the cult of the Goddess, and argued that burial customs, in which females were always buried under the main platform and men were never in that position, “the family centred around the woman, was matrilineal and probably matrilineal, and that women chose their mates” (Barstow 1978, pp. 14–15).

Mellaart's relationship with the Turkish authorities became problematic for a number of reasons, chiefly accusations of the illegal disposal of artefacts. The site was closed and, after nearly thirty years, archaeological activity resumed at Çatalhöyük in 1993 with a long-term project headed by Ian Hodder (b.1948), then of Cambridge University. Among academic archaeologists there was widespread scepticism concerning Mellaart's identification of the Neolithic as a society of matricentric Goddess worshippers; Andrew Fleming warned "the mother-goddess is thus both late in date and limited in area of dispersal" (1969, p. 255). More recently, Lynn Meskell has noted that Mellaart was influenced by the ideas of Jane Ellen Harrison (1850–1928, who taught Classics at Cambridge and published on Greek religion), from whom he took the idea of the Goddess in triple form, as maiden, mother and crone (1999a, p. 87). Meskell also contends that Mellaart's interpretations were influenced by the context of the 1960s, where the language of magic, paganism and the Goddess was in use. However, she observes that he has never resiled from his original position on Çatalhöyük, despite scientific archaeology's progress, and has continued to publish lavish coffee-table books for a popular audience, most notably his 1989 three-volume work *The Goddess From Anatolia* (co-authored with Hirsch and Balpınar). She concludes that while scholars "might dismiss Mellaart's writings altogether as being representative of a former era, yet he still casts a powerful shadow over the site... For many, he remains somewhat of a legend and the living authority on Çatalhöyük" (Meskell 1999b, p. 136).

Despite academic criticism, Mellaart's work was quickly popularised, chiefly through the writings of the Lithuanian-born archaeologist Marija Gimbutas (1921–1994). Her books *The Language of the Goddess* (1989), *The Civilization of the Goddess* (1991), and the posthumous *The Living Goddess* (1999, with Miriam Robbins Dexter) among others, promoted the thesis that in the Palaeolithic and Neolithic eras the Goddess was the sole focus of religion and women held social and political power in peaceful, productive societies. This changed in the fourth millennium BC when the Kurgan culture overran the Goddess worshipping societies and instituted the Indo-European pantheon of warlike gods which was accompanied by patriarchal social forms, violence and exploitation of the earth (Gimbutas 1991, p. 281). This thesis remains controversial but was enthusiastically adopted by the feminist movement, which needed to provide explanations for the existence of patriarchy without condoning it. Gimbutas characterised the Goddess

as “nature and earth itself, pulsating with the seasons, bringing life in spring and death in winter. She also represents continuity of life as a perpetual regenerator, protectress, and nourisher” (Gimbutas 1999, p. 112).

In Goddess-worshipping cultures the sacred infused all aspects of life, and women’s work (such as weaving and baking) was sacred, women’s life-giving bodies were regarded as the Goddess, and the authority of priestesses “confirms the strong position of these groups of Neolithic women” (Gimbutas 1999 p. 98).

In the 1980s archaeological matricentry, as posited by Mellaart at Çatalhöyük and popularised by Gimbutas, featured strongly in a number of best-selling feminist tomes, including Marilyn French’s *Beyond Power: On Women, Men and Morals* (1985), Riane Eisler’s *The Chalice and the Blade: Our History, Our Future* (1987), and Monica Sjöö and Barbara Mor’s *The Great Cosmic Mother: Rediscovering the Religion of the Earth* (1987). French and Eisler were more interested in the issues of political power and gender relations than in the revival of Goddess worship, but Sjöö and Mor were both engaged with the Goddess spirituality movement, which has as one of its aims “healing the wounds of patriarchy” (Rountree 2002, p. 486). *The Great Cosmic Mother* argued that the religion of the Goddess was the original religion of humanity, and that the abandonment of the patriarchal God and a return to the Goddess was absolutely necessary for humanity’s future survival:

we must become beings who do not wish to control life, but only to listen to its music, and dance to it. This is not easy to do, it might be impossible. But it is our only alternative to mass death—whether by war, or by total global mechanization. The patriarchal God has only one commandment: *Punish life for being what it is*. The Goddess also has only one commandment: *Love life, for it is what it is* (Sjöö and Mor 1987, p. 430).

In the last two decades of the twentieth century the revival of the Goddess became a significant part of the Western alternative religious scene, deriving extra momentum from the environmental movement and the popularising of the “Gaia hypothesis,” which argues that the Earth is a living, sentient being, and was originally proposed by scientist James Lovelock in 1979.

An important development is spiritual tourism to Goddess sites, which has resulted in greater dialogue between Goddess believers and academic archaeologists. Goddess pilgrims journey to a multitude of sites, including Delphi, Knossos, Luxor, Karnak, and Glastonbury, and the Neolithic sites of Stonehenge, Avebury, Çatalhöyük and the

temples of Malta are especially significant (Rountree 2002, p. 476). Rountree argues pilgrims feel nostalgia for a past in which women and the Goddess were revered, and that pilgrimages are often motivated by the desire to heal, whether social or personal:

[t]he sacred place gives access to a sacred time, which is also a timeless time apart, a place where time stands still, an otherworld. The gap between past and present is collapsed... Within Cretan caves... the woman's body is enveloped by the earth's body... women imaginatively align their identity with those whom they believed inhabited a time before patriarchy. In this liminal space, womb of Mother Earth... nostalgia and healing powerfully merge. Here nostalgia... becomes the agent of healing. "Remembering" become a re-membering; healing is a rebirth (Rountree 2002, p. 486).

Rountree's research reveals that Goddess pilgrims engage with many of the stated ways that new religions draw upon archaeology. Goddess spirituality selectively adopts the work of certain archaeologists, such as Mellaart and Gimbutas, and its theology and mythology is largely constructed from these archaeological findings. Encountering the Goddess at archaeological sites has, for many, become a life practice that is constitutive of identity (Holtorf 2005b). Moreover, the dialogue between Goddess spirituality and academic archaeology has become increasingly complex since the 1990s. It is unsurprising that scientific archaeology criticises the Goddess movement for its adherence to Mellaart and Gimbutas' now-outmoded scholarship (Conkey and Tringham 1995) and criticises its sentimental interaction with sites. The dialogue with Post-Processual archaeology has also proved difficult.

When Ian Hodder commenced excavating at Çatalhöyük in 1993, his publicly stated intention was that the dig should reflect the multivocal orientation of Post-Processual archaeology, which shares with post-modernism a rejection of metanarratives and the acknowledgement of a multiplicity of voices. Within the archaeological milieu proper, he encouraged the exploration of folkloric beliefs about the site held by the inhabitants of the nearby village of Küçükköy. David Shankland's research found that many of these beliefs were concerned with death, transgressive women (including ghosts), and alternative healing (*ocak*). In terms of local understandings of the site, he concluded that, "the mounds occupy a position in village cosmology somewhere between what is usually regarded as the 'folklore' of the region (that is, the activities of supernatural or archetypal beings) and the Islamic faith" (Shankland 1999, p. 148). Hodder also welcomed busloads of Goddess

pilgrims to the site, accepting that their desire to pray and perform rituals, and their New Age, Ecofeminist and Pagan interpretations of Çatalhöyük differed radically from the findings his team published in scholarly journals. As Meskell notes, he understands that the “site and its imagery seem to exist in a whirlwind of competing and conflicting special interests” (1999b, p. 139).

However, the openness encouraged by Hodder at Çatalhöyük has not materialized in any meaningful way. It is true that in the 1990s Goddess feminists purchased a house in the village to serve as a base for their activities, that many have been able to visit the site because of Hodder’s open access policy, and that rituals and conferences have been held there. As early as 1999, Meskell argued that although Post-Processualism allegedly welcomed divergent voices, in fact the academy remained deeply reluctant in “in seriously considering, let alone publishing, alternative histories and New Age narratives” (Meskell 1999a, p. 83) and that tokenism, rather than real pluralism, was what resulted from this theoretical perspective. This is evidenced by the reception that the performance artist Diana Marto received when she performed a dance, “Birthing,” as part of a ritual at Çatalhöyük in 1998. The ritual was designed “to fulfil a dream of visiting a place where the ancient religion had centred on a great Goddess, to honour and celebrate the site with ritual, to experience the sacred energy of the place, to imagine another time” (Rountree 2006, p. 111). Instead, it became a hotly contested event bordering on farce, with politicians and archaeologists, police and the media in attendance, with “non-Pagan individuals in the crowd...laughing in embarrassment” (Rountree 2006, p. 111). Marto herself reported experiencing both vulnerability and rage, and Goddess worshippers were disappointed and confused by the experience.

Another site of contestation has been the status of such religious activities for the Muslim villagers, who have been slowly accepting of their female family members working on the site (because the international archaeological team particularly encouraged female employees). However, Goddess rituals engage directly with their Islamic religious beliefs. These beliefs, according to Hodder, are challenged and perhaps even offended by such activities. Hodder has also warned of concern about Goddess feminists’ activities amongst Turkish authorities (Rountree 2007, p. 19). This is interesting, in that Shankland claimed that while he was researching local folklore that while “it would seem that there is potential for disruption and clashes with the Islamic

religion of the villagers...this was not at all apparent" (Shankland 1999, p. 143). It appears that Hodder may be exaggerating the role of Islam in the response to Goddess worshippers' activities somewhat, possibly to mask his personal or disciplinary disapproval of such things. Some Turks are extremely positively disposed to the excavations, and the poet, scholar and author Reşit Ergener leads Goddess tours to Anatolia and is the "founder of the Turkish Friends of Çatalhöyük" (Rountree 2007, p. 11).

Kathryn Rountree spent time at Çatalhöyük in 2003 at Ian Hodder's invitation, in order to prepare a display to be housed in the site's visitor centre. The display was intended to bridge the gulf that had widened between the archaeological team and Goddess worshippers, who had ceased organized tours in 2001 (though individuals still visited). Rountree meditated on the alleged multivocality of the enterprise, and considered the differing types of authority accorded to academic publications and the popular vehicles through which the Goddess perspective is communicated. She concluded that Goddess feminists justifiably experienced anger when they tried to interact with academic archaeological interpretations of Çatalhöyük: because "one voice...(archaeology) acquires interpretive authority, while another (Goddess feminism), which produces a dissenting interpretation, does not (or acquires less authority, or authority restricted to a particular audience)" (Rountree 2007, p. 14). When she discussed these issues with Hodder, it emerged that multivocality among the research team extended only to the interpretive process (and not to the published outcomes), and he explained that "there was absolutely a desire to reach a consensus and a concern that we should write it as that and that it would not be a dominant view" (Rountree 2007, p. 16). This meant that even among academic archaeologists there was an erasure of difference and the deliberate manufacture of sameness.

When Hodder spoke at length of the role of Goddess worshippers in the process of excavation at Çatalhöyük, he indicated that the situation was extremely difficult (e.g. he had received death threats). Yet, he was apparently unconcerned that the views he expressed offended the religious beliefs of these women. Rountree distilled four areas of contention from her conversation with Hodder:

1. the source of women's powerful experience when they visit the site,
2. the relationship between gendered social relations and the belief system in the Neolithic,

3. the relationship between material evidence and people's stories about the past, and
4. whether Goddess worship in the past means there is still a "divine presence" at the site (Rountree 2007, p. 23).

She notes that (2) and (3) are fruitful areas for debate and generally unproblematic. But (1) and (4) are theological issues, and Rountree was surprised to understand that Hodder apparently thought that if archaeologists confirmed that Çatalhöyük had been a site of Goddess worship that "this implies that archaeologists agree that there *really was* (and is) a female deity at the site who can still be worshipped by contemporary people" (2007, p. 25). Hodder also appeared comfortable with the idea that "there was a powerful female deity of some sort" at Çatalhöyük, though he apparently did not call this a "goddess" (Rountree 2007, p. 24). Rountree prepared her display, which she acknowledged might have been regarded as tokenistic, and the Goddess tours resumed in 2005 after Reşit Ergener (with two Americans, Lydia Ruyle and Katie Hoffner) organised a "Goddess Conversations" Conference at Çatalhöyük that year. These developments suggest that some accommodation and communication has been achieved at the site. In terms of the interrelationship between archaeological and theological perspectives, the very looseness of the Goddess spirituality movement might suggest that there would be little conflict between "science" and "religion". To some extent this is true, as Goddess worshippers' beliefs about the site are not imperilled by archaeological interpretations that deny them. Here, the main contest arises from Ian Hodder's Post-Processual policy of "multivocality," which leads the Goddess worshippers to believe that their views will be included in the interpretive conversation about the site. They are given access to the site, and have performed rituals, and the creation of a sacred grove specifically as a ritual space was discussed in 2005 (Rountree 2007, p. 22). However, when the interpretive outcome is assessed, the discourse of academic archaeology has the power and authority to carry the day, and the voices of the Goddess spirituality movement are marginalised and tainted by their adherence to "outmoded" scholarship.

Channelled Messages and the Search for the Lost Continent of Atlantis

When Madame Helena Petrovna Blavatsky (1831–1891) co-founded the Theosophical Society with Colonel Henry Steel Olcott in 1875,

Spiritualism and mediumship were an important part of nineteenth century alternative religion. Madame Blavatsky had been a medium herself, and Theosophy transformed the medium from a figure that received messages from the dead to a channel for messages from “celestial deities and spiritual masters” (Harley 2005, p. 319). In *Isis Unveiled* (1877) and *The Secret Doctrine* (1888) Blavatsky transmitted the teachings of her “Mahatmas” or Masters, which included lore concerning the lost continent of Atlantis (Kranenborg 1992, p. 154). *Isis Unveiled* appears to contain the earliest mention of Atlantis in modern Western esoteric thought; thus, the so-called founder of the modern quest for Atlantis, the near-contemporary Ignatius Donnelly (1831–1901), author of *Atlantis: The Antediluvian World* (1882), was most likely influenced by Blavatsky. The connection between channelled beings and lost continents is ongoing, and has on occasion involved archaeological quests to identify the sites of Atlantis, Lemuria, Mu and other vanished worlds. Scientific archaeology has consistently debunked such endeavours, though Post-Processual archaeologists are more receptive to acknowledging the power of the apocalyptic narrative of an advanced civilization that has utterly vanished (Denning 1999).

The only sources for the legend of Atlantis are in two of the dialogues of Plato (429–347 BC), the *Timaeus* and the *Critias*, which are both set in the year 421 BC when Plato would have been seven. According to Plato, some 9,000 years prior to his era the island continent of Atlantis was a brilliant maritime empire, which “ruled over Libya as far as Egypt, and over Europe as far as Tuscany” (Zangger 1993, p. 21). In the dialogues *Critias* (the grandfather of Plato’s cousin) recounts a tradition traced to his ancestor, Solon. Atlantis was located beyond the Pillars of Hercules (often taken to be the Straits of Gibraltar) and was populated by the semi-divine descendents of Poseidon (or an Egyptian equivalent thereof). After many generations their culture had declined, and the Atlanteans attempted to conquer Greece and were repulsed. Zeus called upon Poseidon to punish them, and:

there occurred portentous earthquakes and floods, and one grievous day and night befell them, when the whole body of your warriors was swallowed up by the earth, and the island of Atlantis in like manner was swallowed up by the sea, and vanished; wherefore also the ocean at that spot has now become impassable and unsearchable, being blocked up by the shoal mud which the island created as it settled down (Plato, cited in Zangger 1993, p. 21).

Scientific scholars have analysed these mythological accounts, though no definitive location for Atlantis has been established. It has been variously suggested that Plato's story is better interpreted as a mythology embedding astronomical information (Reiche 1979); alternatively, scholars have searched for the Egyptian inscriptions and texts which are assumed to be the source of Plato's narrative (Spanuth 1979). The attraction of the narrative, for both academics and esoteric writers, appears to be that it contains exactly the type of agency and causality that humans are seemingly hard-wired to recognise and find compelling (Boyer 2001). Civilization and technology all derives from a single source, Atlantis.

Within esoteric religion and spirituality the trance channel Edgar Cayce (1877–1945), known as the “sleeping prophet,” featured Atlantis prominently in his teachings. Cayce, a devout Christian, was cured of severe laryngitis in 1901 by a hypnotist, and discovered his own trance healing skills as a result of this experience. He founded the Association for Research and Enlightenment (ARE) and approximately 14,000 of his transcribed “readings” are available today, published in accessible books and online (Puryear 1982). For Cayce, Atlantis was the source of all civilization, which began about 100,000 years ago. A series of catastrophes forced the Atlanteans to migrate to both the Old and the New World from approximately 28,000 BC, and records of their achievements survived, particularly in Ancient Egypt (McKusick 1982, p. 110). McKusick, who attempted an academic assessment of psychic archaeology, traces Cayce's Atlantaeen revelations to Madame Blavatsky, through the mediating influence of Rudolf Steiner (1861–1925), whose book *Atlantis and Lemuria* (1911) Cayce had read (1982, p. 112). In the 1920s Cayce channelled a message indicating that Bimini Island, in the west of the Bahamas, was the tip of the drowned continent. Alternative archaeological writers keep alive this identification: referencing Cayce, Robert Charroux connected Bimini Island with Ancient Egypt and the Rosicrucians, arguing that the 1970 discovery of the Bimini Wall (which scientists argue is a natural formation of beach rock) “brought dramatic confirmation of these astonishing prophecies” (Charroux 1976, p. 86); and others insist that “archaeologist J. Mason Valentine...discovered a submerged city off the island of Bimini” (Drake 1977, p. 65), asking readers to conclude that “[w]e believe Cayce's other revelations proved to be true, may we not accept his description of Atlantis?” (Drake, 1977, p. 59). Cayce's ARE has

more than 20,000 students and his prophecies are extensively studied. Alternative speculation about Atlantis has also located the lost continent in the Scilly Islands off the coast of Cornwall (Roberts 1974), Crete (Hodge 2006), the Black Sea and Africa (Moroney 1998), and a myriad other places.

Ramtha's School of Enlightenment (RSE) is a new religious movement based on the channelled messages of JZ Knight (born Judith Darlene Hampton in 1946). In the mid-1970s she was living in Tacoma, Washington and, having discussed "pyramid power" with friends, she constructed pyramids and distributed them throughout her house. Suddenly, she had a vision of a giant male figure, who informed her: "I am Ramtha, the Enlightened One. I have come to help you over the ditch" (Knight 1988, p. 12). This experience changed Knight's life drastically; her second marriage to dentist Jeremy Wilder broke up, and she married again, to Jeffery Knight, with Ramtha's blessing. Knight claimed to be ignorant of channelling and the esoteric tradition, and was assisted in understanding what was happening to her by Reverend Lorraine Graham, a local Spiritualist minister (Knight 1988, p. 307, p. 325). In 1978 she began to publicly channel Ramtha. By the mid-1980s she was giving two-day sessions called "Dialogues" to audiences of more than three thousand. She became the most successful channel of the era, with many celebrity followers; her only serious rival was the channel for Seth, Jane Roberts, who died in 1984 (Roberts 1980). Ramtha's teachings were disseminated by means of tapes and books. However, in 1988 Knight decided to cease this public aspect of channelling Ramtha, and founded Ramtha's School of Enlightenment (Melton 2001, p. 347). This is a formal institution located on Knight's property outside Yelm, in the Cascade Mountains of Washington state.

As JZ Knight came to know more of Ramtha, a complex narrative concerning his past in the lost continents of both Lemuria and Atlantis unfolded. Ramtha, like Knight, had been born in poverty and hardship, as a refugee from Lemuria in the port city of Onai in Atlatia (Atlantis). According to Ramtha, the Atlanteans worshipped science and the intellect, whereas the Lemurians cultivated spiritual gifts and devoted themselves to a higher power. The Atlanteans exploited the Lemurians as slaves and Ramtha turned against the Unknown God of his people after he saw his mother raped and his brother kidnapped (Cowan and Bromley 2008, p. 79). He received a vision in the nearby hills, where a supernatural woman with a sword told him to rise up.

He returned to the city, persuaded the enslaved Lemurians to revolt and burned Onai. He and his followers then lived a life of violence and uncertainty in the hills until he had a further insight while recovering from wounds: “[r]easoning that the gods humankind creates are only the projections of their collective hopes and fears, Ramtha realized the first of the truths he would communicate through JZ Knight 35 millennia later, the foundation on which all RSE teachings are based: ‘You are God’” (Cowan and Bromley 2008, p. 80). Devoting himself to spiritual exercises, Ramtha gradually left behind physical existence and became pure thought. During the intervening era he has manifested in other cultures, and was at one time the Hindu god Rama, another great warrior. There is an eschatological quality to the Ramtha communications; his own life history is one of slavery, violence, and lost civilizations. This is congruent with the general thrust of the New Age, which views humanity as approaching disaster through enslavement by technology, environmental destruction and other negative forces. Yet the capacity for individual self-transformation leaves open the potential for global transformation. Thus, Ramtha explains that the universe is constructed of seven levels, with the Void or pure potential at the centre. The physical world we experience is in fact created by us, but we “became trapped in it and forgetful of [our] spiritual origin. Enlightenment comes as one is able to remember and experience one’s spiritual origin and can freely navigate the several levels” (Jones 2003, p. 258).

During his sessions with JZ Knight, she claims to have no memory of the messages Ramtha communicates, because she vacates her body to allow him to speak. Harley explains Knight’s presentation of Ramtha’s teachings as “a religious *technology*” (Harley 2005, p. 320); Knight briefly formed a religious organization to transmit the teachings, the Church I AM (referencing the continuity of teachings from Ascended Masters) but it was disbanded after only a few years. As the basis of RSE is that all humans are God (or capable of evolving into God) devotion to Ramtha involves esoteric techniques, such as creative visualizations (particularly involving pyramids and kundalini energy), sacred dances, and an “eclectic mix of Hinduism and Gnosticism” (Harley 2005, p. 326). Knight insists that RSE is an educational institution, not a church. Yet it belongs firmly in the New Age milieu in which the secular application of religious practices sits alongside the religious use of the secular. RSE speaks of “consciousness and energy creat[ing] the nature of reality” and “that the physical world is only

one of a number of different levels of reality" (Cowan and Bromley 2008, p. 84, p. 85); its students are seekers after self-transformation. In the first decade of the twenty-first century, there were about three thousand students enrolled. Adherence to Ramtha is not exclusive and a student who became dissatisfied with the teachings of the RSE can easily seek enlightenment elsewhere.

This makes Ramtha's School of Enlightenment a looser new religious movement than either the Mormon Church or Goddess spirituality, both of which demand a certain, exclusive allegiance. It is also more obscure, and with a more tenuous connection to archaeology. Ramtha may have been born in Lemuria and led a slave revolt in Atlantis, but these locations are of minor importance in the teachings disseminated by Knight and the RSE. RSE students appear not to be involved with the strategies, discussed above, through which new religions engage with archaeology; denial, selective adoption of the work of some archaeologists, the creation of new mythologies and theologies through the use of archaeological evidence, and utilizing archaeology as a life-practice constitutive of identity (Holtorf 2005b). The feedback loop between postmodern archaeology and scientific archaeology, institutional religion and alternative religion is scarcely detectable. Marshall McKusick has attempted an academic explanation of psychic archaeology, but although his discussion of individual cases is reasonably balanced and can even be insightful, his conclusions are bald and dismissive; psychic archaeology is "the study of the ludicrous" (1982, 117) and if New Age phenomena continue to mainstream in the ensuing years, "great deal of phony, psychic prehistory will be written" (1982, p. 118).

However, one branch of science that has engaged in a positive fashion with the phenomenon of channelling is psychology. From 1996 JZ Knight and some of her students were studied by academic psychologist Stanley Krippner (of the Saybrook Institute, San Francisco) and his colleagues, who were interested both in what was happening psychologically to Knight when Ramtha manifested, and in the psychological states of those studying at RSE. With reference to Knight, they concluded:

(w)hatever Ramtha may or may not be (e.g., a discarnate entity, a subpersonality, a social role taken by Knight), his appearance bears some resemblance to the phenomena observed during "switching" in people diagnosed as having a dissociative identity disorder. As a result of the "channeling" process, JZ Knight exhibits the "striking gaps in

awareness, memory, or identity” that characterize the domain of dissociation... However, she has access to Ramtha through a voluntarily-induced procedure, whereas the “multiples” afflicted with dissociative identity disorder are taken unaware by their “alters.” As a result, the possibility that Ramtha is an “alter personality” can not be answered definitively on the basis of the data available to us (Krippner, Wickramasekera and Wickramasekera 1998, p. 59).

In 1997 Krippner went on record, saying to Knight, “I don’t know what you are, but it’s clear you’re not a fraud” (Cowan and Bromley 2008, p. 72). It has often been observed that channels are only the modern manifestation of ancient shamanic practices, and Krippner and the Wickramasekeras acknowledge that in other cultural contexts Knight’s activities would be honoured as religious or spiritual, and not subjected to ridicule as they often are in the secularised West.

Conclusion

This chapter is a comparative study of three new religious movements and their engagement with archaeology. It has been demonstrated that academic archaeology is dismissive of alternative interpretations of archaeological phenomena, although the divisions within the discipline since the rise of Post-Processualism have potentially made space for alternative views (Dyson 1993). This division may be seen as parallel to the contempt for new religions that is frequently expressed by traditional religions. As all new religions are different, the relationships they forge with archaeology, among other academic disciplines, will differ also. We have seen that the Church of Jesus Christ of Latter-day Saints had, at least at the start, a quite positivist attitude to Mesoamerican archaeology, which was expected to confirm the truth of the *Book of Mormon* (Givens 2002, p. 112). In the second half of the twentieth century two connected shifts occurred for Mormons: first, religion became more interiorised and affective, scorning rational proofs; and second, Mormon archaeology manifested postmodern tendencies, in which scientific proof of the authenticity of sites and artefacts was deliberately downplayed (Nuckolls *passim*). The second new religion considered, the Goddess spirituality movement, despite being less structured and less authoritarian than the LDS Church, actually clashed more openly with archaeology at the Anatolian Neolithic site of Çatalhöyük (Rountree 2007). This was largely seen to be because archaeologist Ian Hodder’s Post-Processual orientation was expected to create a multivocal site where varying

interpretations, including those of Goddess feminists, received equal consideration and respect, where in reality a tokenistic mention was all that was accorded to alternative views (Meskell 1999a).

The final new religious phenomenon considered was channelled messages about the lost continent of Atlantis in the Theosophical tradition, culminating in JZ Knight's founding of Ramtha's School of Enlightenment (Melton 2001). Channelling is a very de-centred New Age phenomenon, and often actively denies any specifically religious content, rather identifying the content of messages as ancient wisdom (Harley 2005). It was seen that although the mythology of Atlantis is significant in a number of channelled revelations, the quest to identify archaeological remains is less prominent. For Edgar Cayce, Atlantis was the source of all civilisation, and Cayce-inspired alternative archaeologists are deeply interested in the location of the lost continent (Charroux 1976; Drake 1977). For JZ Knight, Atlantis was a spiritually barren scientific culture in which Ramtha, the enlightened being she channels, was a suffering slave and rebel leader (Knight 1988). Consequently, attempts to identify the site of Atlantis are entirely absent from Ramtha's School of Enlightenment. In this case, academic archaeology also staunchly ignores Atlantean speculations, suggesting that this particular case study is the farthest from scientific orthodoxy and mainstream religious culture. The derision directed at channels and the entities they transmitted during the high point of the phenomenon in the 1980s would support this assessment. Postmodern archaeologist Cornelius Holtorf has professed himself aghast at the arrogantly dismissive attitude of academic archaeologists to alternative archaeological viewpoints, arguing that their methodology amounts to little more than the rejection of "views that do not sit well with [their] own fairly narrow, scientific approach" (2005a, p. 545). A firm believer in the value of the ideas of non-professionals, he concludes that "[t]he true danger does not lie in the epistemological relativism inherent in [this] but in the indefensible absolutism that is the alternative" (Holtorf 2005a, 550). This view accords well with the position of all the new religions here considered; they teach new and often controversial ideas that attract small numbers compared to the adherents of major religious traditions, yet the anti-Enlightenment stance that informs postmodern academics and broader society in the twenty-first century vindicates their existence. Where once religion was the legitimating agent for a range of phenomena, Enlightenment science gradually took over that role. But in the present postmodern, multivocal era, science, like religion

before it, has had to yield to historical forces. Fundamentalism and exclusivism are now seen as unjust and discriminatory; and the right to one's own interpretations, understandings and even truth(s) is jealously guarded as the badge of honour of a liberal, modern society. It is hard not to conclude that for the present, at least, it is less and less necessary for new religions to appeal to the authority of science.

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IS DIALOGUE BETWEEN RELIGION AND SCIENCE POSSIBLE? THE CASE OF ARCHAEOLOGY AND THE GODDESS MOVEMENT

KATHRYN ROUNTREE

Introduction

The particular instance of the ‘religion versus science’ phenomenon examined in this chapter is the ongoing debate between followers of contemporary Goddess spirituality—who form one section of the global Neo-Pagan movement—and archaeologists who excavate sites associated with possible Goddess veneration in the distant past.¹ Despite modern Goddess followers’ avid interest in places where Goddesses were (perhaps) once worshipped and some archaeologists’ declared interest in creating multivocal interpretations of sites alongside other stakeholders who have an interest in the past, attempts at dialogue between these two groups have often foundered, to the disappointment of both.

We might pause briefly at the outset to consider the meaning of ‘dialogue’ in this context. Essentially—and this is a personal take—I understand it to be a conversation in which ideas and opinions are exchanged between parties where the progress of the conversation—its direction and content—takes into account what has been said previously by participants. This does not mean the participants will necessarily agree before, during or after the conversation, but that dialogue proceeds as a result of participants considering and responding to what the other has said. A genuine interest in, and openness toward, what the other has to say are helpful for this to happen. Some conditions make it difficult for dialogue to occur: a lack of mutual respect or good-will; where one or both parties are sufficiently ill-disposed to the other’s perspective that they are disinclined to listen to and try to understand it; where the gulf between participants’ views is vast; or where, despite all the good-will in the world, the participants’ ways

¹ In this chapter I capitalize Goddess in the way that I would capitalize God.

of knowing, thinking and debating—their epistemological foundations and discursive practices—are so different from one another that participants may not know when genuine dialogue has stopped or failed to occur, or what to do to improve things should they want to try. Further conditions make dialogue problematic: the different motives of participants, differential access to information, power differentials and other structural dimensions of their relationships.

The chapter begins with a background to the dialogue between archaeologists and followers of Goddess religion, and then proceeds to focus on the high-profile Neolithic site of Çatalhöyük in Turkey as a case in point. Problems associated with attempts to interlace scientific and religious discourses which draw on different epistemologies, languages and values are highlighted, along with structural obstacles to creating a democratically-constituted forum in a context where archaeologists are authorized as the official, legitimate interpreters of evidence from the past, while Goddess followers are regarded as, at best, naïve lay enthusiasts, and at worst, a lunatic fringe. The dialogue centred on Çatalhöyük, which got off to a good start,² has become characterized by the politics of polarity, tokenism, utopianism, misrepresentation and caricature. The relationship improved in 2005 with generous and optimistic input from both sides (see below), but has since slumped. However Goddess tours and individual Goddess pilgrims still visit Çatalhöyük. In July 2010 Reşit Ergener (a Turkish tour guide and author of *Anatolia: Land of Mother Goddess*) and Lydia Ruyle (an American artist and prominent figure in the Goddess movement) will lead a group to the site on a tour titled ‘On the Trail of the Mother Goddess in Anatolia’. Both have led many sacred tours within Turkey; 2010 represents the twentieth anniversary of Ergener’s first Goddess tour.³

Background

Archaeologists were not always averse to interpreting the material remains of the past, especially in Europe, as evidence of religious

² See ‘Discussions with the Goddess Community’ at www.catalhoyuk.com/library/goddess.html, accessed 9 April 2010.

³ Details of the tour can be found at http://rashidsturkey.com/?nav=g&dir=30&a_dir=&g=134, accessed 9 April 2010.

beliefs and practices involving the veneration of female deities. Both sites where I have conducted anthropological research on this issue over the past dozen years, Çatalhöyük and Malta, were originally described by the archaeologists who excavated them as places where a Mother Goddess or fertility Goddess figured importantly in the lives of the prehistoric communities.⁴ Archaeologist Christine Morris has shown that in the late 19th and early 20th centuries this was a popular notion, whereby every female figurine was interpreted as a Mother Goddess connected with maternity and fertility, while a host of other functions and associations with female deities were ignored.⁵ Morris traces the appeal of this maternal deity to the complex social and intellectual ideas of the period which idealized motherhood, suggesting that this ideology had a role in shaping archaeological interpretations of the feminine divine (Sir Arthur Evans' interpretation of Minoan Crete is a poignant example). Thus the distant past became an echo of contemporary social concerns, 'so that the ideal role for a goddess was that of motherhood, ... even the feminine divine could not escape the notion that biology is destiny'.⁶

By the mid-20th century, however, archaeologists themselves became polarized over the Mother Goddess, and from the late 1960s the pendulum began swinging in the other direction, with rejections of the ubiquitous Mother Goddess as myth.⁷ One archaeologist who continued to find a Great Goddess in many parts of Old Europe was Marija Gimbutas, and during the 1970s, 80s and early 90s Gimbutas's compendious works caught the imagination of the emerging Goddess movement, which began looking to ancient societies as utopian exemplars of peaceful, women-honouring, nature-valuing, Goddess-revering communities. Some of the women involved in the movement also

⁴ James Mellaart, *Çatal Hüyük: A Neolithic Town in Anatolia* (London: Thames and Hudson, 1967); Kathryn Rountree, 'The Case of the Missing Goddess: Plurality, Power and Prejudice in Reconstructions of Malta's Neolithic Past', *Journal of Feminist Studies in Religion* 19:2 (2003), 25–44; Kathryn Rountree, 'Archaeologists and Goddess Feminists at Çatalhöyük: An Experiment in Multivocality', *Journal of Feminist Studies in Religion* 23:2 (2007), 7–26.

⁵ Christine Morris, 'From Ideologies of Motherhood to "Collecting Mother Goddesses"', *Creta Antica* 7 (2006), 69–78.

⁶ Morris, 'From Ideologies of Motherhood to "Collecting Mother Goddesses"', p. 76.

⁷ Andrew Fleming, 'The Myth of the Mother Goddess', *World Archaeology* 1 (1969), 247–61; Peter Ucko, *Anthropomorphic Figurines of Predynastic Egypt and Neolithic Crete* (London: Andrew Szmidla, 1968).

began visiting the sites themselves on organized 'Goddess tours' or independent pilgrimages, or organized tours themselves.

Around this time, archaeologists' rejection of a Mother/Great/fertility Goddess became more adamant and generic. Not only was the Mother Goddess rejected, but there was a growing disinclination to see Goddesses of any kind in the archaeological record. I have suggested elsewhere that this further shift in archaeological opinion may have occurred, at least partly, because archaeologists were reacting in frustration to what they saw as Goddess followers' inappropriate co-option of the past for contemporary religious and feminist political purposes.⁸ Thus, again, the archaeological interpretation of the past became an echo of contemporary concerns: the shunning of the Goddess was not only a scientifically-motivated response to the archaeological record and desire to update and refine older interpretations; it also seems to have been a politically-motivated reaction to a contemporary discursive context which included the voices and aspirations of Goddess followers.

It was not only male archaeologists who objected to the co-option of archaeological evidence by the Goddess community. Some of the most virulent criticism came from feminist archaeologists. Most of their attention focussed on the work of Gimbutas, listing what they saw as faults in her scholarship, distancing their own work from hers, and pointing out that Gimbutas did not present herself in her writing as a feminist. Shelby Brown, reviewing criticisms of Gimbutas, wrote:

...she illustrates material that validates her assertions, rather than presenting reasoned arguments; she uncritically selects objects from scattered sources, regardless of era, geography, or context, eliminating those that do not 'fit'; and she ignores alternative explanations for the images she cites, including ones not at all clearly associated with a Great Goddess.⁹

Feminist archaeologists, while 'sometimes angry at current archaeological approaches to research, and often excited about new ways to envision and interpret the past', Brown argued, are 'usually not sympathetic

⁸ Rountree, 'The Case of the Missing Goddess'; Kathryn Rountree, 'The Past is a Foreigners' Country: Goddess Feminists, Archaeologists, and the Appropriation of Prehistory', *Journal of Contemporary Religion* 16:1 (2001), 5–27.

⁹ Shelby Brown, 'Feminist Research in Archaeology: What does it Mean? Why is it Taking so Long?' in Nancy S. Rabinowitz and Amy Richlin (eds), *Feminist Theory and the Classics* (New York: Routledge, 1993), pp. 238–71 (p. 255).

to broad, generalizing Goddess theories or feminist visions of a past pansocietal matristic culture'.¹⁰ Indeed, wrote Naomi Hamilton, Gimbutas is 'perhaps regarded as something of a traitor to the profession', allowing Goddess followers to 'hijack' figurines for 'purposes other than academic archaeological study'.¹¹

Lynn Meskell described the Goddess movement as another 'fad and fiction' to exploit archaeology, intent on 're-weaving a fictional past with claims of scientific proofs' without aiming for a complete understanding of ancient societies.¹² She decried the harnessing of a recreated, idealized past to serve a contemporary socio-religious agenda, even if it was a feminist one. She argued that the scientific evidence did not suggest that a Goddess was the primordial deity throughout Southern Europe, that Old European societies may not have been as peaceful and egalitarian as they had been portrayed, and that even if female deities were worshipped, ethnographic evidence suggests that in such societies, women may still occupy a low-status position. Hamilton concluded that 'goddesses have little place in current figurine theory, and are seen as millstones round the necks of feminist archaeologists', preventing the topic of gender relations and feminist scholarship from being taken seriously by the—at that time (1996) male-dominated—archaeological establishment.¹³ These feminist archaeologists clearly felt they risked being seen as tarred with the same brush as Gimbutas, were genuinely concerned about Gimbutas's methods and what they saw as a misrepresentation of the past, and were annoyed about the misappropriation of (faulty) science for religious purposes. Hamilton and Meskell have both been responsible for figurine interpretation in the current archaeological project at Çatalhöyük.

There can be little dispute that Gimbutas's methods and style of interpretation are fraught with problems and deserve some criticism (although it is far from reasonable in my view to deny that her work makes a worthwhile contribution and to regard it as harmful). It is not true, however, that everyone in the Goddess community slavishly follows Gimbutas or embraces Golden Age theories, whether for their

¹⁰ Brown, 'Feminist Research in Archaeology: What does it Mean? Why is it Taking so Long?' p. 261.

¹¹ Naomi Hamilton, 'The Personal is Political', *Cambridge Archaeological Journal* 6:2 (1996), 282–85 (p. 284).

¹² Lynn Meskell, 'Goddesses, Gimbutas, and "New Age" Archaeology', *Antiquity* 69 (1995), 74–86 (p. 74).

¹³ Hamilton, 'The Personal is Political', p. 284.

historical accuracy or psychological value, despite the persistence of critics in stereotyping the movement as a homogeneous unit. It is true that many have adhered, and still do adhere, to a Gimbutas-style recreation of the past, but there have always been those who have offered a critique of it.¹⁴ Gimbutas herself believed that the social order in the Neolithic was not necessarily a matriarchy.¹⁵ As long ago as the 1980s, the influential Neo-Pagan author Margot Adler said it was 'unlikely there was ever a universal matriarchy' and she had 'problems with the notion of a single Great Mother Goddess' because it seemed 'suspiciously monotheistic' and ignored the polytheistic religions of numerous pre-Christian cultures.¹⁶ Others have disagreed with the emphasis on Goddesses signifying only fertility and nurturance.¹⁷

There are those who genuinely believe that some past societies were matrifocal and Goddess-worshipping, providing evidence that patriarchy is not normative and exhibiting a different model for gender relations. However I have very seldom come across women who believe that such societies were matriarchies (with women dominating men) in the sense of being the reverse of patriarchy. The terms commonly used are 'matrifocal', 'matristic' and 'matricentric'. There are also those who claim it does not matter whether matriarchal or women-centred societies existed historically or not. Goldenberg suggests many women in the Goddess movement were 'more concerned with the concept as a psychological and poetic formula than as an historical verity'.¹⁸ The notion of an ancient, matricentric society functions in this sense as an originary myth and inspirational ideal, according to Passman.¹⁹

¹⁴ Lucy Goodison, *Moving Heaven and Earth: Sexuality, Spirituality and Social Change* (London: The Women's Press, 1990); Margot Adler, 'A Response', *Journal of Feminist Studies in Religion* 5:1 (1989), 97–100; Charlene Spretnak (ed.), *The Politics of Women's Spirituality: Essay on the Rise of Spiritual Power within the Feminist Movement* (New York: Doubleday, 1982); P. Lunn, 'Do Women Need the GODDESS? Some Phenomenological and Sociological Reflections', *Feminist Theology* 4 (1993), 17–38; Asphodel Long, 'The One or the Many: The Great Goddess Revisited', *Feminist Theology* 15 (1997), 13–29.

¹⁵ Marija Gimbutas, *The Civilization of the Goddess: The World of Old Europe* (New York: Harper Collins, 1991), p. x.

¹⁶ Adler, 'A Response', pp. 97–8.

¹⁷ Asphodel Long, 'The Goddess Movement in Britain Today', *Feminist Theology* 5 (1995), 11–39 (p. 20).

¹⁸ Naomi Goldenberg, *Changing of the Gods: Feminism and the End of Traditional Religions* (Boston: Beacon Press, 1979), p. 89.

¹⁹ Tina Passman, 'Out of the Closet and into the Field: Matriculture, the Lesbian Perspective, and Feminist Classics', in Nancy S. Rabinowitz and Amy Richlin (eds), *Feminist Theory and the Classics* (New York: Routledge, 1993), pp. 181–208 (pp. 182–3).

Those who hold such a view have, of course, no professional investment in archaeology and obviously hold very different views from archaeologists—feminist or otherwise—about the purposes and sanctity of science, the relationship between material evidence and interpretation, and about appropriate uses of the past. Even so, the ‘facts’ about the past are not disregarded altogether. I have never read or heard anything to suggest that Goddess followers of any persuasion invent a tale of the past which *they know* is unlikely to be accurate given the available evidence. In cases where a particular scenario is proved to be false, it is reconfigured, for example, in the way that the term matriarchal has been widely exchanged for matrifocal or matricentric.

The virulence of feminist archaeologists’ objections to the Goddess movement’s approach to the past seems to have diminished since the 1990s, the importance of gender issues and feminist perspectives are more accepted within archaeology as a discipline, and in some quarters new attitudes to other stakeholders with an interest in the past are fashionable. Notwithstanding some archaeologists’ optimistic talk about multivocal interpretation of sites and a stated desire to engage with a variety of voices, however, attempts at dialogue with Goddess feminists have often foundered—despite mutual shows of good manners and genuine goodwill—with the exponents of different positions coalescing in polarized camps. Efforts have frequently seemed little more than public relations exercises, with a lack of real communication or genuine, mutual interest in trying to comprehend the other’s ideas, despite a shared passion for the past and a concern to understand its material remains at particular sites.

I should note that I am writing here as if archaeologists and the Goddess community form separate camps; in reality the lines are not so neatly drawn. There are archaeologists with time for Goddesses (Morris, quoted above, is one),²⁰ and there are Goddess feminists with academic qualifications in archaeology and related disciplines (admittedly there are a lot more with PhDs in other disciplines). Too often in this debate ‘scholars’ have been synonymous with archaeologists and juxtaposed with ‘religious practitioners’ or even ‘cultists’, a dichotomy which is simply inaccurate in this instance. The fact of the matter is that despite the groups’ overlap, in practice, the discourse reveals—

²⁰ See Lucy Goodison and Christine Morris (eds), *Ancient Goddesses: The Myths and the Evidence* (London: British Museum Press, 1998).

and indeed has produced—polarized sets of voices, however reluctant some individuals might feel about their assigned membership of one or other group. My own position is that of a social anthropologist with two decades of insider research experience with the Goddess movement following a PhD on the community within New Zealand, as well as an MA and field research experience in archaeology earlier in my career.

Çatalhöyük

Let us turn, then, to Çatalhöyük, a site which has sparked intermittent formal and informal dialogue between archaeologists and the Goddess community over the last fifteen or so years. Çatalhöyük is a 9,000 year old site consisting of a pair of mounds near Çumra on the Konya Plain in central Turkey. It was first discovered in the late 1950s and excavated between 1961 and 1965 by British archaeologist James Mellaart. The site quickly became famous due to the size and dense occupation of the settlement—around 8,000 people once inhabited it—and because of the spectacular art and artifacts found within the mud-brick houses. As a result of Mellaart's work, the site became associated with the ancient worship of a Mother Goddess based on the discovery of many clay figurines, most eminently that of a large-bodied, stately woman seated flanked by leopards, whose image continues to be iconic of the site. Other evidence discovered in excavated buildings included plaster reliefs of leopards and what were taken to be Mother Goddess figures, plastered bovines' heads set on walls, and paintings of hunting scenes and vultures with headless human bodies.²¹

Following Mellaart's work and a hiatus of almost three decades, in 1993 a new, projected 25-year, international excavation project was launched at Çatalhöyük, directed by Ian Hodder.²² Each summer excavation season the project draws together up to 160 excavators, students and scientific specialists from many disciplines, institutions and countries. The site continues to yield rich and fascinating material and maintain its reputation as a highly significant Neolithic site. The

²¹ Mellaart, *Çatal Hüyük: A Neolithic Town in Anatolia*.

²² Turkish authorities banned Mellaart from Turkey for his involvement in the Dorak Affair in which he published drawings of supposedly important Bronze Age artifacts that later went missing. See Kenneth Pearson and Patricia Connor, *The Dorak Affair* (New York: Atheneum, 1968).

project maintains a comprehensive website from which one can access, among other things, the annually produced, richly detailed Archive Reports written by the numerous scientific specialists working at the site.²³

Since the new excavation began in the 1990s, Mellaart's interpretation of the site, with its emphasis on the importance of a Goddess in the religious beliefs and practices of the seventh millennium BC inhabitants, has been set aside by current archaeological interpretation.²⁴ This is partly because new finds have made the earlier interpretations no longer tenable, for example, Mellaart's designation of 'shrines' (which also contain evidence of daily, domestic use as well as apparently religious artifacts, art and symbolism) and his notion of a priestly quarter probably no longer stand up.²⁵ Such modifications are not really surprising given that Mellaart's work was conducted nearly half a century ago. However Mellaart's interpretations have also been set aside because the current scientific team has different interests, predispositions, priorities and agendas, and are interpreting his, and their own, finds differently. They are digging much more slowly and seeking a more nuanced and comprehensive understanding of the site which looks at the everyday lives of women and men, and consequently they are producing a more secularized interpretation in contrast with Mellaart's heavy emphasis on the religious dimension. In the process, an increasingly secularized interpretation of the female figurines (and other art) found at the site has been proposed by those with specialist responsibility for figurine interpretation. The bottom line, as far as the Goddess community is concerned, is that current scientific opinion holds that the evidence does not suggest a Goddess was central to the Neolithic beliefs,²⁶ and consequently She is disappearing from interpretations of the site, or appears only to be refuted.²⁷

²³ <http://www.catalhoyuk.com>, accessed 11 April 2010.

²⁴ Ian Hodder (ed.), *Towards Reflexive Method in Archaeology: The Example at Çatalhöyük* (Cambridge: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, 2000), Monograph No. 28, p. 11.

²⁵ Having said that, if one looks at various ethnographic contexts, one finds 'domestic' activities within 'sacred' buildings, and some buildings (for example, monasteries) are liminal between the categories.

²⁶ Hodder (ed.), *Towards Reflexive Method in Archaeology*, p. 11.

²⁷ Marguerite Rigoglioso, 'The Disappearing of the Goddess and Gimbutas: A Critical Review of *The Goddess and the Bull*', *Journal of Archaeomythology* 3:1 (2007), 95–105.

The current project began at the point when postmodernism—with its championing of multiple truths, positions, voices and discourses—was at its peak, and from the start Hodder was explicitly committed to making space for a range of viewpoints and interest groups at the site, editing a whole volume devoted to discussing reflexive method in archaeology.²⁸ For Hodder, reflexivity refers to recognizing one's positionality—the acknowledgement that interpretations are historically contingent, that one's position affects one's perspective, and thus involves 'recognizing the value of multiple positions and multivocality'. It also involves a critique of one's own taken-for-granted assumptions'.²⁹ Not only did he want to create a reflexive process among the archaeologists at Çatalhöyük and space for the voices of other interest groups, he was also keen to make space for researchers, Turkish and foreign, interested in studying these processes at work. I was invited to Çatalhöyük as one of those researchers, and was generously hosted by the team for three and a half weeks in July 2003. My purposes were to observe the much celebrated reflexivity and multivocality in practice, and to develop, at Ian's request, a display for the site's Visitor Centre interpreting Çatalhöyük from the perspective of the Goddess visitors.

Since 2003 I have continued to follow events at the site, particularly in relation to the archaeologists' relationship and dialogue with the Goddess community. In 2005 I participated in a 'Goddess Conversations' conference held at the Ephesus Museum in Selçuk, Turkey, along with around forty others. This was an initiative of Reşit Ergener, president of Turkish Friends of Çatalhöyük, and two American women who lead Goddess tours, Lydia Ruyle and Katie Hoffner. Prior to the conference, which none of Hodder's team attended, most participants—almost all members of the Goddess community, including the scholars who presented papers—visited Çatalhöyük with the express purpose of meeting with the archaeologists and observing the work on site. In June 2006 the organizers held a second Goddess conference in

²⁸ Hodder (ed.), *Towards Reflexive Method in Archaeology*. See also by Ian Hodder, 'Always Momentary, Fluid and Flexible: Towards a Reflexive Excavation Methodology', *Antiquity* 71 (1997), 691–700; 'Archaeological Reflexivity and the "Local" Voice', *Anthropological Quarterly* 76:1 (2003), 55–69; 'The Past as Passion and Play: Çatalhöyük as a Site of Conflict in the Construction of Multiple Pasts', in Lynn Meskell (ed.), *Archaeology under Fire: Nationalism, Politics and Heritage in the Eastern Mediterranean and Middle East* (London: Routledge, 1998), pp. 124–39; 'Multivocality and Social Archaeology', in J. Habu, C. Fawcett and J. Matsunaga (eds), *Evaluating Multiple Narratives: Beyond Nationalist, Colonialist, Imperialist Archaeologies* (New York: Springer, 2008), pp. 196–200.

²⁹ Hodder, 'Archaeological Reflexivity and the "Local" Voice,' p. 58.

Istanbul and took another group to the site to continue the dialogue of the previous year. I was not able to attend in 2006, but have had email correspondence with Lydia Ruyle about the event, and read her published account.³⁰

Fieldwork and Discussion

I set off for Çatalhöyük on 30 June 2003 with high expectations. I had read a lot about reflexivity and multivocality at the site, and knew Hodder wanted to make space for the voices and interpretations of Goddess visitors, especially as the latter had become disaffected and stopped coming to the site several years previously as a result of the Goddess's fall from favour with the current archaeologists. I expected to find the site a ferment of animated debate. In practice, that year at least, there was little, either amongst the archaeologists themselves or between archaeologists and other interest groups.³¹ No Goddess visitors came to the site that season. I came face to face with the lived realities of a busy, high-profile, large-scale excavation with considerable time pressures and a wide spectrum of experience, expertise and levels of seniority on the team, ranging from well-published professors with international reputations and many years' experience, through professional excavators (contract archaeologists), to postgraduate students researching theses and undergraduate students on their first dig. Thus the team included students and teachers, contract archaeologists and academics, those with little time for theory and those whose careers were built on it. When Ian Hodder and I discussed the lack of reflexivity, he explained that 2003 was an unusual season and that in 1999, for example, there had been a smaller team comprised entirely of professionals working at the site: it was less hierarchical, people worked together as a coherent unit and the reflexive process functioned well because people were motivated to be part of it.

³⁰ Lydia Ruyle, 'Goddess Conversations and Çatalhöyük', *Journal of Archaeomythology*, 3:1 (2007), no page numbers assigned. View Ruyle's articles about the 2005 and 2006 Goddess Conversations conferences at http://www.goddessconversations.com/resources/TurkeyGoddessConversations_2006.pdf and http://www.goddessconversations.com/resources/Catalhoyuk_Papers.pdf, accessed 9 April 2010.

³¹ I observed discussion and a little debate over interpretation during the specialist site tours (where laboratory staff and excavators had the opportunity to dialogue in the immediate vicinity of areas being dug) and during the site tours which everyone working at the site could join.

It became clear that not everyone who worked at the site was as committed to multivocality as Hodder claimed to be. Some were dismissive, and I suspected derisive, of the notion of giving value to the Goddess community's ideas and theories. While respecting such people as individuals and accepting they had a right to visit the site for spiritual or religious reasons, they did not accept that Goddess followers should have a role in the site's interpretation. They saw this as a scientific endeavour with archaeologists as the rightful and right-minded executors. After all, this was their specific disciplinary training, their area of expertise and experience, their responsibility to the academy, the public and the Turkish government who permitted them to dig. Religious whim and amateurs had no place in the authoritative interpretation of archaeological data.

Before my experience at Çatalhöyük, I had imagined that multivocality inherently implied that the 'many voices' were equal in value and status. I discovered this was not how the archaeologists saw it. There was no question in anyone's mind that the archaeologists' voice (and I say 'voice', singular, because it was remarkably coherent rather than multiple) should be dominant, while 'inviting' or 'allowing' other voices to have their say. This situation was symbolically represented in the site Visitor Centre, where my Goddess perspective display was to be mounted on two portable poster-boards, similar to a display which had already been set up by Turkish anthropologist Ayfer Bartu, presenting what the site meant to local village women. The small size and portability of these two displays emphasized the alternative nature of these two perspectives in relation to the archaeological interpretation, which was fixed to all the surrounding walls, implying it was more stable, comprehensive and official.

After I had drafted the text for my display, Hodder said he thought it would be 'inclusive and politic' to put it up on a dig-house notice-board to see whether any of the archaeological team objected. I was taken aback because I could not imagine a situation where archaeologists would submit their interpretive texts to the Goddess community to see whether anyone objected. When I asked Hodder about the politics of giving one interpretive voice—archaeologists—the right of veto over another voice—the Goddess perspective—in a multivocal context, he replied that it was not a matter of silencing or arguing against the Goddess view, it was more a case of whether 'we as a group should give space to radically alternative views', adding that the Turkish

government officials may be worried about it as well. Hodder emphasized that he personally wanted the display—indeed he had requested it—but felt it was necessary to follow a democratic process and consider the feelings of the rest of the archaeological team and those of other stakeholders.

Such sensitivities were understandable, but what happened here underlined the fact that it was in the archaeologists' power to give, or withdraw, space to/from other voices, that all voices were quite differently empowered, and that the archaeologists had ownership and ultimate control of the site's interpretation (but not, obviously, of the site itself). Being permitted to have a voice by the archaeologists did not mean one's voice carried status or authority equal to that of archaeologists. The voice—subordinate and other—was intended to show a different (subordinate, other) perspective of the site; it was not meant to have interpretive authority. Thus, creating space for other voices fulfilled an ideological commitment to multivocality, but left archaeologists' control of the interpretive high ground intact.

This makes genuine dialogue between archaeologists and the Goddess community difficult. The latter, aware of Hodder's commitment to multivocality, seems to have laboured under the same misapprehension I had with regard to its meaning and practice at the site, and been disappointed. Many who go on tours to the site have been involved in feminism over many years and are unlikely to take well to having their voices subordinated, especially by a voice they are in some disagreement with, and when they thought they were being offered a democratic platform. Their disappointment, disagreement, and occasionally outrage are recorded in the site's Visitor Book. From the archaeologists' perspective, it may seem that Çatalhöyük offers a good deal more than other excavation projects because it creates space for other perspectives, for which the Goddess community should be grateful. The Goddess community is grateful, especially for guided tours of the site by archaeologists and opportunities to meet with the team, but gratitude is mixed with varying proportions of disappointment, frustration and cynicism. Some of this is to be expected given interpretative disagreements and the power differential between the groups in terms of interpretive authority. As Marguerite Rigoglioso has said in her critical review of Michael Balter's biography of Çatalhöyük, archaeologists are the 'authoritative creators of our cultural stories', and while dialogues 'are to be commended and encouraged, the pejorative

characterizations of Goddess scholars in Balter's book suggest that the Çatalhöyük Research Project team does not truly afford equal status and respect to those with whom they have been in dialog'.³²

A good deal of the Goddess community's frustration relates back to the dialogue about a Goddess at Çatalhöyük. It is doubtful whether genuine dialogue has occurred, at least in terms of how I described it at the beginning of this chapter. There has been good-will, a degree of mutual respect and a desire to converse, and both sides have presented their ideas to the other, most formally in the two meetings at Çatalhöyük in 2005 and 2006, where a series of presentations was made by representatives from both groups, along with more informal discussion and socializing over meals. Both sides have gained as a result of these interactions. In 2005 the Goddess visitors' tour donated 50 books to the site library (many written by members of the group) and funds for establishing a meditation/peace/picnic garden in the orchard behind the dig-house (on which work started in 2006).³³ They have enjoyed experiencing physically what for them is a sacred site, learning about what the archaeologists are discovering, and touring the site. All the reports I heard about the two meetings were favourable (some tempered by caution) and everyone, including Hodder, said the visits had been productive and an important step forward. Vicki Noble, a well known author, artist and tour guide within the Goddess movement, commented in her on-line account about the intellectual openness of the archaeological team in 2005, saying that her own experience had been 'a personal breakthrough'.³⁴

Despite much positive sentiment, however, there is evidence that the groups have, on some important points, been talking past each other,³⁵ and at least on the Goddess side, some people privately and publicly continue to express annoyance that what they have said has not been heard and acknowledged by the archaeologists. This is particularly the case in relation to: 1) different ideas about 'the Goddess' in the past and present, where attempts to bring together religious

³² Rigoglioso, 'The Disappearing of the Goddess and Gimbutas', p. 100.

³³ Ian Hodder, 'Introduction,' Çatalhöyük 2006 Archive Report, 1–8 (p. 7), http://www.catalhoyuk.com/downloads/Archive_Report_2006.pdf, accessed 9 April 2010.

³⁴ Vicki Noble, 'Report on Turkey and the Goddess Conversations with Ian Hodder,' <http://goddessconversations.com/resources/Noble.pdf>, accessed 11 April 2010.

³⁵ Kathryn Rountree, 'Talking Past Each Other: Practising Multivocality at Çatalhöyük', *Journal of Archaeomythology* 3:1 (2007), 39–47.

and scientific discourses have not worked, and 2) Hodder's discursive linking of Goddess worship with a matriarchal socio-political system during the Neolithic.

It has been bewildering to many that Hodder has persistently yoked together veneration of a female deity with matriarchy (denying both), and persistently claimed that Gimbutas also made this connection (accepting both), despite the fact that Gimbutas, as Joan Marler (amongst others) has pointed out, 'repeatedly rejected the term matriarchy', instead describing the 'earliest farming cultures of Europe, as well as Çatalhöyük, as balanced, egalitarian cultures in which the sexes were "more or less on equal footing" (Gimbutas 1991:324).³⁶ It was Mellaart who proposed that Çatalhöyük was a matriarchal society, not Gimbutas. Yet Hodder's article in the January 2004 *Scientific American* presents the Goddess movement as believing Çatalhöyük was 'a bastion of female power', and describes Gimbutas as arguing forcefully for an early phase of matriarchal society at the site and elsewhere.³⁷ He says the evidence indicates that Çatalhöyük was a relatively egalitarian and peaceful society with no indication of the dominance of one gender or the other. Thus, Hodder—at least on this point—has reached the same conclusion as Gimbutas. As Marler writes in response to the *Scientific American* article, 'Hodder's team is actually confirming Gimbutas' statement instead of proving her wrong'.³⁸

Why, then, does he continue to misrepresent her, and claim a position for the Goddess movement (that women dominated men at Çatalhöyük) which is inaccurate?³⁹ It seems polarity between the Goddess movement and archaeologists on this issue is being deliberately created where it does not exist. Part of the reason for Hodder's distancing himself from Gimbutas, albeit on dubious grounds as far as

³⁶ Joan Marler, "'Women and Men at Çatalhöyük": A Response', *Journal of Archaeomythology* 3:1 (2007), 93–4 (p. 93). Rigoglioso also stresses: 'It is important to note that she [Gimbutas] never used the word "matriarchy" to describe the social structure of Neolithic societies', 'The Disappearing of the Goddess and Gimbutas', p. 97.

³⁷ Ian Hodder, 'Women and Men at Çatalhöyük', *Scientific American* 290:1 (2004), 67–73.

³⁸ Marler, "'Women and Men at Çatalhöyük": A Response', p. 93.

³⁹ Some of those who do talk about 'matriarchy' are redefining it so that it does not mean the inverse of 'patriarchy'. See, for example, Heide Goettner-Abendroth, 'Did Matriarchal Forms of Social Organisation Exist at Çatalhöyük?', lecture to Goddess Conversations conference, Istanbul, Turkey, 30 June 2006, <http://www.goddessconversations.com/resources/HeidePaper.pdf>, accessed 11 April 2010.

matriarchy is concerned, is likely to be her stained reputation amongst archaeologists for encouraging Golden Age theories about gender relations; her tendency to present Old Europe as a single cultural unit; her inclination to read all evidence as symbolic of the Goddess and to overlook, diminish or dismiss evidence of male representations; and her habit of making detailed assertions about ancient life-ways based on insubstantial evidence.⁴⁰ I have some sympathy with these criticisms (discussed elsewhere),⁴¹ but not for the wholesale vilification and dismissal of all her theories and work, and the lack of recognition for her considerable contribution. In any case, current interpretations of Çatalhöyük—for example, the downplaying of the female figurines, especially those found by Mellaart—are also running the risk of being one-sided in their energetic efforts to distance themselves from both Gimbutas and Mellaart. Marler has also voiced this concern, saying: ‘It seems to me that there is an effort being made at Çatalhöyük to equalize the male and female images, perhaps to dilute the emphasis on female imagery’.⁴²

I think Reşit Ergener puts his finger on the reason for the continued linking of Goddess veneration with matriarchy to assist this distancing: ‘Ian Hodder equates “matriarchy” and the worship of a Goddess with female dominance and then proceeds to refute the existence of a goddess culture at Çatalhöyük by pointing out that there was equality between sexes, with “no notable differences between the lives of men and women” (Hodder 2006: 171–179)’.⁴³ By yoking together the Goddess and matriarchy, and then showing there is no evidence for matriarchy, Hodder refutes the Goddess by association. Thus a ‘straw Goddess’ has been constructed and all too easily dispensed with—a frail, flimsy creation compared with the (perhaps too) substantial and powerful Mother Goddess constructed by Mellaart in the 1960s.

Reporting on her 2006 ‘Goddess Conversations’ tour to Çatalhöyük, Lydia Ruyle describes a poster prepared by the archaeological team about the Goddess visitors, including a photograph of the 2005 Goddess Conversations group that visited the site. The wording on

⁴⁰ Lynn Meskell, ‘Goddesses, Gimbutas and “New Age” Archaeology’.

⁴¹ Rountree, ‘The Past is a Foreigners’ Country: Goddess Feminists, Archaeologists, and the Appropriation of Prehistory’.

⁴² Joan Marler, ‘Interview with Ian Hodder’, *Journal of Archaeomythology* 3:1 (2007), 14–24 (p. 23).

⁴³ Reşit Ergener, ‘Turkish Friends of Çatalhöyük: A Tale of Friendship by a Handful of Volunteers’, *Journal of Archaeomythology* 3:1 (2007), 32–38 (p. 37).

the poster claimed that the Goddess visitors believe there was matriarchy at the site:

For some visitors, the journey to Çatalhöyük is a pilgrimage to one of the earliest sites in the world where evidence of goddess worship can be seen. They believe that female figurines and some wall paintings prove that the religion of Çatalhöyük centred on a goddess, and was a matriarchy.⁴⁴

Ruyle reports that the Goddess pilgrims were not happy about this wording and asked for it to be altered to mention an 'egalitarian society' rather than a 'matriarchy'. Moreover, instead of 'goddess', they suggested 'female divinity'. Ironically, the archaeologists are pleased to show they are welcoming Goddess visitors and creating a multivocal site, but are jeopardizing good will and future dialogue in the process by persistently misrepresenting them.

Another of the archaeologists' poster boards begins by setting up an oppositional stance in relation to the Goddess pilgrims:

Today, archaeologists do not think Çatalhöyük was ruled by women. Many male figures and symbols have been found at the site. Research shows that women and men had similar diet and lifestyles, and were buried in similar ways. At Çatalhöyük, women and men may have had equal status.⁴⁵

Lydia Ruyle's group asked for this text to be changed also, proposing:

Today archaeologists think Çatalhöyük may have been an egalitarian society. Both male and female figures and symbols have been found at the site. Research shows that women and men had similar diets and lifestyles, and were buried in similar ways. At Çatalhöyük women and men may have had equal status.⁴⁶

The Goddess group's revision thus removes the polarity set up in the opening sentence, mentions both male and female figures and symbols,

⁴⁴ Reported in Lydia Ruyle, 'Goddess Conversations and Çatalhöyük—July 5, 2006', http://www.archaeomythology.org/journal/read_article.php?a=0607_5_ruyle.pdf, accessed 1 June 2008.

⁴⁵ See Ruyle, 'Goddess Conversations and Çatalhöyük—July 5, 2006', http://www.archaeomythology.org/journal/read_article.php?a=0607_5_ruyle.pdf, accessed 1 June 2008.

⁴⁶ See Ruyle, 'Goddess Conversations and Çatalhöyük—July 5, 2006', http://www.archaeomythology.org/journal/read_article.php?a=0607_5_ruyle.pdf, accessed 1 June 2008.

unlike the archaeologists' version which mentioned only male ones, and begins and ends by noting probable equal status. Lydia Ruyle wrote to me in January 2008, including an account and photographs of a further trip she had made to Çatalhöyük with her extended family in August 2007. She charted the various changes in the site Visitor Centre and changes in signage as a result of dialogue between the Goddess groups and archaeological team in recent seasons. The Goddess groups' suggestions had been taken into account in revisions, although now there is a greater emphasis on the importance of animal figurines, and a statement saying: 'Many archaeologists now believe that the religion of Çatalhöyük centered on people's relationships with animals and the natural world, not a goddess.' (One might ask: why not both? There are numerous ethnographic examples where belief systems incorporate an earth mother and a polytheistic pantheon, along with an acknowledgement of the sanctity of nature and animal life, ancestor spirits, and a variety of blended human/animal supernatural beings. Polynesian societies provide a number of examples. It is unnecessary to polarize Goddess and animism.)

Nonetheless, the evolution of the Çatalhöyük Visitor Centre does show that interpretation of the site is mobile and dynamic as a result of new finds, new ideas, and on-going discussions amongst those from various perspectives interested in the site. The archaeologists are controlling this process, which is to be expected and probably unavoidable. What the Goddess groups—and any other interest groups—should minimally be able to expect, especially given Hodder's explicit commitment to multivocality, is an attentive hearing and not to be caricatured or misrepresented.

In October 2006 Joan Marler interviewed Ian Hodder for a special issue of *Journal of Archaeomythology* (Spring/Summer 2007) devoted to Çatalhöyük, taking the opportunity to ask him about his continued portrayal of Gimbutas as 'arguing forcefully' for matriarchy despite the latter's refusal to use that term. He replied that from his conversations with Gimbutas, he did

get the impression that she was very much arguing for a very, very female centered Neolithic. I don't mean necessarily matriarchy, but female centered, so maybe we're talking about terms here. I read her work as an undergraduate a long time ago and I think it's probably true that a lot of my elisions about the difference between female-centered and balanced and matriarchy and all those sorts of terms are partly influenced by my discussions with her and by what other people have said about her and

written about her and how that stuff has been used by other people. So those things all get very blurred. But if you're saying that she said that it wasn't centered one way or the other, then that's fine.⁴⁷

While it is interesting to hear Hodder explain why he believes he has elided 'female centred', 'balanced', and 'matriarchy', in fact he has not so much elided these terms as polarized them, and continues to do so. The *Turkish Daily News* of 17 January 2008 reported: 'Ian Hodder says goddess icons do not, contrary to assumptions, point to a matriarchal society in Çatalhöyük. Findings in Çatalhöyük show that men and women had equal social status.'⁴⁸ It is useful, though, in the above quotation from Marler's interview to see Hodder raising the issue of terms as stumbling blocks. Because the dialogue between Goddess feminists and archaeologists has become so emotionally and politically over-heated at times, each side has tripped on the other's terminology and made wrong assumptions about the other's nuanced meanings. Sometimes we speak to each other in different languages, or with the same language but applying different meanings unknown to the other. This has happened over the meaning of 'Goddess'. As discussed elsewhere,⁴⁹ I was astonished to hear Hodder say in my interview with him at Çatalhöyük (17 July 2003) that the archaeologists could 'say that there was a powerful female deity of some sort' during the Neolithic, when he had written previously that there was 'not an all-powerful Goddess' at Çatalhöyük. We were clearly working with different definitions, concepts and theologies concerning the terms 'Goddess' and 'deity'.

While archaeologists are the authorized interpreters of archaeological evidence, they sometimes step outside their brief as scientists who create theories and narratives about the past rooted in material evidence, and venture into a religious or theological discourse which has a different epistemological foundation. It might be argued that if the Goddess community can venture into a scientific discussion, archaeologists should also be able to cross the boundary in the other direction. However such a crossing needs to be recognized as such,

⁴⁷ Marler, 'Interview with Ian Hodder', p. 16.

⁴⁸ 'A Journey to 9,000 years ago', *Turkish Daily News*, <http://www.turkishdailynews.com.tr/article.php?enewsid=93856>, accessed 19 Feb 2008.

⁴⁹ 'Archaeologists and Goddess Feminists at Çatalhöyük: An Experiment in Multivocality'.

including the fact that religious discourse is not an archaeologist's area of expertise any more than the scientific analysis of material remains is a Goddess follower's expertise. For example, in an e-mail he wrote me responding to another paper I had written about Çatalhöyük, Ian commented:

I agree that at Çatal there are images of powerful women that may represent a deity. But that does not seem to me to be the same as saying that She is present at the site. Some sites or objects are sacred because Jesus or a saintly relic are or were there. People say that they feel the Goddess at Çatal as their feet touch the ground on the mound. She is actually present. That differs (in my view) from recognizing that people in the past recognized or even prayed to a female deity.

The two different discourses have become entangled here: one is concerned with the scientific interpretation of material evidence of the past; the other concerns faith, religious belief and spiritual experience. A scientist's role is not to make proclamations about the contemporary sacredness of a site. Sacredness is not scientifically verifiable; it is attributed based on faith and beliefs. Christian sacred sites are not sacred because Jesus or a relic was there, they are sacred because Christians *believe* Jesus or a relic was there and construct a narrative about it. Claiming to 'feel the Goddess at Çatal' today is a matter of personal belief and bodily experience; it cannot be debated outside a religious discourse. Archaeologists' task is to try to find out what the proposed female deity of the Neolithic period meant to Neolithic people in their cultural context (and it is undoubtedly not what people familiar with several millennia of monotheism might imagine), rather than to evaluate contemporary Goddess visitors' spiritual experiences. As Rigoglioso has said, it is important to distinguish between historical and ontological realities,⁵⁰ and as Balter has said, 'The question of whether or not a Mother Goddess was worshipped in prehistory is entirely separate from the religious question of whether such a deity does or does not exist.'⁵¹

Thus, part of the reason that dialogue between the Goddess community and archaeologists has foundered has to do with our failure to recognize and intermesh two different discourses—scientific and religious—

⁵⁰ Rigoglioso, 'The Disappearing of the Goddess and Gimbutas', p. 100.

⁵¹ 'Response from Michael Balter' in Rigoglioso, 'The Disappearing of the Goddess and Gimbutas', p. 105.

which draw on different epistemologies, languages and values. As I indicated at the outset, dialogue is possible only if it is conducted with mutual respect, genuinely trying to avoid misrepresentation and caricature, and proceeds on the basis of participants having listened to what has been said previously by others. There are, and will remain, structural obstacles to situating dialogue on a level playing field. Archaeology, or science, is positioned centrally with immediate access to 'the trowel's edge' and interpretive authority. The Goddess community is and will remain marginal, travelling to Çatalhöyük where the archaeologists are based (during the summer excavation season) and asking most of the questions for the archaeologists to answer. A scientific discourse will probably continue to be privileged over a religious one.

Are continued attempts at dialogue therefore worth the effort? There will be different answers to this. Perhaps the overarching concern for the Goddess community is to 'keep the Goddess alive' at Çatalhöyük. Some fear, with some justification, that the direction in which current archaeological opinion is heading could mean She may disappear altogether from official interpretations of the site, and they consider this would be a serious misrepresentation of the Neolithic past at Çatalhöyük. Dialogue can entail risk, frustration, cynicism and stalemate, but at best gives participants opportunities for new knowledge, insight, exploring different ways of seeing, collaborative theorizing, friendship and the enjoyment of exploring a shared passion.

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MORMON ARCHAEOLOGY AND THE CLAIMS OF HISTORY

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The Church of Jesus Christ of Latter-day Saints (“Mormonism”) is one of the fastest growing religions in the world today (Stark 1998a, b). However, with notable exceptions (e.g., Leone 1979; Murphy 1999; Olsen 2000; Rodseth and Olsen 2000), it has been largely neglected in the anthropology of religion. The purpose of this paper is to act as a corrective to this imbalance by addressing changes in Mormonism’s conception of itself as a world religion that makes certain claims about its own history. Specifically, I examine Mormonism’s claim—possibly unique among the major world religions—that a large part of its scriptural tradition took place in ancient America. My purpose is neither to explore the history of this claim, nor to take any position whatsoever on its validity. Instead, I explore the claim itself as it unfolds with reference to a particular domain, Mesoamerican archaeology, and a particular object—the so-called “Tree of Life” stone (also known as Izapa Stela Five) that is sometimes cited as archaeological evidence for the ancient American origins of the Book of Mormon.

Diffusionist narratives that postulate a link between native American and Middle Eastern cultures significantly predate Mormonism. As early as 1640, for example, Thomas Thorowgood published *Jews in America or Probabilities that the Indians are Judaical*. Thorowgood argued that, “The Indians do themselves relate things of their Ancestors suteable to what we read in the Bible . . . They constantly and strictly separate their women in a little wigwam by themselves in their feminine seasons . . . they hold that Nanawitnawit (a God overhead) made the Heavens and the Earth.” He further proposed that, “The rites, fashions, ceremonies, and opinions of the Americans are in many things agreeable to the custom of the Jewes, not only prophane and common usages, but such as he called solemn and sacred.” His final and crowning proof, “The Relation of Master Antonie Monterinos, translated out of the French Copie sent by Manasseh Ben Israel,” begins:

The eighteenth day of Elul, in the yeere five thousand foure hundred and foure from the creation of the World, came into this city of Amsterdam Mr. Aron Levi, alias, Antonie Monterinos, and declared before me Manassah Ben Israell, and divers other chiefe men of the Portugall Nation, neer to the said city that which followeth. (Thorowgood 1640: 345)

What then follows is a tale by Montezinos of meeting in Brazil representatives of a mysterious mighty nation of Indians who claimed descent from Abraham, Isaac, Jacob, and Israel, and from the Tribes of Reuben and Joseph. They announced their readiness now to rise up and drive the Spanish and Portuguese invaders from their continent.

Similar accounts proliferated in the eighteenth century. In 1775, James Adair published *The History of the American Indians*, in which he relates that he heard of five copper and two brass plates in the possession of an Indian tribe, which were kept closely guarded and used only in ceremonial activities. An Indian named "Old Bracket" stated that "he was told by his forefathers that those plates were given to them by the man we call God; that there had been many more of other shapes, some as long as he could stretch with both his arms, and some had writing upon them which were buried with particular men; and that they had instructions given with them, viz. they must only be handled by particular people" (Adair [1775] 1986, 188).

During and after the Colonial period, interest in this question grew, partly as a result of westward expansion and the discovery of large-scale native habitations. Between 1775 and 1830, the date of the Book of Mormon's publication, a host of books were published with the same or similar themes, including *A Star in the West, or, a Humble Attempt to Discover the Long Lost Ten Tribes of Israel* (Boudinot 1816), *Sketches of the Ancient History of the Six Nations* (Cusick 1827), *The Natural and Aboriginal History of Tennessee* (Haywood 1823), *A Statistical and Commercial History of the Kingdom of Guatemala* (Juarros 1823), *A Selection of Some of the Most Interesting Outrages Committed by the Indians in Their Wars with the White People* (Loudon 1811), *Researches on America* (McCullough 1817), *History of Mexico* (Mills 1824), *A New System of Modern Geography* (Parrish 1810).

The most popular of these books was *View of the Hebrews; or the Tribes of Israel in America* (1823) by Congregationalist minister Ethan Smith. He was born in Belchertown, Massachusetts, 19 December, 1762, and died in Pompey, New York, 29 August, 1849. As a young man he was apprenticed to the leather trade, and then served as a private in

the Continental army in 1780–81 before studying at Dartmouth. He graduated in 1790 and received his license to preach. From 1791 to 1832 Smith was pastor of Congregational churches in Massachusetts, New Hampshire, New York, and Vermont, and served as city missionary in Boston. He was a founder of the New Hampshire missionary society, its secretary for sixteen years and the author of many publications, including: *Dissertation on the Prophecies* (Concord, New Hampshire, 1809); *Key to the Figurative Language of the Prophecies* (1814); *A View of the Trinity* (1824). Of course the most famous of these was *A View of the Hebrews*, written to prove that the aborigines of America are descended from the twelve tribes of Israel (Smith 1823).

Ethan Smith wanted to present the native Americans as educable and therefore convertible to Christianity, a task many considered impossible. The Indians were seen as inherently savage and entirely incapable of civilization. Mistreatment therefore became easy to justify. However, establishing that the Indians were the descendants of ancient Hebrews immigrants would not support this contention. It would also justify missionary work and protect the Indians against encroachment and seizure of their lands. Smith's speculative history tried to mitigate the view that the native Americans were inherently savage, and to find a secure place for the Indian in a Christian world.

Ethan Smith found much that he admired among the American Indians, features that he attributed to their ancient Israelite heritage. Indians had become degraded, he said, because of the mistreatment of unprincipled whites; they "have deserved better treatment than [sic] they received from the whites." He pleaded with his fellow Americans: "Let them not become extinct before your eyes; let them no longer roam in savage barbarism and death!" (1823: 60.) By associating the Indians with the ten tribes of Israel, he hoped to stop the Indians' destruction and place a burden of responsibility on America for their conversion:

This duty of Christianizing the natives of our land, even be they from whatever origin, is enforced from every evangelical consideration.... If our natives be indeed from the tribes of Israel, American Christians may well feel, that one great object of their inheritance here, is, that they may have a primary agency in restoring those "lost sheep of the house of Israel."

His advice to the missionaries followed:

You received that book [the Bible] from the seed of Abraham. All your volume of salvation was written by the sons of Jacob...Remember then your debt of gratitude to God's ancient people for the word of life. Restore it to them, and thus double your own rich inheritance in its blessings. Learn them to read the book of grace. Learn them its history and their own. Teach them the story of their ancestors; the economy of Abraham, Isaac and Jacob...Teach them their ancient history; their former blessings; their being cast away; the occasion of it, and the promises of their return. (Smith 1823: 61)

Mormon apologists and detractors alike have argued how much influence *A View of the Hebrews* might have had on the composition of the Book of Mormon. Here we take no position on the issue. However, no one disputes that from 1821 to 1826 Ethan Smith was the minister of the Congregational Church in Poultney, Vermont. Joseph Smith and his family lived in Sharon, Vermont, from 1805 to 1811 and Sharon and Poultney were in adjoining counties. It is also acknowledged that Joseph Smith's primary scribe and colleague, Oliver Cowdery, lived in Poultney until 1825 and his stepmother and three sisters attended Ethan Smith's church. It is also known that the first edition of *View of the Hebrews* was published in 1823 and that Joseph Smith said that the angel Moroni first visited him and told him about the gold plates in 1823. Ethan Smith enlarged and reprinted his book in 1825, and Joseph Smith stated that he finally obtained the gold plates in 1827.

The purpose here is not to assess the influence of Ethan Smith on the Prophet Joseph Smith, but simply to suggest that the prophet's claims were bound to elicit a powerful response from readers who were already knowledgeable of (and fascinated by) such claims. For one thing, few people could accept the possibility that great ruins discovered in Mexico and Central America could have been constructed by the ancestors now resident in those lands. Sophisticated architecture clearly required European or Asiatic origins. The story of the "lost tribes" of Israel provided a convenient mythology in which to group these assumptions. It followed that the native Americans must be the descendants of ancient Hebrew-speaking folk.

It is true that various earlier writers, including the 17th century Dutch jurist, Hugo Grotius, tried to make northern Europe the point of origin for the original inhabitants of the Americas. But this theory never caught on, and this brings us to the second reason nineteenth century Americans were more likely to accept Middle Eastern origins for the Indians. It simply eliminated Europe and thus the need for any cultural or historical mediation between the New World and the ancient

world where Judaism and Christianity developed. The Revolutionary War, after all, had been fought to end European control of America, but this was conceived as much as a religiously endowed project as a political one. America was to be the shining “city on a hill,” specially chosen by God as the place where his government on earth would be established. A historical cosmology that eliminated Europe from this narrative was therefore uniquely serviceable since it suggested that not only had the land been divinely appointed but also that God’s ancient chosen people, the Jews, had settled on the land and blessed it ages before the first Europeans ever set foot.

Cultural Identity and Mormonism

Over the last century, the Church of Jesus Christ of Latter-day Saints (Mormonism) has changed from a geographically centered group of putative blood kin to a universal membership for whom adherence to doctrine is the primary qualification for membership. Of all the changes the Church has undergone—including the official proscription of polygyny in 1890—this is the most significant. Concepts that were once central now rarely appear at all, and may not even be understood by Mormons under a certain age. For example, whereas older Mormons grew up believing in their lineal blood descent from one of the tribes of Israel, younger Mormons interpret this largely symbolically, as a way of signaling social membership in a community of belief. It is easy to understand why. A globalizing Church whose membership now consists mostly of non-Americans could find it difficult to assert lineal blood descent without hampering recruitment.

Some symbols, however, remain important to Mormon belief precisely because they straddle the line between history and doctrine. One example is the symbol of the “tree of life,” one of the most familiar allegories in the Book of Mormon. The story of the tree of life concerns the prophet Lehi, who establishes the Church in the New World around 600 BC and whose descendants, the Nephites, receive a visitation from the resurrected Jesus Christ shortly after his crucifixion. The story goes that just after Lehi and his family left Jerusalem, Lehi had a dream or vision in which he saw a beautiful tree hanging with shining fruit. There was also a river, and mist of darkness which kept others he saw in his vision from finding their way to the tree. Lehi, however, made it to the tree and ate the fruit. It filled him with joy, and he

wanted the rest of his family to share it. His family included his wife Sariah and their four sons: Laman, Lemuel, Sam, and Nephi.

In his dream Lehi saw his family in the distance, and called to them to come and eat the fruit of the tree. While Sariah and the two youngest sons, Sam and Nephi, came and ate the fruit, Laman and Lemuel refused. Lehi saw a path (straight and narrow, of course) leading to the tree and the mists of darkness that prevented people from seeing clearly to find their way to the path or to the tree. There was help, however, consisting of an iron rod that lay beside the path. If grasped and held firmly, the iron rod would lead one safely to the tree whether or not the way could be seen.

Lehi's dream is a powerful metaphor, embodying in a single image some of Mormonism's most central doctrines. The family is the root of that metaphor, and its extensions frame many of the important propositions of Mormon theology. Lehi is above all a father, and he leads his wife and children toward the tree, whose fruit, once grasped, assures the faithful believers of eternal salvation. But not all of Lehi's children understand or agree; they exercise, in Mormon terms, "moral agency" and reject the truth. That is their right. Lehi is the father, and he guides and directs, but he cannot determine. God is also a father—in Mormon terms, the literal progenitor of all human beings—but he does not rule by decree. The same is true of Mormonism's living prophet, the spiritual descendant of Joseph Smith, and indeed of all the men who hold priestly office.

Of course the symbolism of the tree goes beyond its power to represent the principles of patriarchal guidance, family, and free agency. It shares with mainstream Christianity the significance of the tree as an emblem of unity with the divine, and of Christ himself. Obedience to God's command not to eat the fruit of the tree in the Garden of Eden preserves this unity, just as eating it serves to separate human beings from God and set in motion the chain of events that ultimately requires a savior. Jesus Christ as the savior atones for the act of separation and restores the unity lost through human misdeeds. He therefore becomes like the tree, and therefore eating of the tree's fruit, in Lehi's dream, is the same as the sacrament of communion. In both cases, unity with the divine is achieved through oral ingestion and incorporation of the token of salvation.

Izapa and the Book of Mormon Lands

The Book of Mormon is believed to consist of records maintained by the “Nephite” people, descended from the group that left Jerusalem in 600 BC. They traveled across the ocean and landed in the Americas, in an area many Mormons today assume to be Central America. That group, consisting of the family of Nephi’s father, Lehi, and others, split into two rival groups which became known as the Nephites (descended from Nephi) and the Lamanites (descended from Laman, eldest son of Lehi). After his resurrection in Jerusalem, Jesus Christ came to America and preached to the Nephites and Lamanites. A great Christian commonwealth flourished for awhile, but then sin and apostasy created division and a series of internecine battles ensued, culminating in the destruction of the Nephites by the ancestors of the American Indians, the Lamanites, in 400 AD. Moroni, the last survivor and son of the Nephite general Mormon, deposited the record of the Nephites—the golden plates—to be recovered 1400 years later by the first Mormon prophet, Joseph Smith.

When the ruins of Central America were discovered in the early 19th century, no one could doubt these things were of Old World origin, since the idea that people original to the place could have invented them was obviously unconvincing. Not only was their sophistication too great, the parallels to the ancient Middle East were simply too many and striking to be attributed to chance or coincidence. There must have been contact with the old world, and Mormons had a story to explain how—and also why—in a way that linked the development of Mesoamerican civilization to the people and government of the United States today.

The Mormon connection to Central America, however, was not suggested immediately. Rather, it seems to have begun with the publication of John Lloyd Stephens’ 1841 best-seller, *Incidents of Travel in Central America, Chiapas, and Yucatan*. Passages of the book were excerpted in the early Mormon publication *Times and Seasons* in 1842, and the editor (probably Joseph Smith himself) speculated that the ruins could be Nephite (Ostling and Ostling 1999: 269). In 1842, the newspaper announced in fairly unequivocal terms:

Central America, or Guatemala, is situated north of the Isthmus of Darien (Panama) and once embraced several hundred miles of territory from north of south. The city of Zarahemla [referred to in the Book of Mormon], burnt at the crucifixion of the Savior, and rebuilt afterwards,

stood upon the land as will be seen from the following words in the Book of Alma [in the Book of Mormon] . . . (*Times and Seasons* 3: 927)

Later the same year, Smith himself, in a signed editorial, spoke directly to the value of the Stephens' discoveries in light of Mormon history:

Stephens's and Catherwood's researches in Central America abundantly testify to this thing (i.e., that a great civilization existed on the American continent.) The stupendous ruins of Guatemala, and other cities, corroborate this statement, and show that a great and mighty people—men of great minds, clear intellect, bright genius, and comprehensive designs inhabited this continent. Their ruins speak of their greatness; the Book of Mormon unfolds their history. (*Times and Seasons* 3, July 1842, 860.)

Neither then nor since has the official Church hierarchy officially sanctioned this view. But that does not alter the fact that, for ordinary Mormons, Central America is the place of the first Nephites.

In fact, the Church itself implicitly endorses the Mesoamerican origin hypothesis in its choice of art work to adorn its new conference center in Salt Lake City. Completed in 2000, the building's cavernous hallways contain mostly subdued expressions, except for the wall in the central hallway. There, stretched across a fifteen foot length of the wall, is a huge mural—one of the most frequently produced images in Mormon art: John Scott's 1967 depiction of Jesus appearing in the vicinity of what looks like the Temple of the Tigers in Chichen Itza. Wherever it is, the Mesoamerican resonances are legion, and most of the rank and file accept it at face value: Jesus Christ came to America and that makes America the promised land.

The Izapa Stone

Fifty years ago a Mayan stela now known as "Izapa Stela Five" was reported to the Mormon community as historical evidence of early Israelite presence in the Americas. For many Mormons this history is not an incidental aspect of the faith. The fact that the Israelites came and settled in the Americas is important both to the legitimacy of the Mormon account and to the justification of America as the promised land. In addition, the discovery of the stone, with its putative representation of Lehi's dream, seemed to confirm one of the central messages of the Church: that the Church is true both doctrinally and as a history of ancient America.

The importance of this combination was suggested by Mormon archaeologist Garth Norman, who writes about the stone as he imagines a dialogue of the Lehi figure talking to the Lemuel figure:

As your hands are open in supplication to God through this burned offering, as his priest I perform this offering in your behalf and in so doing point the way to everlasting life in the heavenly Tamoanchan paradise. Through your observance of sacred status in life's journey, you can reach this goal and partake of the fruit of the Tree of Life as I partake. The incense smoke rises heavenward before your face, blinding your eyes as with a mist of darkness, but it can carry your prayers heavenward through your inner faith returning the blessings of God upon your head as the dew from heaven (fish water symbol overhead), and the water of life and the fruit of the Tree of Life will be bestowed upon you from above. (Norman 1976: 329).

The Izapa stone still provokes such reflections, and that is why hundreds of Mormon tourists pay thousands of dollars and journey to see it as part of tours to the "Book of Mormon" holy lands in Central America.

The Story of the Stone

The Museum of Peoples and Cultures, located in a converted dormitory on the edge of the Brigham Young University campus, contains a variety of objects related to the history Mormons claim as their own. Many of its collections come from countries that have long constituted proselytizing targets of the Church. Staff members provide information about Mesoamerican and Native American material culture, "thereby enabling informed and thoughtful deliberation by Church members with respect to the restored gospel of Jesus Christ" (Museum, 2000: 19). One object, in particular, stands out in the rhetoric of relevance: "The Museum houses certain Book of Mormon-related objects, such as the Stele V Tree of Life Stone cast from Chiapas, Izapa, Mexico" (Museum, 2000: 4).

The Museum's replica of Izapa Stela Five is actually a plaster cast made from a latex mold fifty years ago. It is a huge thing, and very heavy. For years, the cast rested in its own special niche in the Museum's main exhibition hall. A few years ago, a new director moved the cast into a locked storage room, and to see it one must make a special request. At the same time, the cast was placed on a specially designed wooden platform, complete with wheels, and this cost the

museum over \$3,000—not a small amount given how strapped for operating funds the Museum always is. Keeping the cast at all might seem strange, since the director, as well as several archaeologists familiar with the original, assert that the cast was altered by the maker, Mormon archaeologist Wells Jakeman, to conform to his own concept of the stone's meaning. As an accurate representation of an Izapan sculpture, therefore, it is nearly useless. But this is the problem: is the replica the image of an artifact, or is it a religious relic with symbolic significance to the Mormon faithful because of its power to testify to Mormonism's history?

The site of Izapa is located along the Pacific coastal piedmont of Chiapas in a location that sat at the juncture between Mixe-Zoquean-speaking peoples to the West and Mayan-speaking peoples to the East. Although there is evidence of occupation at the site during the Early Formative, the site reached its height during the Late Formative period (300 BC–AD 250). The site is most famous for the many stelae that were erected in combination with carved and plain altars. These were placed within large quadrangular plazas that were bounded by pyramidal mounds.

Stela Five is a slab of volcanic material (andesite) that measures 2.5 m high, 1.5 m wide, and .5 m thick, and weighs around one and half tons. A school-teacher in Chiapas, Carlos A. Culebro, discovered the stela in 1939, and published a pamphlet containing his drawings. Actual investigation, however, did not begin until 1941, when archaeologist Mathew Stirling cleared the vegetation around the stone and photographed it. In 1943, he published an illustrated report, in which he called Stela Five the most intricately carved sculpture he had ever discovered. However, he did not try to interpret the stone's meaning, nor did he link it to any current belief system.

The Mormon interpretation of the stone began in 1950 with the publication of Irene Briggs' master's thesis, *The Tree-of-Life Symbol: its significance in Ancient American Religion*. She concluded that what appears to be the Tree of Life on Stela Five was in fact a special symbol of the ancient life god or "Fair God" of Mesoamerica, called Itzamna by the Mayas and Quetzalcoatl by the Aztecs. Briggs' supervisor, Mormon archaeologist M. Wells Jakeman, found the stone fascinating. He agreed that the scene carved on Stela Five "was a depiction of Lehi's vision of the Tree of Life described in 1 Nephi 8:10–15" in the Book of Mormon. If this were so, then it would go a long way to providing evidence that the history described in the Book of Mormon was true,

and took place just where many Mormons thought (and still think) it did: Mesoamerica. His interpretation of Stela Five, together with a condensation of Briggs' thesis, appeared in 1953 (Jakeman 1953; see also Jakeman 1957, 1963).

Jakeman is an important figure in the development of Mormon archaeology. He received his undergraduate degree in history from the University of Utah, and his M.A. in history from the University of South California, with a specialty in ancient and Near Eastern history. In 1938, Jakeman received a Ph.D. from the University of California at Berkeley in 1938 with a dissertation entitled *The Maya States of Yucatan, 1441–1545* (Parrish 1986). In 1946 he was hired at BYU as the newly created Chair of Archaeology at the recommendation of John A. Widtsoe of the Council of the Twelve Apostles. The same year he was appointed as the chairman of the new Department of Archaeology.

In 1950, news of Jakeman's interpretation of the Izapa stela spread quickly through the Mormon community, and Jakeman was immediately in demand as a public speaker. Such was the enthusiasm, in fact, that it caused the Mormon-supported SEHA (Society for Early Historic Archaeology) membership to increase by several hundred per cent during the next few years. In 1954, Jakeman conducted a Brigham Young University archaeological expedition to Central America. The same year Mexican archaeologist Alberto Ruz (well known as the discoverer of the tomb beneath of the Palenque Temple of the Inscriptions) came to Salt Lake City and lectured to an audience of almost 2,000 people. "It was during these lectures, illustrated with beautiful color transparencies, that Professor Ruz stated his opinion that the Tree of Life carving on the sarcophagus lid was clear evidence of a connection in ancient religious belief between this sacred symbol and the hope of resurrection" (Christensen 1968: 3).

By the mid-1950's the importance of the stela to Mormon history led the first known Church official to visit Mexico and see the stone. This was Milton R. Hunter of the First Council of the Seventy, on the highest leadership structures of the Church. With the help of local citizens, he and his team constructed a shelter over the stone to protect it from the elements. In a general Church conference message Hunter even used Jakeman's conclusions in a faith-promoting sermon regarding the Book of Mormon's authenticity (Conference Report, October 1954: 108). In a few years Hunter had taken this to yet another extreme, announcing in his book, *Christ in Ancient America*, that Quetzalcoatl is

Jesus: "Quetzalcoatl could have been none other than Jesus the Christ, the Lord and God of this earth, and the Savior of the human family. Thus Jesus Christ and Quetzalcoatl are identical" (1959: 51–53). At the same time, Jakeman prepared the first actual-size facsimile drawing-reproduction of the Izapa stone. The drawing was exhibited in Utah later the same year to large and enthusiastic crowds.

The fact that the sculpture rises to prominence in the 1950's is interesting because this coincides with the beginning of what historian Armand Mauss describes as the Church's retreat from scientific explanation into fundamentalism. Mauss attributes the Mormon retrenchment to a more general transformation, as the institutional Church shifted from an assimilationist posture to one of withdrawal in the face of a liberalizing American society (Mauss 1994). The preceding period was a time of alliance, or at least cooperation, between Mormon scientists and theologians. B. H. Roberts and James Talmadge—both high authorities in the Church—believed that faith and reason ultimately supported each other, and Widtsoe and Merrill (two of the Mormon twelve apostles) warned against an overly literal interpretation of the scriptures. A third or more of the men appointed as apostles during this period were comfortable with scientific learning and confident that eventually Mormonism would be able to hold its own in intellectual competition.

This changed by the time Joseph Fielding Smith, the future president of the Church, published the anti-evolutionist *Man, His Origin and Destiny* (Smith 1954). Smith argued against Mormon acceptance of the theory of evolution—even to the point of stopping publication of B. H. Roberts' *The Truth, The Way, The Life*, a book that tried to reconcile Mormon theology and the developing sciences of evolutionary biology and astronomy (Roberts 1984). After apostles Widtsoe and Merrill died in 1952, Smith effectively came into his own, and put a stop to most attempts to synthesize Mormon theology and scientific discovery. Evolutionary theory was considered the primary threat. Archaeology, on the other hand, does not seem to have worried Smith, and so, beginning in the 1950s, Jakeman was able to put together a series of major projects, all with Church backing, that would attempt to provide physical evidence of Mormon history in the Americas.

In 1958 the next Brigham Young University archaeological expedition to Mexico left for the field. The director was Ross Christensen, accompanied by Welby Ricks, Alfred Bush, and Carl Jones. Their first objective was to obtain a latex (liquid rubber) mold of Stela Five.

The idea was to use this mold to prepare a cast, and thus preserve the details of the carving. This is the cast that would be installed at Brigham Young University. The latex mold was made under the direction of Ricks on January 18, 1958, and flown to Provo the following day. The cast prepared from the mold was completed in time for display in the Carl F. Eyring Physical Science Center during the Society's 11th Annual Symposium on the Archaeology of the Scriptures in June, 1958.

Jakeman published his two most important monographs on Stela Five not long after (Jakeman 1958, 1959). It should be noted that Jakeman was the founder and director of BYU's Anthropology Department, and the department still bears his imprint in the fairly high concentration of Mesoamericanists among its faculty. Back in the late 1950's and 1960's, Jakeman continued to speak often and publicly about the stone, and always attracted huge crowds. In his publications, however, Jakeman avoided explicitly linking the stela with the Book of Mormon's account of Lehi's dream. The author apparently believed it was better to emphasize the numerous New World—Old World parallels to be found in the carving. With such a foundation, he felt, it would then be appropriate to open the question of a possible Book of Mormon explanation of such Old World contact (SEHA Newsletter, 69: 2).

In 1962, the plaster cast of Stela Five in the possession of the BYU Department of Archaeology was moved from the old archaeology classroom (Room 205 of the Eyring Center) to the "Tree of Life Salon" in the new Museum of Archaeology and Ethnology, located on the first floor of the Maeser Memorial Building. As to the real stone, various attempts had been made by Jakeman and others to move the stone to Mexico City, where it could be protected. None of these efforts were successful, in part because tourism at the site (increasingly made up of Mormon tourists) depended on the stone being kept in place. Occasionally, the BYU archaeologists would build a shed or canopy above the stela, only to find it gone the next time they returned. On at least two occasions they found the stone itself moved, or turned over, and each time they set it upright again.

In 1965, archaeologist Susan Miles published a paper in which she referred to Stela Five. Her article identified various styles of ancient sculpture in Chiapas and Guatemala and tried to determine their distribution in time and space. She did not offer an interpretation of the stone, but she did dispute Jakeman's identification of some figures.

She thought, for example, that the figure in the lower right-hand part which Jakeman identified as a scribe (i.e. Nephi) was instead a sculptor holding a chisel. She did agree with Jakeman, however, on the approximate date of the carving, i.e., around the time of Christ (Miles 1965).

An interesting early criticism of Jakeman's interpretation came from Hugh Nibley, then a professor of Ancient Scripture at Brigham Young University. Nibley was one of the chief scholarly defenders of the faith, and his work is often cited as providing critical argument in favor of the Book of Mormon account. At some point in 1958 a typewritten seven-page paper by Hugh Nibley was circulated, severely criticizing Jakeman's methods and interpretations. Nibley said of Jakeman's work on Stela Five: "...the author's loving hand, guided by a wishful eye has actually created the only evidence available to the reader for testing the author's theories" (1958: 17). Some years later Nibley stated that genuine progress in Book of Mormon archaeology must hinge on discovery of an artifact that can be "definitely identified as either Nephite or Jaredite" (1964: 370).

The 1958 article lists six reasons Nibley found Jakeman's analysis wanting. First, Jakeman never compared the carvings on Stela Five with other Mesoamerican art, which is standard practice for this kind of interpreting. Second, Jakeman had visualized evidence on the stone that no one else could see. He ignored those items that contradicted his theory, rather than explain the reason for them. Third, said Nibley, Jakeman's linguistic and iconographic analysis was seriously in error. Fourth, Jakeman did not submit his conclusions to peer review. Instead, he "published it himself with unjustified and ungraceful fanfare." Fifth, his argument was full of words such as "evidently", "probably" and "apparently"—words that assert details as facts without solid evidence. And finally, said Nibley, Jakeman also did not subject his work to review by his peers, instead opting to publish it himself.

To this criticism—from one of the Mormon faithful, no less—Jakeman responded in 1967 in an address to the Society for Early Historic Archaeology's annual symposium (Jakeman 1968). He published a new drawing of the stone with various items on it identified as Mormon-specific features—Sariah, Laman, Lemuel, Sam, Nephi, and a figure in a white robe. In this paper he repeated his interpretation of the figures represented on the stone. The most obvious parallel, Jakeman continued to insist, is a fruit-bearing tree in the center with a stream running nearby. A path extends from the river's head to the

fruit tree, and a line next to the path suggests the rod of iron. Two figures stand next to the tree, and seated around it are six people who, it is said, represent Lehi's family in the attitude they assume in Lehi's vision. Jakeman inferred that the figures represent Lehi, on the left, attended by Sariah, facing Laman, on the right Nephi, attended by Sam, facing Lemuel. Jakeman even went so far as to claim (without argument or evidence) that he had deciphered the hieroglyphics above the heads of the two figures as "Lehi" and "Nephi."

Jakeman's latest drawings were published in the Book of Mormon Syllabus, College of Religious Instruction at Brigham Young University. In that form the drawings were used in courses all students at BYU were required to take. The Tree of Life stone was, by this time, virtually synonymous with Mormonism's claims about its own history. By March of 1968, Jakeman's drawings were published in *The Instructor*, an official Mormon magazine, and distributed world-wide.

From 1963 to 1973 (and, to a certain extent, today), the principal apologist for a Mormon interpretation of Stela Five was V. Garth Norman, working under the auspices of the New World Archaeological Foundation. He produced a series of drawing and photographs—the most detailed to date—that were published together with an extensive analysis of the scenes depicted on the stone (Norman 1973, 1976). Norman has avoided references to the stone as an object with Mormon religious significance. He even criticized Jakeman for using reproductions that were incomplete or inaccurate, and for jumping to conclusions on the identities of various figures represented on the stone. Nevertheless, Norman never concealed his faith that the stone was indeed a depiction of the tree of life as the Book of Mormon describes it. He continues to defend this interpretation to this day (Norman 1999, 2006).

Jakeman's conclusions continued to provoke controversy. In the Spring of 1966, *Dialogue: A Journal of Mormon Thought*, John Sorenson, Professor of Anthropology at Brigham Young University, weighed in on the subject. Concerning the attempt to link Stela Five with the Book of Mormon, Sorenson wrote, "...the uncontrolled use of trait comparison leads to absurd conclusions. Particularly, it leads to over-ambitious interpretations of shared meaning and historical relationship as in Jakeman's previous pseudo-identifications of Lehi (and other characters from the Book of Mormon) on an Izapan monument." By "trait comparison" Sorenson refers to the interpretative technique popular in the nineteenth century that identified objects as

comparable to each other without taking into account their different contexts. James Frazer was an especially adept practitioner. Jakeman had done the same thing when he removed specific figures of the stela's depiction and interpreted them in isolation as revealing ancient Israelite themes.

There is a certain irony here, however, since Sorenson is probably the scholar most closely identified with Book of Mormon geography. He has argued for decades that Central America is the most likely site of the Nephite colonies based on maps he constructed from the calculation dates, times, and marching distances mentioned in the Book of Mormon. To be sure, Sorenson does not put much weight on the Tree of Life stone, nor does he have to, since he accepts the fact that the Book of Mormon is an ancient document. Jakeman and others, however, were embarked on a somewhat different quest, and that was to prove that the Book of Mormon itself was true—not just that the geography it describes must be located in one place or another.

Despite opposition to the Jakeman hypothesis the idea continued to receive favorable attention. In 1968, Mormon archaeologist and historian Ross Christensen could still describe Stela Five thus:

...the most direct and striking evidence in support of the Book of Mormon which has yet come forth from the science of archaeology. I do not know who carved this sculpture—whether the artist was a Nephite, a Lamanite, or of some other lineage—but whoever did it was beyond any doubt familiar with the story of Lehi's vision of the Tree of Life as recounted in 1 Nephi, Chapter 8. (quoted in Cheesman 1974: 18).

In 1982, Michael Griffith called it “no less than an ancient picturization in stone of the Lehi tree-of-life story in the Book of Mormon” (Griffith 1982: 1). By 1984, the stone was called “the most direct and striking evidence that has yet come forth from archaeology” (Christensen 1984: 2).

Archaeology and Book of Mormon geography developed without significant critique until the 1960's. At that point the story changes, because in relating itself to artifact recovery the truth claims of Mormonism made themselves vulnerable to questioning on the basis of new discoveries. The problem, when it came, emerged not from the New World but from the Old, in the form of the rediscovered papyri from which Joseph Smith allegedly translated the “Book of Abraham,” part of the *Pearl of Great Price* (one of the four Mormon scriptures.) The papyri were held, unknowingly, by the New York Public Library.

When they were finally translated in 1967, the Joseph Smith papyri were interpreted by some specialists to be Egyptian funerary spells, known collectively as the “Book of Breathings,” a part of the Book of the Dead. Critics claim that fascicle No. 1, for example, did not depict the biblical Abraham being scarified on an altar by the idolatrous priest of “Elkenah,” as Smith claimed, but rather the Egyptian god Osiris being embalmed by the jackal-headed Anubis for the next life. The fascicle is still to be seen in every edition of the Book of Mormon, just before the Book of Abraham, and is understood by Church members as referring to the prophet Abraham. Nevertheless, the Church’s enthusiasm for historical recovery has been tempered in the years since the Book of Abraham incident, and this has led, perhaps, to the quiet loss of enthusiasm for Stela Five.

After the 1960’s, in fact, mention of the stone disappears altogether in church teaching materials, and high-ranking Mormon officials no longer pointed to the stone as stunning evidence of Mormon claims. A few people continue in the Jakeman tradition, however. One of these is Bruce Warren. In 1987, Warren still spoke of Stela Five as clear evidence that the Book of Mormon peoples were Central American:

The Book of Mormon also gives the meaning and interoperation of the symbols carved in the stone. The river represents the barrier of evil between people and happiness. The rod of iron represents the word of God, which, if followed, leads one to the tree of eternal life and happiness. The tree represents the love of God—and if one loves God he will keep His commandments, and this leads to the fruits of the tree—happiness and eternal life. It is an entire philosophy of life set out succinctly on 15 tons of stone. (Warren and Ferguson 1987: 74).

This statement appears in a book that lists both Warren and Thomas Ferguson, creator of the New World Archaeological Foundation, as co-authors, despite the fact that Ferguson died four years prior to its publication. What are we to make of that?

Thomas Ferguson apparently lost some of all of his faith in Mormonism before he died in 1983, in part because of doubts concerning the history of the Book of Mormon (Larson 1996). Ferguson had spent his life trying to provide evidence for the historical validity of the Book. After he died, Bruce Warren, a part-time anthropology instructor at BYU, took some of his unpublished notes written before his loss of faith and published them as a book with himself listed as co-author. Just how much of the book is Ferguson’s is not clear, nor do we know to what extent, if any, Ferguson still believed in the Mormon

significance of Stela Five (Larson 1996). What we do know is that the Ferguson and Warren book, *The Messiah in Ancient America*, was written to prove that Jesus Christ appeared in Central America, and Stela Five is used as evidence.

But more needs to be said about this reference. On the one hand, it appears to continue the line of scholarly apologetics begun by Jakeman in support of the stone's significance to Mormonism. On the other hand, few other Mormon scholars have referred to the stone in recent decades, and Church officials no longer appear to embrace the stone as material testimony of the faith. Does Bruce Warren stand outside this development, or does he represent simply an anachronism of long-standing Mormon interest in Central American artifacts? Both could be true. Warren's interest in the stone is partly commercial, after all. He was until recently employed by one of the travel companies that sells trips to "Mormon Lands" of Central America, including a stop at Izapa. It would be bad for business if the stone were debunked, and so Warren might have a vested interest in fortifying the Mormon perspective on the stone. It is not true, however, that Mormon interest in Izapa Stela Five now depends only on its commercial viability.

The authoritative (if not exactly official) *Encyclopedia of Mormonism*, published in 1992, is a case in point. The Encyclopedia is no mere compendium of knowledge related to Mormonism. More than a decade in preparation, it is considered the greatest summation to date of Mormon concepts and history. The tree of life story figures prominently as an entry, but what stands out is the Encyclopedia's reference to four distinct appearances of the tree—all, apparently, of equal significance: the Garden of Eden tree, Lehi's vision, Alma's parable (see Alma 32: 28–43), and Izapa Stela Five. It is as if to say the Izapa stone ranks with the others, including the Bible and the Book of Mormon, in testifying to the significance of the image of the tree. In fact, the Encyclopedia goes further and suggests that the famous sculptured sarcophagus lid from Palenque's Temple of the Inscriptions also depicts the Tree of Life (Raish 1992: 1488). Far from retreating from its assertions about Mesoamerican origins, Mormon archaeology continues to embrace them and therefore the Izapa stone.

The Stone Today

The following, taken from a Mormon discussion web site, is typical of current Mormon understanding of the Izapa stela.

Can we successfully overturn the evidences presented by archeologists...? Can we successfully maintain the Book of Mormon's comparatively recent advent of man in America and the existence of his iron and steel and domestic animal, and written language stage of culture against the deductions of our late American writers upon these themes? If we cannot, what is to be the effect of it all upon the minds of our youth? What is to be our general standing before the enlightened opinion of mankind? Is silence to be our answer?

The author expresses the very same doubt that led Thomas Ferguson to spend decades looking for archaeological proof and then to give up on the quest as fruitless. Here is the response:

I don't understand your post. I have seen such Book of Mormon artifacts which prove the Book of Mormon true. Have you ever heard of the Lehi stone? It is a large stone covered with hieroglyphics telling the story of the tree of life from the Book of Mormon including the names of the three main characters—Lehi, his wife Sariah, and Nephi. Also, the Book of Mormon used to be published with many color pictures of such artifacts. Suggest you contact BYU's archeology dept. for more information on the truthfulness of the Book of Mormon. (<http://www.truth-in-love.org/bofmevidencearchaeo.htm>)

Clearly the stone has lost none of its power to convince some of the faithful of the truth of Mormonism's claims about its own history. Against all of the criticism—that the iron tools and horses which the Book of Mormon speaks of simply did not exist in ancient America—the Izapa stone can still be used as a defense. What Mormon apologists of the 1950s would find surprising, however, is that the stone is virtually alone in this category, without the vast body of recovered relics and ancient writings that they thought would be revealed by now to support Mormon historical claims.

The most recent event in the history of the stone took place in 1999. BYU archaeologist John Clark published a reinterpretation of Stela Five based on a new drawing created by Ayaz Moreno. The drawing was produced in three stages, and involved direct tracing of details onto clear plastic draped over the stone, and with the aid of artificial lighting to highlight details. This resulted in a reproduction very different from the photograph-based drawings produced by Garth Norman in the 1960's.

Using the new drawings, Clark was able to cast doubt on the commonly held assumption that the slab represents an episode from the Book of Mormon. "The internal evidence from the Book of Mormon seems to be definitive that the Nephites had nothing to do with Izapa, and it is doubtful that the Lamanites did either" (1999: 28). By "internal evidence" he meant that there is no textual confirmation that Lehi's dream figured prominently, or at all, in the teachings of the later Nephite prophets. Why, then, would it have been used to provide a sculptural motif? Clark instead proposed that the stela was what it seemed to be in the first place: an artifact whose features placed in the tradition of ancient Mesoamerican religious sculpture. "The Lehi connection that Jakeman espoused," he concluded, "goes nowhere, in my opinion." Nevertheless, Clark finished up the article with this tempered concession: "But long-shot though it may be, a Jaredite link to Izapa cannot be completely ruled out" (1999: 33). The article does not provide any support for this hypothesis, however.

So far, published responses to Clark have been few but strongly felt. Several appear in the *Book of Mormon Archaeological Digest*, published by tourism entrepreneur Joseph Allen. Allen owns and operates a travel business and takes people on tours of the "Book of Mormon" lands in Central America—the same business, in fact, with which Bruce Warren is associated. One of his destinations—one the "Jaredite Tour"—is Izapa and Stela Five. Allen also makes brass reproductions of the Stela, and sells them for \$80 a piece. Obviously it would not be good for business if the stone were to be debunked as a Mormon artifact. He has therefore been among the first to defend it. An issue of the Digest was devoted to criticism of Clark, and included articles by Joseph Allen, Diane Wirth, Alan Miner, and most importantly, Garth Norman (Norman 1973, 1976, 1985, 1999; see also Carr 2010).

Some criticism has focused on particular elements of the sculpture, which do look strikingly different in the Norman and Clark renderings. Consider the figure on the lower left side of the stone, which some have identified as Lehi, the prophet. Using Garth Norman's earlier drawing, Allen sees the figure as Lehi leaning forward with his hand in a gesturing or teaching position. He sits on a cushion similar to the altars that rest in front of the stone monuments in the area where Stela Five is located. An object Jakeman identified as a jawbone immediately behind his head represents Lehi's name, according to Allen. Clark, on the other hand, looks at the new Moreno drawing and sees an old man with a pointed cap. He is sitting, not on a cushion, but

a throne of skulls—hardly a Lehi theme. The bones of the old man show prominently, and Clark suggests that he may represent death, or a priest or king in a mask representing death. The pointing finger that Allen sees is interpreted by Clark as rope that signifies kinship.

Garth Norman does not deny that figures on the stone are hard to identify. Nor does he claim that the stone is exclusively a representation of a Book of Mormon theme. Diane Wirth, writing in the same issue, sums up this position:

It is my personal opinion that what we have at Izapa is a melting pot of traditions. In this light it is conceivable that portions of the scenario have aspects of Lehi's Tree of Life vision, together mixed with earlier traditions held by the Mixe Zoque and their predecessors, the Olmec. This mixing of iconographic images was popular among the later Maya who incorporated symbols of Mexican origin (primarily from Teotihuacan) into their artwork—these emblems were important because they were symbols of power. (Wirth 1999: 10).

The purpose of their defense of the stone, therefore, is not to affirm its standing as a legitimate Mormon artifact, but simply to preserve this as a possibility. As the stone weathers and its details become harder to read, this will not become harder, but easier.

Conclusion

Mormonism is predicated on the truth of its own history, and the history of the ancient people its founding text describes. The first history holds that an uneducated New York farm boy, Joseph Smith, translated the contents of golden plates first revealed to him by the angel Moroni in 1820. The fact that the plates existed and Joseph translated them is not subject to dispute in Mormon thought; it happened, just as everyday events happen, in real time and real space. The second history asserts that the plates document the affairs of an ancient Israelite people as they left the old world and settled in America, in the period from the sixth century BC to the fourth century AD. The most important event in this history is the appearance of Jesus Christ in America following his resurrection.

The two histories of Mormonism, of the finding of the plates and of the plates themselves, are predicated on different kinds of evidentiary claims. The "Joseph Smith history" provides evidence for itself in the testimony of witnesses whose account of seeing and "hefting" the

golden plates appears on the first page of the Book of Mormon. This evidence is always cited as adequate to secure the Joseph Smith story against the claim that he never found the golden plates and therefore fabricated the Book of Mormon. The second history—the history within the Book itself—is unsecured by the same kind of eye-witness account. That is, there are no witnesses, outside the book itself, for the history the book relates. This difference in evidentiary claims has consequences for the nature of Mormon belief. The recovery of the ancient past thus becomes as important as the growth of the Church in the present, and subject to the same strictures: the need for witnesses, not as living testimony, but in the form of physical artifacts that confirm the testimony after the fact.

The two histories are sources of opportunity and vulnerability, and this, to the observer, is one of the most interesting aspects of the religion. It is a source of opportunity because history is seen as a set of facts to which the faith can appeal as proof. For all of its talk about heavenly kingdoms and celestial spirits, Mormonism likes to think of itself as an extremely practical, fact-oriented religion. “Facts” are appealed to in a way Catholics, for example, would find quite unusual, because Mormonism generally denies that there is anything other-worldly about its beliefs. It eschews mysticism. This is no more than one would expect from a religion that identifies Earth itself as the ultimate heaven and points to Independence, Missouri, as the place where Christ will appear.

Vulnerability is the other side of the coin. It exists because every factual “proof” is subject to disconfirmation through the discovery of new facts. Mormonism cannot escape its histories, but it manages its vulnerabilities by shifting. When one falters or seems likely to fail, the other is taken up and emphasized as sufficient by itself to ground the faith. There is, of course, a third option, and that is to stress the power of revelation and the confirmation of the Holy Ghost. The importance of history can then be attenuated, and appeals for verity are made directly to spiritual realization. All three alternatives are serviceable mainly to the extent they are used in conjunction with each other, enabling rapid shifting between them.

The purpose of the three rhetorical strategies is to create or maintain faith, which is manifest in adherence to the church’s organizational structure. Any of them, however, can be pursued on its own—in a theory of history, for example, or in a theory of personal revelation. In any case, such an inquiry can easily end up in a realm of

evidentiary claims over which the church hierarchy has no control. The criteria are set by others—professional historians, perhaps—and not by the authority of the Church. They are therefore considered problematic. This is one of the core paradoxes of Mormonism: to pursue any of its chosen routes to making truth claims runs the serious risk of challenging the institutional structure that is predicated on prophetic authority.

Mormon historiography does not differ that much from mainstream Christian and Jewish thought. All three seek the physical remains of the people their sacred texts describe. Mormonism goes beyond this, however, in one crucial sense, and that is in its philosophy of materialism. The Mormon theology of existence asserts the identity of spirit and matter, while mainstream Christianity has always maintained that the two are separate and distinct, and the former superior to the latter. The God of mainstream Christianity is incorporeal and creates matter out of nothingness. The God of Mormonism finds matter already in existence, as well as “intelligences,” which he then organizes according to a plan of development.

The Mormon assertion of identity, or interdependence, between matter and spirit has important implications. First, things that are true spiritually must also be true physically. They should therefore leave physical signs that are susceptible to inspection. Second, physical evidence is never dispensable, although it may become unavailable, temporarily or permanently, because of God’s plan. The Book of Mormon itself, in all its printed versions, contains the testimony of witnesses who make a point of saying that the golden plates were real and that they “hefted” them. Physicality is fundamental. This means that the believer cannot convert truth claims into philosophical statements in which only revelation operates as verification. Third, since there are no a priori limitations on the type and number of physical evidence, Mormons must, in principle, be open to new discovery. In fact, they are enjoined by their own Articles of Faith to seek new knowledge, which means that there will always be a place for Mormon archaeology (and the rest of science, for that matter) no matter how controversial or damaging its results.

Consequently, there will probably always been a certain tension between faith and the claims of history, and Mormonism will always face certain challenges in the role it assigns to archaeology. In this regard, of course, Mormonism is not so different from other religions, or even from nativistic elements in various nationalist movements. Japan is a

good example (e.g., Kohl & Fawcett 1996). No other country, it is said, spends as much of its resources on archaeological excavations than the Japanese government. To a large extent, this is driven by a nationalist purpose: to provide evidence that Japanese culture is unique and that its essential contours were established before assimilation of Chinese forms and values (Habu & Fawcett 1999). The problem with peeling an onion, however, is that you never get to the absolute core. And the Japanese have discovered that no matter how deep they dig, artifacts bearing traces of contact with the Asian mainland are still to be found. The Mormon context is different, of course, but not so different that one can see similar difficulties arising to the extent that archaeology and artifacts are used to buttress matters of a spiritual order.

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THEORIES AND SCEPTICS

FOLKLORE AND DISCOURSE: THE AUTHORITY OF SCIENTIFIC RHETORIC, FROM STATE ATHEISM TO NEW SPIRITUALITY

ÜLO VALK

Folkloristics as an autonomous discipline was born in 19th century Europe as an offspring of national romanticism. Scholars in many countries were collecting old manuscripts and taking notes from oral traditions, as they believed that such new textualisations represented the ancient heritage of the people, including valuable survivals of pre-Christian myths and beliefs. Jacob and Wilhelm Grimm in Germany, Elias Lönnrot in Finland, Friedrich Reinhold Kreutzwald in Estonia and many other learned men crafted literary monuments which became the canonical writings of their national cultures. In late 19th and early 20th centuries the evolutionary and superorganic approach to folklore prevailed, conceptualising it as a rapidly disappearing culture of the conservative and uneducated rural folk, who were little affected by modernisation. Contemporary folkloristics has given up its early nationalistic claims and evolutionary viewpoints and is focused on issues of performance, vernacular creativity, discursive practices, social relevance and the functions of folklore. Former research goals, such as reconstructing primeval forms of ancient tales, tracing their historical distribution or looking for their hidden meanings in the cultural context of past ages, have lost their attraction. Folklore is generally not conceptualised as a set of textual units, intangible works of arts that are orally transmitted from generation to generation, but as a vernacular practice, artistic communication, endless process of variation and recreation of narratives, beliefs, customs and other expressive forms. Folklore sometimes crystallises in recognisable and discrete texts as it is performed in oral or written forms, events of storytelling that follow the patterns of traditional genres—some of them emerging, others dominating the vernacular culture or being marginalised and disappearing.

One of such influential and persistent genres is legend as a narrative that illustrates and expresses supernatural beliefs. Traditional legends of Europe formed a web of widely spread narratives in which human

beings encountered the Devil, water and forest spirits, ghosts and other supernatural entities, they witnessed witchcraft and the evil eye, and experienced the effects of charms and magical healing. These stories, told as true reflections of recent events that could in principle occur again with anybody, enchanted the social world as a realm, haunted by supernatural powers. The following legend, told by a 45-year-old woman in the Estonian countryside in 1947, offers a good example of the generic power of legend to blend the social and supernatural worlds:

Loviise Paaks (born in 1902) told me how she was lost. I was a little girl, living with my parents and I was sent to take the horse into the wood. It was evening; the horse had already done the day's work. I took the horse to the forest of the manor without permission, but secretly everybody took their horses there for grazing at night. The other horses were there, I let our horse go and wanted to return home, but all of a sudden, the forest looked so strange that I did not know where to turn. This is God's truth, the horse had a bell and I saw the horse eating but I could not hear the bell. I found a way—the same way leading to Sõtke manor, but it was so strange to me that I didn't know which direction to go, although I had taken the same way to the forest. The best I could do was to kneel down under a tree, to put my hands around the tree and read the Lord's Prayer. Indeed, all became clear again, I recognised the way and the forest, I could again hear the bells of the horses. This is true indeed. It is said that if you cross the footprints of the forest spirit, you will go astray.

RKM II 9, 203/4 (18)¹ < Harjumaa county, Rapla parish, Kabala, Pühatu village—Recorded by Emilie Poom, told by Loviise Paaks (1947).

This short story reveals how beliefs can turn an actual life episode into a fictional experience of the realm of the supernatural, known from legends. These belief narratives are more than an expressive genre; they function as a pattern of perception, a certain interpretative outlook on uncanny irrational occurrences, providing one with strategies for coping with such critical situations. The above legend confirmed religious beliefs in the power of the Lord's Prayer and other Christian means to protect oneself from demonic powers, here from the spell of a forest spirit. The legend gives evidence of a rural community, whose perception of nature is framed by belief in supernatural forces and entities and whose worldview is dominated by Christianity. Tens

¹ Reference to the collections of the Estonian Folklore Archives in Tartu.

of thousands of recordings in the Estonian Folklore Archives from the 19th and 20th centuries reveal the high status of Christianity in vernacular beliefs. Widely spread motifs in Estonian legends about warding off the Devil and neutralising witchcraft with the sign of the cross, mentioning the name of God or reading a prayer illustrate the ultimate authority of Christian discourse, imbued with magical power to control the physical world. In addition, Estonian popular charms, used in healing and evoking good fortune, are rich in Christian elements as discursive markers of white magic.

Noteworthy is the argumentative power of legends to make claims about truth. The storyteller has used strong rhetorical devices (“this is God’s truth”) to convey her true experience and verify her interpretation of the event. Linda Dégh has studied the oral performances of legends and shown that this genre engages participants of storytelling in discussions about their versatility, and evokes controversial modalities of belief and disbelief (Dégh, Vázsonyi 1976, Dégh 1995). Legends make arguments about supernatural dimensions of the lifeworld but they also provoke counter-arguments and alternative explanations that undermine beliefs. Elliott Oring has analysed the rhetoric devices that establish the credibility of legends, such as the authority of the source, intonation, framing, narrative strategies of enhancing truth; he has also studied how legends are connected with theories and ideologies that support them (2008: 157). Based on his many-sided analysis of legends, Oring has formulated a new definition of the genre “as a narrative performance that invokes the rhetoric of truth” (2008: 159). These observances expound legend as a genre that upholds belief systems and shapes worldviews.

However, legends have never formed an autonomous domain as different oral and written genres have co-existed in dialogic relationships. During the last centuries, when literacy started to prevail and the impact of the printed word grew, folkloric forms of expression became more dependent on institutionally established worldviews—more systematic than the unorganised web of vernacular beliefs. Homogeneous creeds, systematic doctrines and ideologies, such as Christianity, enlightenment, nationalism and socialism, pervaded society and had a remarkable impact on folklore. All such systems of thought represent the monologic concept of truth, as Mikhail Bakhtin characterised such authoritarian and totalitarian discourses. He considered European rationalism, and what he called “the cult of one and total reason” at the age of Enlightenment, the main factor that strengthened the

principle of monologism and its intrusion into all spheres of ideological life (Bakhtin 2002: 93). Bakhtinian ideas about the monologic construction of truth remind us of the Foucaultian concept of discursive formations—dispersed fields of statements, ideas and enunciations that co-exist at certain historical periods, are produced by multiple authorial voices and in spite of the dispersed sphere of textual production construct their objects and shared concepts (Foucault 1972: 31–39, Yurchak 2006: 161–162). In the current article “discourse” refers to an authoritarian and coherent web of ideas and statements, prescribing a normative worldview, and upholding certain social norms and values. Discourse can be compared to folklore as it refers to verbal practices of individuals in social roles who are incapable of totally controlling the shared traditions they carry. However, in contrast to folklore, which represents unofficial points of view and consists of individual voices, discourse represents the institutional and anonymous voice of power. Whereas folklore implies creativity and variation, discourse sets limits of perception, thought and expression. Folklore enables freedom of expression and improvisation, discourse means discipline.

This article discusses relationship between discourse and folklore using the example of the changing religious and ideological landscape of Estonia. At the end of the 19th century the public sphere in Estonia had become more pluralistic than ever, enabling different viewpoints, agendas and systems of thought, competing with each other. The Lutheran church and village schools had spread literacy for centuries, turning the Estonian peasants into a reading nation. While the Czarist authorities had launched a wide campaign of Russification and supported Orthodoxy, the leaders of the national movement, such as the Lutheran pastor Jakob Hurt, started systematic collecting of Estonian folklore, then conceptualised as a treasury of memories of past times, as an intangible book of oral history. Both Russification and building of Estonian identity appeared as alternative discourses to the former, commonly held view among the local intellectuals to see Germanisation as necessary step in civilising the Estonian peasantry. The First World War and Communist revolution in Russia led to the establishment of Republic of Estonia in 1918, confirmed by Tartu Peace Treaty between Estonia and the Russian Soviet Federative Socialist Republic in 1920.

Developments in the natural sciences were introduced in Estonian periodicals and popular books from the end of the 19th century and

supported the discourse of scientific materialism. The Constitution of the Republic of Estonia separated the church from the state, which led to the exclusion of religious instruction from school curricula in 1920. After a public referendum in 1923 religious instruction was re-introduced in schools as voluntary for pupils but compulsory for schools (Valk 1997: 120–121). In public debates claims about incompatibility of “progressive” sciences and “reactionary” religious faith were frequently used to argue against religious instruction in schools (Valk 1997: 42). As Lea Altnurme has noted, the spread of scientific and materialist ideas was prepared by the rational theology of the Lutheran Church, which had shaped the Estonian mentality through school books and the education system for centuries. In the 1920s and 1930s many Estonian intellectuals shared the positivist worldview and evolutionary ideas with a belief in eternal development (Altnurme 2006: 54–55). One of the young intellectuals, August Annist, wrote in 1923: “We believe in the evolution of culture and of mankind, in the present and in the future, in the always developing Spirit of Earth, executing [the will of] the Spirit of Heaven, perceived in human ideals” (Karjahärm, Sirk 2001: 226). Cautious distance from church and from the Christian concept of God marked the spiritual quests of many Estonian intellectuals.

In October 1939 the Soviet Army entered Estonia and by 1941 the country had been incorporated into the Soviet Union as the Estonian Soviet Socialist Republic. After Nazi occupation between 1941–1944 Estonia was annexed to the Communist empire again. The subsequent reforms turned society upside down, as democracy was demolished, private property was nationalised and thousands of people deported to Siberia. Such actions of state terror had to neutralise resistance to the Communist authorities, whose aim was to build up a new, progressive society.

Rhetoric Practices of Scientific Atheism

According to Communist doctrines religion is a form of social consciousness and a tool of ideological suppression—“the opium of the people”, as Karl Marx called it (1843). Friedrich Engels defined it as follows: “All religion, however, is nothing but the fantastic reflection in men’s minds of those external forces which control their daily life, a reflection in which the terrestrial forces assume the form of super-natural forces” (Engels 1877: III, 5). Engels had in mind two kinds of

forces—those of nature, and social forces—“which confront man as equally alien and at first equally inexplicable, dominating him with the same apparent natural necessity as the forces of nature themselves” (Engels, *ibid.*). Marxist theoreticians saw the weakness of humans to understand the laws of social development as the major cause of religion (Gordiyenko 1980: 19). As Marxism-Leninism had discovered these laws and applied them in building the new, communist society, the social base of religion had disappeared and it had to fade away together with other survivals of obsolete forms of social consciousness. Just as archaic peasant folklore and bourgeois culture had to disappear, there was also no place for religion in advanced communist society. One of the official components of Marxism-Leninism was the discipline of scientific atheism—defined as a special branch of scientific cognition—study of the regularities of the process of renouncing religion on two levels: on the individual level and on that of humankind (Gordiyenko 1980: 9).

When the Soviet regime was established in Estonia, the new rulers saw religion as an obstacle to achieving their goals. In 1940 the property of Lutheran and Orthodox churches was expropriated and theological studies at the University of Tartu were abolished. In 1941 the bishops of Lutheran and Orthodox churches and a considerable number of clergy were deported (Raun 1991: 156). After the war was over, first steps were made to propagate atheism but the true campaign did not start before the 1960s. In 1947 the Society for the Spread of Political and Scientific Knowledge was founded in Estonia to assist Communist Party in carrying out its politics. In 1963 this organisation was renamed *Teadus* (Est. ‘science’) and became a section of the all-union society *Žnanie* (Russ. ‘knowledge’) (Remmel 2008: 267). The society had to function as a tool of the new discursive regime, aiming at educating people in the Communist spirit, arranging popular lectures and propagating atheism. Political occupation of Estonia had to be completed by establishing the discursive hegemony of Marxism-Leninism over all other discourses, marginalising or eradicating them.

In the Soviet Union the authoritarian discourse, “in which linguistic formulations, literary texts, artistic products, and scientific theories were publicly evaluated as correct or incorrect from the point of view of the scientific Marxist-Leninist analysis of the world”, was introduced by Stalin in the 1930s (Yurchak 2006: 41). One of the first books of systematic atheist propaganda in Soviet Estonia was translated from Russian and is entitled “Religious Superstition and its Harmfulness”

(Pavjolkin 1953). It praises materialism as a “scientific worldview, which corresponds to reality and is confirmed by the practice of the whole of mankind, by the data of all sciences” (Pavjolkin 1953: 88). The incompatibility of science and religion and their contradistinction is stressed throughout the book, providing an abundant set of quotes of the classics of the new discursive regime, such as the following argument of Joseph Stalin:

the Party cannot be impartial about religion and makes anti-religious propaganda against all religious prejudices, because it defends science; religious prejudices, however, contradict science, because any religion is opposed to science. Such cases as recent condemning of Darwinists in America, are impossible in our country, because the party carries out the politics of the multifaceted protection of science (Pavjolkin 1953: 146).

The book gives instructions on organising scientific and educational propaganda to raise the cultural level of the Soviet people and on “destroying remnants of unculture, all kind of superstitions and prejudices” (*ibid.* 148). This had to follow a directive of the Central Committee of the Communist Party from 1946, prescribing popular lectures and public reading of booklets and articles, especially among the rural population, to propagate the achievements of natural sciences and technology. It stressed the importance of bringing to the people scientific knowledge about the structure of the universe, the formation of the Sun and Earth, the origin and development of life, evolution of man, causes of diseases and the fight against them, scientific foundations of agriculture, increasing agricultural productivity, applying energy, etc. (*ibid.* 148–149).

Although consistent in its goals and unitary as a discourse, scientific atheism appeared in multiple forms. In 1964 the Central Committee of the Communist Party adopted a document to develop atheistic education. Film, literature, graphic arts, radio and TV, regional museums and planetaria were to be involved in regular anti-religious propaganda (Kääriäinen 1993: 29). Atheist publications form a complex and hybrid textual tradition with many genres involved. Exempla-like narratives have been useful tools to illustrate the harmfulness and fallaciousness of religious beliefs. P. Pavjolkin recounts a story by the writer T. Syomushkin about Chukchees, who were suppressed by American merchants, influenced by shamans and suffering because of religious prejudices and lack of education (1953: 37). After Soviet power was established, the father of a newly elected poor chairman of Village Council was killed by a bear. Anti-communist shaman explained this

as the revenge of deities who expressed their dissatisfaction with the new regime. As the argument sounded convincing, the new chairmen of the Village Councils decided to resign from their positions and returned their certificates. P. Pavyolkin ridicules and pities the Chukchees, whose consciousness was poisoned by religion, who believed in supernatural powers and miracles and were not able to understand that there was absolutely no connection between the death case and political change (1953: 38). Although fictional, the story has been narrated as a true event, even the names of the protagonists were given. Genre analytically this textual piece is a belief legend, whose inherent quality is to generate debates about supernatural. Later atheist publications have frequently used anti-legends, described by folklorists as a counter genre, which undermines the credibility of legends and looks for alternative, rational, explanations to the supernatural elements in legends. In 1967 an atheist booklet was published about the Orthodox Pühtitsa Dormition Convent, popularly known as Kuremäe convent (Soop, Keskküla: 1967). This convent is located in north eastern Estonia, it had been opened in 1891 and remained one of the few convents in the Soviet Union that were not closed down by the state authorities. There are many religious folk legends about Kuremäe and the holy spring near the convent, whose miraculous healing powers attract pilgrims. The atheist booklet published a counter legend, whose protagonist is the local man Puki Tõnis, who died in 1938 and has also been indicated as the primary source of the narrative (Soop, Keskküla 1967: 29). Namely, the authorities of the convent needed a miracle in order to incorporate the ancient holy spring in religious traditions. As the story goes, they gave a glittering icon, depicting Jesus Christ, to Puki Tõnis and asked him to put it into the spring right before a rich orthodox merchant from Tartu visited the place. The merchant saw the image in the water, thought it to be a revelation and reported the miracle at the convent. Puki Tõnis, who was barefoot, secretly took the icon, and later the merchant returned, and noticed the Puki Tõnis' footprints. The merchant interpreted them as those of Jesus and was convinced of the miracle. In addition, he donated a considerable sum of money to the convent. As the authors of this atheist booklet note, two local men—Mihkel Kask and Anton Pappa—had heard the story from Puki Tõnis himself (Soop, Keskküla *ibid.*). Indication of a reliable source, in this case living remembrances, is a traditional rhetoric device for endorsing both legends and anti-legends.

Communist ideology was the only valid doctrine, which had to eradicate all other authoritarian discourses with similar claims to be ultimate truths. Therefore, spreading scientific knowledge was not a goal in itself but a measure to establish the hegemony of Communist doctrines. Propagating sciences provided rhetorical devices to promote the totalitarian discourse of the all-powerful state. Confrontation between the Socialist and Capitalist worlds and the military rhetoric of the Cold War also appeared in atheist propaganda. The fight between progressive and reactionary ideologies was seen as pervasive. The study-book of scientific atheism, prepared by the Institute of Philosophy, Academy of Sciences of the Soviet Union, declared:

In the 20th century the scientific fight against religion has moved to a new, decisive phase. At present a fight is going on in the consciousness of hundreds of millions of people between scientific and religious worldviews. Science does not need to fight for every patch of land any more to gain it from religion. Progressive natural science has long ago thrown overboard the rotten dogmas of the bible. But a heated fight about each significant achievement of science and techniques is going on between scientific and religious worldviews (Tsamerjan et al. 1963: 93).

The book lays emphasis on the achievements of the Soviet scientists in creating progressive knowledge about the universe. As “physics—the true leader of contemporary natural sciences—has an extraordinary role in the complete subverting of religious dogmas” (ibid. 59), the book dedicates much attention to the works of Soviet astronomers and their criticism of Western scholarship, such as abbé Georges Lemaître’s theory of genesis of universe from a primeval atom, implying the creation of the world. “As the Soviet scientists—academician V. A. Ambartsumyan, A. L. Zelmanov, G. Naan, M. S. Eigenson and others convincingly showed, the theory of “expanding universe” has no scientific foundation” (ibid. 55).

Deconstructing the concept of God in atheist discourse was paralleled with deconstructing the soul as the non-material principle of individual existence, surviving physical death. As the same handbook stated, the

demolishing blow to the bible’s myth about [departing of] ‘soul’ as the cause of death has been given by the great achievements of scientists to wake up [dead] people and animals. The first experiments of this kind were made by Russian scientist A. A. Kuljabko, who succeeded in reviving the heart of a dead child. [—] During the Great Patriotic War Professor V. A. Negovski and his team succeeded in bringing back

to life many soldiers and officers, who had died because of wounds (Tsamerjan et al. 1963: 77).

Such examples about the miracles of Soviet medicine reveal that powerful arguments mattered more than factual truth. Atheist literature is characterised by a consistent rhetoric about social progress, festive pathos and repetitive formulae, just like the whole authoritarian discourse of the Soviet regime. Alexei Yurchak has characterised its language structures as “increasingly normalised, cumbersome, citational, and circular” (2003: 75). This authoritarian rhetoric had to destroy the old forms of social consciousness and the respective discourses; it also had to assist state authorities capture the minds of the audience and transfigure them into new subjects—proud, dignified and patriotic Soviet citizens. The project was to a great extent a failure in Estonia, probably because the target was a people whose educational, cultural and religious background was in the old pluralistic society. The Soviet totalitarian system was able to control the public sphere of the spoken and printed word, but failed in controlling the internal speech of individuals and their private communications.

In 1983 a book by Romanian author Petru Berar “Religion in the Contemporary World” was published in Estonian, paraphrasing the old arguments about ideological fight between religious and scientific world views:

Science and scientific cognition are essentially contradictory to religion and religious faith. Science is the true, correct reflection of reality—a logical and non-contradictory system of knowledge that can be controlled in practice. [—] In contrast to science, religion is a wrong, distorted, fantastic reflection of reality. It is based on blind faith in dogmas (Berar 1983: 42).

Such repetitive formulae functioned as a chant of verbal magic to discredit religion as the alternative discourse of truth. On the other hand, scientific rhetoric had to confirm faith in social development and in communist future in an impoverished empire, whose rituals, ceremonies and canonical scripts carried remarkable religiomorphic features (Rommel 2008: 248). At the 25th congress of the Communist Party of the Soviet Union in 1976, Leonid Brezhnev, its General Secretary, spoke about the need to consolidate the progress of science and technology. He said: “only in the conditions of Socialism does the scientific-technological revolution acquire true direction, corresponding to the needs of man and society. Only on the basis of the fast development

of science and technology is the final goal of the socialist revolution realised: to build up communist society” (Brezhnev 1976: 55–56). Obviously, instead of development, the state had frozen in stagnation, while the formulaic rhetoric of progress barely compensated for the lack of dynamism. Later attempts to reform this authoritarian discourse to introduce more pragmatic models of ideology in the years of perestroika, undermined the whole political system and introduced its collapse (Yurchak 2006).

Scientific Rhetoric, Vernacular Beliefs, and New Spirituality

When Estonia regained independence in 1991, the Lutheran Church had survived the fifty years of suppression and persecution, but its role in society had been marginalised. Ringo Ringvee characterised Estonia at the end of the 20th century as a highly secularised society where religion was a private matter, as only approximately 16% of the population officially belonged to churches or religious communities. Anti-religious propaganda had eliminated religion from everyday life, young and middle-aged people were ignorant of religion but shared rather negative attitudes towards its institutional forms (Ringvee 2000: 116).

However, Estonia had opened up to new religious movements, esotericism and worldviews alternative to both Christianity and scientific atheism. Freedom to express ideas and beliefs through publications and the media, with the growing importance of the Internet, filled the religious market with old and new doctrines, such as Buddhism, Hinduism, Word of Life, anthroposophy, astrology, indigenous faith and the expanding realm of New Age spirituality. Censorship had disappeared, Hollywood dominated the movie theatres, imported goods flooded Estonian supermarkets and people could finally visit foreign countries. Streets and roads were filling with second-hand Western vehicles and Estonia was opened to foreign tourists who started to discover even the remote corners of the country, often in fancy coaches, never before seen in local village lanes. It is probably no coincidence that in 1990s there was a great boom in UFO narratives and personal experience stories about aliens. People who had been isolated from outside world by an iron curtain, were actively establishing links with other worlds and higher dimensions. From 2000 until 2003 I was doing fieldwork on the islands of Hiiumaa and Kassari, and discovered

a lively tradition about UFOs. My main informant was a middle-aged man, who asked me not to disclose his identity as he was not seeking public attention and fame, enjoyed by many sensitives, healers and spiritual mediators. Together with his teenaged son he had discovered a secret base of the super-civilisation of Ivirians (*ivirlased*) in a meadow on the sea shore, not far from his home. As he said, a flat boulder in his yard functioned as a screen to receive messages from extra-terrestrial beings which he recorded through automatic writing. Thus, he had gathered detailed knowledge about the hidden dimensions of world: about its 22 layers, each consisting of 22 layers; super-civilisations, spiritual beings, cosmic laws, eternal evolution and energetic dynamism. His alien contacts remained invisible for him but his son had seen them:

They are made of a subtle substance (*peenmateeria*) and they say they cannot show themselves to anybody else but my son. The name of the contact person was Evor. He showed himself to the boy, who made a drawing of him. He was about one meter and thirty centimetres tall, with long hands. He said that he had no mouth or nose, just a hole in the face. His eyes looked big and he had feet. He looked like us although he was quite distorted.²

My informant was proud to be a chosen contact person of this advanced civilisation, whose two other secret bases on Earth were located in China and Scotland. Ivirians were far ahead of other aliens whose space ships had been traced on the islands and widely reflected in folklore. He said:

These [UFOs] who visit us can even be below our level of development. It is said that the right to make interplanetary trips is not given according to development but according to the needs. Some planets have their problems, for example with lack of energy or something. They need some other kind of energy or they may have problems with procreation. And then they are allowed to visit other planets to do research. No, this is not according to the level of development, this does not mean that they are higher creatures than we are.

Ivirians did not have selfish intentions when visiting Earth and they mastered magical technologies, incomprehensible to humans with their low level of development. My informant quoted the words of his extraterrestrial informant:

² Passages from interviews, quoted in this article, are from interviews made in summer 2000.

We change our space ship with the power of thought. If we need a door, we make it there; if we have to look out, there will be a window.” Then I asked, “What is your space ship made of?” They said, “50% of ether—this is the subtle substance of the astral world—and 50% of thought energy.” It is no problem to change thought energy by the power of thought. We cannot understand this, that it could be possible to build something by the power of thought. But those [the other UFOs] that come down here, these are out-and-out hulks (*kolakad*). They burn earth and leave all kinds of rings and circles behind.

However, humans are also ready to make progress, as the world is on the threshold of big changes. My informant saw the next steps of human development as follows:

If we cut down all the forests, sell them and eat all the animals—as we are doing now—I call this development. We are not going to subsist on green products, as our bodies have been programmed now. If I make an experiment at home, I put on the table decent potatoes and a pack of chips and ask my sons to take what they like, there is no doubt that they choose chips. If I put on the table red currant drink and Coca-Cola, and say, boys, take what you like, there is no doubt what they choose [laughs]. We are talking about preservatives. However, they [*Ivirians*] explain that the current generation is the generation of transition, who will subsist on different kinds of energies. The current developments are very fast.

My informant’s worldview could be characterised as cosmic mysticism, dominated by a belief in the unbounded universe, technological progress and eternal development. He was also aware about the dangers of technology in the hands of “Blacks”, as he called representatives of evil powers, who want to rule the world and use its resources for their own interest, do harm and fight universal progress. Rumours about the secret experiments of the KGB with quasi-supernatural new technologies of surveillance and thought control were a part of belief systems during the Soviet time. My informant spoke about KGB experiments in certain residential districts with generators, sending out vibrations to make it easier to control and manipulate people. According to his words, such equipment was installed in certain apartments of multi-storied buildings, causing ailments and diseases. A Russian man, who had worked in a special department of Ostankino, the all-Union TV centre in Moscow, had told him about attempts to stop the collapse of the Soviet Union by manipulating people through energetic TV séances.

This was called the 13th shot (*kaader*). A different kind of information was put into the film. You cannot see it but you receive it. This is inserted into you: “We have perfect life, we in Moscow have everything that is necessary”. This kind of processing was carried out in the Soviet Union all the time to suppress the people. Russians have reached very far in this...

Memories like this reveal that vernacular attitudes towards technological progress were far from entirely optimistic in the Soviet Union. While official propaganda praised the technical advancements and developments of the Soviet space program, the folklore of conspiracy theories and urban legends unmasked progress as the demonic project of a totalitarian state. I remember rumours from the early 1980s about secret equipment on satellites which were supposed to control people from a long distance. There were rumours about secret apparatuses in the cellars of living blocks, which had to control collective psychology and even monitor people's thoughts. One of my friends told me about his acquaintance, whom he thought to be a KGB informer. This suspicious person had told him something about modern surveillance technologies and once uttered something like “one can see through other people's eyes”. I remember us seriously discussing whether it could be true that the Soviets had invented equipment of visual documentation, using somebody's eyes as camera lenses. The possibility that such a technique might be used against one's will and without one knowing about being a tool of the KGB seemed particularly frightening. As I recall this conversation now, it reminds me of legend telling situations with pro and contra arguments about supernatural beliefs, as described by Linda Dégh and Andrew Vázsonyi (1976).

My informant from summer 2000 also expressed similar beliefs about manipulation of the “Blacks”, who could turn people into zombie-like tools. He said:

the Russian intelligence service consciously turned people into mechanical zombies. Let's take bodyguards. They are zombies. He is guided by a program. As he sees a gun, he has to jump forward if there is no time to shoot. This is because a program has been embedded into him and he is steered as a machine. Steering from the spiritual world is also possible. If you lose self control, others will steer you. You lose contact between your soul and mind and other ‘friends’ in the channel start to command you.

Such uncanny beliefs can be interpreted as survivals of past folklore, mental constructs symbolically expressing the anxiety of living in a totalitarian state that aims at the total control of its citizens.

The Soviet discursive regime encouraged supernatural beliefs about technology as the realm of magic and the demonic, beliefs also known traditionally (Bausinger 1986: 23–32). Its ideal was to build up a closed society whose contacts with the outside world and other civilisations had to be minimised and had to proceed through state control. It is no wonder that the freedom of communication with other worlds—with extra-terrestrial civilisations, angels and other spiritual beings offers a major attraction in contemporary Estonia. August Kilk is a retired gentleman who lives in Võsu, North Estonia, where he is coordinating the activities of the Spiritual Centre, a non-profit organisation that could be characterised as a network of people with spiritual interests. August is an active propagator of Esperanto and an intellectual leader of the spiritist movement in Estonia. He has good contacts with societies of spiritism in other countries and often visits their conferences. On the website of the Spiritual Centre August has defined spiritism as spiritual research, communication between spirits in physical bodies (i.e. human beings) and spirits outside physical bodies (<http://www.spiritism.ee/et>). He writes: “Spiritist phenomena are natural phenomena that have always existed, whose primary understanding is given to us by teachers of love from the spirits’ world in the books of spiritist doctrines, compiled by Allan Kardec in a scientific manner. Actually, this is the continuation of the Biblical doctrines of Jesus Christ through the Holy Spirit, which takes us to all truths, as it has been said in the Bible” (ibid.). In this definition the authority of Christianity is used to endorse spiritist doctrines, but credit is given to scientific approach as well, as Allan Kardec is acknowledged as a scholar. However, the same website regretfully remarks: “The sciences do not have appropriate equipment to study fluidic semi-matter (*fluidumlik poolmateeria*). The sciences are making serious efforts here” (<http://www.spiritism.ee/et>). Messages from Jesus, Mary, Mother Theresa and spiritual beings, channelled by Estonian mediums, have been published on the website. Their technical side of channelling has been explained in one of the few Estonian mediumistic books, entitled “Life in the Other World” (Elu 1999). In this book, authored by spiritual being Mari, channelled by medium Rooski and recorded by Lilian, Mari says: “The text is transmitted to you through radio waves—these are wave-like lines, vibrations. The weather is fine today and these vibrations come to you as a radio receiver. I am the transmitter, and you, ROOSKI, are the receiver. Such communication between SPIRITUAL BEINGS

and humans has existed for millions of years. Humankind itself has destroyed it because of its foolishness..." (Elu 1999: 22).

The beginning of a message, channelled by medium Anu on May 11, 2010 and published on the Spiritual Centre's web site reads as follows:

I am AUFAMIA. We are looking for a contact, a human who is willing to receive extra-terrestrial information. I shall adjust you to balance with natural radiation, so that you would feel extra-terrestrial life around you, so that you can feel contacts and would be able to receive them, not only recognise attacks. At present your substance does not support recognition of subtle energy (*peenenergia*). You have to develop your bodily and spiritual energy. Receive the blessing and wish in your hearts to be one with the world of subtle energies (—). (<http://www.spiritism.ee/et/node/59>)

Probably "energy" (*energia*) is the most frequently used key concept in contemporary Estonian spiritual movements and alternative healing practices. People talk about energy fields, life energy, bioenergy, masculine and feminine energy, spiritual energy, good and bad energy, and its other manifestations. Energy appears in the physical world, in human beings and in nature but it is often believed to be of otherworldly origin. It penetrates the world and can be both dispersed and focused in some places. Psychics and people with sensitive abilities can channel, transmit, extract and manipulate energies. Ordinary people can experience it, as explained in the following popular article about energy places in north Estonia: "Probably many of us have experienced better feelings in some places than in others. Quite a few have drawn energy by leaning against a tree or by lying on grass. This is the energy of earth that flows through us and our feeling depends on whether the energy is good or unfavourable (Vikk 2007: 11).

A recent phenomenon in Estonian vernacular belief is the concept of energy columns—defined by Ella Vikk, the director of Limestone Museum in Porkuni as follows: "According to modern concepts, an energy column can be called a flow of cosmic radiation. This radiant flow of energy nearly always penetrates the lithosphere or crust of the earth to some depth, changes its direction and re-enters the cosmic space—the atmosphere of Earth" (ibid.). The article refers to the articles and correspondence of geobiologist Enn Parve with the museum in Porkuni, in which he explains the differences between energy columns and how they depend on the different geophysical substances under the surface of the Earth. The flow of energy can be "electromagnetic, magneto-electric, geo(bio)logical, gravitational, cultural-holographic or informative" and it can have "psycho-physiologically

stimulating and even healing effects” (Vikk 2007: 11). Reference to contemporary physical explanations in the definition seems essential, because in spite of their recent emergence in folk belief, energy columns are claimed to be linked with sacred groves, sacrificial and healing stones and springs, known in former Estonian folk belief as places of worship, ritual, magic and healing. There are theories that physical anomalies of nature and energetic radiation were the ancient criterion of sacralising some places in the landscape. Experimental field work to measure the field anomalies in sacred places and archaeological sites through biolocation have been carried out (see e.g. *Earth’s Fields* 2003; *Radiating Biosphere* 2006). According to this opinion sacredness can be measured as a physical quality of environment and with appropriate apparatus sacredness of certain objects can be scientifically proven.

Energy columns have become an important topic in Estonian vernacular beliefs and some of them have become objects of tourism, despite being invisible. In order to visualise them and fix their location, wooden columns have been erected to mark the most famous energy columns in Otepää and Tuhala. Many articles have been dedicated to them in the Estonian media and different opinions have been expressed about their essence. One of the definitions reads as follows:

The energy column is a flow of radiation glowing from the earth. It moves forward as a whirl with a diameter of one metre. On a positive energy column a pendulum makes circles clockwise, on a negative energy column it moves anti-clockwise. The energy column emerges because in the centre of the Earth there is a solid nucleus, which rotates opposite to the direction of Earth’s rotation. This causes energy, which radiates to the surface of Earth (Paas 2004: 7).

If we compare the two definitions from popular media, we can note that both use scientific rhetoric that verifies their objective existence, although the explanations contradict each other—the first relies on cosmic radiation, the second on earthly forces. However, despite the alleged physical existence of energy columns, there is a human factor about them as powerful sensitives can transport such columns or even create new ones. My informant in Hiiumaa claimed to have the ability to open up new energy places and generate energy columns, which can then be used for healing, meditation and other purposes. Wizard Hannes Vanaküla claimed to have committed a truly heroic act in 2004, as reported by a tabloid newspaper *SL Õhtuleht*. Together with twenty one colleagues he carried multiple energy columns from Egypt,

Tibet, America and Lapland to Estonia and located them according to a certain pattern all over the country. He said: "We felt that we should regulate the system and set Estonia in order again. There is no need to be worried that Tibet and Lapland lost the columns, because they did not work anyhow in the wrong region" (Paas 2004: 7). In order to transport the columns Vanaküla and his 21 disciples were in semi-trance for several days and identified themselves with columns the world over. "Man is a flow of energy just like a column. So we became one with them..." (Paas 2004: 6). Thus, there is no consistency in beliefs about energy columns. On the one hand, they are claimed to be physical flows of radiation, localised due to natural causes; on the other hand they are essentially spiritual as aspects of psychic reality. Hence, the authority of scientific discourse and the authority of individual experience both contribute to the belief about energetically charged places.

Conclusions

This article studied how scientific and quasi-scientific rhetoric has been applied to confirm certain beliefs in the context of secular and religious worldviews. The authoritarian discourse, which endorses the power of natural sciences and technology, can take multiple forms. It can be a systematic verbal practice, almost mechanically produced and circulated by institutionally authorised scribes—as we saw in the case of scientific atheism. It can also appear in more subtle forms as a positivist tool for producing factual truths and a set of repetitive markers of non-systematic and unorganised verbal practices, as we saw in contemporary Estonian beliefs. In both cases references to sciences, their methods and terminology have been used to produce arguments to verify beliefs: faith in social progress and the truths of Marxism-Leninism or convictions about supernatural dimensions of the world. In both cases scientific discourse has been applied to mystify and enchant the social and physical realities. The creed of Marxism-Leninism was formulated by Vladimir Lenin: "The doctrine of Marx is all-powerful, because it is correct. It is perfect and harmonious and gives to man a complete worldview, which does not accept any superstition, any kind of backwardness nor any defence of bourgeois oppression" (Pavjolkina 1953: 95). This all-powerful discourse celebrated itself at the expense of alternative truths and had considerable effect on

eradicating religion from the public sphere of life. However, when its institutional base was dissolved together with the collapse of the Soviet Union, it lost its coherence and compelling force. Vernacular practices of endorsing beliefs, such as framing them within the markers of scientific discourse and illustrating them by telling legends, have been more persistent. In addition to scientific rhetoric folklore uses other strategies of endorsing beliefs, such as referring to one's personal experience, to reliable witnesses and the knowledge of experts—the spiritual teachers of the New Age. If discursive authority of sciences and vernacular authority of folklore clash, the latter seems to win, at least in informal storytelling situations when personal experience narratives are used as arguments. Through its human dimension, its reliance on subjective authority and its omnipresent dispersion in verbal practices, folklore erodes all discourses, discursive regimes and totalitarian systems of truth.

Acknowledgement

This article has been supported by the Estonian Science Foundation (grant no 7516: “Vernacular Religion, Genres, and Social Sphere of Meanings”) and by the European Union through the Regional Development Fund (Centre of Excellence CECT). The author is also indebted to August Kilk from Võsu, to the anonymous informant in Hiiumaa and to Daniel E. Allen for improving the English language of this article.

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THE PHLOGISTON THEORY: A LATE RELIC OF PRE-ENLIGHTENMENT SCIENCE

CHRISTOPHER MCINTOSH

The phlogiston theory is one of the great lost causes in the history of science, but one that is particularly interesting to historians of science as well as religion, since it has features of both categories yet does not belong fully to either one.¹ In brief, the phlogiston theory attempted to explain what happens when substances burn, but in order to give a more precise account of the theory I shall have to talk briefly about the history of chemistry, and in order to do that I shall also have to touch on the history of alchemy, since alchemy and chemistry were virtually inseparable until the 17th century.

Alchemy is not simply the attempt to turn base metals into gold. It is based on a gnostic, dualistic cosmology: there is a divine, spiritual world and a separate material world. Human beings are trapped in the material world, but they also possess a divine spark which is capable of being re-united with the spiritual world, given the right knowledge or gnosis. Analogous to the divine spark in human beings, there is also a divine spark to be found in the density of physical matter, and gold is the embodiment of this divine spark.

Emanating from the divine world is a series of lower worlds, descending through progressively denser and coarser levels, the densest and coarsest of which is the world in which we live. This in turn is made up of matter divided into different levels of density based on the four Aristotelian elements. Earth is the densest; then, in ascending order, come water, air and fire. All earthly substances are made up of these elements in different combinations.

In the 16th century this notion of the four elements, enunciated by Plato and later developed by Aristotle, was combined with another doctrine, formulated by the German alchemist Paracelsus, which said that there were also three categories of matter called salt, sulphur and mercury. These were not the everyday substances that we call by those

¹ For a general account of the phlogiston theory, see J. H. White, 1932. *The History of the Phlogiston Theory* (London, 1932).

names. Rather they were principles or modes of substance, but they were not to be confused with the four elements. The elements are what you find if you reduce matter to its most fundamental components, whereas the three principles—salt, sulphur and mercury—are what you see when you observe the chemical workings of substances and organisms. They were considered to correspond to body, soul and spirit. Salt, corresponding to the body, was a principle of solidity. Sulphur, corresponding to the soul was a fiery principle. And mercury, corresponding to the spirit, was a principle of volatility—hence the word “spirit” that we use to refer to a distilled alcohol. These three principles, together with the four Aristotelian elements, made up a very harmonious system. You had the divine three, combined with the earthly four, and the two added together made the magical seven.

This system, in various forms and permutations, dominated alchemy/chemistry until the 1660s, when it was challenged by the British chemist Robert Boyle, who introduced an atomistic approach to chemistry that helped pave the way to the discovery of the chemical elements in the modern sense of the word. Although Boyle’s ideas did not gain wide acceptance for many decades, we can see the later 17th century as the turning point when the place of alchemy began to be usurped by what we would now call chemistry. Over the next century many great discoveries were made in chemistry and many mysteries solved, but one great riddle that remained was the nature of combustion. What causes a substance to burn? Why do some substances burn more readily than others? What transformation takes place when something burns? What is the nature of fire itself? These questions were crucial to chemistry because the answers that you gave would in turn lead to a whole set of implications about the nature of matter and would determine the direction in which chemical research would proceed. They were also questions which had religious implications, as we shall see.

It was at this point that the phlogiston theory made its appearance. The theory was largely the creation of the German chemist and physician Georg Ernst Stahl (1666–1734), who spent the major part of his career as a professor of medicine at the University of Halle in Saxony. Halle was one of the great centres of the radical Protestant movement known as Pietism and Stahl himself was a Pietist. This is of some significance because much of Pietist thinking was imbued with a kind of Christian gnosticism—the ideas of Jakob Boehme, for instance, had a strong influence on the Pietists. So, although it is not explicit in his writings, it seems likely that Stahl’s chemical theories were tinged

with similar beliefs. Certainly, given the age in which he lived, Stahl must have been familiar with alchemy and with the salt, sulphur and mercury theory.

In a series of works published between 1703 and 1731 Stahl set out his theory of phlogiston, the word being derived from the Greek *phlox*, meaning flame. According to this theory, there exists in the world an all-pervasive substance called phlogiston with the quality of inflammability and corresponding roughly to the alchemical concept of sulphur. Some phlogistonists identify it with fire; others look upon it as the motive power that causes fire. All combustible substances contain phlogiston, and when something burns the phlogiston is released and the combustion continues until all the phlogiston in the substance has escaped. The same thing happens with other forms of calcination, such as rusting. So when you look at the calx of a metal, what you are looking at is the metal with the phlogiston taken out. By contrast, when you heat the calx of a metal with charcoal you restore the metal to its original state because, according to the theory, charcoal is rich in phlogiston.

At this point it is important to emphasize that the phlogiston theory is a theory about fire and that fire is something which has always possessed a special significance for human beings. Fire has numerous associations, many of them contrasting with one another. It is the medium through which Yahweh conveys his numinous presence, the dreaded substance of Hell, the *sine qua non* of life and the agent of purification and annihilation. To appreciate the reverence which fire has inspired throughout human history we need only think of the myth of Prometheus, who stole flame from the gods and brought it to humankind. We also find many references in the Bible indicating the divine nature of fire. Obvious examples are the story of the burning bush from which God spoke to Moses, the pillar of fire that led the Hebrews on their journey out of Egypt and the fiery cloud that surrounded the cherubim of Ezekiel's vision. The same reverence for fire is found in the writings of the Greek philosopher Heraclitus, who believed that fire was the basic matter out of which everything in the universe was made. As he put it: "All things are in exchange for fire and fire for all things, even as wares for gold and gold for wares."²

² Quoted in Bertrand Russell, *History of Western Philosophy* (London, 1954), p. 63.

Fire is also given a central place in the Kabbalistic tradition. The Kabbalah teaches that the letters of the Hebrew alphabet represent the basic constituents of the universe. In the Kabbalistic work known as the *Sepher Yetzirah* we read that the most important of these letters are the three so-called “mother letters”, *aleph*, *mem* and *shin*, corresponding to air, water and fire. And the most important of these is fire, because it is from fire that the heavenly realm is made and heat, as we perceive it on earth, is a reflection of heaven.³ It is this Kabbalistic doctrine of the three mother letters, in a modified form, that is found in Paracelsus’ notion of salt, sulphur and mercury. And the phlogiston theory, in turn, was a development of the Paracelsian concept of sulphur.

It is therefore apparent that there is much more to the phlogiston theory than meets the eye. Historians of science have tended to view it as essentially belonging to the early history of modern chemistry—a brave, if ultimately unsuccessful, attempt to provide a unifying theory to explain a variety of chemical processes such as combustion, calcination and respiration. I would argue that instead we should see the phlogiston theory as a late survival of the age-old reverence for fire that I have described—albeit presented in the language of the new scientific age and therefore capable of attracting, for a time, many of the leading chemists of the Enlightenment period.

The mystical dimension to the phlogiston theory becomes clear when one reads descriptions of the properties of phlogiston. It is said to be a subtle and indestructible substance which exists in a free state in the atmosphere and also in combination with other substances in the mineral, vegetable and animal kingdoms. When combined, it is responsible for variations in colour. It is the motive power of fire. And, since a form of combustion is continually taking place in animal organisms, it is essential to life. Its natural tendency, however, is to revert to its free and unattached state, which is why it is so easily freed from its compounds. It is constantly detaching itself from the earth, rising up, being caught in the lower atmosphere and then returning to earth in rain.

All this sounds very familiar in the light of the traditions discussed earlier. Remember that, in terms of the four-element scheme, fire is the highest and subtlest of the elements, and that in Kabbalistic doctrine

³ *Sepher Yetzirah*, translated by Isidor Kalish (New York, 1877), p. 254.

it is the element out of which the heavens are made. Remember also the gnostic teaching of a dualistic universe in which the divine spark is imprisoned in matter but yearns to return to its heavenly source. In phlogiston we have a strikingly similar notion: a fiery substance that constantly attempts to free itself from its material bonds and rise upwards. In its life-supporting quality it is also reminiscent of the alchemical notion of a universal vital fluid. Even in the 18th century these traditions were still part of the *Weltanschauung* of many people, and the fact that the phlogiston theory could fit so comfortably into this perspective must have helped it in becoming so widely accepted.

Another feature of the theory that made it appealing was that it provided a single explanation for a great multitude of phenomena. The number one has an archetypal appeal, and unifying theories are correspondingly attractive.

Clearly, therefore, we are dealing with something more than just a scientific theory. Certainly it was supported by an impressive body of apparently solid experimental evidence, carefully and soberly presented in the work of Stahl and others. But in addition it drew its appeal from certain deeply felt traditional themes. No wonder the theory caught on so rapidly and held sway for so long.

It was a century after the formulation of the phlogiston theory before a concerted attempt was made to disprove it. The attack came from the French chemist Antoine Lavoisier in the 1770s and 80s. Lavoisier was a man cast in a quite different mode from Stahl. Whereas Stahl was steeped in Pietism and close to the alchemical tradition that was still very much alive in Germany, Lavoisier, a century later, belonged to the rational world of the French Enlightenment, a world that was much less receptive to esoteric traditions.

Lavoisier became more and more convinced that what happened in combustion was not that something left the burning substance, but that the substance, as it burned, combined with something in the air. And he proved this by a series of experiments. He showed, for example, that if you burned a metal in an enclosed space the weight of the metal increased in about the same proportion as the volume of air decreased. So what was this something in the air which combined with a substance during combustion? Lavoisier called it oxygen, as we still do today. And it was the discovery of oxygen that opened the way to the whole development of modern chemistry. Lavoisier found that water was made up of hydrogen and oxygen. He then discovered that organic matter was largely water and carbon—i.e. carbon, hydrogen

and oxygen. So from this point it became possible to begin to break compounds down into their constituent elements in a way that had not been possible before.

When Lavoisier began to evolve his oxygen theory he saw the phlogiston theory as an obstacle to the advance of chemistry. He perceived that a correct understanding of what happens in combustion would enable the researcher to begin to unlock the nature of chemical compounds, and he regarded the phlogiston theory as representing a false understanding of combustion that would lead nowhere. Here is what he said in his *Reflections on Phlogiston*, written in 1783: "If everything is explained in chemistry without the aid of phlogiston, it is...infinitely probable that this principle does not exist, that it is a hypothetical entity, a gratuitous suspicion, and surely it is according to logical principles not to multiply entities unnecessarily." He goes on to say that he regards phlogiston as "a sad error in chemistry...which has...retarded progress by the bad method of philosophizing that it has introduced."⁴

In another work, *General Considerations on the Dissolution of Metals*, he wrote of phlogiston:

This entity, introduced by Stahl into chemistry, far from having brought light to bear upon it, seems to me to have created an obscure and unintelligible science for those who have not made a highly specialized study of it; it is the *Deus ex machina* of the metaphysicians: an entity which explains everything and which explains nothing, to which one ascribes in turn opposite qualities.⁵

So chemists were now divided into two camps: the phlogistonists and the anti-phlogistonists. But what was involved here was much more than just a dispute between proponents of two rival theories. It was a confrontation between two different world views, and this confrontation was reflected in other issues besides that of phlogiston. To give one example, it was at this time that controversy was raging in Paris over the activities of the German physician Franz Anton Mesmer, who had been achieving sensational cures by means of what he called animal magnetism. His system was based on the theory that there existed an invisible universal fluid which was responsible for gravitation,

⁴ Quoted in John Maxson Stillman, *The Story of Alchemy and Early Chemistry* (New York, 1960), p. 254.

⁵ Quoted by Carleton E. Perrin in his article "The Triumph of the Antiphlogistians", in H. Woolf (ed.), *The Analytic Spirit* (Ithaca and London, 1981).

magnetism, electricity, heat and light—a notion that bears a strong family resemblance to the theory of phlogiston. When Mesmer's theory was examined and rejected by a committee of French scientists, Lavoisier was one of those who cast their vote against it. So it is possible to discern at this time a number of issues on which opinion was lining up between two world views, one pointing towards the rationality of modern science, the other rooted in a more qualitative way of perceiving things.

The depth of feeling aroused by this conflict of world views is reflected in the vehemence with which the phlogiston controversy was carried on. We tend to think of scientific debate as a calm, rational business in which rival theories are examined on their merits, tested by experiment and judged objectively on the basis of the evidence. But when the rival theories represent a deep difference of world view, as in this case, the debate often bears a close resemblance to a religious polemic.

Lavoisier carried on a campaign in support of his new theory of oxygen that can only be described as a campaign of proselytisation. He held regular meetings at which he preached his message, and he had his friends bombard the scientific community with letters attacking the phlogiston theory. The response from the pro-phlogistonists was equally vehement. They published a journal to uphold the principles of the old chemistry, and they heckled Lavoisier when he addressed meetings of the Academy of Sciences. A Dutch scientist who attended one of these lectures recorded that there were so many noisy interruptions that he had difficulty in hearing the paper.

By now it should be clear why I have called the phlogiston theory “a late relic of pre-Enlightenment science”, but it may be useful at this point to summarise what developments distinguished pre-Enlightenment from post-Enlightenment science. Arguably, the main developments were as follows:

The first was the separation of the realm of science from the realm of religion.

The second, as a corollary to that, was the development of a purely mechanistic view of matter. In the 17th century it was still possible to think of divine power as being continually active in the physical world, but by the mid 18th century science was increasingly adopting the mechanical view of the universe propounded by Descartes.

The third development was the abandonment of the old Aristotelian and alchemical categories.

The fourth was the development of the tendency for scientists to work within a paradigm, a shared body of knowledge and assumptions. This tendency had always been there, but in the 17th and 18th centuries it became central to science, as Thomas Kuhn points out in his book *The Structure of Scientific Revolutions*. He cites, as an example, the state of the science of optics before and after Newton. Before Newton every writer on physical optics built up his own theory from scratch. After Newton there was an almost universally accepted paradigm that writers on optics could build on.⁶ This enabled scientific research to proceed much faster, but it had the disadvantage that scientists tended more and more to be constrained by the prevailing paradigm.

The fifth and final development was the separation of scientific language from literary and poetic language. When Robert Boyle wrote his *Sceptical Chymist* in the 1660s he set it out in the form of an elegantly written Platonic dialogue between proponents of different theories. By a century later it would have been unusual for a scientist to set out a treatise in this way and even more unusual to use poetic and metaphorical language in a scientific argument.

The phlogiston theory, because it was presented in a rational way and because it temporarily established a scientific paradigm, has sometimes been seen as one of the first faltering steps of modern chemistry. But I believe the evidence points to its being something altogether different.

We can see this if we look at the way in which phlogiston was defended in its native land of Germany after Lavoisier had routed the phlogistonists in France. This was not simply a question of old Franco-German rivalries, but had to do partly with the fact that Germany clung much longer than France or England to a pre-Enlightenment science that was closer to religious and non-mechanistic world view and still employed poetry and metaphor. This can be illustrated by a quote from a doctoral thesis in defence of phlogiston, published in 1786 and written by the Bavarian physician, scientist and Christian mystic Franz von Baader. He writes of phlogiston as being "the first principle of all change and therefore of all life and all decay; an independent, elastic, all-pervading, tender and invisible material, which acts as the universal mistress and the universal destroyer on and in

⁶ Op. cit. (2nd edition, Chicago, 1970), p. 13.

our planet earth, the very world soul which enlivens everything with its all-permeating breath.”⁷

This is certainly not the language of modern science, and it emphasizes that the phlogiston theory is not a scientific theory in the modern sense. So, if it is not scientific, what is it? Can we call it religious? Earlier I have shown that the phlogiston theory has links with the gnostic world view, but that is surely not enough to justify calling it religious. Emile Durckheim, in *The Elementary Forms of Religious Life*, defines religion as “a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden—beliefs and practices which unite into one single moral community called a church, all those who adhere to them.”⁸ The phlogiston theory fits into no such system of beliefs and practices, so what can we call it? As a working term, I would suggest the word “cosmosophy”. This is not an original coinage. The word has already been in use for some time. Rudolf Steiner used it, for example, in the title given to a collection of his lectures, *Anthroposophie als Kosmosophie: Die Gestaltung des Menschen als Ergebnis kosmischer Wirkungen* (Dornach, Switzerland, 1921), and it is to be found in a number of Internet sites, e.g. <http://cosmosophy.net>. The word is somewhat elastic in its usage, but it appears to fit quite well the notion we are trying to convey, of a realm that does not belong exclusively to science or to religion but has something in common with both. The phlogiston theory is an example. It is scientific to the extent that it purports to describe the real world on the basis of observation, but it fails Karl Popper’s criterion of true science, namely the criterion of falsifiability. It is of too general a nature to be either proved or disproved. At the same time it is religious to the extent that it touches off deeply felt resonances and lends itself to poetic and symbolic language, but it lacks the formalised underpinning of a set of transcendental beliefs and practices.

There are numerous other examples of what might be called “cosmosophical” theories. Many of them, like the phlogiston theory, came out of Germany, with its strong survival of pre-Enlightenment traditions. I have already mentioned Mesmerism. Another example is the theory propounded by the 19th-century thinker Baron Reichenbach. He postulated the existence of an all-pervading force, somewhat

⁷ Franz von Baader, *Vom Wärmestoff* (Munich, 1786).

⁸ Op. cit. (New York, NY, 1965).

reminiscent of phlogiston, which he called Od and which explained all organic life as well as phenomena such as telepathy, hypnosis and spiritualism. Here is a description of the Od in a work by Johannes Greber, a German ex-Catholic priest turned spiritualist: "This 'odic' or vital force exists in and about all things created by God. It is found in every human being, in every animal, in every plant, in every stone, in every mineral, in all water, in every star, in every spirit and in all other existing things. It is nothing material, but is spiritual and is always associated with a spirit. Hence, wherever there is life there is Od, and wherever there is Od, there is also a spirit."⁹

Other examples of cosmosophies would include Rudolf Steiner's anthroposophy, astrology, the Atlantis theory, Jung's theory of the collective unconscious and, more recently, the flying saucer cult. All of these, like the phlogiston theory, have scientific aspirations but would fail Popper's falsifiability criterion. And all of them have religious elements but fall short of being religious in the full sense of Durckheim's definition. But what is particularly striking about the phlogiston theory is the way in which it continued widely to be accorded scientific status even after the scientific revolution.

It is tempting to view the phlogiston theory as the last major theory of a cosmosophical nature to be taken seriously by the scientific community—or at least by part of it. But let us look at some recent developments in science. The Gaia theory of James Lovelock and the morphic resonance theory of Rupert Sheldrake are examples of theories that have a strong cosmosophical element. The affective appeal of these bold theories, with their message of a unifying, far-reaching, interconnecting consciousness, is evidenced by the enthusiastic way in which they have been embraced by many non-scientists. The Gaia theory has even inspired the composer Paul Winter's monumental *Missa Gaia*, which, as the title implies, is frequently performed in churches. Much of modern physics has the same sort of cosmosophical appeal, as readers of Fritjof Capra know. As example is the "string theory", which caused much excitement in the 1980s. Here is how one article described it at the time:

⁹ Johannes Greber, *Communication with the Spirit World of God* (6th edition, Teaneck, NJ, 1979), p. 71.

Knowing the physics of a violin string gives a comprehensive theory of harmonies and chords. Similarly, in the string theory, the fundamental forces and various particles found in nature are merely different modes of vibrations of one-dimensional strings. The answer to the question "What is matter?" is that it consists of particles that are different modes of vibration of a string, such as the notes G or F. The "music" created by the string is matter itself. The four fundamental forces of nature can be described as interacting strings that in splitting apart or joining together create the unified force from which the four forces are derived.¹⁰

Even more striking is a remark made by one of the critics of the string theory, Sheldon Glashow of Harvard, who is quoted as saying of the string physicists: "They have a firm faith just on some abstract concept of beauty and elegance. The approach is more reminiscent of religion than science."¹¹

So it is clear that a cosmosophical element is still present in modern science, even if it does not always meet with approval.

The question that arises is: what is the value, if any, of cosmosophies? What do they give us that religion and science do not? Cosmosophies can best be seen as lenses which provide us with a meaningful and enriched view of the world but one that we are not obliged to embrace with religious conviction or with scientific certainty. Hence cosmosophies need not compete with each other, nor do they necessarily conflict with more purely religious or scientific notions. The category of cosmosophy thus provides a way in which conceptions of the kind I have been discussing can be seen as having their own value and integrity without having to be subjected to the criteria of religion or science, which they can never hope to meet since they are neither one nor the other.

It has not been my intention in this paper to defend the phlogiston theory as such, but rather to argue that we are doing ourselves a disservice if we simply relegate theories of this kind to the rubbish heap of rejected knowledge. The concept of cosmosophy not only gives such theories a more honourable place in intellectual history but also enables us to identify cosmosophical elements in theories that we may have previously thought of as purely scientific or religious.

¹⁰ Jennifer Trainer and Michio Kaku, "John Schwarz's Quest for the Theory of Everything", in *Harvard Magazine*, March-April 1987, p. 23.

¹¹ *Ibid.*, p. 26.

By examining, albeit briefly, the phlogiston theory and its later reverberation, and by using it as an illustration of the concept of cosmosophy, I hope I have shown that the theory and its implications are of some importance to both historians of science and historians of religion.*

* This is a revised version of a paper originally delivered at the conference of the American Academy of Religion, held in Boston, Massachusetts, in 1987.

“OH NO, IT ISN’T.”¹ SCEPTICS AND THE RHETORICAL USE OF SCIENCE IN RELIGION

ASBJØRN DYRENDAL

Religions appeal to science, often and inconsistently using “science” as a neutral arbiter, as a way of saying that certain of their beliefs are Truth. The appeal to science is a rhetoric of legitimation, to which the international sceptic’s movement often responds critically and negatively. When religion refers to science as a way of saying that science proves religion right, that “our beliefs are scientific”, sceptics answer “oh no, they are not.” In this article, I shall look at who these sceptics are, and how they argue.²

Sceptics and the Sceptical Movement

The worldwide sceptics’ movement is a recent phenomenon. It is not much in evidence as a mass movement, and as a community it is not very communal. Nor are sceptics what most philosophers would mean by ‘sceptical’. There is however a movement in the broad sociological meaning of the word, and organizations that hold the banner of scepticism high. But it is scepticism in a restricted sense of the word. And as a community it is more of an intentional community, a network of more or less like-minded individuals than any close-knit social group.

With notable exceptions, it is a primarily male movement, which seems to attract disproportionately those who have a higher education and/or have taken a stance against religious belief (cf. Shermer 2000, p. 75f.). Its rise came with the growth of professional science, the increasing division of labour and individualism of modern society, and the concomitant growth and mainstreaming of the cultic milieu

¹ With insincere apologies to Monty Python’s “argument”-routine, and with indulgently esoteric and elitist reference to way too many skeptic-believer debates on the old Usenet and lately almost anywhere.

² To clarify my own position: I myself participate in the sceptics’ movement, and have done so since the early 1990s. I have been, and I still am an activist, editor, writer, and board member of the Norwegian sceptics’ society.

of individual seekers and their embracing of “rejected knowledge” (Campbell 1972). The institutionalisation of professional science constructed a class of workers who specialize in knowledge production through certain accepted methods, and who have a vested interest in that mode of production. The radical division of labour in modern and late modern society makes us all dependent on the expertise of others, and thus the role of experts and the need to place one’s trust in the expertise of others are fundamental. This, together with the relative collapse of “the big narratives”, and the increasing role of individuals and individualism, contributes to also increase scepticism: Claims come from many different sources, so whom should we believe? Entrepreneurs sell their explanation to the marketplace of possible believers. The “cultic milieu” is sceptical of the major social institutions and of experts backed by them, and answers with epistemic relativism and a host of alternative tales. Scepticism, in the tradition outlined below, may be seen as boundary work on behalf of science, an attempt to maintain that some explanations are more likely to be true than others.

It is also boundary work in another sense. Sceptics may be seen as moral entrepreneurs (Hammer 2007; cf. Becker 1963). Sceptics are clearly sceptical of certain claims and practices, and criticize them for not living up to evidential standards. But the critical practice also has a moral aspect; claims and practices based on substandard “evidence” are presented in sceptical discourse as social problems. “Superstition” and “quackery” are said to be harmful to individuals and society alike.

Three Kinds of “Scepticism”

The sceptics’ movement and the individuals who make it up associate with the name of a philosophical heritage that they only share to a limited extent (cf. Hammer 2007, p. 382f.). The modern term “sceptic” derives more from the folk usage of “being sceptical” towards something than from its philosophical namesake. Instead, sceptics largely accept the methodologies of the sciences and the realist philosophies of science, and their heritage is close to that of the rationalist and empiricist “writers throughout history who have argued against beliefs they did not share” (ibid.). “Sceptic” is thus an emic term, the choice of which is explained by the philosopher and ideologist Paul Kurtz

in a normative and apologetic presentation we shall look at briefly below.

Kurtz presents three forms of scepticism arranged in ascending order of acceptability, which he terms *nihilism*, *mitigated scepticism*, and *sceptical inquiry* (Kurtz 1992, pp. 21–30; 2001, pp. 39–46); the last of these denotes modern scepticism. The perspective that Kurtz calls nihilism is the scepticism of “unlimited doubt”, which denies the possibility of achieving reliable knowledge. A different, weaker position within the same category is that of those who will “neither affirm nor deny anything” (ibid.). Kurtz terms the second kind *Pyrrhonism* after Pyrrho of Elis (c. 365–c. 270 BCE). Pyrrhonian scepticism he sees as mainly involving a sort of “suspension of belief” (ibid.) with regard to the possibility of knowledge. For the “unlimited doubters”, Kurtz claims, “[m]eanings are irreducibly subjective and untranslatable into intersubjective or objective referents” (1992, p. 23). He finds this total scepticism to be self-contradictory and dogmatic. The “neutralists” claim to have no theory of knowledge or reality, but merely “make personal statements and do not ask anyone to accept or reject or be convinced or persuaded by their arguments” (ibid.).

Kurtz makes philosophers such as Carneades (c. 213–129 BCE) and David Hume (1711–1776) in his later years represent the position of “mitigated sceptics”, by which Kurtz means the denial of any secure, ultimate basis for knowledge claims. Although we have no secure basis for knowledge, the mitigated sceptic claims, we have to produce some sort of working theory to be able to function in everyday life: “[W]e are forced by the exigencies of practical life to develop viable generalizations and to make choices, even though we can give no ultimate justification for them” (ibid., p. 26).

As one cannot be utterly certain about one’s claims to knowledge, mitigated scepticism of the kind advocated by Carneades and Hume takes probability seriously (ibid. p. 45f., p. 63). Evidence may be checked so as to increase or decrease the probability that one’s prior judgment has been sound. Mitigated scepticism in Kurtz’ opinion thus takes a probabilistic attitude towards knowledge, with the possibility for increasing the reliability of one’s judgment. As noted by Hammer (2007, p. 398f.) contemporary sceptics tend to take a Bayesian, probabilistic approach to knowledge, and Kurtz thus selects an attribute that presents this particular scepticism as a clear predecessor of modern scepticism, a philosophical conception that points towards what he terms the “new scepticism” of *sceptical inquiry*. A sceptical inquirer,

in Kurtz' terms, is characterized by being *selective*, *methodological*, and *constructive*. The new scepticism is directed at *specific* claims. Unlike Pyrrhonian scepticism and contemporary epistemic relativists, the new scepticism holds that "we do develop knowledge about the world" (ibid., p. 29). The new scepticism, in Kurtz' judgment, has emerged "as an outgrowth of pragmatism" (ibid., p. 28), and has learned both from the progress of science and from all earlier forms of scepticism.

Sceptical inquiry, the new scepticism, Kurtz holds, is different from the other forms of scepticism in that "it is *positive* and *constructive*" (ibid.). The constructive part of the new scepticism means that it is "basically a form of *methodological* skepticism" (ibid.). Sceptics ask whether the evidence for any specific claim was obtained in the proper manner, and whether contrary data were accounted for. Does the evidence converge in the direction of the claims put to the test? These kinds of questions allow for the possibility of achieving new knowledge about the world.

This tripartite division partially explains why sceptics seem to abhor the Pyrrhonian position and epistemic relativisms, which are often labelled "post-modernism" and singled out for ridicule. Pyrrhonians are seen, not as sceptical compatriots and allies, but as anti-realists who reject a central part of most sceptics' epistemology.³ This is of course ironic, as "sceptic" most often seems to bring the Pyrrhonian to mind to the few schooled beyond a folk usage of the term. In sum, then, Kurtz hints that the historical background of "the new skepticism" revolves less around academic scepticism than the development of science and technology, and it is a result of the quest for reliable knowledge in practical scientific work. More simply, one may agree with Hammer (2007) that the "real" heritage sceptics build upon is that of critical argument, both rationalist and empiricist, against what is seen as badly founded belief throughout the centuries.

³ This has, unfortunately to my biased mind, led many sceptics to disavow the constructionist venture within the social sciences. Ironically, this venture seems to partially run in parallel with some sceptics' discourse focusing on criticism of ideology, hegemony, power or deceit.

Historical Background of the Modern Sceptical Movement

While emic historiography may always construct a long line of forebears, the history of the sceptics' *movement* is much shorter. One early background may be seen in the gradual growth of scientific medicine, and the boundary work of the medical profession towards lay healers and alternative medical practitioners. Another background, more often deemed important, was in the investigation and critique of spiritualism and psychical research (e.g. Shermer 2002, p. 861ff.; Hess 1993, p. 26ff.; Frazier 1996; Kurtz n.d.).

Following Olav Hammer's (2001, pp. 201–330) terminology, it was in the nineteenth century that “scientism” appeared as a “language of faith”. Spiritualists, an early target of sceptical inquiry (Hammer 2007, p. 385), claimed to be able to prove the existence of life after death, of immaterial forces acting on the material universe, and of the ability of certain humans to tap into these immaterial forces. This captured both the public imagination and the interest of a growing scientific community. As related by Asprem (this volume) the British—and later also an American—Society for Psychical Research (SPR) recruited its members among the scientific elite. Although most were positively inclined towards the existence of the purported phenomena—disbelieving scientists found the venture less interesting, although some did carry out their own investigations—this did not mean that investigations necessarily presented positive results, or that all SPR investigators were able to retain their initial hopes and opinions. Many investigations ended in providing naturalistic explanations for controversial phenomena, and some resulted in allegations of outright fraud on the part of alleged psychics and mediums (cf. Hansel 1989, p. 15f.). Scientists, professional magicians, journalists and others involved themselves in these early investigations of spiritualist and other paranormal claims. The story of the individual⁴ and at times organized efforts involved in these investigations constitutes the backbone of the history of the contemporary sceptical movement. But we need to look even more broadly.

Some investigators were not merely interested in countering claims of paranormal events, but more generally in combating “superstitions” and pseudoscience generally, a broader perspective that connects them

⁴ Key individuals include magicians such as Harry Houdini and John Nevil Maskelyne to James Randi.

and their activities to a line of critics of “medical heresies”. As noted by Hess (1993, p. 26), several early sceptics were doctors of medicine, and thus members of a profession which during this period—the late 19th to early 20th centuries—was both (slowly) turning towards a more scientific outlook and attempting to dominate a larger share of the market. A combination of professional competition, medical ethics and consumer protection motivated them to fight against what they saw as “snake oil” medicine; an early concerted effort in this direction is the Dutch organization *Nederlandse Vereniging tegen de Kwakzalverij*, founded in 1881 and still in existence (Dommanget 2002). The focus on (so-called⁵) alternative medicine has been with the sceptical movement since its prehistory, and has often been presented in journals and by individuals and groups with a broader focus on science and pseudoscience in general. These have included the Hungarian society *Tényeket Tisztelők Társasága* (founded in 1869) and the German *Keplerbund* (Ellenberger 1970, p. 810ff.; cf. Noll 1994, p. 192ff.) from the earliest dates, to the post-war groups like Belgian *Comité Belge pour l'Investigation Scientifique de Phénomènes putés Paranormaux* (*Comité Para*), and to the modern sceptical movement with the foundation of CSICOP in 1976.

As with several of the earlier organizations mentioned above, CSICOP emerged out of the individual and collective engagement of various academics against particular instances of “pseudoscience”. One group with origins in the 1970s, consisting of sociologist Marcello Truzzi, psychologist Ray Hyman, magician James Randi, and science writer Martin Gardner, was founded in opposition to the misuse of magical tricks that were presented as “supernatural” events and endorsed by trickery-naïve scientists.⁶ CSICOP emerged more specifically out of an engagement with astrology. The aforementioned Paul Kurtz had convinced a number of high-profile academics to sign a public statement against this form of divination.

The success in getting so many scholars to put their names to the document encouraged Kurtz to form CSICOP, and later to encourage

⁵ The term “so-called Alternative Medicine” is a typical online-rhetorical twist, which originated with skeptical bloggers to produce the acronym sCAM.

⁶ More particularly the “Geller phenomenon”, and especially Stanford Research Institute’s (SRI) validation of Uri Geller, thus the group’s chosen acronym of SIR (“Scientists in Rationality”) as a satirical comment. The group also briefly called itself “Resources for the Scientific Evaluation of the Paranormal” (RSEP) (Hansen 1992: 23).

local groups in other states and nations to form similar groups (e.g. Dommanget 2002). Many of the people involved in setting up such organizations were part of Kurtz' established network as editor of *The Humanist*.

These groups have largely been local, autonomous, and with only marginal affiliation to any larger bodies. Ironically, the sceptics' movement has in some ways paralleled the New Age movement, whose claims are among the main targets of the sceptics. Both are networks rather than tightly knit organizations. Both were for a long time dependent on only a few individuals and the media that these people dominated (with *Skeptical Inquirer* as the most prominent sceptical medium of publication). Both went through a process of change with the advent of the Internet, when public scepticism gained in visibility along with New Age belief. In the sceptics' case, the Internet has fostered some decisive changes. No longer the province merely of those who are able to get their texts published in journals, "lay scepticism" online has developed into a more common practice. Discussion forums, such as different Usenet groups and, later, discussion boards, activated many more as they came into more direct contact with once marginal claims and claimants. With the latest addition to sceptical media, e.g. science blogs, podcasts, and YouTube videos, sceptical activism has found yet more voices, again starting mainly from grassroots activism. Especially with blogging, it has also engaged many more practicing scientists in regular sceptical activism, many of them otherwise unaffiliated with any sceptical organization.

The organizations are often run by a few, typically unsalaried, people in their spare time. There tends to be little in the way of differentiation of roles. Those who run the organizations are often also organizers, writers and ideologists as well. In some cases, the "menial" tasks of administration are left to paid staff. The leadership mostly consists of well-educated men, with the occasional woman among them. When Hess (1993, p. 109) notes that "skepticism is a very masculine discourse" and "a predominantly male movement" it is hard to disagree.

The leadership among sceptics often has a high level of education, and in my experience most have obtained at least a master's degree, and very often hold a Ph.D. or the local equivalent. The history of sceptical movements and the list of participants would seem to bear this out. This is to some degree what one would expect of an interest group that places such weight on science and scientific competence.

However, these are still impressions, there are salient exceptions, and this is not the whole picture. For example, James Randi's Educational Foundation (JREF) was for a long period led, but not administrated, by James Randi, who has achieved the status of sceptical icon without much formal education. Instead, his reputation was built on credibility achieved from many high-profile investigations and maintained through constant activities as writer and lecturer/performer.

The majority of members define themselves as irreligious, but there are also members belonging to various religions. Most of these are Christians, but online, I have met Wiccan, Satanist, Buddhist, Christian, Muslim, and Jewish sceptics, to mention just a few religions.⁷ Hindu sceptics are very numerous indeed. Sceptical organizations tend to consist of an inner circle of activists and an outer layer of readers of sceptical materials. In addition, some or many of the writers and speakers, depending on the prestige of the journal or networks of the activists, may consist of scientists otherwise unaffiliated with the sceptical community. Thus sceptical organizations tend to be fairly non-communal, with lectures and small, periodic social typical low-cost gatherings—e.g. “sceptics’ pizza” once per month—being some of the few occasions for sceptics to meet outside the Internet. There are exceptions, such as conference activities, often conducted once or twice every year, but on national (US) or international levels, as these are costly affairs both economically and with regard to the amount of administrative work. Although often depending on a lot of volunteer work, these conferences depend on economic and organizational ability, and thus on the few groups who are run by a more professionalized administration. Some of these conference venues have become popular. Strong celebrity appeal and a focus on making a good “happening” socially and experientially, as well as on academic content has made for instance JREF's Amazing Meeting a success, attracting younger and broader audiences than the more traditionally academic conferences. Otherwise, there is little group activity, and “members” seem to function more as an audience who only sometimes participate as more than readers, and as an economical base for fund-raising or the levying of subscriptions.

⁷ My personal contacts have for instance also included numerous Thelemites, Asatru members, self-declared New Age believers, Anthroposophists, Gnostics and (of course) Discordians. (That sceptics are, unsurprisingly, often attracted to spoof religions and mock deities, such as the Church of the Flying Spaghetti Monster [see www.venganza.org] almost goes without saying.)

Sceptical Rhetorical Modalities: Debunking in Different Colours

Sceptical inquiry in Kurtz' meaning of the word began with the growth of science and has often focused on areas where folk belief and magic risk colliding with science. The topics of sceptical discourse often revolve around claims of the paranormal and the fringe areas of scientific knowledge. Traditional religion, with the exception of pseudoscientific aspects of religious world views such as creationism, was for a long time largely excluded from sceptical discourse, and "alternative" religion and its claims to scientific backing was more central.

Sceptical rhetoric is associated primarily with undermining other people's claims, an activity often called "debunking". To be fair, however, that is not all sceptics do. Debunking is just the sceptical activity that tends to get published most often, but there are multiple other rhetorical styles and *topoi* as well. Even with regard to the debunking *topos*, what we observe tends to be, to twist Bruno Latour's phrase, not "scepticism in the making", but "ready made scepticism" (Latour 1987, p. 4). A rare example of something different in the published literature is the section on controversies in *The Skeptic Encyclopedia of Pseudoscience* (Shermer 2002), where there are articles both for and against a number of issues such as evolutionary psychology and meme theory. Otherwise, "scepticism in the making", i.e. the debate on the epistemic status of a claim, tends to be debated internally in discourses that most outsiders do not follow. Furthermore, disagreement outside core issues may, depending on the issue, be frequent, and many cases end in a "let's wait to see what further investigations bring".

As the public rhetoric of sceptics tends ultimately to take its point of departure from cases where truth claims are flatly rejected as false, it is not however completely unfair to subsume sceptical discourse under the general heading of "debunking". But debunking has several "modalities" and different rhetorical idioms may be involved depending on the claims involved and the media used to disseminate one's position. It is impossible to cover all varieties of sceptical discourse, but we shall look briefly at some important strategies, concentrating on media where the "elite" dominate.⁸

First of all, and most commonly with regard to paranormal claims, we may talk about a strategy of *naturalizing* the alleged phenomenon:

⁸ For other arenas with other activists and other strategies, see Hammer 2007, p. 393f.

Whereas a proponent will allege that a particular event has a special and presumably supernatural status, the sceptical argument will present reasons why the event can be subsumed under a natural explanation. This, in turn, may involve one or several moves that I shall deal with more extensively below, such as narrative deconstruction, breaking of connecting links (“anti-patterning”), appeal to rules of logic and consistency, or sometimes in certain venues, a more naked appeal to “Hume’s gambit” that no evidence will be sufficient to establish a miracle in the face of evidence against miracles. It may also include other moves involving the “consumer protection” *ethos* that sceptics as moral entrepreneurs often are involved in, addressing the *pathos* elements of rhetoric as well as discussion of the opponent’s *logos*.

Some of these elements are clearly visible in the following example from an old article about the outcome of a sceptical investigation: During the autumn of 1996, a miracle was reported in a Greek-Orthodox church in Toronto. An icon of Mary with the baby Jesus was reported to cry real tears. The narrative fit in well with general expectations concerning tales about miraculous phenomena. But the narrative exists in a contested space where “anti-miracle” narratives attempt to deconstruct tales of the miraculous. This is where the sceptic plays his role, and in this case a local newspaper, the Toronto Sun, called in a professional sceptical investigator in the best Sherlock Holmes-style tradition, in order to uncover the truth about the alleged miracle.

In addition to my overnight bag, I also packed a “weeping icon kit” consisting of a camera and close-up lenses, a stereomicroscope removed from its base, and various vials, pipettes, bibulous papers, and other collection materials. (Nickell 1997, p. 19)

As we may observe from the passage quoted above, this was not a first-time investigation. Joe Nickell, former professional magician and private investigator,⁹ even has a ready-for-action “weeping icon kit” more than slightly technologically updated since Sherlock Holmes’ days. The technological devices connote science. Although the appeal to science is also a strongly rhetorical element of the narrative, it is meant as something more than merely a superficial element of

⁹ Nickell also holds a Ph.D. in English, and has worked as Senior Research Fellow for CSICOP for many years on a lot of investigations leading to more than twenty books and uncounted articles.

sceptical discourse: previous investigations have shown the usefulness of certain tests to determine what substance is produced by “weeping” statues, icons, and other figures. But the plan to test the chemical composition of the alleged tears is easily thwarted by the believers: Nickell reports that he and the journalists made an appointment with church clerics, but instead of gaining access to the miraculous icons, they had to pay to stand in line and were only allowed to observe the images from afar.

Still, some crucial observations were made. In a slightly controversial twist on Orthodox practice, the allegedly weeping image turned out to be not a real icon, but a reproduction. Mary’s tears seemed to emanate from the depiction of her hair, rather than from her eyes. More miraculously, the “tears” did not behave like real tears would under such circumstances, but more like a fluid which would allow pilgrims to observe them better: they behaved like olive oil. Finally, during the observation there were no new tears. The image exhibited no strange phenomena as the believers defiled past it.

This is then is what was left of the investigation, after permission to examine the image at close range was denied: no certain knowledge, but a naturalizing narrative based on previous investigations and on knowledge of how relevant fluids behave. The strong hint of a perfectly natural explanation underlying the alleged miracle also points in the direction of this being a consciously man-made phenomenon, leading to the next—and fairly typical—investigative (and rhetorical) question: *cui bono*?

It turns out, Nickell tells us, that the congregation was in debt for more than a quarter of a million Canadian dollars and had been threatened with eviction. Furthermore, the priest who “discovered” the miracle turns out to have been doubly blessed: When he served at a church in Queens, New York, there was a weeping icon miracle there as well. That was one of his few blessings, we are told in a further attack on his *ethos*: He was allegedly, and according to his own story, robbed of both the icon and jewellery worth more than \$800,000. He had been fired by the officials of his previous church for spreading lies and for rumour-mongering in the congregation. The missing eight hundred thousand dollars and the discovery that the priest had a shady past as a male prostitute may also have been relevant.

When Nickell follows the investigation where his question of *cui bono* leads, he thus turns up information bringing the ethics of the leadership of the church into question. After the attack on the *logos*

of the claims, we are treated to a low-key dismembering of the *ethos* of the claims-makers, who, we are to infer, both renege on deals, are deceitful against their fellow believers, and in one case has a sordid history of questionable conduct. But the rhetorical triangle would not be complete without a more explicit *pathos*-based argument. In the tradition of many printed sceptical contributions, it is again low key, serving both to underline the role that sceptics fulfil as moral entrepreneurs and the unthankful reception of the sceptics' arguments among those most in need of scepticism.

The latter is found in the voice of a female pilgrim who states that: "I don't care if there's a pipe and a hose behind that picture.... You either believe in miracles, or you don't. I believe." (Nickell 1997, p. 20). Voices within the church vary, as they always do. Some believe, and some are sceptical—to different degrees. But one conversant with sceptical discourse and sceptic-believer discussions recognizes the pilgrim both as trope and type. She personifies what from the sceptic's position is seen as the often thankless reception of sceptical investigation, and the rigid attitude of belief in the face of evidence. However, the moral nature, indeed the moral imperative, of the sceptical project is shown by the last voice to speak in this narrative, a woman in the church neighbourhood: "We all need something to believe in, but this is preying on those who really need a miracle." (ibid.)

The trajectory of the investigation is inscribed to form a counter-narrative to that of the miracle, and shows some of the central strategies in the sceptical countering of claims. While the attempt to get material data on the alleged tears fails and the technological devices thus find no use, the story nevertheless tries to establish the *real facts* of the matter. The production of facts becomes the backbone of the narrative's *logos*, and persistently paints a different picture than that of a plausible miracle. In the course of presenting these facts, both the *logos* and not least the *ethos* of claimants are portrayed in a way that makes us doubt them. With the closing *pathos* of appealing to how "those who really need a miracle" are conned in order to make money, we come full circle. The narrative presents itself as a form of forensic rhetoric, and draws on an idiom that Ibarra and Kitsuse (1993, p. 41f.) have termed "the counter-rhetoric of insincerity": the primary claimants are insincere and, we are led to assume, fake a miracle for the money they can get from believers. In constructing this story, the author also involves rhetorical tools such as "the telling anecdote" (e.g. the history of the priest). The whole is steeped in a "counter-rhetoric of

naturalization", whereby what was claimed to be miraculous is made human. In the presentation of "true believers" who disregard evidence to the contrary, we also find a counter-rhetorical use of softer elements from the idiom of "unreason", which "posits an idealized relationship between the self and the state of knowing, and then locates an instance in which that proper knowledge is being distorted" (ibid., p. 36).

The sceptic's claim is not to possess certain knowledge, as that would run counter to the sceptical position. It involves rather the presentation of data that sow doubt about the least probable interpretation: that of a miracle actually taking place. These data are made to *converge* in a single direction, i.e. towards the likelihood that the "miracle" is a deliberate scam. The pattern shows one single conclusion as the most likely one.

In the story of the miraculous crying picture, there was as yet no believer's counter-argument presenting information made to converge in the direction of "this is a miracle". Such does occur however, in claims-making more deliberately appealing to "science", and when believers present a pattern of "evidence" for their claims, sceptics have a different tool: *anti-patterning*.

We may observe varieties of anti-patterning in many areas. One example is that of reincarnation, which has been the subject of philosophical and theological argument for centuries. During the past decades, reincarnation has also been the topic of parapsychological research which has been fed into the cultic milieu using a select choice of research as argument. The sheer numbers of people who believe in reincarnation, the prevalence and contents of reincarnation doctrines in many parts of the world, the dramatic experiences people have under regression therapy into past lives, and the spontaneous memories of postulated previous lives found among both children and adults are some of the many arguments that have been presented to demonstrate that reincarnation must be fact. They all "converge" towards one conclusion. Countering these arguments involves sceptics in anti-patterning. The popularity of an idea may be countered with the simple note that this *argumentum ad populum* is, logically, a fallacy. Furthermore, it can be stressed that the reincarnation beliefs held by people in various times and places are not *identical*, but constitute a diverse collection of beliefs about the afterlife. Regression therapy and the support for reincarnation that can allegedly be drawn from this practice may be criticized for failing to take into account other sources of information on the personality that one "remembers", glossing over

mistakes and inaccuracies regarding the historical period in which one's past incarnation is said to have lived, the phenomenon of source amnesia,¹⁰ the role-playing behaviour that hypnotic subjects share with fantasy prone individuals (i.e. a similar willingness to produce detailed narratives not only about past incarnations but also about their *future* lives) (e.g. Edwards 1996, p. 630ff.).

One set of arguments that is often adopted in parts of New Age discourse on reincarnation is that there is "scientific evidence" produced by the late Ian Stevenson for the existence of past lives. Stevenson investigated several cases of "spontaneous memories" of previous lives, and argued that he in many cases could corroborate the details that his interviewees volunteered (e.g. Stevenson 1987). Sceptical counter-arguments to his claims are often structured in a characteristic pattern, starting out by respectfully noting his care with detail, his lucid presentation and the systematic nature of his investigations¹¹ but then go on to debunk his claims. I shall deal very briefly with one such example, Paul Edwards' article in *The Encyclopedia of the Paranormal* (Stein 1996).

Edwards starts out mentioning the positive sides of Stevenson's investigations and reports. By clearly and openly acknowledging the positive aspects of Stevenson's work, he establishes not only Stevenson's, but also his own *ethos* as a generous, thoughtful, and nuanced critic. He then moves into the *logos* of the matter: small children who for a period of time give accounts of previous lives with details that can be and have been checked and corroborated. Looking only at Stevenson's texts, these narratives and the evidence gathered from investigations seem to point in a single direction: these narratives really do document memories of previous lives.

Edwards employs several lines of counter-argument, among them the problem of "prior probability": everything we know about memory links it to brain behaviour. Furthermore, memories exist not as isolated items, but are made and remade by reconstructive processes in the brain. How could memories survive outside the medium in which they are constructed? Philosophically, there is also the problem

¹⁰ Source amnesia involves a lapse in explicit memory: you may feel certain of a piece of information, but have no memory of how you got it and where from.

¹¹ A few prominent skeptics, like the late Carl Sagan, cited Stevenson's investigation and his interpretations as worthy of further study, one of few promising areas of parapsychology.

of these memories then being the “possessions” of infant and child egos and personalities. Why do they not manifest the adult egos that the memories “belong” to?

Empirically, he raises the spectre of more likely explanations. These involve a range of elements from deliberate fraud to misinterpreted fantasies. We may start with the latter. Quoting a Hindu professor of parapsychology, Edwards presents a process where “reincarnation memories” start with imaginative role-taking involving an Indian version of the “imaginary playmate”. It starts as play, as a game which may then be “promoted (or retarded) by the conscious or unconscious beliefs, attitudes, and responses by parents, guardians and interested bystanders” (ibid., p. 650). With regard to the information that allegedly verifies the claims of reincarnation, Edwards presents several problems and competing interpretations. First, in most cases, the tales of the previous lives were not “recorded prior to the attempts at verification” (ibid.), thus opening for misremembering (e.g. forms of hindsight bias) and reinterpretation—but also for deliberate fraud.

In all cases where the children’s tales *were* recorded, moreover, there were numerous possibilities for them to have received the information in advance, since they lived near or were socially close to the alleged previous incarnation. In other cases, there were similar possibilities for the parents to have obtained such information. Furthermore, in many cases there were clear motives for “remembering” certain people as one’s previous incarnation: “several of the children remembered belonging to a higher caste in their previous lives and seem to have been motivated by a wish for better living conditions”. This includes one case where a child asked for inheritance belonging to his “earlier incarnation” and lost interest when the property was lost to the family in question (ibid.).

We may thus observe a systematic dismantling of both the arguments presented in support of reincarnation as proven fact, and a critique of its allegedly scientific character. The pattern suggestive of reincarnation that was constructed by Stevenson is unmade, and the pieces are fitted into a naturalizing pattern that seemingly answers all pertinent questions. Although Stevenson is presented as a thorough and honest researcher, nothing is left of his claim to represent “science” but an attempt to further a religious point of view. This is not least visible when Edwards raises the question of what other beliefs Stevenson holds about what constitutes evidence for reincarnation. Stevenson thus seems to allege that there exist *verifiable memories*

of the period between physical death and the next rebirth. Since such “memories” by definition refer to a putative dimension outside “the world of physical objects”, Edwards protests that “such memories can *never* contain anything verifiable”. Edwards concludes that the contents of such memories, when studied from a cross-cultural perspective, reveal that they are clearly cultural artefacts (*ibid.*, p. 648). Everything that can be investigated by science thus belongs to this world—and conventional, naturalistic science neatly explains what we *do* observe in this world.

We may observe that the example I have cited here is almost completely devoid of the dimension of moral entrepreneurship. Many examples of sceptical counter-rhetoric tend to lack the moralizing element, focusing instead merely on taking apart and disassembling the data, grounds and/or warrants for claims. Thus the purported phenomenon is reconstructed as something else: The truly ancient “human” footprints of the Paluxy River are reframed as dinosaur prints (Schafersman 1986), fur from “Bigfoot” is shown to be hair from elk (Radford 2002), and “psychic” performances are reduced to common magical tricks (e.g. Randi 1982, 1985). For many of these issues, there may be little room for, or interest in, moralizing the issue. It seems difficult to find good, sceptical atrocity tales to illustrate the search for Bigfoot or the Loch Ness monster, or belief in ancient astronauts, the effects of a full moon, the Bermuda triangle, psi power, or haunted houses. For other issues, the dimension of moral “crusade” becomes a central and motivating addition. This is most easily seen in medical controversies, where “quackery” is easily presented as medically harmful.¹² We find one such example below, where James

¹² The aspect of moral entrepreneurship and social problems construction may also be present in evaluating other specific beliefs, practices or “superstition” in general. It is with regard to these latter, more general claims that one seems to most often find the warlike metaphors noted by David Hess (1993:87f.). Sceptics, as he notes, take on the role as “consumer protectors”. Hess interprets this within a narrow rhetorical frame: “By representing itself as a consumer movement, CSICOP counters otherworldly spirituality with this-worldly consumer protectionism” (*ibid.*:88). Thus, sceptics focus on the irony of a “spiritual” path being notably “this-worldly” in its gains. While this element of ironic play is certainly present, I think we should view the protector-rhetoric in a different light. The martial metaphors and moral outrage is an important part of scepticism as a discourse community and a cultural-political interest group. As science fans and scientists, they are interested in “truth for the sake of truth alone”, but as an interest group they are also deeply involved with ideas that society and its members would be better off without: what they deem to be flawed or fraudulent practices. Sceptics as moral entrepreneurs are “enterprising [...] the creation of a new fragment of the moral constitution of society, its code of right and wrong” (Becker 1973:145).

Randi in what was then the weekly newsletter Swift presents a late-night TV-commercial for “Christian” prayer therapy for cancer, and concludes with the following:

Dr. Day advertises that when she developed breast cancer, she beat it by refusing to accept what she called, “mutilating surgery, chemotherapy, and radiation,” but used her own system of divinely-revealed “natural, simple, inexpensive therapies designed by God” to cure herself.

This is a *licensed M.D.* Is the AMA interested? No, don’t worry, Lorraine. They’re asleep. (Randi 2004a, italics in original)

The allegation of harm is implicit, because the reader does not need it to be spelled out: Prayer and undocumented “natural” therapies are no substitute for medical treatment, and will lead to unnecessary suffering and death for many patients. Similarly, we are assumed to know that the American Medical Association has both the power and the duty to regulate the profession according to ethical and scientific standards. But those who are empowered and *could* act do not. The authorities sleep. Thus the sceptical community is called upon to act as a force for reforming society—most likely by waking the sleeping authorities.

The example above works as a telling anecdote, linking what is seen as a systemic problem to a particular case. A different version of the same strategy, but utilizing a stronger rhetorical idiom, may be seen in the example below, where New Age personality and long-time psychic Sylvia Browne is called to task for lying. While the main portion of the story regards how she has recently lied about Randi, the clearest moralism comes in a muted “atrocity tale”:

Let’s look back to just one particularly cruel hoax perpetrated by this woman Browne. Years ago on Montel Williams’ show, she spoke to the grandmother of a local missing child, a six-year-old named Opal Jo Jennings who disappeared from her home in north Texas in March of 1999. Browne told the distraught woman that the child was still alive but had been sold into white slavery and was currently being held in Japan. She even gave a city name, but there is no such city in Japan. Moving ahead three years and nine months, we find that the body of little Opal was recovered—just seven weeks ago; she had been killed by a blow to the head. Currently, there is a man in prison in Texas who has confessed to, and been convicted of, Opal Jo’s abduction and murder.

Think about what’s happened here: Sylvia Browne callously raised the hopes of the family of this little child, placing the fictitious location on the other side of the world. She did this well after a comprehensive search had already been performed in Texas, so she was pretty sure that the girl would never be found. She thought she was safe against exposure. She wasn’t; the body was found and definitively identified. That

was a callous, cruel, manipulative act by Sylvia Browne. But no one calls her to account for it, and her supporters continue on. (Randi 2004b)

Randi is once again blaming proponents of controversial claims for the harm he sees in their acts, at the same time berating the systems and people who assist them in continuing their practices. While he is more direct and more actively outspoken than most, Randi is hardly alone in presenting his opponents as perpetrators of social harm. The same themes and motifs are recurrent elements in the sceptical literature. Like Houdini, Randi and other sceptics would have society take more direct steps in protecting itself. And like countless other moral entrepreneurs, he understands that telling stories is an important way of getting the message across.

Sociologist Joel Best (1990, p. 28) has shown how narratives that evoke moral outrage play a central role in constructing a discourse on social problems. Such narratives serve to typify an issue. The typifying examples, called *atrocity tales*, follow “standard journalistic technique” (ibid.) in presenting events in the lives of individuals, which “make it easier to identify with the people affected by the problem” (ibid.) and alert the audience to “the problem’s frightening, harmful dimensions” (ibid.). The atrocity tale works as a *frame* through which the issue is seen, illustrating just how problematic the issue is. This is what distinguishes the first example from the second taken from Randi’s prolific output. In the first example, describing a practice which may arguably do far more direct and physical harm, the harm is implied. In the second example, it is personified and thus hits harder.

These are still muted examples of atrocity tales. Further and more vivid examples abound in sceptical literature from around the globe, e.g. personified narratives about the sores, pain, and drawn-out death of cancer patients drawn towards a “cure” which denies them any medical treatment, including pain killers; the grief and economic misery of those left behind; and the callousness and greed of those selling the “treatment”.¹³ These narratives mirror the anecdotal (“clinical”) observations for alternative treatments that are often made to serve as evidence in favour of such practices, and serve a parallel function:

¹³ E.g. Norwegian news reports about dead patients of “Meta medicine”/New Germanic Medicine during spring 2009. (See <http://www.tv2nyhetene.no/innenriks/helse/kreftsyke-sa-nei-til-behandling-2683676.html> and <http://www.tv2nyhetene.no/innenriks/kvakksalver-saksoeker-staten-2679239.html> for an example.)

meaning-making. More specifically they often frame and personify information about the scientific status of the alternative treatment in question, putting into meaningful context abstract information on specific details about diseases and treatment.

The meaningful context provided in the sceptical narrative is also one of moral appeal and call to action, and on the broadest scale, this is where sceptics enter more fully into the role of moral entrepreneurs, sometimes seeking to construct the whole field of less than fully science-based belief as problematic: If irrational beliefs and the behaviours supposedly based on them are typified by maltreatment and death, or, in contemporary versions of witch-beliefs, persecution and murder of the *obviously* (to those who do not believe in witchcraft or similar ideas of evil) innocent, then the whole area is obviously more problematic than commonly thought.

Thus sceptics involve themselves in constructing “false beliefs” as social and moral problems. The rhetoric of science in religion is but one example of the many tropes that may be deployed in achieving this aim.

Concluding Remarks

Above, we have seen some of the modalities of sceptical rhetoric, and have particularly focused on the role of sceptics as critics and moral entrepreneurs. We have noted that sceptical rhetoric is a counter-rhetoric that naturalizes various controversial phenomena and thus delegitimizes claims that these phenomena are backed by scientific proof. What religions present as evidence—including the range of issues involved in contemporary religion—sceptics turn into something different. At *best* for the original claimants, they turn it into something to which we do not yet know the natural answer.

Seen from the outside, especially by those criticized, sceptics may seem to be monolithically arraigned against “pseudoscience”, but as Hammer (2007, p. 389f.) and Hess (1993, p. 157) note, the sceptical community is far from monolithic. Even at the “core” of sceptical issues, agreement is not universal. Many would dismiss parapsychology as pseudoscience, whereas others, including prominent hard-liners such as James Randi, would include it among the sciences. No sceptical discourse on parapsychology would, however, agree that this field deals with fully proven instances of actual extrasensory perception.

Such a view would place the contribution squarely outside of sceptical discourse.

There is a scale of tolerance and strictness among sceptics with regard to how science ought to be policed. Some are enthusiasts of the weird and the marginal, and differ only in degree from Fortean (cf. Ellis 2001, p. 100). Some understand the task of sceptics to be critical of “deviant sciences”, but do take controversial claims seriously enough to examine them and only expose whatever mistakes, fraud or wishful interpretations there may be. If there should be good theorizing, valid data and new findings, all agree they should be accepted as “real” science. Some sceptics may thus engage with the claims of ufologists or parapsychologists to the extent that “mainstream” scientists can consider them part of the same marginal community. Instead of remaining aloof and disregarding claims and claimants, “open” sceptics enter the debate on the mixed premises of mainstream science and true believers.¹⁴ These sceptics may also see themselves as enlightening the masses and protecting the public, but they will not desire to stop any other controversial practices than those that they find to be obviously and directly harmful.

Then we have the “hard-liners” who draw more explicitly on the rhetoric of insincerity and unreason, presenting believers as deluded by hucksters. As activists, they lobby for more direct action, wanting to both spread the good news of a better society achievable through rationality, and to cleanse it of harmful, irrational influence. These sceptics focus more centrally on the different kinds of harm *any* “superstition” might bring. Claims about harm constitute a form of mobilization rhetoric, and are constructed mainly with regard to specific cases where “harm” may be fitted easily into the narrative. Merely showing through counter-arguments that a supposedly “scientific” claim does not hold up is unlikely to be sufficient to hold interest. Like the cultic milieu whose ideas they have largely focused on, sceptics are only loosely organized with a large percentage being more audience than participants. Similar to other social movements, actively participating sceptics may need mobilization tools such as moralizing narratives not merely in order to appeal to outsiders, but as a means to justify to themselves the time and energy spent on critical inquiry. After all,

¹⁴ The “mix” consists in bringing scientific methods to claims and being disinclined to accept secondary elaborations when the claims are not demonstrated.

curiosity may be hard to sustain after years of e.g. meeting various kinds of dowisers without ever finding anything but negative results. Moral entrepreneurship may thus become a sceptical way of meaning-making.

Acknowledgments

Thanks to Olav Hammer for feedback and many good suggestions for improvement.

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GENERAL INDEX

- 700 Club* 514, 516, 519, 527, 530–532, 534–535, 539, 542
A Course in Miracles 17, 687 n. 1, 689, 695, 697–701, 703–704
 abortion 379, 520–521, 527
 absolute knowledge 72–73, 687, 692
 absolute values 15, 578
 Acem 46–47, 57–58
 actor-network theory 643
 Adam 462–464, 478, 484–485, 487, 492, 493 n. 10, 580–581
 adrenal energy 91
 Advaita 208 n. 2, 209–210, 213–215, 219–220, 223, 229–230, 232, 234, 239, 241, 245, 319, 331 n. 49, 347–348, 351
Advaita Vedanta 12, 97, 209, 225–226, 230, 239, 318–319, 345–347, 351–352, 367, 409, 702
 agency 165, 191, 294, 301, 311, 388, 601, 605, 620, 636 n. 6, 637–638, 653, 683, 770, 787, 821, 824
 agnosticism 522, 636–638, 648–649
 Agonshû 166 n. 1, 172 n. 4
 Agra Satsangs 423–424, 428
 alchemy 289, 867–869
 aliens 132, 157–158, 160, 769–770, 857–858
 Allied Powers 168
al-Manâr (magazine) 499
al-Muqtataf (magazine) 485
 altered states of consciousness 18, 598, 687, 691, 704, 708, 718, 720, 727–728, 736
 Alternative Archaeology 766, 769
 analogy 49–51, 62, 170–171, 337, 357, 412, 560, 642, 716
 Ananda Sangha 50, 54
 Anatolia 779, 784, 791, 798
 ancient east 493
 angels 31, 99, 122, 177, 283, 303, 462, 503, 584, 661, 689, 692, 719 n. 47, 735, 861
 animal magnetism 300, 592–594, 597, 872
 anomalies 658, 863
 antenatal life 756
 anthroposophy 857, 876
 antimatter [Note: or “anti-matter,” {sic} in certain direct quotes] 255–259, 261–262
 antiquity 166, 215 n. 7, 257, 322, 325, 493
 anti-
 science 241, 280, 522
 scientific 267
 scientism 85, 101–102, 280, 288, 313, 354, 542–544, 883
 antoinists 743
 Aphrodite 778–779
 apologetics 12, 31–32, 213, 345, 367, 490 n. 6, 505, 836
Aquarian Conspiracy, The 17, 30 n. 3, 690–691
Aradia: or the Gospel of the Witches 778
 Ararat 490, 527–528
 archaeological site 782, 863
 archaeologist 19, 765–771, 773–774, 776–777, 780–787, 790–792, 797–801, 803–804, 806–817, 827–829, 831, 834, 837
 archaeology 15, 18–19, 513, 765–771, 773–778, 780, 782, 784–787, 790–792, 801, 803–804, 806, 817, 819, 829–832, 834, 836, 841–842
 archaeology of Noah’s Ark 519, 527, 533
 Argentina 13, 443, 454 n. 4, 609–612, 619, 622, 629
 Argumentum ad populum 891
 Armageddon 195–197, 199 n. 37, 201
Art of Living 47, 52, 54
 asceticism 180, 450
 Association for Research and Enlightenment 513 n. 1, 530, 787
 astral plane 132, 731–732, 734
 astrology 5, 32, 34–35, 46–47, 88–89, 107, 289, 291–292, 297, 359, 530, 661, 709–710, 857, 876, 884
 atheism 15, 20, 84, 93, 108, 153–154, 213, 474, 514, 522, 532, 543–544, 637, 657, 852–853, 855, 857, 864
 Athena 778

- Atlantis 19, 765–766, 786–788, 790, 792, 876
Atlantis and Lemuria 787
 Atlantis theory 876
Atlantis: The Antediluvian World 786
 Ātman (Self) 223, 280, 284 n. 5, 307, 325, 331, 334–335, 338, 702
 atomism 635
 Aum Shinrikyō 10–11, 176 n. 10, 187–188, 190, 193–194, 198–202
 authority 2–3, 7–12, 14–16, 18, 20, 23–26, 28, 30–31, 33, 36–38, 41–45, 48–51, 53–54, 56–59, 61–63, 69–70, 72–73, 75–76, 88–89, 91, 94, 97, 103–104, 108, 134, 169–171, 207–208, 210, 216, 222 n. 11, 226, 229, 236, 239, 244, 250, 256, 258, 306, 319, 345–346, 352, 360, 368, 373, 376–377, 393–396, 405, 408, 418–419, 428, 432–433, 444, 446, 453, 456, 460–461, 473, 479–480, 513, 518–520, 523–524, 529, 532, 534–535, 537, 539–541, 543–545, 551, 558–559, 573, 587, 594, 609–610, 614, 616–618, 620–625, 627–629, 633–636, 642, 689–690, 693, 696, 700, 704, 721, 741, 754–755, 757, 759–760, 770, 777, 779–781, 784–785, 793, 809, 817, 841, 849, 861, 864–865
 autodidacticism 382
 avatara evolution 282 n. 4, 288, 303, 308, 329, 334, 340

Back to Godhead 249, 254, 259–261, 264, 269, 271, 275
 Baconian science 552
 Basil Scientific School 610, 613, 616, 618, 619 n. 7, 622, 624–625, 628–629
 Beas Satsang 420–424, 427–428, 430
 Beirut 485
 belief 1–2, 11–12, 15, 18, 20, 27, 35, 41–42, 44–46, 51, 53, 59, 63, 68, 75 n. 7, 93, 104 n. 25, 107–108, 154, 159, 178, 191, 197, 199 n. 37, 211, 213, 216–217, 226, 228, 241, 255–256, 262, 280, 290, 293, 297 n. 24, 298, 300, 303, 306, 311, 314, 330, 333–334, 349–350, 356, 359, 371–372, 374–375, 379, 381, 383–385, 387–388, 392, 396, 410, 429, 431, 448, 456, 463, 474, 476–477, 487, 493, 499–500, 518, 521 n. 11, 522, 529, 532 n. 18, 534, 537–538, 540–544, 550–556, 559, 562–563, 572–573, 576, 578, 581–584, 587, 598, 600, 607, 617, 637, 660–661, 689–690, 693–694, 696–697, 700, 704, 707–710, 712–713, 717 n. 42, 720, 741–744, 746–748, 751–754, 768, 782–785, 799, 805, 814, 816, 823, 828–829, 840, 847–849, 851–854, 857, 859–865, 869, 875, 879–882, 885, 887, 890–891, 893–894, 897
 belief and disbelief 45, 661, 849
 Be-Man 411, 413
Beyond Power: On Women, Men and Morals 781
Bhagavad Gita 47–48, 55, 249, 256, 258–259, 262, 264, 272, 331 n. 49
 bhakti 252, 265–266, 315, 327, 421
 Bharatiya Janata Party 30
 Bible
 as history (or “as historical record”?) 398, 524, 603
 literal interpretation of 543
 biblical flood 484, 528
 Big Bang 96, 98, 190, 284, 373–375, 462, 477, 492, 499, 531, 534
 Bigfoot 894
Bilim ve Gelecek 498
Bilim ve Ütopya 498
 Bimini Island 787
 Bimini Wall 787
 bio-electricity 91
 bioenergy 862
 biofeedback 32–34, 36, 134, 692
 biolocation 863
 biologism 80–81
 biology 4 n. 5, 13, 49, 67, 79–82, 84, 89, 91, 97, 100–101, 103, 137, 234, 265, 273, 330, 391, 432, 485–486, 491–492, 494–495, 525–526, 542, 635, 692, 799, 830
 blessing ceremony 572
 body of light, magical 731–735
 Book of Mormon 19, 36, 771–775, 791, 819–820, 822–823, 825–829, 831, 841
 boundary work 71, 73, 643–644, 647, 880, 883
 Brahman 209, 215, 223, 225–226, 232, 282, 290–291, 313, 319 n. 42, 325, 328, 336, 339, 347–348, 350–352, 362, 367, 702
 Brahmo Samaj 212, 226, 229 n. 15,

- 242 n. 30, 311 n. 37, 313, 316–317, 319, 324, 330
- bricolage 71, 75, 86, 96, 107, 620
- bricoleur 620–621
- Brigham Young University 774–775, 827, 829–833
- Buddha 117, 119–121, 124, 128, 133, 136, 224–225, 233–235, 305, 309, 335–336
- buddhism 7, 9, 29, 32, 117–132, 134–138, 151, 154, 167, 169, 180–181, 187, 190 n. 15, 197–198, 233, 235, 286 n. 12, 298–299, 332 n. 51, 371, 399, 414, 583, 747, 753, 767, 857
- buddhism and science 9, 126–128, 132, 135–137, 234
- busshitsu-teki na kagaku* 191
- Calvinist 311, 372, 386, 388, 600, 742
- calx 869
- caste 119, 252, 269, 321, 323, 338, 348, 356, 395, 414–415, 893
- Çatalhöyük 19, 779–785, 791, 798–799, 801, 804, 806–817
- Catholic Church 295, 300, 609, 612, 616, 621–622, 629
- Catholicism 16, 299, 609–610, 743, 753
- Central Administrative Council 402, 404–408, 416, 423, 425, 427–428
- certainty 2, 14, 180, 192, 194 n. 25, 215, 217, 288, 359, 377–378, 401, 457, 462–469, 473, 478, 503–504, 559–601, 624, 638, 664, 713, 742, 747, 773, 877
- certitudo salutis 741–742
- Chabad Lubavitch 13, 443–444, 446, 447 n. 3, 449, 450 n. 6
- Chalice and the Blade: Our History, Our Future, the* 781
- channelling 17, 661, 688–691, 693–698, 788, 790, 792, 861
- chaos 120, 460–461, 464, 468, 493, 567
- Chariots of the Gods* 769
- charisma 24–26, 94, 210, 372, 408, 428, 579, 624, 700, 702, 743–744
- chemistry 48, 98, 155, 252, 272–273, 321, 432, 564, 575, 577, 595, 600, 867–868, 870–874
- chi (*see* qi)
- China Qigong Science Research Society (CQRS) 149
- Chinmaya Mission 49–50
- chonoryoku 188
- Christian Broadcasting Network (CBN) intended audience of 514
- christian science 15, 23, 26–27, 32–34, 39, 74, 76, 182, 297, 299, 333, 549–553, 556–560, 562–563, 568, 586, 594, 754
- Christianity 15, 17, 28–29, 48, 74, 78, 105, 118–119, 122–124, 126, 137, 169, 198, 209–211, 214 n. 6, 220, 226, 230–231, 233–238, 241, 264–266, 275, 285, 289, 292, 295, 297–301, 311–312, 314, 317, 320, 327, 330, 371–372, 394, 400–401, 483, 514, 516, 521, 524, 532, 545, 549–550, 561, 563–564, 567, 571–572, 580, 583–584, 596, 626, 636, 661, 704, 744, 767, 779, 821, 823–824, 841, 848–489, 857, 861
- church 18, 27–28, 67, 73–82, 86, 88, 93–96, 99–101, 108, 160, 168, 211, 251–252, 292, 295, 299–300, 314, 327, 372, 381, 522, 556–557, 571–572, 578, 581–584, 609, 612, 616, 621–622, 715, 741, 745–748, 750, 753–754, 765, 771–778, 789–791, 819, 821–823, 826–827, 829–830, 835–836, 840–841, 850–852, 857, 875–876, 886 n. 7, 888–890
- Church of Jesus Christ of Latter-day Saints 18, 765, 771–772, 791, 819, 823
- Church of Satan 67, 73–74, 76–82, 86, 88, 90, 93–96, 99–101, 108
- Claiming Knowledge* 35
- clairvoyance 148, 601, 624, 652, 657, 662
- classical physics 26, 29, 208 n. 1, 641
- colonialism 11, 104, 125, 210, 250, 252, 311, 535
- combustion 20, 868–872
- Comité Belge pour l'Investigation Scientifique de Phénomènes putés Paranormaux* 884
- Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) 657, 708
- Completed Testament 580
- Consciousness 15–16, 18, 55, 60, 128, 130, 138, 141, 192, 195, 215, 222, 224–227, 260, 265, 280, 282–284, 290, 292, 308, 330, 334–336, 340, 348–349, 351, 354, 356–358, 360, 365–366, 373, 411, 418, 461, 463–465, 467–468, 477, 564, 566,

- 573, 594, 598–599, 601, 603, 605,
611, 613, 625–628, 641–642, 658,
677–678, 687, 689–693, 695, 697,
704, 708–709, 711, 718, 720–722,
725–729, 732–736, 742, 744, 789,
851–852, 854–856, 876
conspiracy (theory) 490 n. 6, 491, 497,
499, 676, 682, 769, 680
constitution 17, 82, 168, 361, 616,
627, 681, 685, 894 n. 12
consumer protection 884, 888, 894
n. 12
Corpus Hermeticum 302, 725 n. 55, 730
cosmology 14, 121, 132, 135–136,
159, 185–186, 190 n. 13, 244 n. 31,
290, 301, 305, 310, 329, 460, 462,
543, 545, 611, 700, 734, 747, 782,
823, 867
cosmotate 168 n. 2
cosmosophy 875, 877
Council of the Twelve Apostles 829
Counterculture, American 249,
262–263, 350, 352, 487, 605
creatio ex nihilo 208, 220, 238, 241
creation 23, 43, 91, 118–119, 132,
138, 146, 149, 189, 208–209, 215,
220, 237, 282 n. 4, 304, 308–310,
327–329, 331, 350, 357–358, 362,
373–374, 384, 409–410, 460, 462,
465, 477, 484–485, 487, 489,
492–493, 495, 500–501, 514, 529,
533–534, 545, 571, 574, 578, 581,
584, 611, 613, 618–619, 625, 651,
699, 701, 731, 785, 790, 812, 820,
855, 868, 894
creation science 23, 32–33, 533
creationism 14, 32–33, 36, 284 nn.
6–7, 329, 341, 384, 483, 488,
492–493, 495–503, 529, 538–539,
708, 769, 887
creolization 68
Critias 786
CSICOP (*see* Committee for the
Scientific Investigation of Claims of
the Paranormal)
cultic milieu 9, 12, 68–76, 86, 90
n. 18, 92, 95–97, 100–101, 103,
105–109, 288, 297–300, 315–316,
318, 320, 333, 340, 660, 879–880,
891, 898
cycle of cosmic ages 221
Dark Doctrines 97, 99–102
darwinism 12, 77–78, 82 n. 12, 91,
101, 215, 241, 281, 283–284,
303–304, 321, 326, 334, 341, 483,
489, 494, 530, 542, 636
Dayal Bagh 403, 407, 417, 430
dead, communication with 300, 592,
596, 602, 693
death 27, 120, 136, 142, 175,
192–193, 207, 209, 212–213, 219,
234, 241, 258, 260, 264, 268,
303, 307–308, 313, 316, 318, 327,
331–332, 339, 347, 373, 391, 393,
397, 399, 401–404, 408, 412, 415,
418–425, 427, 429, 443, 463, 501,
540, 555–556, 560, 566, 580–581,
584, 591–592, 602, 606, 616, 627,
641, 644, 736, 756, 781–782, 784,
821, 839, 854–855, 883, 894–897
debunking 20, 242 n. 30, 887
deism 233, 294
deity/divinity, female 785, 811, 813,
815–816
demonic 83, 88, 152, 292, 460, 661,
848, 860–861
design (in nature) 90
devil 87–88, 848–849
dharma 97, 119, 128, 141, 270, 290,
349, 373
diachronic 70, 105
dialogue, definition of 788, 797
dianetics 32, 749, 757–758
dietary laws 13, 442, 445–448, 451
discourse
analysis 14, 17, 69, 107, 750
strategies 72
scientific and religious 16, 19, 68,
450, 798
discursive formations 850
discursive regime 852–853, 861, 865
disenchanted magic 71
disenchantment 70, 292, 502, 604, 634
Divine Principle 578, 580–581
DNA 43, 84 n. 14, 283, 468, 472
doctoral titles 41, 57–58, 62
dogmatic 16, 28, 91, 123, 298, 378,
386, 413–414, 432, 476, 609–610,
621, 629, 648–649, 881
dogmatism 121, 222, 432, 461,
622–623, 629
doubt 14, 59, 61, 123, 155, 200,
208, 210, 212–214, 250, 316, 321,
324–325, 349, 371, 377–378, 402,
419, 427, 433, 460, 464, 468–470,
472–473, 554, 654, 680, 685, 710,
747, 776, 825, 834–835, 837–838,
859, 881, 890–891
druids 768

- Duke University 377, 633, 643, 650
dynamic of dissociation 703
- earthquake in Kobe (1995) 196
earthquake weapon 196
Easy Journey to Other Planets (book) 254, 259, 261, 272
- eclecticism 74, 101
- education 60, 101, 121, 167–169, 177–178, 180–182, 211–212, 231 n. 18, 251–252, 265, 275, 316–317, 326, 328, 334, 353, 356, 365, 371, 379, 487–488, 495, 497–498, 502, 504, 518, 521, 525–527, 529, 541, 611–613, 614 n. 2, 618–619, 628, 636, 648, 709, 851, 853, 879, 885–886
- Egypt 296, 302, 323, 500, 502, 619 n. 7, 722, 770, 774, 779, 786–787, 863, 869
- electricity 50–51, 61, 221 n. 10, 251, 325, 470, 591–592, 597, 873
- elements 5–6, 8, 10, 17, 29, 52, 69, 71, 75, 77–78, 81, 84–86, 88–90, 93, 98, 100, 103–105, 107, 118, 121–123, 126–127, 132, 137, 159, 165, 190, 210, 212, 215, 231, 233, 258, 284, 287 n. 13, 288, 291, 293, 301, 306, 324, 333, 340, 350, 367–368, 400, 444, 486, 493, 514, 518, 531, 564, 566–567, 610–613, 617–619, 623, 625, 627–629, 710, 717, 726 n. 59, 728 n. 67, 732–734, 746, 753, 757, 759, 766, 829, 838, 841, 849, 854, 867–868, 870–872, 876–877, 888, 891, 893–894, 896
- elite 16, 81, 118, 135, 138, 143, 167, 176 n. 10, 182, 211, 268–269, 280, 287, 296–297, 300, 310, 404, 407, 428, 469, 486, 609, 612–613, 619, 629, 647, 688, 883, 887
- E-meter 33, 36
- empiricism 17, 28, 30, 53, 85, 242, 244, 250, 259, 272–274, 283, 313, 315, 318–319, 332, 542, 562, 689, 701
- energy 46, 50, 53–56, 91, 98, 145, 152–153, 159, 179, 186, 190, 208, 214–216, 218, 224, 240–241, 256, 259, 280, 290, 300–301, 325, 332, 338–339, 346, 357, 374, 449, 456 n. 9, 462–463, 471, 573 n. 2, 635, 642, 679–680, 682, 689, 691–692, 695, 704, 783, 789, 853, 858–859, 862–864, 898
- engineering 27, 32, 80, 101, 265, 283, 315 n. 40, 326, 371, 377, 384, 388, 529, 573, 584
- enlightenment 46, 69, 78, 105, 124, 132, 134, 137, 157, 267, 294–295, 298, 310, 312, 318, 322 n. 45, 349, 354, 363 n. 4, 373–374, 395, 409–410, 415, 441, 456–457, 460, 471, 473, 479, 493, 513, 519 n. 8, 523, 530, 533, 552, 558, 560, 562, 568, 577, 593, 662, 678, 687, 690, 704, 709, 711, 749, 767–769, 787–790, 792, 849, 870–871
- Epicureanism 78, 93
- epistemology 16–17, 72, 244 n. 31, 293, 549, 609–610, 614–615, 620, 624–625, 649, 688, 701–702, 704, 882
- Erotic Crystallization Inertia 83
- Esalen Institute 605–606, 662
- esoteric 5, 9, 12, 16, 18, 20, 35, 68–70, 72–74, 76–77, 79, 82–92, 95–98, 101, 103, 106, 108, 187, 190 n. 15, 285–293, 297, 299–300, 302–303, 305, 309, 311–312, 315 n. 40, 317, 332, 334, 337, 340–341, 374, 542 n. 26, 599, 619, 634, 661, 703, 707, 713, 719–720, 728–729, 731 n. 80, 732, 757, 767, 786–789, 871, 879 n. 1
- esotericism 9, 29, 68–70, 72, 74–75, 88 n. 17, 89, 95, 97, 103, 106–107, 109, 286, 289–292, 301, 318, 320, 622, 633 n. 1, 661–662, 757, 857
- esotericized secularism 9, 69, 76, 89, 95, 102, 109
- esotericizing the secular 69–70, 73
- esoterization 9, 69, 77, 85, 104
- establishment clause 494, 754
- Estonia 20, 847–852, 854, 856–857, 861–865
- ethical behavior 745
- Ethics on the Frontiers of Human Existence* 573
- eugenics 81, 137, 241, 323–324, 602, 646–647, 650
- Eve 166 n. 1, 580–581
- evolution
Darwinian 5, 119, 208, 224 n. 13, 225, 227, 232, 241, 285, 304, 329, 337, 341, 491, 505
Sanskrit term for (parināma) 47, 61, 207, 244, 285, 287, 305, 322, 325, 355 n. 1
spirituality 224, 232, 241, 281, 287, 303, 306, 328, 335, 400

- experience 1, 3, 9, 11, 17, 20, 26, 30,
 37, 53, 59, 61, 68–69, 72–73, 85,
 89–90, 92–93, 101, 123, 128–131,
 133–134, 153, 173 n. 5, 174, 189,
 192–195, 209, 212–214, 216, 222,
 226, 232, 242, 244–245, 249–251,
 263, 272, 280, 290, 295, 312–316,
 318–319, 331–332, 334, 340,
 346–352, 358, 374, 380, 392, 400,
 410, 414–415, 418, 422, 424,
 432–433, 443, 454, 456, 459,
 465–466, 471–475, 477, 503, 514,
 521, 526, 550–552, 555, 558–559,
 562, 567, 583, 591, 599–600, 604,
 607, 610, 612, 621, 625, 627,
 639–640, 659, 673–677, 679, 681,
 687–689, 691–695, 697–698,
 700–704, 727–730, 732–733, 736,
 748, 750, 753, 756, 770–771,
 775–777, 783–784, 787–789, 804,
 807–808, 810, 816, 848–849, 857,
 862, 864–865, 885, 891
 experiential authority 85, 103
 experiments, scientific 41, 52–54, 62,
 130
 external Form 579, 586
 extraordinary powers 148–150, 152
 extra-sensory perception 650 n. 15,
 652
 extraterrestrial 43, 73, 624, 664 n. 19,
 689, 692, 697, 769, 858
 faith 5, 13, 18, 45, 59, 93, 95, 118,
 122–123, 137, 185–186, 207, 212,
 214, 230, 234, 238, 268–270,
 280, 283–284, 290, 294, 298–300,
 303, 310–311, 313–314, 316, 320,
 329, 331, 349, 354, 372–373, 375,
 377, 379, 381–386, 397, 402, 410,
 415–416, 441, 459, 467, 474, 517,
 522, 527, 534, 537, 539, 594, 599,
 624, 626 n. 10, 629, 638, 647, 679,
 707–708, 710, 741–742, 744, 749,
 751–752, 765, 776, 778, 782, 816,
 826–827, 829–830, 832–833,
 835–836, 840–841, 851, 856–857,
 864, 877, 883
 fallacy 75, 891
 Falun Dafa 141, 154–155, 161
 Family Federation for World Peace and
 Unification (FFWPU) 571
 feminism 784, 809
 feminist 19, 765, 767, 780–781,
 783–784, 792, 800–801, 803, 815
 fides efficax 742, 756
 fire 59, 62, 67, 81, 88, 241, 325, 717,
 730, 734–735, 757, 867–870
 First Amendment 544–545
First Principles (Spencer) 216, 218, 226,
 228
 flood 48, 169, 338, 484, 492, 527–529
 flying saucer cult 876
 folklore 20, 768, 782–783, 847, 848
 n. 1, 849–850, 852, 858, 860, 865
 folkloristics 20, 847
 fossil record 281, 329, 491, 531
 fossils, forgeries of 491, 500
 Foundation for Inner Peace 698
Foundation series 196
 frazerian 165
 freedom 41, 103, 121, 152, 180, 193,
 362, 387, 393, 400–401, 430–431,
 456, 479, 543, 545 n. 27, 585, 606,
 611, 619, 626–627, 684, 850, 857, 861
Furongchia Kareji (Frontier College) 174
 Gaia theory 876
 gaiatsu 166
 ganzfeld 653, 658–659
 Garden of Eden 463, 478, 824, 836
 Genesis Project 176
 genre
 speech or discourse 535, 538 n. 21
 meanings of 20, 78, 166, 484–485,
 494, 535–538, 544, 663, 694,
 847–849, 854, 865
 primary versus secondary 535, 537
 Germany 20, 177, 295 n. 21, 299,
 306, 454 n. 4, 497, 593, 645 n. 9,
 847, 871, 874–875
 GLA 10, 165–166, 168–182
 Global Country of World Peace
 360–362, 364
 global warming 15, 513–514, 519,
 521–522, 532
 glossolalic 173
 gnosticism 104, 292, 305, 730, 789, 868
 God 2, 4, 6, 10, 13, 28, 43, 46, 50–51,
 77–78, 93, 122–123, 165, 166 n. 1,
 209, 212–214, 222–223, 225–226,
 230, 232, 237–238, 243, 249, 252,
 256, 261, 265–266, 269–270, 274,
 282, 290–291, 298, 301, 303–304,
 306–307, 309–310, 312–315, 318,
 325–333, 336, 338–339, 349, 361,
 374, 376–380, 386, 392, 400,
 409–410, 413–416, 418, 432,
 444–445, 447–449, 463, 467–468,

- 469 n. 17, 472 n. 18, 474–477, 489, 491, 497, 516–517, 521 n. 11, 531, 533–534, 542, 545, 550–553, 556, 559–565, 568, 572, 576, 579–583, 585–586, 591, 600, 611, 625–626, 637–638, 681, 684, 688, 691, 697, 700–702, 707, 725–726, 731, 742–746, 751–752, 770–771, 778, 781, 788–789, 827, 830, 835, 841, 849, 851, 855, 869, 876, 895
 God Light Association 10, 165
 Goddess
 community 19, 800–801, 803–806, 808–810, 815–817
 Conversations conference 785, 806
 criticism of by feminist archaeologists 800–801, 803
 definitions of 778, 780–785, 790, 797, 799–805
 display at Çatalhöyük 784, 801, 804, 809
 feminism/feminist 19, 765, 767, 780–781, 783–784, 792, 800–801, 803, 809, 815
 figurine/s 44, 779, 799, 801, 804–805, 812–814
 followers 17–19, 24, 142, 150, 152, 166 n. 1, 172, 188–189, 191 n. 16, 200 n. 40, 209 n. 3, 223, 245, 272, 280, 284 n. 5, 299, 319, 322, 325, 341, 349, 353, 386, 392, 396, 401–402, 411, 414–415, 418, 420, 422, 424, 428, 430, 468, 489, 514, 531, 551, 557–558, 560, 567, 580, 585, 687, 690, 695, 703–704, 748, 754, 758–759, 773, 788–789, 797–798, 800–801, 803, 808
 movement 19, 782, 798–799, 801–804, 810–811
 pilgrim 41, 49, 392, 406, 781–783, 798, 813, 854, 889–890
 spirituality 8–9, 16–20, 36, 41, 47–48, 56, 60, 74, 129, 252–253, 289, 315, 346–348, 350, 372, 378, 381, 386, 392, 399, 447, 456–457, 461, 468, 474–479, 597, 607, 673, 675–676, 687–690, 692 n. 2, 694, 697, 699, 701–702, 720, 759, 765, 779, 781–782, 785, 787, 790–791, 797, 857, 894 n. 12
 tour 784–785, 798, 800, 806
 spirituality 19, 765, 779, 781–782, 785, 790–791, 797
 ‘straw’ 314, 812
 fertility 799–800, 802
 Mother 324, 403, 613, 618, 623, 684, 779, 782, 798–800, 802, 804, 812, 816, 861
 gold 123, 771–772, 822, 867, 869
 gold plates 771–772, 822
 Golden Age Foundation 46, 58
 Golden Age theory 801, 812
 Golden Calf 466–468
 governors 363
 Great Cosmic Mother: Rediscovering the Religion of the Earth, the 781
 Great Goddess 779, 783, 799–800
 guardian spirits 682, 692
 guru 41, 46, 60–61, 196 n. 30, 214, 253, 258, 262, 268, 271–273, 281, 284, 290, 298, 319, 336, 341, 348–349, 353, 363, 365, 372–375, 377–378, 386–387, 391–393, 396–399, 401–403, 405–412, 414–431, 433, 535
 habitus (Bourdieu) 291, 535, 616
 Hadīth 3
 Haggadah 477
 healing 3, 5, 32, 34, 44, 46, 54, 58 n. 14, 147, 186, 187 n. 9, 357, 359, 365, 372, 375–376, 549–551, 553–556, 558–563, 565, 567, 577, 603, 623 n. 8, 661, 678 n. 6, 695, 710, 743, 746, 749, 781–782, 787, 848–849, 854, 862–863
 healing church 746, 754
 healing rhythms 55
 heaven 31, 118, 120–121, 125–126, 156, 192, 230, 564, 574, 584, 586, 591–592, 594, 596–597, 726, 730–731, 819, 827, 840, 870–871
 heavens gate 31–32
 Hebrew 88, 460, 461 n. 12, 474, 821, 869–870
 hedonism 78, 100, 171
 hegemony 16, 108, 117, 125, 294, 300, 451, 609, 852, 855, 882 n. 3
 hell 6, 118, 120–121, 125–126, 564, 586, 598, 726, 869
 hellenistic civilization 170
 heresy 474
 Hermetic Order of the Golden Dawn 718–721, 728, 732 n. 83
 heterodox 35, 143, 297 n. 24, 300, 387, 394, 411–413, 416–417
 high and low magic 18, 718–720, 726, 729, 736

- higher self 689–690, 726
 hikikomori 176 n. 9
 Hindu
 precedence of scientific discovery
 133, 255–256, 259, 325, 358–359,
 371, 830
 Revivalism 48, 321
 Hinduism 7, 30, 47–48, 213, 215, 221,
 231 n. 19, 239 n. 27, 240 n. 28, 242
 n. 29, 252, 257, 270, 280–281, 283,
 285–295, 297–299, 302–303, 306,
 308–310, 313–317, 319–321, 327,
 330, 333 n. 51, 334, 340, 350, 357,
 371–373, 381, 386–387, 399–401,
 767, 789, 857
 Hindutva 30
*Historicizing “Tradition” in the Study of
 Religion* 25
Hokhmah 459
 holism 69
 holocaust denial 497
 holography 690, 699
Hosshin Daigaku (University of Full
 Heart/Mind) 174
 Human Potential Movement 74, 83,
 91, 662
 hydrogen 871
 hydroponics 171
 hypnosis 16, 554, 597–599, 603, 876
 hysteria 598–599, 638

 ideology 2, 86, 92, 94, 96, 100,
 102–103, 105–106, 127, 151, 167, 234,
 240, 311 n. 37, 402, 433, 456–457,
 486–488, 497–498, 523, 526, 617–618,
 635, 799, 855, 857, 882 n. 3
 imaginary 282, 541, 618, 620, 893
 imagination 43, 291, 293 n. 18, 306,
 372, 376, 591, 593, 610, 618, 621,
 722, 725–726, 731, 733, 770, 799,
 883
Imitation of Christ, The 214
 immigration 380, 443, 611
 imperial rescript 167
 incarnations (*avatāras*) of Viṣṇu 213,
 227, 282, 308, 401
 incommensurability 651, 656, 663
 India 7–9, 11–13, 45–48, 50–52, 54,
 56–59, 63, 120, 129, 197 n. 32, 209
 n. 3, 210–211, 220, 227–228, 229
 n. 15, 231–232 n. 19, 234, 245,
 249–253, 255–256, 258, 260, 262,
 265–267, 270, 275, 280–281, 283–288,
 291, 294–303, 304 n. 31, 310–312,
 316–323, 330, 341, 346–348, 354,
 358, 365, 373, 377, 381, 391–392,
 399–400, 415, 417, 463, 535, 574,
 657, 730
 Indonesia 502
 Information Technology (IT) 280, 371
 infotainment 537
 infrastructure, technological 251
 insanity 598
 Institutionalisation 615, 617, 619, 622,
 650, 880
 Intelligent Design 5, 284, 336, 341,
 381, 384, 493, 497–498, 501
 interconnectedness 690, 694
 internal character 579, 586
 International Conference on the Unity
 of the Sciences (ICUS) 15
 internet 14, 53 n. 8, 76, 154, 160, 161
 nn. 138–139, 182, 374, 382, 444,
 496–497, 500, 606, 757, 769, 857,
 875, 885–886
 introspection 559–561
 intuition 17, 93, 95, 100, 242, 312,
 348, 351, 456–457, 466, 471–472,
 553, 680 n. 9, 687, 689, 694, 704
Invention of Sacred Tradition, The 25, 576
 n. 7
Invention of Tradition, The 25, 105
 involution 218, 224–228, 284, 288,
 303–306, 309, 330, 333–337, 339–340
 Iraq 166 n. 1, 410, 500
 İşçi Partisi 498
Isis Unveiled 227, 288, 296, 302, 308,
 316, 786
 ISKCON 4, 11–12, 249–251,
 253–254, 256, 258–259, 262–265,
 267, 269–275, 283, 284 nn. 5–6
 Islam 17, 314, 371–373, 381, 386–387,
 400, 414, 484, 485 n. 3, 486–487, 489,
 495–497, 501, 504–505, 704, 784
 Islamism 499–500
 Israel 160, 443, 454 n.4, 456, 459,
 474, 516, 718, 722, 726, 729, 773,
 819–823
 Isthmus of Panama 773
 Itzamna 775
 Izapa Stela Five 19, 819, 826–827,
 836

Jamā‘at-i islāmī 499
 Japan 10–11, 121, 166–174, 176–177,
 180–181, 185–189, 190 n. 13,
 191–198, 200–201, 231, 235, 332
 n. 51, 657, 841, 895

- Japanese new religion 10, 165, 170,
174 n. 7, 186, 187 n. 9
- Jehovah's Witness 744
- jews 13, 441–446, 448–449, 451,
458–459, 461, 581, 773, 819, 823
- jinn 503
- jiva 56 n. 10, 259, 419
- Jonathan Livingston Seagull* 195
- Judaism 13, 17, 169, 275, 327,
441–445, 451, 461, 704, 823
- Kabbalah
Centre 14, 32, 453–457, 458 n. 10,
459–464, 466–467, 468 n. 16, 469
n. 17, 470–471, 473–474, 476–479
Learning Centre 14, 454–455, 458,
460
University 456
- Kakehashi Seminar (Bridge
Seminar) 174, 177
- Kalki Bhagawan 58–59
- Kansas 361 n. 3, 498, 563
- Kapila 220, 279
- kardecism 16, 609, 611–612, 615–616,
621, 629
- karma 120, 122, 124, 153, 208 n. 2,
224, 226, 235–236, 243, 280–281,
283, 285, 287–288, 290, 302–303,
305–308, 310, 313, 332, 334–335,
337–338, 340, 419, 676
- Kazakhstan 502
- kemalism 489, 493, 495, 498
- KGB 859–860
- Kingdom of Heaven 571–572, 578,
581–583, 586–587
- kirlian photography 36
- Knowledge 1, 9, 14–15, 17, 29, 33,
35, 57–58, 61, 68, 72–73, 85, 87–88,
92–95, 97–98, 101–103, 120, 128,
130, 154, 161, 170, 174, 181–182,
185–186, 200, 207–208, 211–213,
217, 222–223, 231, 234, 242,
244–245, 249, 254, 256–257,
259–262, 266, 268, 272–273, 283, 285
n. 8, 288–289, 291, 294, 297, 301,
306, 309, 315, 318, 319
n. 42, 325, 332, 345, 347–348, 350,
353, 358–360, 362, 364, 373–374,
377, 382–383, 394, 410, 415–416,
418, 425, 444, 448, 454, 456–473,
475–480, 484, 488, 492, 505, 514,
516–520, 522–524, 530, 540–545,
549, 552–554, 558–559, 561, 564,
575, 577–580, 591, 594–595,
609–614, 616–625, 627–629, 634,
638, 648–649, 652, 684–685,
687–689, 691–692, 696, 708–709,
712–713, 716, 727, 741, 753, 755,
757, 759–760, 767, 769, 817, 836,
841, 852–853, 855–856, 858, 865,
867, 874, 877, 880–882, 887, 889, 891
- Kôfuku no Kagaku 172 n. 4, 174,
200, 200–201 n. 40
- Kokoro no Kango Gakkô (Mindful Caregiver's
School)* 174, 177
- Kôprii* (magazine) 490
- Korea 47, 167, 172, 177, 571, 581,
583–584, 587
- Korean nationalism 583–584
- Kurds 488
- Lamanites 772–773, 825, 838
- lamarckism 341, 646, 647 n. 11, 650
- Latin America 16, 443, 454, 486, 574,
609–610, 612, 619, 622
- LaVey Personality Synthesizer, the 67
- law
of cause and effect 119, 233,
235–236, 290, 303, 708
of conservation of energy 214–216,
218, 224, 240–241, 332, 339, 635
of evolution 27, 32, 218, 220, 223
of nature 209, 235, 338
spiritual 26, 208, 696
- Left-Hand Path 89, 96
- legend 20, 53, 150, 305, 375, 450,
721, 780, 786, 847–849, 854, 860,
865
- legitimacy 4, 8, 12, 14–16, 23–24, 26,
28, 35–37, 41–44, 49, 51, 57, 59,
61–62, 71–74, 89, 95, 104–105, 124,
134–135, 137, 170, 250, 256, 262,
270, 345–346, 406, 416–417, 428,
441–442, 444–445, 448–449, 495, 513,
516, 518, 562–563, 567, 614–617,
621, 623–624, 628–629, 634, 641,
644, 651, 655–656, 660–661, 663, 692
n. 2, 743, 750, 826
- Legitimizing New Religions* 24 n. 1, 25,
31 n. 4, 551, 574 n. 3
- legitimation strategy 8, 15, 25, 31 n. 4,
33, 256, 551, 562
- Lehi 772, 775, 777, 823–828, 831,
833–834, 836–839
- Lemuria 786–790
- leninism 852, 864
- literature 4, 11, 17, 36, 79, 86, 89,
120, 125, 145, 150, 152, 165–166,

- 195, 199, 230, 234, 252, 263, 306,
312–313, 355–356, 362, 364, 374,
382, 408, 417–418, 429, 433, 455,
457, 459, 488, 490–492, 500, 575,
577, 618–619, 623, 673 n. 1, 693,
700, 702, 721, 730, 750, 757, 853,
856, 887, 896
- Lord of the Second Advent 578,
580–582, 587
- machines 36, 117, 157, 172, 255, 345,
367, 595–597, 653
- magic
as pseudo-science 35, 544
ritual 93
ceremonial 90, 718, 719 n. 47,
720–723, 725–726, 734, 735 n. 93,
820
contagious 712, 716
Greater 90
Lesser 67, 89–90
sympathetic 119, 129, 566, 710,
716, 766 n. 1, 800
- magical thinking 708, 710–711
- magical underside 44
- Maha Bodhi Society 233, 235
- International University (MIU) 353,
362
- Sthapatya Veda® (Vastu) 359
- University of Management 353
- Vedic Organic Agriculture
(MVOA) 363
- Vedic Vibration Technology
(MVVT) 359
- Mahdi 496, 501
- Malaysia 152 n. 78, 502
- Malta 779, 782, 799
- Manavta Mandir 409, 411
- manifestation (*vivarta*) 209
- Manu 227, 279, 302, 305, 309
- marxism 493, 500, 852, 864
- materialism 14, 29, 77, 80, 93, 97,
101, 108, 154, 168, 191, 198, 240,
251, 253, 295, 300–301, 307, 311,
331, 337, 455, 474, 476, 478, 485,
489, 493, 497, 499, 504, 577, 604,
635 n. 5, 647, 656–658, 663, 711,
767, 841, 851, 853
- matriarchal/matriarchy 766, 778–779,
802–803, 811–815
- matrifocal 802–803
- Mawlid (Muhammad's birthday) 485
- maya 51, 86, 215 n. 7, 221, 347, 414,
697, 702, 829, 839
- Meaning of life 752
- media
see also *700 Club*; *Robertson, Pat*; *Regent University*
statement of faith 537
use of scientific language and material
to support statements 539
- medicine 44, 73, 143–145, 147–148,
178–179, 186 n. 8, 187 n. 9, 357,
446–447, 451, 518, 525, 559, 562,
593–594, 600, 623, 636, 692, 721,
752, 768–769, 856, 868, 883–884
- meditation
as “science of mind” 127
neuroscientific study of 130
- medium (as in person, or mediumship)
26, 43, 592, 594, 601, 651, 657, 693,
701, 786, 861, 862, 869, 892
- mediumistic 614, 861
- mediums 602, 640, 644, 651, 657,
693, 743, 861, 883
- mediumship 16, 27, 592, 595, 596,
598, 620, 623, 624, 786
- Meiji period 167, 168, 185, 186, 187
n. 9, 191, 198, 201
- mentality 851
- mesoamerica 773–775, 777, 828–829
- Messiah 572, 581–582
- Messianic Secrecy 581
- metaphysical religions 27, 551
- method 3, 6, 8, 17–18, 72, 89,
127–129, 137, 146, 149, 151–152,
186 n. 8, 188, 190–191, 194, 200, 228,
237, 242 n. 30, 243–244, 259–261,
280, 287 n. 14, 291, 293, 315, 332,
349, 376, 418–419, 423, 432–433, 462,
475, 478, 480, 488, 492–493, 516,
519–520, 525, 533 n. 20, 541–542,
544, 549–550, 552, 554–556, 558–562,
567, 580, 592, 597, 602, 605, 606,
613, 615, 620, 634, 646, 651–652, 676,
685, 687–688, 707, 729, 752, 756, 768,
775, 801, 806, 832, 872, 880, 898
n. 14
- Milli Görüş 497
- mimesis 9, 44, 62
- mind 8, 24–27, 32, 35, 47, 56, 61,
124, 127–130, 133–134, 144,
168–169, 215–216, 223, 225, 234,
236, 282 n. 4, 297, 301, 306, 309,
321, 324, 328, 332, 339, 348,
350–351, 353, 356, 367, 374, 377,
393, 401, 403, 410, 418–419, 460,
464–465, 467, 472, 478–479, 534,

- 540, 553–556, 563–564, 566, 593,
595, 598–599, 601–602, 604–605,
623–625, 627–628, 636, 640–642,
645–646, 653, 655, 682–683, 688,
690–692, 694, 697, 700–701, 703,
709, 711, 725, 727, 730–731, 733,
748, 753, 756–758, 808, 826, 837,
851, 856, 860, 882
- miracle(s) 59, 118, 122, 124–126,
152, 178–179, 193, 376–377, 384,
406, 410, 417, 466, 503, 527, 559,
674–675, 680–681, 698, 743, 854,
856, 888–891
- missing link 491, 541, 773
- Modern Vedic Evolutionism 12,
281–282, 284–286, 315, 321, 323,
327, 334, 340–341
- modernity 9, 10–11, 13, 70, 72, 106,
108, 118, 122, 126, 136, 138, 166,
170–171, 210, 253, 280, 387, 441,
442, 445, 451, 461, 470, 524, 609,
613, 629
- modes of legitimation 73, 90
- moksha* 60, 347
- Monier-Williams, Monier 227
- moral entrepreneurs 880, 888, 890,
894, 897, 899
- moral majority 524, 527, 594
- Mormon archaeology 19, 791, 829,
832, 836, 841
- mormonism 19, 771–773, 776–777,
819, 823–824, 828, 830, 833–837,
839–841
- Mormons 18, 765, 772, 775–777, 823,
825–827, 829, 841
- Moroni 771–772, 822, 825, 839
- Moscow 193, 859–860
- motivating myth 84, 103
- multidimensional 691
- multivocal, interpretations of sites 797
- murder 187, 199–202, 772, 895, 897
- Mystery Park 769
- mystical experience 93, 352, 415, 591,
691–692, 728, 730
- Mysticism 7, 13, 32, 56 n. 11, 79,
93–95, 121, 128, 245, 347, 385–386,
388, 394, 407, 433, 454, 474,
476–477, 598–661, 663, 690, 704,
742, 840, 859
- Naikan* (psychotherapy) 181
- narrative 8, 10, 14, 20, 37 n. 5, 41,
59, 61–62, 73, 75 n. 2, 94, 103–104,
106, 165, 172–173, 176, 187, 422,
473, 651, 687, 701, 703, 767,
770–771, 782–783, 786–788, 806
n. 28, 815–816, 819, 823, 847–849,
853–854, 857, 865, 880, 888–890,
892, 896–898
- National Institute for Research in
Kabbalah 455, 458 n. 10, 459
- National Spiritualist Association of
Churches 27
- nationalism 30, 167, 169, 171, 295,
321, 380, 399, 498, 583–584, 849
- natural law 77, 79, 102, 119–120, 122,
124, 127, 208–209, 217–218, 233,
237, 273, 303, 340, 356, 358–361,
364, 564, 639, 716 n. 34, 773
- Natural Law Party (NLP) 360
- natural selection 6, 218, 223, 227,
282, 305, 307, 334–335, 340, 483,
495, 500, 503, 531, 636
- naturalism 31–32, 101, 122, 130, 272,
376, 539, 633 n. 1, 634–637, 648
- Naturphilosophie 29, 30–32, 633 n. 2
- Nederlandse Vereniging tegen de
Kwakzalverij* 884
- neo-advaita 211
- neo-enlightenment 14, 456–457, 479
- neo-vedantic renaissance 211 n. 4
- neolithic 19, 718, 766, 779–781,
784, 791, 798, 802, 804–805, 811,
814–817
- neo-pagan 291, 797, 802
- neo-Vedānta 211, 239–240
- Nephites 772–773, 823, 825–826, 838
- neutrality 535–539, 544–545, 656, 765
- New Age 5, 8, 17, 19, 25–26, 29–30,
32, 34–36, 45–49, 51, 62–63, 69–70,
74, 83, 181, 188, 191 n. 17, 286, 291,
292 n. 18, 336, 340, 366, 455–456,
464 n. 14, 478, 504 n. 18, 530, 531
n. 17, 661–663, 673–674, 676–677,
679–680, 687–690, 692–694,
696–697, 699, 703–704, 756–758,
765, 783, 789–790, 792, 857, 865,
885, 866 n. 7, 892, 895
- New Age Religion and Western Culture* 29,
286 n. 11
- New Archaeology 768
- new physics 17, 690, 699
- New Thought 15, 27, 32, 299,
549–558, 563–566, 568
- news media 535–536
- newtonian science 288, 298, 690
- Nihon University 170
- Nihonjinron 166

- Noah's Ark 484, 490, 519, 527, 533
 Non-Overlapping Magisteria (NOMA) 4, 541
 normal science 610, 615–616, 622–625, 628
 Nurcus 490, 493–494, 496

 objectivism 79
 objectivity 190, 194–195, 594–596, 767
 occidentalist strategy 231, 237
 occult terminology 86, 88
 occultism 69, 285, 293, 635
 occulture 16, 71, 660–662, 664 n. 19
 od 876
 old Europe 799, 801, 812
 Ōmoto-kyō 167, 187 n. 9
On the Origin of Species 218
 optics 874
 orientalism 12, 267, 271, 274, 295 n. 21, 311
 original sin 581–582
 orthodox 13, 71, 94, 170, 232, 291, 297–298, 320, 323, 374, 376, 379, 381, 385, 387, 394, 396–397, 401, 404, 407, 411, 416–417, 428, 430, 442–446, 448, 451, 728, 765, 776, 792, 852, 854, 888–889
 Orthodoxy revival 442
 otherworldliness 16, 609–610, 614 n. 2, 626 n. 10
 outreach 584
 oxygen 50, 53, 193, 196–197, 871–873

 pacific war 168, 175
 Pakistan 377, 502, 573
 paluxy footprints 894
 paraculture 634, 660–662, 664,
 paradigms, scientific 154–156, 271, 273–274, 467, 615 n. 5, 625, 727
 paradox 45, 108, 456, 691, 707, 722, 758, 767, 841
 paranormal abilities 148
 parapsychology 16, 149, 605, 620 n. 7, 633–634, 643, 645 n. 10, 650–651, 653–658, 660–664, 710, 893, 897
 Parinamavada 214
Pearl of Great Price 834
 Peepal Mandi 399, 401, 403–404, 430
 Pentateuch 462, 470
 People's Temple 574
 Phlogiston 20, 867–877

 photography 33, 36, 527, 594–596, 606
 pictism 868, 871
 Piltdown skull 491
 poison gas 187–188, 190 n. 15, 197 n. 31, 199 n. 36, 200–202
 polygyny 823
 popperian 412, 433, 492
 popular 9, 12, 14, 16, 26, 28, 68–69, 78, 80, 85, 92, 98, 125, 128–129, 132, 146, 152, 172, 177, 186 nn. 4, 6, 188, 279 n. 1, 282 n. 4, 284, 288–289, 297, 302, 306, 309, 323, 340, 372, 375, 387, 413, 418, 422, 431, 458, 468, 485, 489, 496, 498, 501, 519, 522, 531 n. 17, 549, 551–553, 593–594, 605, 609–610, 612–614, 617–619, 621–623, 629, 634, 640, 642 n. 8, 648, 651, 655, 659–661, 664, 674, 687 n. 1, 688–701, 727, 734 n. 88, 743, 768–770, 780, 784, 799, 820, 833, 839, 849–850, 852–853, 862–863, 886
 popular view of religion and science 522
 positivism 16, 135, 137, 311 n. 37, 486, 609–610, 615, 635 nn. 4–5, 759
 Post-Processual Archaeology 19, 765–766, 776–777, 782, 786
 power 3, 18, 37, 44, 50–51, 59, 84, 104, 107, 118, 125, 137, 148–150, 152, 158, 161–162, 165, 167–168, 170, 174, 188, 193, 217, 230, 233, 251, 256–257, 261–262, 275, 288–289, 294, 296, 315, 324, 328, 338, 346–347, 353–355, 357–359, 361, 377, 380, 388, 408–409, 427, 464 n. 14, 495, 499, 516, 518, 523–524, 533, 550–551, 555, 563, 566, 573, 579, 583, 596, 612, 616–617, 621, 626, 628, 637, 663, 674, 679, 688, 694–696, 700–701, 707–708, 713–714, 725–726, 729, 732, 742, 744, 749, 767, 769, 771, 779–781, 785–786, 788, 798, 809, 824, 828, 837, 839–840, 848–850, 853–854, 859, 864, 870, 873, 882 n. 3, 894–895
 pragmatic
 legitimacy 751
 philosophy 747
pragya-aparadh 357
 Prakṛti 215, 223, 232
pranayama 52, 55, 197

- pre-literate cultures 712, 719–720, 728
n. 67
- primates 308, 491, 495, 501
- probability theory 491
- professionalization 634, 643
- programmatic syncretism 105–107
- progress 48, 106, 137, 235–236, 241,
244, 298, 307–308, 318, 338–340,
364, 373, 378, 380, 385, 388, 395,
441, 565, 591, 595, 597, 613, 617,
622, 625, 749, 767, 780, 797, 832,
856–857, 859–860, 864, 872, 882
- progressive revelation 580
- Prometheus 657, 869
- propaganda 4, 14, 149, 160–161, 360,
486, 498, 745, 852–853, 855, 857, 860
- prophecy 744
- proselytization 194
- protestant missionaries 211
- Protestantism 122, 125, 235, 551, 600,
610, 741, 743
- pseudoarchaeology 19, 765, 769, 771
- pseudoscience 10, 99, 158, 771,
883–884, 887, 897
- psi* 653, 658–660, 664 n. 19, 894
- psychic energy 300, 695
- psychical research 15–16, 601–605,
633–636, 639, 641–651, 657, 662,
663, 883
- psychology 13, 16, 67, 73, 77–79,
83–85, 88–89, 91, 94, 99, 101, 103,
108–109, 119, 121, 124, 129, 134,
181, 186, 391, 416, 526, 592, 598,
600–604, 606–607, 610–611, 614,
624, 628, 634, 641, 645, 650, 654,
662–663, 695, 698, 703, 713, 725,
747–748, 757, 790, 860, 887
- psychotronics 658
- punctuated equilibrium 500
- Puritan 28, 745
- Puruṣa (see spirit)
- qi 145, 147–148, 152
- qigong 10, 141, 143–153, 161–162
- qīṣaṣ al-anbiyā' (Legends of the
Prophets) 485
- quantum 7, 10, 12, 29, 32, 34, 54,
56 n. 11, 73, 99, 101, 127, 150, 345,
350–352, 355, 357–358, 360, 367,
470, 604, 607, 682, 691–692, 699
- quantum domain (Chopra) 682
- quantum field theory 345, 351–352,
355, 367
- Quetzalcoatl 828–830
- Qur'ān 2, 266, 484–485, 487, 493,
500–501
- Racism 279, 494
- Radhaji 403–404, 420–421, 423–424
- Raelian Movement 31–32
- Rama 789
- Ramakrishna mission 239, 283, 299,
318
- Ramtha 56 n. 11, 697, 788–792
- Ramtha's School of
Enlightenment 788, 790, 792
- rational self-interest 79, 94
- rationalism 20, 76–77, 118, 124–125,
137, 210, 211 n. 4, 289, 295,
456–457, 461, 466, 469, 474, 479,
687, 700, 849
- rationality 34, 76, 85, 92–93, 105,
120, 238, 293 n. 18, 298, 339, 372,
456–457, 465–467, 469, 471–472,
478–479, 529, 534–535, 537, 544,
551, 560–561, 564, 607, 617, 629,
661, 700–701, 707, 711, 873, 898
- Reasoning 28, 42, 57, 84–85, 103,
156, 207, 219, 269, 387, 527, 529,
534, 552, 560–561, 564, 614–615,
676, 688
- rebirth 60 n. 17, 120, 122, 124–125,
134, 136, 208, 224, 235, 280, 285,
287, 290, 303, 306, 308, 310, 313,
323, 332, 347–348, 673, 722, 742,
782, 894
- reflexivity, definition of 806–807
- Regent University 514, 516, 519,
520–521, 525–526, 530, 542
- reincarnation 46, 92 n. 19, 192, 226,
236, 259, 283, 302, 307, 339,
374–375, 462, 468, 689, 692,
891–893
- religion and science
contradiction 185, 188, 191, 282,
474, 519, 521, 524, 539, 544
dichotomy / split 191, 201, 378,
637, 703, 803
harmony 27, 76, 118, 121, 202, 216,
218, 226, 234, 238–239, 314, 327,
350, 361, 364, 458, 461, 577, 586
incompatibility 10, 185, 188, 274,
646, 851, 853
unity 60 n. 17, 209, 213, 216–217,
219–223, 226, 238, 241, 243, 287
n. 14, 290, 312, 331, 356, 468,
552, 572, 574, 576, 586, 612, 690,
824

- religion-science axis 68
 religious
 pluralism 210, 239
 right 516, 521
 science 628
 studies 100–101, 448
 transmission 51
 remote viewing 605–607, 657–658
 Renaissance 149, 181, 211 n. 4, 284,
 292, 300, 689, 704, 720
 Republican Party (USA) 144, 487, 498
 Research Centre of Kabbalah 455
 research project 67, 85, 650, 810
 retrospection 559–561
 revelation 17, 24–25, 27, 36, 72,
 122–124, 181, 207, 242 n. 30, 294
 n. 30, 312, 319, 346, 384, 386, 394,
 411, 417, 426, 444, 453, 456, 459,
 465, 474, 478, 485, 492, 516,
 557–558, 560, 579–580, 688,
 693–695, 704, 772–773, 787, 792,
 840–841, 854
Revelation: The Birth of a New Age 697
 rhetoric
 anti-patterning 888, 891
 atrocities tales 894, 896
 ethos 57, 380, 745 n. 2, 888–890,
 892
 logos 57, 329, 614, 620, 888–890,
 892
 naturalizing 74, 75 n. 7, 887, 889,
 893
 pathos 57, 856, 888, 890
 topos 887
 rhetoric of rationality 34, 529, 535,
 537, 544, 560–561, 564
 ritual 5–6, 16, 62, 81, 84, 89–91, 93,
 101–102, 107 n. 26, 132, 145, 354,
 378, 448, 562, 609, 625, 712–713,
 715, 720–723, 725–726, 734, 783,
 785, 863
Road Less Travelled, the 699
 romanticism 69, 118, 124–125, 143,
 293, 313 n. 38, 357, 600, 633 n. 2,
 847
 Russia 188, 193, 296, 454 n. 4, 486,
 657, 850

 sacralization of the secular 71
 sacred canopy 167
Sacred Canopy, The 23
 Salt Lake City 772, 826, 829
 Salt, sulphur and mercury theory 869
 samadhi 60, 192, 193, 195–197,
 355 n. 1

 Sāmkhya 223
samsara 347–348
sanatana dharma 270, 349
 Sant Mat 391, 393, 412, 420, 426,
 430–433
 Sar Bachan 400, 410, 413, 426, 429
 sarin gas 176 n. 10
 Satan 73–74, 76, 78, 82 n. 12, 86–88,
 93–97, 99–103, 108–109, 469, 539,
 580–582, 586–687
Satanic Bible, The 74, 76–78, 80–82, 85,
 88–90, 93
 satanic
 forum 99–100, 102, 108
 milieu 9, 69, 73, 74, 82 n. 12, 95,
 103, 108
 reds 96–97, 100–101, 108
Satanic Rituals, The 82, 85, 88 n. 17,
 90, 93
Satanic Witch, The 67, 75, 80, 82–83,
 85, 89, 93
 satanism 9, 67–69, 73–78, 80, 82–85,
 88, 91–93, 95–97, 99–103, 108,
 687 n. 1
 sceptical inquiry 881–883, 887
 scepticism
 mitigated 881
 new 881–882
 Pyrrhonian 881–882
 science fiction 11, 188, 195–196, 199,
 255, 757
 Science Research Foundation (BAV)
 496, 498
 Science,
 and religion, relationship of 15, 18,
 42, 63, 165, 185, 379, 444, 610, 619
 academic 280 n. 9, 526, 533 n. 20,
 757, 759
 authority of 7–8, 10, 12, 16, 18,
 23, 26, 28, 30–31, 33, 37, 134,
 229, 250, 256, 345–346, 456, 480,
 524, 539, 551, 614, 620–621, 625,
 628–629, 633, 700, 741, 754–755,
 793, 865
 of creative intelligence 12, 346,
 352–354, 367–368
 of mind 26–27, 124, 127, 129, 758
 Sanskrit term for (vidyā) 244
 theistic 259, 681
 of Vivekananda's notion 208 n. 1
 speak and/or scientific jargon 519,
 538
 scientific
 community 5, 10, 19, 141, 156, 280
 n. 3, 321, 379, 466, 473, 513–514,

- 520–521, 529, 533 n. 20, 574, 591,
595, 597, 615–616, 765, 873, 876,
883
 characterization and dehumanization
 of 33, 121
 conservative Christians' relationship
 with (historical distance from/
 antagonism towards/use of/lack of
 contact with/depictions of) 14,
 513, 516, 518–519, 521–522, 529,
 532, 539, 651, 714
 methodology 28, 30, 242, 244, 688
 other 6, 633, 645
 verification 193–194, 196, 365,
 595
 scientism
 as religion 75 n. 7, 102, 354, 543,
 545, 883
 hiding behind science's neutrality
 537, 545
 relationship with Darwinism 101,
 542
 scientization of knowledge 11
 scientizing of tradition 238, 240
 Scientology 18, 23, 26–27, 32, 36, 74,
 76, 160, 586, 741, 746–755, 758–759
 Scopes trial 524
Secret Doctrine, The 7, 226, 302,
 305–306, 786
 secular 31, 57 n. 13, 69–74, 76–78,
 82, 84, 91, 94–95, 101–103, 108,
 135–137, 145, 168–172, 174,
 180–182, 267, 289, 292–294, 300,
 310–311, 360, 388, 395, 433,
 441–446, 448–449, 451, 461, 464,
 487–488, 498, 502, 504, 516,
 521–525, 527, 532, 534, 538, 541,
 545, 609, 628, 634, 765, 778–789,
 864
 secular, the
 Authority of 73, 446
 institutions 487, 523–524, 534, 541
 politics of 525
 secularism 9, 30, 39, 69, 72, 75–76,
 89, 95, 99, 101–103, 108–109, 136,
 239–240, 523, 541
 secularization 9, 13, 68, 70, 77, 88,
 90, 104–106, 107 n. 26, 286, 289,
 292, 320, 332, 385, 451, 502, 523,
 609
 secularization of the sacred 71
 secularized esotericism 9, 39, 69–70,
 74–76, 89, 97, 109
 sedimentation of authority 73
Seinen Juku (Youth Academy) 174, 176
seishin kagaku 191
 self 82–84, 87, 131, 175, 409, 421,
 465, 599, 604, 626, 628, 682,
 694–695, 703, 731, 777, 891
 self help books 694, 699, 701
 Self-Realization Fellowship 209
 self-religion 91
 Seoul 571, 575
 Sepher Yetzirah 870
 Seth 397–398, 403, 421–422, 427, 788
 sexual selection 241, 336
 Shankaracharya 223, 319, 346
 Shingon (Buddhism) 174
shinri no kagaku 192
Shinto 166–169, 174
sidhi (*siddhi*) 12, 345, 360, 363–364,
 367
 sikhism 371–379, 386, 388, 399, 426,
 430
Simpsons, the 522–523, 541
Sizunt (magazine) 490, 497
 Skeptical Inquirer 885
 Soami Bagh 396–397, 401, 403–404,
 406–409, 411, 419, 424, 428–431,
 433
 social darwinism 77, 82 n. 12, 91, 101,
 636
 Society for Psychical Research 601,
 604, 633, 883
 Sōka Gakkai 174
 Sola fides 744
 soul 49, 60, 169, 175, 178, 193 n. 23,
 208, 222, 232, 236–237, 260–261,
 275, 290, 300, 303, 305, 307–308,
 331–332, 335, 338, 347, 373,
 446–497, 449, 457, 465, 468, 471,
 476–477, 556, 594, 636, 684, 730,
 732, 775, 855, 860, 868
 South Asia (Islam in) 260, 574, 605,
 Soviet Union 260, 574, 605–606, 657,
 851–852, 854–856, 859–860, 865
 special creation (of first human) 484,
 500–501
 species, transformation of 218, 223
 spirit 27, 32, 157, 186, 223, 236, 258,
 280, 282, 284 n. 7, 303–304, 306,
 308, 331, 333 n. 53, 334–335, 346,
 451, 476, 478, 556, 561, 611,
 626–628, 679, 684, 727, 868, 876
 spiritism 861
 spiritist 861
 spiritualism 27, 186, 293, 297,
 299–301, 313, 315–316, 318, 327,
 634–635, 640, 642, 644–645, 662,
 693, 743, 876, 883

- spirituality 16–18, 36, 41, 56, 60, 74,
252, 289, 315, 346–348, 350, 372,
378, 381, 386, 392, 399, 447,
456–457, 461, 468, 474–479, 597,
607, 676, 687, 689, 692 n. 2, 697,
699, 702, 720, 759, 787, 894 n. 12
spiritualization of science 234,
242–243
Sputnick 260
Stanford Research Institute (SRI) 605,
657–658, 884 n. 6
Star Gate programme 658
state 2, 43, 60 n. 17, 145–146, 176,
181, 269, 296, 381, 400, 495, 499,
502, 622–623, 625, 628, 647, 851,
854, 856–857, 860–861
state-specific sciences 727
Stonehenge 768, 781
strategies of epistemology 72
straw man arguments 530
string theory 876–877
subaltern 16, 602, 609, 625, 629, 767
subtle matter (*ākāśa*) 222, 334
Sudan 508
supernatural 16–17, 20, 24, 74–75,
77, 121, 124–126, 149, 152, 158,
192, 241, 292, 332, 339, 375–376,
388, 453, 456, 540–542, 633–634,
636–639, 649, 662, 664 n. 19, 689,
696, 704, 710–714, 716, 717 n. 42,
743, 782, 788, 814, 847–849, 851,
854, 859–861, 864, 884, 888
supernormal 95, 108, 603, 606,
639–640, 652, 711
superstition 99, 143–144, 150, 154,
185, 217, 330, 707–710, 718, 726,
736, 767, 853, 864, 894 n. 12, 898
supreme being 751
survival of the fittest 241, 282, 491
synchronic 70, 73, 108
synchronicity 17, 673–682, 684
syncretism 69, 73 n. 6, 97, 101,
104–107, 293
syncretization 9, 68, 96, 107
Syria 501
Syrian Protestant College 485
systems theory 690
Tao of Physics, The 7, 29, 32, 127, 476,
687
tarot cards, for meditation 723, 734
Tartu 848 n. 1, 854
Tattva symbols 732, 735
technique 34, 54, 114, 181, 345, 348,
353, 355, 393, 556, 563, 658, 729,
731, 735, 750, 761, 833, 860, 896
technology 13, 26–27, 31–33, 37,
50–51, 76–77, 82, 90, 121, 137, 143,
147, 158, 160–161, 185, 188–190,
195–197, 200–202, 211, 240,
251–252, 256, 264–266, 280, 298,
333, 349, 355, 360, 364, 371,
378–380, 382, 385, 387–388, 444,
517, 519, 552, 566, 585, 591–592,
595, 597, 607, 613, 622, 624, 642,
687, 749, 752–753, 787, 789, 853,
856–857, 859, 861, 864, 882
Tehuantepec 774
telegeodynamics 196
teleology 483
telos 225
telepathy 186, 605, 639–642, 652,
658, 662, 710, 876
Tényeket Tisztelők Társasága 884
terminological loan 54–55, 62, 94
The Fall 15, 147, 578–581, 583, 586,
757
The Holy Spirit Association
for the Unification of World
Christianity 571
theology 15, 28, 36, 120, 191, 217,
230, 256, 271, 292, 312, 320, 328,
330, 382, 394–397, 401–402, 407,
411, 413, 425–429, 469, 497, 524,
529, 533, 572, 574, 576, 578, 581,
584–587, 603, 647, 775, 782, 824,
830, 841, 551
Theophilanthropist 742
theoretical physics 142 n. 3, 604
Theory of Evolution 14
Theosophical Society 228, 233, 235,
284, 287–288, 296, 300, 301 n. 27,
304 n. 31, 315–317, 320–321, 325,
333, 340, 785
theosophy 6, 236, 285, 293, 299, 300
n. 27, 307, 321, 333 n. 7, 661, 696
thetan (operative thetan) 757–758
third side 92
Timaeus 786
time machine 195
TL (Total Human Life) 177–178, 180
TM 30, 32–35, 345, 349–350,
352–357, 359–360, 362–367
TMO 363, 367
Torah 445 nn. 1–2, 453 n. 3,
458–459, 462, 469, 471
Total Human Life (TL) 177
tourism 48, 776, 781, 831, 838, 863

- tradition (religious tradition) 1–8,
10–13, 19–20, 24–28, 30–33, 35–38,
53, 69–77, 80, 86–87, 91, 95,
102–106, 118, 125, 131–138, 141,
145, 162, 166, 167, 186, 231 n. 19,
238, 240, 243, 245, 252, 254,
257–259, 263, 280–281, 285 n. 9,
286, 289–295, 299–302, 304,
307–308, 310–311, 321, 324, 329,
337–340, 346, 348–349, 352, 367,
372, 378, 382, 387, 391, 393, 408,
418, 456–457, 459, 468, 484, 579,
582, 609, 624, 700, 702–704,
719–720, 728 n. 67, 732, 753, 772,
786, 788, 792, 819, 835, 838, 853,
858, 871, 880, 888, 890
- Traditional Chinese Medicine
(TCM) 143, 148
- trance states 16, 394, 598–599, 728
- Transcendental Meditation™
Hinduism and 12, 345, 348,
350–351
Science and 345–346, 352, 354,
357, 367
- transcendental science 260–261
- transformation 73, 153, 180, 218, 220,
223–224, 252, 290, 292, 309, 337,
375, 410, 445, 465, 473, 477, 582,
629, 656, 690, 789–790, 830, 868
- transmigration 49, 51, 192, 240
- Tree of Knowledge 463–465, 468
- Tree of Life 19, 463–465, 468, 720–723,
725–726, 728–731, 775, 777, 819,
827–829, 831, 833–834, 836, 839
- Tripolis (Lebanon) 487
- True Father 581
- True Parents 581–582
- True Pure Land (Buddhism) 174, 181
- truth
relative 752
two levels of 215, 243
- Turkey 19, 483–484, 486–488,
495–496, 498, 502, 798, 804, 806,
810 n. 34, 811 n. 39
- Turkish Academy for Science and
Technology (TÜBİTAK) 495, 498
- Turning Point, The* 687
- UFO 31, 73 n. 5, 154, 661, 697,
857–859
- UFO religions 31, 697
- ufology 35
- Ulusalçılık* (left wing nationalism in
Turkey) 509
- Unarius Academy of Science 34
- unconscious, constructions of 593
- Unification Church 571–572, 578,
581–584
- Unification Movement 15, 571,
573–578, 580, 582, 585–587
- Unification Movement, The* 15, 571, 576,
580, 587
- unificationism 572, 574, 578, 580–586
- unified field 357–358, 364
- uniformity of natural law 217–218
- Unity Magazine 565
- unity of nature 216–217, 219
- Unity School of Christianity 15,
549–550, 563
- Universal Mind 691
- Universal Peace Federation (UPF)
585
- universe 2, 12, 60, 79, 87, 102, 122,
149, 155, 159, 161, 177, 189–190,
194, 202, 208–209, 213, 216–219,
221, 223, 225–226, 228, 235–237,
225–256, 258, 260, 284, 288, 290,
295, 304–305, 333–334, 339, 350,
357, 360–362, 374, 397, 409, 445,
448, 451, 457, 459, 461–465,
467–468, 475, 477–479, 493, 530,
534, 550, 552–553, 559–560, 562,
564–565, 568, 592, 673–674, 676,
681, 683–684, 690–692, 711, 714,
726, 731–732, 751, 770, 789, 853,
855, 859, 869–871, 873, 883
- unknowable, the 222
- Unknown Sage 413
- USA 52, 58 n. 14, 160, 488, 499, 501,
645
- Vaidya 356
- Vaishnavism, Gaudiya 252–254, 256,
259, 262, 270
- Veda, Vedic scriptures 207, 260, 270,
351
- Vedānta 11, 209–210, 225–226, 230,
239, 242, 244 n. 31
- vedas 48, 207–208, 219–220, 257,
261–262, 265–266, 268, 272–273,
291, 302, 304–306, 311–313, 317,
319 n. 42, 320, 325–326, 330, 345,
348, 355, 359
- vedic
culture 257, 361
sager or seers 207–208, 214, 221
- Vedic Intelligent Design (VID) 283,
284 n. 7

- vedic science
 concepts of 11, 30, 250, 363–364
 modern physics and 23, 30, 347,
 358, 361
 sources of 30, 242 n. 29, 260
- vegetarianism 373, 549 n. 1, 565–566
- veneration/worship 19, 46–47, 59,
 252, 263, 269, 386, 400, 406–407,
 467, 514, 543–544, 746, 776,
 778–779, 781, 785, 799, 804,
 811–813, 863
- vernacular 20, 847, 849, 860,
 862–863, 865
- victorian crisis of faith 118, 123
- View of the Hebrews* 773, 820–822
- Village Enlightenment 569
- vipassana* 128
- visions 410, 415–417, 603, 698, 735, 801
- visitor 784
- Visitor Centre 806, 808, 814
- vital force (*prāṇa*) 222, 876
- vitalism 647 n. 11, 650, 662
- Vivartavada 214
- Vulgärmaterialismus 485
- war 26, 197–199, 361, 475, 577, 597,
 749, 755, 852
- weapons 137, 196, 198, 239 n. 26, 597
- western science 347
- What the Bleep do we Know?* 29
- Wicca 719, 886
- witchcraft 85, 300, 540, 710, 712–713,
 719, 778, 848–849, 897
- Women's Federation for World Peace
 (WFWP) 585
- World Parliament of Religions 119,
 215 n. 7, 318–319
- world soul 20, 875
- World's Parliament of Religions
 (Chicago) 214 n. 6
- Worldmate 168 n. 2
- World-transforming NRM 582
- worldview 10, 13, 28, 30, 69,
 75–79, 84, 124, 141, 154, 181, 250,
 283–285, 289–290, 292–293, 310,
 320–321, 324, 341, 345, 352, 367,
 391, 393, 395, 431, 455, 475, 478,
 494, 520, 524, 530, 539, 542–544,
 552, 634–636, 663, 674, 688, 691,
 710, 717 n. 42, 747, 848, 850–851,
 853, 859, 864
- yagya* 356–357
- Yahweh 869
- yoga 31, 34, 47, 52–54, 60, 242,
 260–261, 280, 305, 307, 310, 313,
 315, 320, 324, 327, 373, 393,
 413–414, 420, 425
- Yoga Sūtras* 224, 227, 229
- yogic perception 245
- Young Turks 486, 488
- Žafer* (magazine) 490
- Zarahemla 774, 825
- zener cards 652–655
- Zhong Gong 150
- Zhuan Falun 155
- Zohar 453–454, 461–462, 466–467,
 469–471, 474
- zombie 860

INDEX OF NAMES

- Abdülhamit II 485, 488
 Abu-Bakr Muhammad ibn-'Ali
 Muhiyuddin (see Ibn al-Arabī)
 Agassiz, Louis 488
 Akyol, Mustafa 497–498
 Alcock, James E. 710–711, 718, 726
 al-Ghazālī, Abū Hāmid 487
 al-Jisr, Husayn 487–488, 504
 al-Najjār, Zaghlūl 500
 al-Ṭabarī, Muḥammad b. Jarīr 485
 Anson, Shupe 582
 Aquino, Michael 79 n. 9, 86, 731
 Ardabili, Meshkini 501
 Aristotle 57, 476, 867
 Arnold, Sir Edwin 120
 Asahara, Shoko 187–189, 191,
 193–198, 200, 202
 Ashlag, Yehuda 458–459, 462
 Asimov, Isaac 196
 Aspren, Egil 16, 105, 107, 633, 883
 Atatürk, Mustafa Kemal 488
 Āzād, Abūl-Kalām 486

 Baader, Franz von 874
 Bach, Richard 189, 195
 Bachofen, Johann Jakob 778
 Bacon, Francis 688
 Bailey, Alice 696
 Bakhtin, Mikhail 518, 535, 538, 849
 Barker, Eileen 239–240
 Barrows, John Henry 230, 237
 Batres, Leopoldo 767
 Baumfield, Vivienne 221
 Bāzargān, Mahdi 501
 Benavides, G. 73, 104–105
 Berg, Michael 454, 457, 461, 469, 474
 Berg, Philip 454–455, 457, 459–464,
 466–471, 477, 479
 Berg, Yehuda 454, 457, 461
 Berger, Bennett 396
 Berger, Peter 167, 748
 Besant, Annie 228, 286, 299, 321–322,
 324, 330, 340
 Best, Joel 896
 Beyaz, Zekeriya 490
 Bhaktivedanta Swami Prabhupada
 4, 11–12, 249–250, 252–275

 Bilmen, Ömer Nasuhi 488
 Binford, Lewis 768
 Blavatsky, Helena Petrovna 6–7,
 11–12, 226–228, 284–288, 293, 296,
 300 n. 27, 301–309, 312, 316–317,
 319–321, 325, 329–330, 334,
 339–340, 400, 785–787
 Bloom, William 17, 688–690,
 692–693, 704
 Boehme, Jakob 868
 Bohm, David 691
 Bourdieu, Pierre 57, 382, 445, 535,
 615–617
 Boyle, Robert 868, 874
 Brahmananda, Saraswati 346, 348
 Braid, James 597
 Brandwein, Yehuda 459
 Breuer, Josef 598–599
 Brezhnev, Leonid 856
 Brodie-Innes, J. W. 721, 732
 Bromley, David D. 582
 Brown, C. Mackenzie 11, 207, 281,
 288, 309, 315–316, 333
 Browne, Sylvia 895–896
 Bruce, A. B. 237
 Bucaille, Maurice 501
 Büchner, Ludwig 485–486, 488–489,
 492
 Buruma, Ian 167
 Buultjens, A. E. 233

 Campbell, Colin 45, 68, 70–71, 73,
 297 n. 24, 660
 Capra, Fritjof 7, 17, 29–30, 127, 476,
 663, 687–688, 690, 692–693, 704, 876
 Carnecades 881
 Carnegie, Andrew 170, 576
 Carson, Rachel 169
 Carus, Paul 123–124
 Casanova, Jose 381
 Cayce, Edgar 787, 792
 Chan, Cheris S.-C. 71
 Chand, Faqir 409–413, 415–419,
 431–433
 Charcot, Jean-Martin 598, 602–603
 Chattopadhyay, Bankimchandra
 239 n. 26

- Chopra, Deepak 54, 57, 284, 336,
 341, 675–678, 680–685
 Chowdhuri-Sengupta, Indira 231 n. 19
 Collins, Randall 382
 Colson, Charles 542
 Comfort, Ray 514 n. 2, 531–534, 539
 Comte, Auguste 212–213, 333, 615
 Coover, John Edgar 652
 Copernicus 169
 Cordovero, Moses ben Jacob 459
 Cremo, Michael 283, 284 n. 7
 Crookes, William 641
 Crowley, Aleister 89, 106–107, 721, 725
 Cuvier, Georges 488

 D'vivedi, Manilal N. 231–233
 Dalai Lama 135–136
 Däniken, Erich von 769–770
 Darwin, Charles 6, 80, 119–120, 158,
 185, 213, 218, 227, 233, 241,
 280–284, 303–304, 307, 309, 324,
 326, 330, 334, 341, 468, 483,
 485–486, 488–489, 491–494,
 496–497, 531, 543, 600–601
 Das, Sanmukh 403, 423
 Davidson, Richard 131
 Davis, Andrew Jackson 594, 596
 Dawson, Lorne 35
 Dawson, William 236
 Dayananda Saraswati, Swami 296
 De Alberdi, Lita 694
 De Michelis, Elizabeth 287–288,
 312–313, 315–316
 Dégh, Linda 849, 860
 Denis L. 619 n. 7, 743
 Depéret, Charles 488
 Dericquebourg R. 18, 741
 Descartes (see Descartes, René)
 Descartes, René 687–688, 704, 873
 Dharmapala, Anagarika 119–122,
 124–125, 233–234, 286 n. 12, 299
 Diana 724, 778
 Dinçerler, Vehbi 495
 Dobbelaere, K. 70
 Domash, Dr. Lawrence 350–351
 Donnelly, Ignatius 786
 Drummond, Henry 237
 Dunant, Henri 169
 Durckheim, Emile 875–876
 Dwight, Thomas 237
 Dzogchen Ponlop Rinpoche 128

 Eddy, Mary Baker 34, 550, 552,
 554–565, 568

 Edison, Thomas 169
 Edwards, Jonathan 28
 Edwards, Paul 892–894
 Einstein, Albert 5, 189, 374, 461–462,
 464 n. 14, 474–476
 Ellwood, Robert S. 231 n. 18,
 236 n. 23
 Emerson, Ralph Waldo 315, 553
 Emilsen, William W. 213, 319–320
 Engels, Friedrich 851
 Ergener, Reşit 784–785, 798, 806, 812
 Ertuğrul, İsmail Fenni 487–488, 504
 Evans, Warren Felt 555–558
 Evans-Pritchard, E. E. 540, 512, 715
 Ezekiel 869

 Faivre, Antoine 29, 70, 286, 289–291
 Falwell, Jerry 524
 Faure, Bernard 136
 Faust, Johann 202
 Ferguson, Marilyn 17, 30 n. 3, 688,
 690–693, 704
 Ferguson, Thomas Stuart 774–778,
 835–837
 Festinger, L. 746
 Fillmore, Charles 563–567
 Fillmore, Myrtle 550, 557, 563
 Foucault, Michel 82, 613, 626, 628, 768
 Frazer, James 63, 707–708, 710–719,
 834
 French, Hal 214 n. 6, 238
 Freud, Sigmund 82, 598–599, 603,
 605, 757

 Gaia 779, 781, 876
 Galileo 688, 704
 Gardner, Martin 654, 884
 Gill, Robin 394–396
 Gilmore, Peter H. 93–95, 101
 Gimbutas, Marija 780–782, 799–802,
 811–812, 814
 Glashow, Sheldon 877
 Goenka, S. N. 128
 Gould, Stephen Jay 4, 283, 500, 541,
 543
 Govinda, Lama 128
 Granth, Guru 372–375, 377
 Grassé, Pierre-Paul 501
 Greber, Johannes 876
 Grimm, Jacob and Wilhelm 847
 Grof, Stanislav 662, 691
 Gruberger, Shraga Feival 459
 Grünschlof, B. A. 758
 Guénon, René 287, 493

- Gülen, Fethullah 489
 Gurudev, see Brahmananda Saraswati
- Haeckel, Ernst 485–486, 489, 492
 Hagelin, Dr. John 360–361, 366
 Haisch, Bernard 476–479
 Hak Ja Han 572, 582, 585
 Halbfass, Wilhelm 244–245, 295
 Hamilton, William 214
 Hammer, Olav 1, 17, 25, 34–36, 54, 72, 280 n. 3, 293, 529, 533, 537, 560, 676, 688, 699, 881–883, 897
 Hanegraaff, Wouter 29–30, 69–72, 75, 279, 286, 300, 304 n. 30, 315 n. 40, 455, 662, 696–697, 699
 Hare, Robert 595
 Hasanayn, Karīm 500, 514
 Hastie, William 211, 213
 Hayakawa, Kiyohide 196–197, 200
 Hayward, Jeremy 129
 Heraclitus 869
 Hermes 302, 724 n. 54, 730
 Hinckley, Gordon B. 776
 Hodder, Ian 780, 782–785, 791, 804, 806–812, 814–815
 Holmes, Ernest 27
 Hopkins, Emma Curtis 550, 557
 Hongzhi, Li 10, 141–142, 150–155, 157–158, 160–162
 Hubbard, Ron Lafayette 18, 27, 32, 747–749, 751, 753–758, 760–761
 Hume, David 11, 212, 216, 333, 881
 Hume, Lynne 728–729
 Hurt, Jakob 850
 Hurwitz, Pinhas Elijah 459
 Hutton, Ronald 718, 719 n. 47
 Huxley, Aldous 662, 691
 Huxley, Thomas 635, 637–638, 649
 Hyman, Ray 659, 884
- Ibn al-Arabī 497
 Ibn al-Jawzī, Abū l-Faraj 485
 Inoue, Enryo 121
 Isaac 463, 820, 822
- Jackson, Carl T. 239 n. 27, 594, 596
 Jakeman, M. Wells 774–775, 777, 828–836, 838
 James, William 16, 599–602, 644–645
 Jampolsky, Gerald 701
 Janet, Pierre 598–599
 Jantsang, Tani 96, 100–101
 Jesus 18, 25–26, 120, 328, 400, 415, 462, 516, 527, 556, 561–562, 564, 567, 581, 582 n. 10, 594, 614, 616, 624, 698, 744, 765, 771–772, 791, 816, 819, 823–827, 830, 836, 839, 854, 861, 888
 Jesus of Nazareth (see Jesus)
 Jones, Jim 366, 574
 Joyu, Fumihito 191–192, 196
 Judge, William Q. 228, 236
 Juergensmeyer, Mark 406
 Jung, Carl Gustav 82–83, 673, 692, 725, 876
- Kant, Immanuel 44, 635
 Kaplan, Charles D. 711
 Kardec, Allan 610–612, 743, 861
 Keller, Helen 169
 Ketelaar, James Edward 235
 Khān, Sayyid Ahmad 486
 Killingley, Dermot 337
 King, Karen L. 104–105
 Kiriya, Seiyu 166 n. 1, 172 n. 4
 Kısakürek, Necip Fazıl 490
 Klimo, Jon 693–694
 Knight, J. Z. 56 n. 11, 697, 788–792
 Koch, Robert 241
 Koldewey, Robert Johann 766
 Kook, Abraham Isaac 473
 Koppedraayer, Kay 238, 240 n. 28, 242 n. 29
 Krakovski, Levi 458–459
 Kreutzwald, Friedrich Reinhold 847
 Kuhn, Thomas 43, 250, 274, 615, 651, 656, 663, 874
 Kurian, Prema 381
 Kurtz, Paul 708–711, 718, 726, 880–882, 884–885, 887
- Lal, Shiv Brat 409–414, 416–417
 Lamarck, Lamarckian 218, 223–224, 324, 332, 645–646, 650
 Lap, Amina O. 83, 99–102
 LaVey, Anton S. 67, 69, 73–95, 99–103, 108
 Lavoisier, Antoine 20, 592, 871–874
 Leeuw van der, Gerardus 37
 Leland, Charles Godfrey 778
 Lemaître, Georges 855
 Lenin, Vladimir 864
 LeShan, Lawrence 663
 Lévi, Eliphas 726
 Levi-Strauss, C. 715, 719
 Levitt, Peggy 381
 Lewis, James R. 1, 8, 23, 72, 74–75, 256, 263, 551, 700–701, 758

- Lewis, Sarah Maya 15, 571
 Lincoln, Bruce 71
 Lodge, Oliver 601–602, 642, 644
 Lönnrot, Elias 847
 Lovelock, James 781, 876
 Luhrmann, T. M. 713, 719
 Luria, Isaac 462

 MacArthur, Douglas 168
 MacLaine, Shirley 674
 Maharishi Mahesh, Yogi 12, 33, 57
 n. 13, 345, 354, 366
 Maheshwari, S. D. 405–407
 Malinowski, B. 713, 716, 719
 Malthus, Th. 80–81
 Marler, Joan 811–812, 814–815
 Marsh, Phil 96, 98, 101
 Marshall, Sir John 767
 Marto, Diana 783
 Marx, Karl 63, 851, 864
 Mashriqī, Ināyatullāh 486
 Mathers, Moira 734–735
 Mathers, S. L. MacGregor 720–722,
 729, 731
 Mathur, Agam Prasad 397, 400–401
 Maudsley, Henry 638
 Mauss, Armand 776, 830
 Mawdūdī, Abūl-Aʿalā 499
 Mayr, Ernst 483, 531
 McDougall, William 643–650, 652, 655
 McLeod, W. H. 373
 Mellaart, James 779–782, 804–805,
 811–812
 Melton, J. Gordon 696
 Mephistopheles 202
 Merkur, Dan 730–731
 Merton, Robert 371
 Mesmer, Franz Anton 592–594, 597,
 872–873
 Mill, John Stuart 11, 212, 216, 333
 Misra, Brahm Shankar 401–405, 423
 Motora, Yujiro 186
 Moses 315, 400, 462, 466–467, 869
 Mortensen, William 90
 Mudarrisī, Hādī 500
 Mumler, William H. 595–596
 Murai, Hideo 186, 190 n. 14, 191,
 194–197, 199–200, 202
 Myers, Frederic W. H. 601–605,
 639–640, 644, 651
 Myss, Caroline 677–680

 Nader, Dr. Anthony 358–359, 361,
 364
 Nadwī, Shihābuddīn 499

 Nanak Dev, Guru 372, 377–378, 387,
 415, 426, 430
 Nanda, Meeera 12, 30, 222 n. 11, 242
 n. 29, 279
 Neate, Tony 694
 Newton, Isaac 26–28, 30 n. 3, 288,
 331, 454, 462, 474, 688, 704, 874
 Nickell, Joe 888–889
 Nietzsche, Friederich 78, 80, 84, 100,
 302 n. 29
 Nightingale, Florence 169
 Norman, Garth 777, 827, 833, 837–839
 Nostradamus 187
 Nozawa, Shigeo 171
 Nurbaki, Haluk 490
 Nursi, Said 488–489, 494
 Nyanaponika, Thera 127

 O'Keefe, D. L. 716–718
 Oberoi, Harjot 372
 Okawa, Ryūhō 172 n. 4, 174 n. 7
 Olcott, Henry Steel 124, 228, 233,
 235, 284, 286 n. 12, 296, 299, 300
 n. 27, 301, 316, 319–322, 325, 330,
 339, 785
 Oring, Elliott 849
 Osho 41, 47
 Otto, Rudolf 37
 Ownby, David 154, 160–161
 Özal, Turgut 495

 Pace, Enzo 372, 386
 Packer, Duane 694–696
 Pagels, Elaine 394
 Paracelsus 867, 870
 Park, Robert L. 708, 710, 718, 726
 Partridge, Christopher 71, 660–661,
 664 n. 19, 687 n. 1
 Pasteur, Louis 241
 Patañjali 33, 224, 227, 288, 330,
 333–337, 339, 354
 Patrick, Ian 702
 Peck, M. Scott 699, 721
 Perinçek, Doğu 498–499
 Perry, Robert 699
 Plato 1, 462, 786–787, 867
 Plotinus 285, 302
 Polanyi, Michael 692
 Popper, Karl 492, 875–876
 Powell, Andrew 694–695
 Pribram, Karl 691–692

 Quimby, Phineas Parkhurst 550,
 554–556
 Quṭb, Sayyid 2

- Radhasoami Nam 391–398, 400–402,
 404–420, 422–424, 426, 428–433
 Radin, Dean 660
 Rahula, Walpola 134
 Ram, Rai Salig 392, 397–398,
 401–403, 405, 409, 411–413, 419,
 423–426, 428
 Rāmānuja 245
 Rambachan, Anantanand 243–244,
 319 n. 42
 Rand, Ayn 77–79, 84, 100
 Randi, James 884, 886, 895–897
 Rashīd Riḍa, Muḥammad 499, 503
 Raychaudhuri, Tapan 239 n. 26
 Redbeard, R. 81
 Redfield, James 675, 678, 680 n. 9
 Regardie, Israel 718, 722, 726, 729
 Reich, William 82
 Reichenbach, Baron 633 n. 2, 875
 Rhine, Joseph Banks 633, 643,
 650–657, 660, 663
 Riordan, Suzanne 693
 Roberts, Jane 697, 788
 Robertson, Pat 14–15, 513–514,
 516–517, 519 n. 7, 520 n. 9, 521,
 524–527, 531–534, 542–544
 Roman, Sanaya 695–696
 Roy, Rammohan 211, 252, 312–313,
 317
 Ruyle, Lydia 785, 798, 806–807,
 812–814

 Saḥābī, Yādollāh 501
 Sahib, Tulsi 391
 Śaṅkara 319 n. 42, 702
 Sayın, Ümit 499
 Schliemann, Heinrich 169
 Schuchman, Helen 698
 Schweitzer, Albert 170
 Seager, Richard Hughes 229,
 230 n. 16, 231, 238
 Sen, Keshab Chandra 212–213
 Sen, Keshub Chunder 283, 313, 316,
 320, 327, 329
 Shahrūr, Muḥammad 505
 Shankar, Sri Sri Ravi 47, 54
 Shankaracharya, Swami Brahmananda
 Saraswati 346
 Sheldrake, Rupert 663, 876
 Shermer, Michael 542–543, 879, 883,
 887
 Shimazono, Susumu 181
 Sidhu, G. S. 374
 Sil, Narasingha P. 231, 238 n. 25,
 242 n. 30
 Singh, Charan 392, 430
 Singh, Gurinder 392
 Singh, Jagat 392, 396, 430
 Singh, Jaimal 391–392, 396, 403,
 420–430
 Singh, Kirpal 418, 422, 424
 Singh, Partap 397–399, 403–404,
 421–424, 427, 429
 Singh, Sawan 392, 396, 413, 421,
 423–424, 427–428, 430–433
 Singh, Shiv Dayal 391–393, 397–404,
 406–407, 410–411, 413–414,
 416–417, 419–430
 Sinha, Kamta Prasad 407, 414
 Sinha, Madhav Prasad 401, 404, 408
 Skutch, Judith 698, 702–703
 Smith, Ethan 820–822
 Smith, Howard 477–478
 Smith, Joseph 771–775, 777, 822,
 824–825, 830, 834–835, 839–840
 Söen, Shaku 119, 122, 124, 235,
 332 n. 51
 Spangler, David 697
 Spear, John Murray (Rev.) 596–597
 Spencer, Herbert 11, 81–82, 210, 212,
 214, 216–228, 236, 333, 340
 Spengler, Oswald 169
 Spinoza 227
 Stahl, Georg Ernst 20, 868–869,
 871–872
 Stalin, Joseph 852–853
 Steiner, Rudolf 469, 787, 875
 Stevenson, Ian 892–893
 Sun Myung Moon 15, 571, 573, 576,
 581–582, 587
 Swami Mukhyananda 244 n. 31
 Swami Ramatirtha 221 n. 10

 Tabātabā'i, Sayyed Moḥammad
 Ḥosayn 501
 Tagore, Debendranath 213, 313
 Taixu (T'ai Hsu) 128
 Takahashi, Keiko 10, 181
 Takahashi, Shinji 10, 168
 Tanner, Jerald and Sandra 776
 Tart, Charles T. 727, 736 n. 94
 Tath, Âdem 495
 TenHouten, Warren D. 711
 Tesla, Nikola 196
 Theanaut, Jehan 459–460
 Thetford, William 698–699, 702–703
 Thomas, Sir Keith 709, 714
 Thurman, Robert 129
 Tolle, Eckhart 675, 677
 Toynece, Arnold 170

- Truzzi, Marcello 85, 884
 Tyndall, John 635

 Verhoeven, Martin 134–135
 Vivekananda, Swami 11, 209, 251,
 279, 283, 298–299, 310 n. 36, 313,
 315, 317, 324, 330

 Wallace, B. Alan 129–130
 Wallis, Roy 582
 Wapnick, Kenneth 698, 703
 Weber, Max 2–3, 8, 24–25, 63, 71–72,
 75, 385–386, 551, 617, 624, 700,
 702, 741–746
 Wessinger, Catherine 209 n. 3, 211
 n. 4, 222 n. 11
 Westcott, Wynn W. 720–721

 Williams, George M. 214, 215 n. 7
 Williamson, Marianne 674, 676, 678,
 680–681
 Willms, G. 27, 758
 Winter, Paul 876
 Wolf, Ole 99–102

 Yahya, Harun (i.e. Adnan Oktar) 14,
 495–499, 501–502
 Yogananda 209 n. 3
 Yogananda, Paramhansa 50, 54, 251
 Yohai, Simon bar 453 n. 3, 462
 Young, Brigham 772, 774–775, 827,
 829–833

 Zukav, Gary 40