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TIMEFORMS  
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by

VICTOR GIOSCIA

Associate Professor of Sociology—Adelphi University

Executive Director—Center for the Study of Social Change—NY

AN INTERFACE BOOK

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Victor Gioscia

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to Pam — for tenderness  
Nicole — for caring  
Eve — for joy  
Gail — for hope  
Lynne — for faith  
Madelyne — for truth  
and Ilene — for a time

# Chapter

## Series Preface

Humans are an endangered species.

We think the separation of fact from value is the principal illusion responsible for the nearly terminal condition of our species on planet earth. This series is an attempt to share the facts and values of intelligent people who know valuable things that might help us find, live, and experience in ways that are species enhancing, not species destructive.

We think sharing information of this kind is as vital to humans as water is to fish.

We think we can depollute our information environment by introducing life enhancing values into the changing currents of our lives.

We think the series should serve as a critical information resource for people who are seriously trying to enhance the life of the human species.

We will publish hard science only when we think it will help us to do that. We will publish opinion, analysis, exhortation, review, speculation, experiment, criticism, poetry and/or denunciations if we think it is of critical human benefit.

We are not naive. We don't think publishing a few truths will set us free, We are not optimists. We don't think the chances for human survival are very good. We are not elitists. We don't think that showers of wisdom from Olympus will illumine the simple man's darkened awareness.

We believe that human consciousness *both* guides *and* responds to human interaction, and that most contemporary interaction proceeds from *and* perpetuates assumptions about human life that are no longer valid. We believe that these assumptions *can* be changed if/when we want to.

Some of our fondest assumptions have already been unmasked, revealing blind commitments to short values. The most glaring example—we once believed technology made interaction “easier”. Now we know that when our technologies violate ecological laws, we murder each other.

Some new forms of interaction (and some old ones) are currently being touted as *the* way. We don’t think there is, or can be, any *one* way. How to sort out the promising ones from the blind alleys constitutes our principal aim.

We therefore deliberately adopt a post-disciplinary stance, believing that no one view, be it philosophical, scientific, aesthetic, political, clinical, what have you, has *the* answer.

We do this simply because we believe that we are living in an era of hurtling social change, which we cannot experience with worn out categories. We are thus in danger of trying to live without experience (surely a suicidal venture) or with the illusion of experience (usually a homicidal venture).

If we must experience to live, but cannot do so without terror, we shall surely perish. Whether by suicide or homicide won’t matter.

Is it really the case that experience itself has become nearly impossible? We think so. Because we become human by learning a set of values, feeling, perspectives and assumptions when we are young, helpless, and uncritical. When that set of values and feelings is no longer adaptive to the world we later inherit, we experience a crisis, which commands on the one hand that we interpret the world as we originally learned to do, and on the other that we realize that the world which gave birth to our first philosophy is

no longer what it was. When we must simultaneously trust and mistrust our most fundamental values, it is hard to know what being human means.

We think a “long hard march” through the assumptions that presently imperil us can only be undertaken if we do it caring about each other, whether mandarin or peasant, star or clown, master or disciple. We think new ways must be crafted and built, not simply found or borrowed. Together.

We intend to be a sort of whole earth catalogue for people who think that thinking about the human predicament *might* help its own evolution, for the first time.

As editors, we will select and publish things *we* value as attempts to foster that kind of voluntary humanity.

Therefore, we invite anyone, whether clinical, social, behavioral scientist (or fan) student, faculty (or interested person) young or old (or in the middle) to join us in the attempt to make a joyful human future not only possible but likely.

So—if you think “Science” is *the* way, we’re not for you, and you probably won’t like us. If you think radicals are mad (nee crazy, disturbed, insane, deviant, misguided, etc.) we’re not for you, and you’ll probably loathe us. If you think the world will not be safe ‘till sociologists are kings, we think *you’re* mad. Ditto for politicians.

Every day, changes race into our world like mad floodwaters, undermining all we hold sacred and sure.

Change is called for.

Yet, change is crisis.

What to do in such times.

How to live. Feel. Know. Experience.

That's what this series is about.

**Victor Gioscia**

Executive Director

Center for the Study of Social Change

# Chapter

## Foreword—*Philip E. Slater*

Despite the anarchic confusion of change rates in the various segments of our lumbering, creaking, and gear-grinding behemoth of a society, few people, as Victor Gioscia points out with some astonishment, have sought to understand and control its mechanisms of acceleration and deceleration. Most people feel themselves to be prisoners of time and in that darkness find it difficult to say anything intelligent about it. This book attempts to order our contemporary chaos in temporal terms. It is an essential work for anyone trying to understand our era, its changes, the counterculture, the future.

The fascination of *TimeForms* for me is not merely the arresting ideas, such as that psychedelic drugs serve to enable people to handle and even enjoy the information overloads characteristic of contemporary society. Nor is it Gioscia's bold effort to construct a temporal conceptual framework, a framework that forces us to bend and stretch our rigid linear ways of thinking about time. Even more significant for me is the character of Gioscia's thought processes: a restless questing, a nibbling and clawing at the boundaries of the presently unknowable. Without this questing, which is unfortunately almost totally missing from academic productions today, in either their scholarly, scientific or polemical manifestations, I find it difficult to maintain interest in the written word.

This is not to say I have no quarrels with *TimeForms*. Gioscia and I have several chronic intellectual differences. I am hypersensitive, for example, to the slightest lapse into the kind of progress-infatuated boosterism that characterizes Toffler and Bucky Fuller. All my life, and that of my father and my grandfather, people



have been telling us enthusiastically that the next scientific breakthrough would *really* do it, would erase the ravages of the previous ones and bring health, wealth, and happiness to us all if we would just open ourselves to it and adapt. The demand I make on all such arguments is proof that their spokesmen are not traditional futurists—that they have successfully routed out of their psyches those tendencies that have propelled us into our current pathological condition, for it is characteristic of neurotic thought patterns to imagine that their only error lies in quantitative insufficiency of application.

Like many contemporary theorists, myself included, Gioscia sees humanity enmeshed in a process which will force a transformation of some of these thought patterns more or less inevitably. The only question is whether his system specifically encompasses those that have wrought the destruction. For me, linearity and chronic accelerative growth are the defining symptoms of social sickness, as are discontinuity and lack of temporal harmony. I would therefore raise the following questions about his theses:

1. Does not his position take the ego-driven, achievement-oriented, power-infatuated ethic of modern humanity for granted in the very process of explaining recent changes in our attitudes toward it? Is it mere pleasure-seeking that leads us to desire a portable computer the size of a shoe box, a 500-volume library on a wallet size piece of paper, energy to send a thousand rockets to the moon, or the ability to dial China on a wrist-phone?
2. I am far convinced that generalization is what produced achrony in the first place—that the fantasy of transcendence is the origin and root of modern social pathology. Synchrony is, after all, a commonplace of uncontaminated non-literate societies.
3. Can the complexity of future communication technology by itself restore the automatic sense of connectedness that the ravages of individualism have destroyed? Like Gioscia and other

social analysts, I place a certain amount of hope in the young, who have been spared the inculcation of certain deplorable motivational structures. At the same time, despite their impulse toward community, and its accompanying ideology, it is my strong impression that at a gut, moment-to-moment level social responsiveness in the young has atrophied even further than in their parents. Gioscia explicitly disclaims any view of the young as especially enlightened, but I would like to see him turn their own eyes on themselves with the same brilliance that he exposes the occupational neuroses of traditional psychotherapists. Hope is a precious commodity and Americans have centered it in their offspring since the earliest settlers, a habit the results of which oppress us on every side. The logic of change processes would lead us to expect the young both to evolve cures for our diseases and to exhibit them in their most extreme form, and this is the way it appears to me. I confess to a personal bias here, however. Although I am fond of the young and approve of them in a general way, I must admit that one of my reasons for leaving university life was the profound boredom aroused by having to spend a great deal of time with people who haven't lived very much.

4. I am suspicious of analyses which stress discontinuity and shucking the past. Most of the achrony of which Gioscia speaks comes from our living in a mammoth junkheap of discarded novelties. The only discontinuity that would impress me favorably would be the rejection of our national commitment to transitoriness. The most radical change possible in our society would be the establishment of environmental stability and conservatism. In the same vein, it seems important to distinguish between media-defined social revolutions and real ones. Not all of our culture or population is plugged into the media circuitry, and while a 5-year old ideology may be regarded as "hopelessly irrelevant" the same is not true of a 500-year old one. Academics fall into the same trap:—most intellectual history is like the universe seen through the eyes of a company house organ. The fact that flower children, Woodstock, campus protest, psychedelic culture, and so on, seem

hopelessly passe today is often used to argue the meaninglessness of those events, rather than, as I would argue, the meaninglessness of our ways of defining our experience.

I don't know how these issues are to be resolved, for Gioscia's vision of the future cannot lightly be dismissed, and may hold a monopoly on hope. For me, in any case, our wrangling over the future is of less interest than his effort to transform our spatial thought patterns into temporal ones, an enterprise at one with the redefinition of matter as energy, product as process, thing as long event,

Clearly this is the direction in which the exploration of ultimate concerns must go. All events which seem mysterious to us—psychic phenomena, unexplainable forms of communication, transcendental experiences—lend themselves to explanation in temporal terms. As Gioscia points out, "some frequencies, after million year evolutionary periods of interacting dyssynchronously, have come into a harmony which we call sensation. Air waves and ear vibrations in synch result in our experience of sound." Once we abandon our "thing" orientation and begin to pay attention to the coordination of frequencies all sense of weirdness disappears from these phenomena.

One specific question that this book raised in my mind was the issue of "readiness". Why do people suddenly take action after avoiding it for long periods? Pay a debt, break off an unhappy relationship, perform a task, go on a journey. How does a person achieve sufficient synchrony within himself and between himself and his environment to act with grace, effectiveness, and meaning? These issues are at least recognized in the East, but Westerners (with the exception of a few athletes and performers) are largely out of touch with them. Most acts are performed mechanically by Westerners, in accordance with clock time or some other bureaucratic compulsion. This perhaps accounts for the harsh, chaotic, discordant, and Oppressive quality of our urban life. The sense of the interconnectedness of all living things, of the exquisite tim-

ing necessary to maintain and express this harmony, has largely atrophied. Hopefully this volume will assist its reawakening.

# Chapter

## Prolog

Print is a kind of delayed music, playing now words composed in another time, a process in which the reader confers a temporary immortality on the author's once private thoughts and experiences. You have before you the scores of compositions written in the last five years for various occasions and performances. One is never sure it is the best one could have done, and so, perhaps too late, one tries to add a few grace notes. It would please me, as you read these pieces, if you heard the music you remember hearing and enjoying in the past half-decade, beginning just before "hippies" became news, and ending in August, 1971.

It was a time of many changes, some deep and anguished, some sweet and enduring. For me, it was a dialectical time, of birth, death, and transformation. I learned, and in learning, died, and in dying, learned. I was always surprised when I sat down to write, to find myself as terrified as before to form the words the wisps of awareness that serve as my understanding.

Once, it was possible to read leisurely and ponder long on the eternal mysteries—who are we—why are we here—where are we going—and transmit the results of these ruminations to classrooms full of bright, eager, beautiful young people. That time is steadily disappearing, as the young navigate through oceans of novelty more freshly, more innocently, and let it be said, more perilously, than the professors who presume to teach them. Deprived of time to reflect, the young cannot gain perspective: deprived of innocence, professors cannot learn. The era of rapid social changes blinds us all, blindly.

So too it was once possible to attend the meetings of learned societies, to hear papers of significance and meaning, and even once in a while to deliver them.

But we live in strange times, when nothing is as dead as yesterday's news, and nothing more difficult than tomorrow's vision.

These are things which everyone knows, except perhaps those so tossed and wrung that they must cling to views no longer adaptive. They are recorded here partly to insure myself against the reader's anger when I stridently demand newer bolder imaginations, and partly to explain the very ordinary circumstances in which this book was composed. For there are two ways to read it, depending on who you are.

If you are literate, if your primary way of learning is through the printed word, and have sampled the philosophers, the sociologists, the psychoanalysts, etc, that is, if you are an educated academic person, you will probably want to begin with the meta-log, "*On Social Time II*", since, in academic terms, it is the paradigm, or set of hypotheses the other pieces "test". It was written first, and gradually expanded, patched, modified, changed. It will show you what is written between the lines in the pieces that appear before it.

If on the other hand, you derive your principal education not from books, but from experiences with friends and lovers, and if you are already familiar with the psychedelic experience, you will probably be able to trace my own psychedelic evolution through the chapters.

In either case, I want to tell you why I have assembled them here, in book form, though each was originally a paper spoken to an audience. I have several reasons.

First, it is the first of four books on the nature of time, which I want to do because I believe that time is to us what water is to fish: it is dangerous to ignore.

Second, the psychedelic era too often naively divided us into pros and cons, often parents against their own children. I want to stop that war, if even only a little.

Third, I am, God help me, a teacher, and without an audience, I am nothing.

Fourth, timidly, I think some of the ideas might be useful to others who, like me, believe that we are in the midst of an evolutionary crisis, and who believe, with me, that a good theory sometimes helps.

Finally, I wrote these words in joy, which I would like to share.

# Chapter 1

## LSD Subcultures: Acidoxy versus Orthodoxy

There is no need to document what everyone knows—there are a lot of young people whose special use of psychedelic substances is part of their special relation to contemporary culture. The special set of values, attitudes, and opinions of this LSD subculture were the focus of my participant observations in London, New York, and San Francisco during the last ten years. “Interviews” with hundreds of users revealed that an acid subculture is comparably to be found in many other world cities, e.g. Copenhagen, Jerusalem, Tokyo, Paris, Berlin.

Less well known is the fact that there is a growing tension between the subculture of LSD users and what might be called the subculture of therapists. The following paragraphs describe some aspects of this tension, written as much to solicit as to share insight into a phenomenon which increasingly troubles professionals in the therapeutic community.

### 1.1 Value Conflicts

In addition to their use of psychedelic substances which precipitate experiences of a sort radically different from those with which the midrange of therapeutic personnel are familiar, hippies (and yippies and many others) are outspokenly antifamilial (drop-outs), antipsychiatric (pro-paranoid), and anti-bureaucracy (radical politics). They deplore wealth as alienating (the Digger Free Store), cleanliness as neuroticism (clean is a hang-up), and prefer free



sex to the marital practices sanctioned by society. They refuse the counsel of rationality (the bomb is rational, the Pentagon is rational) and they insist that "doing my thing" is healthier and saner than going to war or programming computers. They regard the "trip" as a unique experience, communes as better than traditional family life, and look forward to the replacement of "violence" with "love," and "education" with "ecstasy."

They are increasingly regarded as social pariahs, public health menaces, political pests, and as a degenerate generation, labels which are said to earn them the right to "treatment". Yet, treatment programs face a number of very practical problems in addition to the value differences described above when they try to offer service to this population. Few are willing to become patients voluntarily. Even if a given therapist has attempted to manage his countertransferences to a patient who regards him as ignorant of the trip experience, biased in favor of family life, militaristic because he offers therapy instead of politics, an impersonal bureaucrat because he is an agent of an agency, "hung-up on loot" because he works for a living, and a puritan because he's clean, relatively monogamous and heterosexual, a therapist must still confront a number of perplexing problems. For example, in attempting to cope with a patient experiencing a bad trip which may last from 10 to 12 hours, what is to be done about scheduling? When the patient is a 16 year old who has run away from home and does not wish to speak to his or her parents, of what use is family therapy? Or, if one wants to treat the natural group (or social network)<sup>1</sup> of significant others, does one suggest that the whole commune come in? Is a bad trip an "emergency?" Does Thorazine mollify a bad trip? Does Niacinamide?

Faced with these kinds of questions, an increasing number of therapists are reexamining their treatment rationales, so that convictions developed: over long years of experience are now some times regarded as value assumptions which may require modification.

---

<sup>1</sup> I use the term in the sense conveyed by Dr. Ross Speck's work. cf. *Family Networks*, Ross Speck and Carolyn Attneave, New York, Pantheon, 1973.

In our interviews we explored five areas. We did not structure the interviews, so that often other areas cropped up to the exclusion of our principal concerns. If we could comfortably squeeze a question in, we did. If we couldn't, we didn't. Our interests were:

1. *Subcultural differentiation*: we wanted to know what trippers and therapists thought of each other
2. *Status*: we wanted to know whether the avant-garde nature of the acid scene threatened orthodox therapists
3. *Relevant experience*: we wanted to know whether the trip is a unique experience
4. *Sex*: we wanted to know if traditional family sex and trip sex differed
5. *Religion*: we wanted to know whether tripping involved religious experiences

## 1.2 Subcultural Differentiation

With respect to the subcultural differentiation, we found a continuum of attitudes which rendered our dichotomy of trippers-versus-therapists useless. Although we spoke with trippers who regard therapists who have not "dropped" acid as hopelessly "out of it", we also spoke with trippers in therapy with nonusing therapists who felt that the course of therapy contained learning experiences for both parties. However, trippers whose therapists had had an LSD experience were uniformly envied by trippers whose therapists had not.<sup>2</sup>

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<sup>2</sup> Here it is necessary to distinguish, as Leuner does, between psychedelic therapy, which involves massive doses of LSD in one or two breakthrough sessions, and psycholytic therapy, which involves repeated lower dosages at regular intervals as adjuncts to the therapeutic process. It is additionally necessary to distinguish the self-administered from the professionally administered trip, since they may differ markedly.

Self-administered massive dosages may result in good or bad trips. Good trips induced in this way will ordinarily not send a tripper to a therapist. Bad trips might, if the tripper panics and has no one else to "talk him down." The acid-experienced therapist will know how to talk his patient down, if he has a number of hours available. The acid-inexperienced therapist usually doesn't know that a patient in a bad trip *can* be talked down, and may resort to medication (Thorazine, Niacinamide). When he does, in the words of one respondent, "Then you have *both* the Thorazine *and* the bum trip to handle." A particular danger is the possibility that the bad trip is due not to LSD but to STP, for the combination of STP and Thorazine is believed to be fatal. The role of the inexperienced therapist who fails to make this crucial distinction is not an enviable one.

It is not surprising therefore that therapists who have had relevant experiences are preferred by trippers. Like the heroin addicts of yesteryear,<sup>3</sup> acid "heads" know that there is no sure way of knowing the strength of a "cap" of acid when they buy it (or are given it free). Nor is it surprising that trippers feel confined to their own resources and not a little disdainful of the therapist subculture, which by and large, but especially in the United States, is an acid-inexperienced subculture.

Perhaps the most important finding which emerged from our interviews is the fact that the experienced trippers regard inexperienced trippers who seek help of acid-inexperienced therapists as fools because of the high likelihood that acid-inexperienced therapists are not only not able to help but are not willing to help, due as much to their alleged moralistic alliance with an anti-acid society as to their fear that acid is better than analysis (a fear expressed to us by a number of therapists). More often, therapists said that they'd like to try some but legal concerns prevented them. A few therapists said they were able to learn a good deal about LSD from patients who began treatment with them before they

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<sup>3</sup> Gioscia, V. "Adolescence, Addiction, and Achrony" in *Personality and Social Life* R. Endleman (ed.)<sup>4</sup> Random House, New York, 1967. Also reprinted in appendix.

began experimenting with LSD, but felt limited in their ability to empathize with the experience.

It should be noted that many of the interviewed protagonists of the LSD experience, both trippers and therapists, do not regard the experience as fitting in neatly with psychoanalytic paradigms, so that, in their view, LSD should not be regarded simply either as a defense dissolver or as an ego builder, because such views are uncomfortably psychologistic. The social nature of the experience has also been noted by many investigators, notably by Becker<sup>5</sup> and Cheek,<sup>6</sup> who have shown that social groups selectively define aspects of the drug experience as real and unreal. Our respondents repeatedly referred to the sociopolitical dimensions of the experience, reminding us, in the words of one young girl, that "dropping acid and dropping out are really very similar, because, you know, in an insane world, counterinsanity is saner than plain insanity." Thus, many users inquire more deeply into the therapist's political views than into his therapeutic credo, often believing them to be more intimately related than the therapist himself does. We have interviewed therapists who do this with patients.

### 1.3 Status

With regard to the relative status of the acid subculture, a number of conclusions emerged from our interviews. First, as reported above, many therapists felt that sooner or later they would have to learn more about the LSD experience since they believed the number of users to be increasing and expected them to need help eventually. Some therapists thought that they would eventually try it, and others (usually the younger ones) eagerly looked forward to the experience.

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<sup>5</sup> Becker, H. "History, Culture, and Subjective Experience: an exploration of the social bases of drug induced experiences," in *Journal of Health and Social Behavior* (1969)

<sup>6</sup> Cheek, F. "Exploratory Study of Drugs and Interaction," in *Archives of General Psychiatry* 9:566-574, 1963

A paradoxical finding is the following. Before acid, therapists who preferred the organic viewpoint to the psychogenic one were regarded by many as old fashioned. Some smiled knowingly at those who did not employ the then fashionable terms derived from psychoanalytic theory. Now, the shoe seems to be on the other foot. Those who attempt to reduce the acid-induced experience to psychoanalytic terms are regarded as conservatives resisting the new orthodoxy. Terms like "synaesthesia" are in; interpretations like "identifying with the object" are out, at least among those we interviewed. This should not be taken to mean that psychoanalytic investigators are not researching the acid scene, Dr. Dahlberg at the William Alanson White Institute in New York is among those highly regarded, although he is seen as cautious in both method and dosage levels.<sup>7</sup>

Some who resort to LSD find their particular pathologies temporarily masked or even alleviated by the experience, but acid is no leveler. In fact, the contrary seems often true, which is recognized by experienced users in their ability to distinguish what is generically due to acid and what is specifically due to idiosyncracies of the individual. Again, we found our initial dichotomy to be naive. The question is not whether acid dethrones orthodox diagnostic categories; the real question seems to be which personality types respond to acid in which ways. The work of Linton and Lang<sup>8</sup> is particularly instructive in this regard, as is the work of Blum<sup>9</sup> and his associates. They find different personality patterns at varying dosage levels.

It should be noted that psycholytic therapy is gaining in popularity in Europe as a professionally administered modality. In the United States, in the absence of legal availability, it must be reported that self-administered massive dosages are on the increase, especially now that incidents of chromosome damage have

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<sup>7</sup> Mechaneck, R., Feldstein, S., Dahlberg, C. and Jaffe, J. "Experimental Investigation of LSD as a Psychotherapeutic Adjunct." Paper read at 1967 AOA meeting.

<sup>8</sup> Linton, H. and Lang, R., "Subjective Reactions to LSD-25," *Archives of General Psychiatry* 6:352-368 1962.

<sup>9</sup> Blum, R., et al. Utopiates Atherton Press, New York, 1964.

been reported, then contradicted, then re-reported, so that even professionals in touch with the literature state that the controversy has not yet been resolved.<sup>10</sup>

The status of the LSD subculture is in rapid flux. Hippies in the East Village, in the Haight, in Soho now avoid the harsh glare of publicity because they know that publicity, for them, leads to ridicule and persecution. They resent the commercialization of their way of life, their music, and their art, because it serves as a vehicle for cheap imitation by faddists. Nor do they wish to be put in the mobility race and competed with for status. Many of our respondents were very seriously concerned with freedom, both inner and outer, and would be much happier if they weren't cast in the role of criminal violators of the American way of life; bucolic emigration for those who are is becoming increasingly attractive.

## 1.4 Relevant Experience

From the point of view of relevant experience there is almost uniform agreement—the trip is unique. This is not to say that LSD is the only psychedelic drug, for there are many. Mescaline and Peyote are favorites, as are Psilocybin and Psilocin. Other psychedelics have been in use for centuries, but they are not ordinarily found in the training experiences of therapists, and there are few if any comparable experiences in the orthodox psychoanalytic encounter. Alcohol is simply not comparable, nor are the tranquilizers, sedatives, depressants, and stimulants found in the psychiatric arsenal. William James' famous experience with nitrous oxide (laughing gas) is well known and his reaction was very much his own. Others find this chemical quite delightful. One of our respondents prefers it to LSD. But acid, like sex, is hard to compare with other experiences.

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<sup>10</sup> Cohen, S. Personal communication.

## 1.5 Sex

In a much quoted interview in *Playboy*, Timothy Leary stated that the real secret behind the acid scene was LSD's fantastic aphrodisiacal properties, which, for example, enabled women to have "hundreds" of orgasms during a trip. If one takes the term orgasm literally (that is, biologically), our respondents contradict Leary's assertions. However, if one takes a more metaphorical meaning, our respondents indicate that the statement is true, by which they seem to mean that moment after moment is filled with delights of the most sensuous and rapturous sort, and that, for hours on end, in what seem to be vastly extended spans of time, wholly satisfying releases of ecstatic bliss are attained with magnificent ease.

It has been claimed that LSD is not specifically aphrodisiacal but has that effect because it heightens the exquisiteness of perception across the entire sensorium, so that, if sex is what one is experiencing, it is a heightened and exquisitized sex one will experience under LSD. Our respondents told us that there were three ways in which LSD "heightened" the sexual experience:

1. It dissolves defensiveness and anxiety, thus enabling one to enter fully into the experience.
2. It extends the sensations associated with sex so that stroking and orgasm are spread over large regions of the body.
3. It extends experienced time (as opposed to clock time) so that one seems to have more time in which to "luxuriate." Thus, even though the clock is running, one can play at one's own pace. "Since a short time seems to last a long time, it's better," is the way one of our respondents put it.

We were also specifically interested in another aspect of psychedelic sexual behavior, namely, what one of our respondents called the "group grope", in which a number of individuals of both sexes participate in what might be termed an orgy. We

were told that group sex does not derive its impetus mainly from LSD but from political rejection of the notion of private property and from the practical unattainability of privacy in the urban commune—that acid only served to disinhibit those who already had the wish to “love together.”

It is instructive to observe that psychedelic sex differs markedly, however, from the narcotically disinhibited sexuality, since the latter becomes increasingly impossible as dosages climb. Hence, a sharp distinction should be drawn between the psychedelic sex, which is improved, and narcotic sex, which is depressed. Nevertheless, LSD users said that group sex is part of the new political philosophy of community with which they are attempting to replace older political philosophies of proprietary (commodity) sexuality. Actually, we were told that acid and group sex, in combination, are both aspects of a new political philosophy which is emerging in the youthful acid subcultures around the globe, and that proper initiation into this subculture involves far more than acid and group sex.

Of interest to us was the relation between the “communes” in which group sex is often practiced and the “family processes” characteristic of the more permanent of these communes. If, for example, a certain girl functioned as the mother of a given commune, did she also function as a group sex partner? If so, what about incest taboos, and if not, why not? We were told that roles were frequently reallocated within communes, so that this month’s mother might be next month’s daughter, etc., and that there were major differences to be found among rural versus urban communes, the latter experiencing a more rapid change of personnel. We were further informed that group sex was not the rule but was not precluded by rule either, so that, if the spirit happened to move them on any given occasion, it might occur. The fact is that dyadic pairings are by far the more common occurrence. We were repeatedly told that LSD was not the sine qua non of group sexuality. One of our informants reminded us that several accounts existed in anthropological literature describing similar practices



among adolescents in preliterate societies, and that "drugs weren't prerequisites there either."

Hypothesizing that there might be some relation between the antifamilial values of the LSD subculture and anticonformist sex roles, we asked dropout users whether they were consciously and deliberately engaging in sexual behaviors that were specifically opposite to the kinds of sex practiced in their families of orientation. Again, we were given responses which accused us of psychological reductionism, suggesting that we were hopelessly out of touch with the generational nature of contemporary youthful rebellion, which did not consist exclusively or even principally of an antifamilial revolt but of a rebellion against all the major institutions of urban-industrial societies. We were politely informed that it was not simply with the family that youth was unhappy, but with schools, jobs, wars, governments, businesses, and bureaucracies, indeed, the whole complex of cultural institutions of which urban-industrial societies are comprised. "This", we were forcibly reminded, "is a cultural revolution, not simply an antifamily experiment." In this way, our hypothesis of reaction-formation received its demise. We concluded that the acid subculture may not solely be understood in psychological terms and that newer models for its comprehension need to be devised.

## 1.6 Religion

We have already alluded to William James' masterpiece, The Varieties of Religious Experience. Masters and Huston have written what may be a minor masterpiece, The Varieties of Psychedelic Experience,<sup>11</sup> in which they address themselves to the relation of psychedelic and religious experience. Their orientation is exploratory, and they attempt to make sense out of the religious statements made by subjects who report on their LSD sessions. Some of their subjects report theistic experiences, some do not, but many report feelings which they regard as religious.

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<sup>11</sup> Masters, E. and Huston, J. The Varieties of Psychedelic Experience. Holt, Rinehart and Winston, New York, 1966.

We inquired of our respondents whether they had had religious experiences under LSD. Some responded that they had had experiences which they would call religious if they were religious, but they were not religious. Others said that the trip was the "most profound experience" they had ever had, and, like Masters' and Huston's subjects, described the experience in aesthetic terms. Still others described the experience as one of the "immense unity" and "in touch with All." That Tibetan, Hindu, and other religious vocabularies are widely employed by LSD users is also well known. Such languages describe what Paul Tillich must have had in mind when he spoke of "ultimate concern," or what John Dewey described as a "genuine religious experience." That such experiences were not commonly described by our respondents in theistic terms should thus not be surprising.

We were interested in the extent to which acid serves as a ritual initiation into a subculture, having investigated this hypothesis in the narcotic scene.<sup>12</sup> In the present study, we wanted to know whether the "profound" nature of the LSD experience might serve as a ritual initiation into what may legitimately be termed a cult, that is, a band of believers united in common observance of religious ritual. It is difficult to classify the responses we were given to the questions we asked in this area. Some respondents pooh-pooed the idea of religious ritual, others said it was "convenient" to share a Tibetan or Hindu language. Others (a Feurbachian proletariat?) said that what was once called religion is "what they were into." We regarded this latter response as the least defensively given, and found no reason to doubt its veracity.

As with narcotics, acid users almost instantly strike up a rapport with each other. It is as if there were a "community of the alienated."<sup>14</sup> For example, "heads" who read Laing's Politics of Experience<sup>15</sup> insist that the final chapter, "The Bird of Paradise," is a trip, and that Laing must have dropped some acid to write it.

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<sup>12</sup> Gioscia, V. "Adolescence, Addiction, and Achrony" in *Personality and Social Life* R. Endleman (ed.)<sup>13</sup> Random House, New York, 1967. Also reprinted in appendix.

<sup>14</sup> I am indebted to Prof. H. Silverstein for this phrase.

<sup>15</sup> Laing, R. D. The Politics of Experience Penguin Books, New York, 1967.

Thus, acid may well serve to initiate members into a mystical cult which promises deliverance from an age gone mad by suggesting that there is a realm of peace above and beyond the falterings of an imperfect civilization. It is not necessary that those to whom such deliverance is given also be required to have an acceptable academic theory of it.

## 1.7 Conclusions

Our conclusions from this exploratory study were the following:

1. There is an LSD subculture. It is sharply critical of orthodox therapy, and places itself in a "paranoid" opposition to it simply because there is a uniqueness to the trip experience with which many inexperienced therapists nonetheless claim professional familiarity. Such therapists are often cast, albeit sometimes undeservedly, into the role of middle-class police whose duty it is to eliminate an allegedly monstrous drug from the scene. Not a few therapists refuse this role. Others experiment with LSD in both their private and professional lives, but they are, at present, especially in the United States, a decided minority. Those therapists who do not regard a bad trip as a moral outrage, do not quickly reach for tranquilizers when confronting a bad trip, since they see it as an experience with which they can deal empathetically and, hence, effectively. Among users, professional or not, there exists a bond of empathy which many regard as a prerequisite for effective treatment, not of acid, but perhaps, even with it.
2. LSD-related attitudes represent in many ways only the surface of a new emergent ideology, and therefore enjoy the status that all new and promising things are accorded in a world in need of miracles, It may not be unlikely that in the near future the drug aspects of this ideology will be abandoned (the experience of the Beatles in this regard might have been prophetic). For, in our view, what is new about acid is not its ideology of the absolute dignity of the individual's experience, nor its

conviction that love is the only sane response to a violently destructive world. What is new about acid is its centrality to a generation of people who will not mouth beliefs they do not actually live. With this experience, hopefully, the professional therapist can feel a kinship.

3. It was Freud who taught us that sex is not always sex. The LSD subculture seems to be trying to teach us that lesson again, since we seem to have forgotten it. Perhaps polymorphous perversity is an infantile and unsociological creed. Perhaps it is a stage of development which is better transcended. But perhaps, as with play, it incarnates values which are less destructive than wars of another sort, and perhaps, for the young who occasionally experience group sex in experimental communes, it is a necessary experiment seeking new answers to old questions.
4. In an age where conscience permits the napalm flames of war to engulf civilian women and children scarcely two decades after millions were burned in ovens throughout Europe, the suspicion that terms such as "neurosis" and "psychosis" may become political weapons cannot be regarded as outrageous. Perhaps, in such an age, some of those who seek some form of ultimacy in mind-changing chemicals deserve neither to be "treated" nor to be subjected to "criminal" processes.

## Chapter 2

# Groovin' on Time: Fragments of a Sociology of the Psychedelic Experience

### 2.1 Introduction

The task of this essay is to focus the sociological imagination on data derived from participant observation of the psychedelic scene. What is attempted is an examination of processes in society which help to account for the emergence of what many call a drug subculture. It will be argued that the consumption of LSD and related substances is an epiphenomenon, i.e., "symptomatic" of deeper changes occurring in contemporary post-industrial society. The hypothesis uniting the pages that follow is that psychedelics are primitive psychochemical machines by which a new generation seeks to master a range of new societal forces. Thus, the new drug technology is produced by, hence does not by itself produce, a new kind of societal agony.

### 2.2 Prolegomenon on Method

Participant observation is a form of scientific experience which escapes the trap of fragmented overspecialization because it necessarily confronts the full plenum and contextual variety of its chosen subject. It enables the observer to experience the interconnections which controlled experimentation often defines out of the way. It reduces the social distance between subjective and objective data, by defining the observer as less unlike his subjects

than laboratory research defines him. It makes it possible for the observer to observe his own experience as well as the experiences of his subjects, creating an empathy which facilitates candid disclosure while reducing the potential of paranoid reaction in the observational field. These and other qualities of the technique of participant observation make it a particularly useful method for one who chooses to focus his attention on the contemporary drug scene.

But participant observation is not without traps of its own. Vivid description is open to the charge of over-identification. Empathy may be construed as loss of objectivity. Generalization becomes more difficult as the number and range of particulars increases. Cooptation and one-dimensionalization become increasingly possible to the extent that the observer penetrates the universe of inquiry. Further, the drug scene creates the danger of arrest for felonious complicity as one more closely "observes" the behavior in question.

Nevertheless, it may be argued that participant observation is the method of choice when the universe to be observed is not yet sufficiently defined to warrant the use of those sampling techniques which lend themselves to more precise and exact statistical quantification. In the absence of a census of drug-related behaviors, participant observation yields up an array of data which make it a valuable method, its shortcomings notwithstanding. The datum that it is the method preferred by the observed adds to the value of its adoption. The fact that it provides ethnographic concreteness is no less a value in its favor.

One spells out the above criteria in order to confront the increasingly met criticism that scientific exactitude is especially needful in the matter of societal problems, an arena laden with values, biases, and political choices. Agreed. One should confront as well the critique which holds that we should aspire to no more exactitude than is genuinely possible, and that if, indeed it is the experience surrounding psychedelic substances on which we focus

our inquiry, then we should seek no more exactitude than such experiences warrant. This is especially the case when we focus sociological attention on the cultural, social, and personal sources and outcomes of the psychedelic experience, as in the paragraphs that follow.

## 2.3 History as Inquiry

Being there (*Dasein*), Heidegger tells us, engenders a feeling of having been thrown (*geworfenheit*), as if one suddenly awakens to find himself having been deposited in a strange oppressive place, charged with the task of figuring out, not so much “who threw me here” as “now what.” One feels simultaneously lost and impelled, driven and trapped. These were the emotions characterizing the heroin addicts we observed in a study completed a few years ago, and these were the emotions characterizing the participant observer.<sup>1</sup> In those days, heroin was the medication of choice to which many adolescents looked for the anaesthetic revelation of their desires. We hypothesized that these young people sought from heroin a temporary relief from the falterings of an imperfect civilization which inflicted upon them the impossible task of seeking a forbidden deliverance from their lower class plight. The situation was relatively uncomplicated—one drug, one class, even one principal ethnicity, making it possible to generalize from the particular turmoil of these adolescents to the plight of similar adolescents elsewhere.

Quickly thereafter, a much younger population, no higher in class but quite different in ethnicity, seized on the inhalation of glue fumes and similar substances for the relief of their special turmoil, forcing a modification of prior hypotheses, not solely with regard to age and ethnicity, but also with regard to the range and scope of substance choice.<sup>2</sup> But one could still adhere to

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<sup>1</sup> Gioscia, V., “Adolescence, Addition, and Achrony,” see [[REFBKNOTE 1.9]]

<sup>2</sup> Gioscia, V. “Glue Sniffing: Exploratory Hypotheses on the Psychosocial Dynamics of Respiratory Introjection” in proceedings of a conference on *Inhalation of Glue*

the view that drug misuse was the predilection of a relatively small number of young "deviants" in our society, without risking professional scorn, although it was becoming increasingly clear that the "problem" was becoming increasingly serious.

Then, as everyone knows, LSD use spread among the middle class youth of the nation as a fire through a field of hay, spreading with it an array of substances (marijuana, mescaline, peyote, psilocybin, et al.) across ages, classes, ethnicities, cities, and subcultures. The situation came more and more to resemble the well-stocked bar of the average American home, such that specific drugs for specific experiences at specific times and places became the rule, rather than the exception. The drug scene,<sup>3</sup> like that of its parents', produced connoisseurs conversant with a variety of drugs which induced desired experiences under chosen circumstances, with degrees of social appropriateness shaded as finely as the gradations of the Japanese bow. The "problem," it was agreed, had reached epidemiological proportions. It was occasionally noted, *en passant*, that the new drugs had been available and in use by a small number of cognoscenti for twenty years, and that some had been in use for literally thousands of years. The question arose, "why are so many young people now using so many drugs." Parallels drawn to the use of alcohol, sleeping pills, stimulants, tranquilizers, cigarettes, aspirin and a veritable horde of socially sanctioned analgesics were deemed not to the point. This was "different."

It was not difficult to assemble "data" from magazines and newspaper accounts supporting the view that a stratification of drug taste was in evidence, that lower class youth preferred "body"

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*Fumes and Other Substance Abuse Practices Among Adolescents*, Office of Juvenile Delinquency and Youth Development, U. S. Dept. of Health, Education and Welfare, Washington, D. C., 1967. Also reprinted in appendix.

<sup>3</sup> Gioscia, V. "Psychological and Sociological Proneness to Drug Use in Young People." Paper presented to Amherst College Symposium *The Drug Scene*, 1967.



drugs (largely heroin-and other morphine derivatives), that upper-lower youth were beginning to favor "speed" (methamphetamine and other stimulants), and that the initial sample of LSD users seemed to be dropouts from a middle class life style their parents were astonished to find they (the young) were not enjoying to the hilt, and were, in fact, specifically critical of its alleged crass materialism (i.e., spiritual vacuum). The out-of-hand rejection of affluence was especially shocking to those by whom this affluence was newly won, i.e., the nouveau bourgeois.

And, some noted, "this" was also international. <sup>4</sup> Like the jet set chronicled in the mass media, youth in many world cities were equally conversant, 'tho differentially supplied, with the whole panoply of drugs that so concerned their elders. To make matters worse, it emerged that the therapy industry, to which parents had been accustomed to turn for the relief of their offsprings' alleged symptoms, was increasingly regarded with suspicion, distrust, and, not occasionally, outright disdain by young drug users—partly because parents assumed that drug use was *ipso facto* pathognomonic of emotional disorder, and partly because legislatures decreed that drug use was *ipso facto* criminal. In short, the young were told that a major norm of their subculture was either sick or wrong, although no one could dispute their right to a subculture without vitiating his right to his own. Intellectuals murmured "double bind;" youth growled "hypocrisy."

Into this breach bravely rode the ill-starred "Hippies," whose philosophy was abhorred by the very media which extolled and subsequently expropriated their aesthetic. Settling into Haight-Ashbury in California and the East Village in New York, hippies pronounced, as the Spenglerian Beats of the fifties had pronounced before them, the imminent demise of western civilization. Unlike the Beats, however, hippies set about systematically replacing those institutions of straight society which, they charged, had brutally alienated them from the joys of their own lives.

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<sup>4</sup> Gioscia, V. "LSD Subcultures: Acidoxo Versus Orthodoxy" See Chapter 1, this volume.

In July of 1967, at the Dialectics of Liberation conference convened in London by R.D. Laing, Allen Ginsberg described the new generation, variously called hippies, flower children, the love generation, the now generation, and freemen, as having a whole set of subcultural institutions of their own. For social workers, there were the diggers; for politicians, provos; for police, Hell's Angels and other Bikers; religion consisted of an amalgam of Tibetan, Egyptian, Hindu, Zen and astrological speculation, all facing in a deliberately mystical direction, drugs and sexual rituals serving as sacraments. For charismatic leaders, there were Leary, Kesey, and others. Language was reinvented, as was music. Philosophy, art, morality, justice, truth and beauty, each received a psychedelic rebirth and transfiguration. Extensive media coverage of these events turned most Americans, whether they liked it or no, into observers of the psychedelic drug scene, in varying amounts and degrees of participation. If one wished now to observe, with some aspiration of scientific method, one had to abandon hypotheses restricted as to age, drug, or locale, for the "problem" was manifestly societal in incidence and prevalence, if not (yet) demonstrably in origin. We set ourselves the task of examining those societal processes which might help to answer the query heard now in virtually all quarters—why indeed were so many young people using so many drugs in so many ways?

## 2.4 Sociogenesis

B.F. Skinner could not have devised a more negative stimulus for the young people in the East Village who regularly use psychedelic drugs than the word Bellevue, a hospital on the fringe of the community which they regard somewhat less positively than a medieval dungeon replete with chambers of torture. The establishment it is said to represent found itself hoist by its own petard when its propaganda convinced an already irate citizenry that LSD turned sweet-faced youngsters into psychotic monsters, dangerous criminals, irrepressible rapists, and habitual thieves, since the public turned around and demanded for its safety that these same either be incarcerated or therapized and preferably both. Though

the young avoided both with nimble and embarrassing alacrity, they were aware and made no secret among themselves that living in voluntary poverty, using drugs whose street-calibrated dosages bore little if any relation to actual content, created psychological, sociological and medical problems which might benefit from the ministrations of psychotherapists, physicians and community craftsmen, if only a "hip" variety of these could be found. A number of helping institutions soon decided that, ideological differences notwithstanding, there were more young people with more unmet needs than history had witnessed in a long time, such that ameliorative intervention could no longer be deliberated. Mountains of bureaucracy shuddered, and hippy projects were founded, the most famous being Dr. Smith's clinic in Haight-Ashbury. A less famous semi- counterpart, called the Village Project<sup>5</sup> attempted to care for some of the psychosocial ailments of the local young "residents." One could there "rap" (talk) with groups of young people on topics of their selection. One of their favorite topics was the subject of this writing—Why drugs? Their astonishing wisdom as sociologists both simplifies and complicates my task, since sociologists, like their therapeutic colleagues, seek 'to understand, not simply accept, the manifest content of behavior, even (especially?) the behavior called understanding.

Rap session participants at the Village Project were uniformly agreed that "dope" is central but not causal (i.e., a necessary but not sufficient explanation) of their life-style; that getting high, getting stoned, tripping (via LSD, STP, Mescaline, marijuana, and/or any desired combination) is like opening a door to other voices and other rooms, but, after you've opened the door, it's up to you to keep walking and actually *do* the trip, during which, if you're up to it, you will meet all manners of new turned-on experiences which are very much your own solutions to your very individual plight. Dropping out of alienated societal roles is said to be a *prerequisite* to real tripping, since the ego-trips of which society is said majorly to consist become visible as cul-de-sacs and blind alleys, to which a return is unthinkable. A new freedom, the right of phantasy as self-exploration, is ordinarily proclaimed *prior* to

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<sup>5</sup> sponsored by Jewish Family Service of New York

tripping, and only subsequently reinforced by good trips. Bum trips are said to be due to fear of letting go, or to contaminated drugs, not to the substances themselves. Uptight people are to be avoided during trips since their fear (and their violence) are said to be as contagious as they are dangerous.

Two convergent trends in society were said to be principally responsible for the drop-out phenomenon, to which the added enticement of tripping is secondary. These trends are:

1. *Automation*: the attainment of an incredibly high level of affluence and abundance in post-industrial (computerized) society, it is said, renders the work-for-a-living (Calvinist) ethos a superfluous relic of the first industrial revolution. Since supermarkets, restaurants and other food merchants have far more than necessary, simply asking for the remainder provides enough to live on. This makes it possible to afford the leisure time needed to engage in self-exploration via tripping, sexual variety, residential mobility, etc. Parents who covertly send checks they can easily afford to send now that junior has left home are not rare. In short, it is said, now that automation has replaced work, play has assumed its rightfully central role, and, if you know how, acid (LSD) is a powerful yet pleasant toy.
2. *Cybernation*: contemporary society has the power to communicate vast amounts of information almost instantly. Just as the first generation of mass media (linear print and film) fostered mass consumption through mass advertising, at the behest of mass production, so now the second generation of media (electronics—audio and video tape, computerized pattern recognition) has created an era of global communication, where nothing is foreign, nothing remote. In McLuhanesque terms, the content of the electric media is the former mechanical media, just as the content of the trip is yesterday's psychology. Once, a psychoanalytic foray was bedrock, Now, all such forays become the ingredients of emergent psychic forms called trips.

It will be perceived that electricity is common to both of the societal trends the villagers put forward as explanations of psychedelia, which support the view that if Hoffman hadn't invented acid, it would have been necessary to do so, since acid renders the organism capable of enjoying the information overloads which have become characteristic of our electrified society. The analogy runs like this: as water is to fish, so acid is to the children of the age of electric (global) communication. In the wake of such massive societal forces, it follows that new social forms must emerge, to handle, as a trip handles for the individual, the information impact on social organization. Hence, the retribalization process McLuhan has described is said to be the accommodation youth culture has made to its electric environment. The commune (be it urban or rural, an insignificant distinction in an era of total information) is a natural social response to the age of electronic sociogenesis.

The convergence, then, of automation and cybernation, was offered by east villagers as the explanation for the existence of psychedelic drugs. These drugs, they say, are simply the psychochemical equivalents of an electric society in which automated energy is cybernetically processed.

Just as there are said to be two fundamental societal processes at the root of psychedelic culture, so there are two "sick" institutions which protagonists of psychedelic experience diagnose as particularly in need of replacement, i.e., war and education. Wars, it is said, are fought for the preservation of territoriality, which no longer matters in an age of planetary communication, by people who have not yet learned that all violence is self-destructive exactly to the extent to which it is efficient. Wars which require the young to fight for the very values of the old they have rejected are thus said to be doubly unjust in that they enroll pacifists in aggression, and simultaneously pit young brothers in an emergent planetary culture against each other. Hence, the young reject what they regard as a forced choice between suicide and fratricide. Besides, it is added, the trip experience is as delicate and fragile as it is

lovely, to which even subtle psychological violence is abhorrent and disgusting, not to mention physical brutality. It is said that trips teach the futility of violence, wars included.

Schools, which claim to teach the heritages of their societies, are rejected no less vehemently for making that very claim. The young who proclaim the appropriateness of their electric sensibilities argue that a school system which attempts to foster industrial values is engaged in a process of mechanical propaganda no less insidious than any other form of brainwashing. It is said that schools, and especially multiversities, are information factories designed to process young people into readiness for alienated roles in the military industrial complex, from which the young are already in full flight. Some even argue that universities are worse than battlefields since they are the training grounds for them without acknowledging that that is their nature. Universities are said thus to add hypocrisy to their irrelevance to the electric age.

Attending to these themes over and over again, the participant observer gradually shucks off his surprise that "heads" engage so earnestly and so solemnly in "raps" on art and media in the same breaths as they rap about war and education. Their earnest solemnity is distributed equally over these topics because they are, in their view, struggling for the very existence of the only culture that gives meaning to their daily experience. They are literally fighting for their lives,.

Every culture selects from the range of human potentials, and molds the organisms that are its raw stuff in its own image. And every, culture, by its agreement that some values and behaviors are central, defines other values and behaviors as peripheral, less central, "deviant." This is no less true of the participants in the Village Project, so that, in what follows, the inference that each and every one of these young people is singlehandedly responsible for the birth pangs of a new civilization should not be drawn. For

every sane "head" we confront, we met two lost or mad ones. Yet the point lies deeper—for if, as it seems, there is a new culture aborning, then for many the birth process is extremely painful, if not injurious. But not, we emphasize, for all.

Once this is understood, one also understands why the young will gladly ignore a serious upper-respiratory infection (gained from a shared pipe) or a piece of glass in a bare foot (acquired on a stroll together). They are felt to be badges of solidarity incurred in a collective struggle, in a revolution, they say, with nothing less than culture itself at stake.

## 2.5 Understanding Understanding Media

The reader will recall that we set ourselves the task of understanding why the psychedelic culture understands itself the way it does, that our inquiry regards the electric metaphor as the manifest content, which *itself* requires explanation. In the language of my discipline, stated explanations are regarded as ideologies, themselves requiring explanation. Sociologists refer to this specialty as the sociology of knowledge, a field heavily indebted to such giants as Marx, Mannheim, and Marcuse, for their elaboration of the view that men's situations determine their thoughts far more than their thoughts determine their situations. Thus armed, we turn our attentions to the social process which has elevated the electric metaphor into a believed mythology.

It was Marx, correcting Hegel, who first revealed what now is regarded as a commonplace, although at first it seemed esoteric and arcane. In the dialectical view, when men reflect on their situation, they diagnose the injustices of their condition, and then seek to change it. They attempt to change the world as they find it into the world they want it to be, by their work. When, by their work, they do transform their situation, and then again reflect on it, they, like God in Genesis, see that the world they have made is good, or, at least, more just than it was. This process of work changing reflection and reflection leading to further work is de-

scribed as the dialectical relation between social substructure and ideological superstructure. Thus, the industrial revolution, itself a new mode of changing the world, transformed the preindustrial (Calvinist) ideology of thrift into the post-industrial (Veblenist) ideology of progress, i.e., conspicuous consumption. Before it, the devil made work for idle hands; after it, the popular view was that all work and no play makes Jack a dull boy. Mobility supplanted class struggle as inevitably as the machine replaced the bicep.

It remained for Marcuse to show that societies' efforts to generate demand even beyond the greedy dreams of conspicuous customers required them to foster what he called "surplus repression,"<sup>6</sup> i.e., to get people to believe that it was more important to repress instinctual eroticism than to develop it, because it was more important to consume (*for* society) than to transcend (*alter* society). Subsequently, Marcuse revealed that post-industrial society employs its media to establish an ideology hostile to transcendence itself, such that citizens are bidden to remain one dimensional men.<sup>7</sup> Those who attempt to rise above the one dimension society permits by creating works of two dimensions (the prototype is the consciously alienated artist who depicts the new dimension in all its transcendent glory) will find their works reduced to one dimensionality through mass media mechanisms—his work will be mass produced and mass marketed, and thus made ordinary and routine, if not tawdry and banal. A case in point was noted above—the appropriation of psychedelic art forms by the "plastic" advertising industry. One could also add long hair, acid rock, "hip" jargon and "freaky" clothes.

The relevance of these theories to our inquiry is the following: Marx envisioned a process that took an hundred years to have its full impact, and, within that time, Marcuse saw processes take their toll in less than a generation. A recent N.Y. Times article (in the business section) described third and fourth generation

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<sup>6</sup> Marcuse, H., Eros and Civilization Beacon Press, Boston, 1955.

<sup>7</sup> Marcuse, H., One Dimensional Man Tavistock Publications London, 1967.



computers, which all came about within a decade.<sup>8</sup> If we regard computers *in general* as the new technological means of production, and information configurations as the new ideological products of that process, we may calculate that societies now change ten times faster than Marx' original depiction. If we count each generation of computers separately, we confront a society which can change the structural base of its ideology four times within a decade. If ideologies are formed by reflection on the world we make by our labors, it follows that we are living in an era of such rapid change that those accustomed to it will regard even a 5 year old ideology as hopelessly irrelevant, since it no longer describes the world one confronts.

The extremity of this situation may be directly observed in what sociologists call intergenerational stratification, i.e., the generation gap. In a society which changes so rapidly, the very process' of socialization by which parents attempt to acculturate their infants, is doomed since the contents of that socialization will be obsolescent even before the process is over, even if most of it, as the psychoanalysts tell us, is accomplished in the first 5 years. Such a pace of change makes obsolete the very possibility of teaching an ideology which explains the world situation to those in a dissimilar world. When the world changes four times in a decade, it had better invent a way of comprehending itself that changes as fast as experience does. And that, I argue, is exactly what psychedelics are—a psychochemical technology which no longer bothers with the simple enumeration of the *content* of processes, but focuses the inner eye on the *exponents* of such processes. That, I submit, is the inner meaning of the term "tripping," which focuses on the *rates* of change of a changing experience, not simply on the changing content of experience.

Bitter conflicts are thus generated between those who trip and those who do not know what tripping is, who hurl the epithet "hedonism", as if *that*, finally, was *that*. Other epithets are employed, ranging all the way from subversion to seduction. Subcultural

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<sup>8</sup> first generation, vacuum tubes; second, transistors; third, integrated (printed) circuits; fourth—bioelectrics.

confrontations no less acrimonious than "race riots" have not been rare, and little documentation is needed to remind us that, but for one rare summer of flower power, relations between police and the psychedelic community have not always been cordial. The point is, tripping stratifies the *forms* of consciousness, giving rise to behaviors which uninitiates must regard as strange and unfamiliar, if not as weird, sick, and/or demented. The public media reveal that this new form of consciousness is the issue. Is it sick, we are asked? Can it possibly be healthy?

The science media are uniformly in agreement that psychedelics alter the time sense of experience. Just as computers can process billions of bits (binary digits) of information per second, so when high, can one seem to experience hours and even years in a few minutes. That is the meaning of the word "high," which describes in spatial terms an experience in which one seems to be able to scan vast horizons from above, encompassing thousands of bits of experience as astronauts take in thousands of miles in a glance.

But do not be misled by the spatial metaphor, nor by the electric one, for a more important property of the expanded time phenomenon is the following—when you expand time, you give yourself the ability to pay full emotional attention to events which in "real" (clock) time would have sped by too rapidly for your empathy to catch hold. This accounts for the observation frequently made that a true "head" will "play" with an unknown object while one more hurried than he will simply not have the time to spend on it. This property of the psychedelic experience also helps us account for the alleged aphrodisiacal properties of LSD and related substances, since, when it is not hurried, when one can give one's full time to the emotional appreciation of each caress, sexual enjoyment (any enjoyment, for that matter) is materially enhanced.

I have alluded to but two of the time changing properties of the trip—the ability to appreciate changes in rates of change, and the ability to dwell on detail. If they seem contradictory, perhaps a bit of clarification is in order, for we have not yet touched the heart of the matter.

It lies in the very nature of generalization that once made it clarify particulars. We are all familiar with the experience of uncertainty when perceiving a vaguely familiar object at a distance. As we draw nearer and its outlines become sharper, we exclaim—ah yes, it's one of those. It is just so in the case before us—with a slight variation, for acid, I believe, is only the first of many engines soon to be constructed, which engenders the ability to generalize and classify not objects, but *times*. Thus, the ability to dwell on *rates* of change brings with it the ability to more exquisitely dwell on instances of change.

You see where the argument leads. Just as the automated (second) industrial revolution generalized the first by dealing with the informational exponents of energy processing rather than simply with energy constellations (objects) *seriatim*, so the psychedelic (second) chemical revolution generalized the first (anaesthetic) one by dealing with the temporal exponents of getting high rather than simply getting stoned (drunk) time *after* time.

That is why the process of generalization, which we poor mortals attribute to the power of our intelligences, is a far more naturalistic process than we often perceive. Generalization, it begins to emerge, is that natural process whereby instances transcend their classes of events. Just as galaxies generate stars which expand the limits of galaxies, as men make worlds which outmode their world views, so now we are witnessing one of the most far-reaching revolutions ever to come from human effort, i.e., we are beginning to pass beyond (*depasser, aufheben*) the era of human history which, impelled by the scarcity of objects, clung to the dream that the endless production of objects would set us free. Now that the young can directly experience a world in which cybernetic automation makes scarcity an obsolete concept, they begin to inhabit another whole realm, the dimension of time, which Einstein brought to earth after his promethean intellectual trip.

If we seem wholly supportive of all of the values of young psychedelists, let us not be misunderstood. Our task here is to analyze the sociological currents on which psychedelia floats, not

to examine in detail the pathologies of some of its incumbents. It is one thing to examine the social forces which drive a movement—it is another to focus on the plight of those so driven. Entirely another matter is the question of action—what shall we do for those damaged by misuse of psychedelic substances. These are tasks for another writing.

## 2.6 Conclusion

I hold, then, the view that our culture has so accelerated the *pace* of societal change that the simple serial encountering of one experience after another has become obsolete for its young, who are trying to dwell exponentially (i.e., to generalize) on what we elders can only manage arithmetically. They are not only as comfortable in the realm of time as we are in the realm of space, but they have a sense of adventure and discovery about time which many of us have about space. While we build rockets to take us to the stars, they attempt to build a culture which will take them into temporal regions of mind which we will fail to comprehend with merely spatial models.

In my view, this adventure, and its corollary misadventures, is absolutely central to what we are about as a species. The young seek nothing less than the next step in the evolution of human consciousness, the transcendence of spatial, linear, one-dimensional consciousness.

It is clear that this is no small undertaking—that the risks are terrible, that the likelihood of tragic mistakes is high, that there will be fatalities and large numbers of casualties. I fervently wish that they were unnecessary and aim my work to prevent as many as possible, and to assist in the healing of those we fail to prevent. For it is true that many of those embarked on this adventure are as blind to its dangers as they are unaware of them, so that they are often foolish and often injured.

And yet, there are some who know, who hear the music of the spheres, who accept the deeper challenge to carry history forward. These will be found, on close examination, when they have removed some of the outmoded ideological baggage we force them to carry, to be engaged in founding a new form of temporal consciousness, which I call "groovin' on time."

# Chapter 3

## Time, Pathos, and Synchrony: Accelerating Alienation

### 3.1 Introduction

This paper is one of a series reporting participant observation on the relation between the “psychedelic subculture” and the almost unexperienceable rate of social change endemic to our post-industrial environment. “*Acidoxy versus Orthodoxy*”<sup>1</sup> compared and contrasted some of the value conflicts between “heads” and therapists as they experience their respective changes. “*Groovin’ on Time—Fragments of a Sociology of Psychedelia*”<sup>2</sup> examined the hypothesis that psychedelic drugs represent the beginnings of an emerging psycho chemical technology enabling *homo sapiens* to manage the otherwise unmanageable rate of social change generated by cybernetic automation. In this chapter what is explored is the view that our post-industrial *rate* of social change radically alters the notion of “alienation”, anachronizing and rendering obsolete some of the very criteria we have been accustomed to use in attributing the statuses “mental health” and “mental illness” to individuals, groups, and/or “subcultures.” In addition it is argued that the rate of change inflicted by the current cybernetic environment on individuals, groups, and/or subcultures calls for the delineation of wholly new criteria as to whom we should call “alienated”, mentally healthy and/or mentally ill. Application of these criteria throws light on the differences between a “bum trip”

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<sup>1</sup> Gioscia, V. “*LSD Subcultures: Acidoxy Versus Orthodoxy*” See Chapter 1, this volume.

<sup>2</sup> Gioscia, V. “*Groovin’ on time*” See Chapter 2, this volume.

and a good one, between tripping and schizophrenia, and, in addition, help us to put the double bind hypothesis in a perspective rendering it susceptible to further generalization and specification.

In our view, bum trips, schizophrenic episodes, and other "hang ups" are called "alienated" because, in an environment which changes faster than we can comprehend it, we become addicted to outmoded conceptions of the temporal nature of human experience. Abandonment of these unnecessarily limiting conceptualizations is facilitated by examination of an alternative metaphor.<sup>3</sup>

We shall argue that recasting the dialectical metaphor can provide theoreticians and clinicians with a new way of understanding the social genesis of individual "pathology" and suggests a way to transcend it.

## 3.2 Observations

As everyone knows, New York's Greenwich Village was the location of the largest permanent assembly of "heads" (regular users of psychedelic substances) in the nation: or in the world, for that matter. But what is becoming equally well-known, through increasing advertisement in the several media, is that New York and San Francisco no longer may lay claim to a monopoly on psychedelic enthusiasts, especially since those college campuses which do not report the existence of their head contingents are only exactly that, i.e., those who do not report. Few doubt that they are there nonetheless, and it is becoming increasingly clear that not all of them wear long hair, since even high school teenyboppers now practice that form of communication.

Network radio is thoroughly aware that the special music of psychedelia, sometimes called acid rock, is a two billion dollar business which it ignores at its peril, notwithstanding the exquisite

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<sup>3</sup> Gioscia, V. "On Dialectical Time" See Metalog, this volume.

paradox that acid lyrics put down the sort of (bureaucratic) "up-tight" consciousness of which the networks consist. Similarly the most brilliant films and videotapes now emerging from head culture, which laugh in tragicomic dada style at the "strait" movie world, are being sought by the same networks and movie worlds whose existence they mock and subvert. Few painters ignorant of the psychedelic experience are counted in the avante garde, as are few practitioners of post-New Left politics. Clinics opened with the aim of offering relief to those "damaged" by their drug-induced adventures quickly discover that there are at least two kinds of acid enthusiasts: heads who know what they're doing, who therefore don't want any "help" of the traditional kind <sup>4</sup> (psychotherapy, job counselling, family therapy, *et al.*); and very young patients who seem adrift in the chaos of contemporary life, the angry lost runaways seeking refuge, peace and a meal, maybe. Universities find themselves in a situation not essentially dissimilar, since often, as Kenniston <sup>5</sup> reports, the brightest kids, who have the best ideas as to what the universities must become if they are to survive, are those who are closest to the head scene. Young bi-cultural professors (half intellectual and half hip) are decreasingly rare. Record companies now employ "company freaks" who mediate between bedraggled looking rock groups and vested company executives. <sup>6</sup> The demand for young therapists who "know acid" soars while hope of finding them in sufficient numbers approaches the vanishing point.

Observations of similar phenomena are not hard to assemble:

A graduate Sociology student teaching in a "ghetto" grammar school (to avoid the draft) plans a thesis on why the black kids who used to see through the political slogans of the "War on Poverty" at age twelve, now do so at age nine, and even earlier.

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<sup>4</sup> "Status Report #1" of The Village Project, a social agency for alienated youth sponsored by Jewish Family Service of New York. September, 1968 (mimeo).

<sup>5</sup> Kenniston, K., "Heads and Seekers: Drugs on Campus, Counter Cultures in American Society" *American Scholar*, vol. 28, no. 1:97-112, 1969.

<sup>6</sup> *Mayday*, January 20, 1969, #14.



A Philosophy Ph.D. drop out from Berkeley guest-lectures to a Social Pathology class at a small university, during which he first puts down the audience for not understanding McLuhan, then, putting down McLuhan as nostalgic, begins extolling "Bucky" Fuller.

Three black pre-teens helping to collect dollars during the Living Theatre's performance of *Paradise Now*, pocket every other bill, giggling "shee-it" at the naivete of the bourgeoisie who think they're "contributing to a just cause."

A conversation at a coffee house examines for two hours *why* the strobe light behind the Beatles film *The Yellow Submarine* helps enjoy it *if* you're high on pot.

Young clinical psychologists who protest they haven't learned anything fundamentally new since they began "training" wonder if acid therapy will render their educations obsolete.

Exotic nightclubs offer total environments of mixed media, renting out shifting sound-light-movie-slide-music-video walls, with individual earphones and semi-transparent gowns for seven dollars an hour.

Four interns and their wives look for an inexpensive house in the "East Village" to establish a commune offering free medical care evenings and weekends.

The Philosopher Whitehead proclaimed in 1950 that the West had witnessed more change in the last 50 years than in the last 50 centuries, and the several commissions investigating the 21<sup>st</sup> century announce that the rate of social change in the year 2000 will have become 300% faster than it is now.

Private portable video cameras and tape recorders were owned by 5 million Americans by 1970.

Scientists at MIT are investigating whether video-holography will replace television as the major medium of the next decade.

### 3.3 Discussion

The foregoing are all examples of a phenomenon increasingly observable in our age of rapid change. What is common in each observation is a discrepancy between two rates of change, to which we apply the term achrony.<sup>7, 8</sup> Achronistic situations are found when those accustomed to one rate of change are confronted by another. Those accustomed to a rapid rate who find themselves in a decelerating situation are thus not entirely dissimilar to those who are accustomed to a relatively slow rate of change who find themselves confronted by an accelerated one. Both experience a change in the *rate* of change they are used to, although, to use an algebraic metaphor, they are oppositely signed.

But calling one change "positive" and the converse "negative" clouds the potential severity of the emotional experience engendered by such situations. For example, if "identity" is based on the expectation that a given rate of change will continue to obtain throughout one's life, "positive" changes in the rate of change will precipitate continuous identity crises. In psychoanalytic language, this means that one will constantly face a situation in which one's identifications become increasingly obsolete. The fact that persons faced by the prospect of identity annihilation often resort to violent defensive actions in order to maintain their identities<sup>9, 10</sup> focuses the severity of achronistic plights at the appropriate level of magnification. This sort of thinking leads logically to the abandonment of philosophies based on sameness, or identity, since these concepts suggest a permanence and stability which it is no longer possible to observe in any but the most remote culture still untouched by cybernation.

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<sup>7</sup> Gioscia, V., "On Social Time." See Metalog, this volume.

<sup>8</sup> Gioscia, V., "Adolescence, Addiction, and Achrony," op. cit.

<sup>9</sup> Dunaif, C. and Gioscia, V., "Violence and Family Process." Report to the National Crime Commission, in archives of President's Commission on Law Enforcement and the Administration of Justice, Washington, 1966.

<sup>10</sup> Gioscia, V., "Sources of Violence in Contemporary America." Paper presented to Farmingdale Public Library Association, October, 1968 (mimeo).

An even more somber example comes into view if we look at the so-called generation gap in an achronistic perspective. The young for whom each new experience represents a greater percentage of their entire experiential world, can, for that reason, accept change experiences far more readily than their adult counterparts, for whom new experiences constitute a lesser percentage of their total accumulation. The truism that most kids are far more open to change than their elders, is only partly explained by the fact that adults, by the time they have reached adulthood, have slowed down their rate of change as compared to their young, who are still changing rapidly. It is also partly explained by the fact that the young were born into a world that was already changing faster than the world into which their parents were born, so the two generations not only change at different rates, but they are *changing their rates of change at different rates*. The "gap" problem is thus far more serious than the adjectives "traditional versus innovative" suggest, for the "gap" is not simply one set of norms against another—it is actually one set of *rate* norms against another. The generations are quickly growing further apart.

Mathematicians and astronauts are accustomed to calculate such rate discrepancies by placing them in differential equations, where the  $x$ 's and the  $y$ 's, so to speak, are changing rates of acceleration and deceleration. Clearly, if you want to calculate exactly *when* and *for how long* to fire your rocket engine to boost your *acceleration* from sub-orbital to escape velocity, *how long* you may continue to *decelerate* due to earth's gravity, *when* you will begin to *accelerate* due to moon gravity, *when* and *for how long* you should fire your engine to escape moon orbit, and *when* and *for how long* you must fire to *decelerate* in order to land safely, clearly, you had better master changing *rates* of change.

It is less commonly observed that exactly the same sort of exquisite timing is called for in comprehending the rates at which technology alters our social and personal lives. Factually, we do not have the ability to calculate with comparable precision how to accelerate and decelerate the rates of social change that govern

us. In this perspective, it is curious to note that so few have even sought, so to speak, the gas pedals and the brakes of our society. More curiously, when they are sought, a cry and a harangue are heard that control over the rates of commonly change-inducing technology will lead to facism, imperialism, socialism, communism, name your poison.

Yet, few dispute that it is to technology that we must look if we wish to locate the forces accelerating our rate of change. The situation becomes urgent when we note that machine technology, which outpaced muscle power a hundredfold, was itself outpaced a millionfold by the early computers, which in turn were outpaced another millionfold by current nanosecond computers, which do more than two billion bits of arithmetic per second. To put it mildly, automation increases the rate of change of work, which, in turn, increases the rate of change of the society in which that work is done. Similarly, cybernation, which is the automated work of processing information, has vastly increased the rate at which information and feedback change the environment. We must thank McLuhan for reminding us that we are in a very different world from the one in which a few monks labored for years to produce a few illustrated bibles. Now, billions of words in millions of books and hundreds of thousands of magazines leap out at us from our cybernetic environment. The scholar is not the only one faltering in this gale of words. Nor are the children alone in receiving the combined barrage of TV, radio, and other forms of urban din, whose *rate* of increase, I need hardly remind you, is increasing.

Very well, you say. Granted. The rate of social change is increasing. So is society's information output. What has all that to do with "alienated youth"? with LSD? with schizophrenia?

### 3.4 Theory

It lies in the very heart of that process we call "generalization" to array a large number of common instances under one idea, to which we commonly affix a name, which labels it as the class, or

set, of all such objects. We usually perform this magic on classes of objects we can see, visually, and for similar reasons, have come to believe that only visible objects lend themselves to the process of generalization. And, since time is something we don't see, visually, we have come to believe that it is not a member of the class of generalizeable objects.

But this is false, as the astronauts of more than one nation continue to visibly demonstrate. Their trips are vivid proof that a very substantial theory of temporal generalization does in fact exist.

And, as has been argued elsewhere, the LSD trips of those astronauts of *inner* space we call "heads" also provide us with proof that times are experientially generalizeable, that tripping is an experience of temporal generalization, in which the exponents of time, or rates of temporal change, and not simply mechanical succession, are deliberately enjoyed for their own sake. Heads who manage to trip successfully and without discernible damage are perfectly comfortable with shifting rates of joy.<sup>11</sup> Indeed the more rate changes one enjoys, the better the trip. This is because acid, for heads, seems to confer the mysterious ability to expand the apperception of time, such that, when you have more time to enjoy what you're into, you enjoy it for a "longer" time.

To put it another way—if you experience your experience at a slower rate than your wristwatch, you will feel that you have more time to spend on each experience. However, you aren't *experiencing* slower than your wristwatch. In fact, you're processing *more* information than usual (for example, your eyes are dilated, letting *more* light in). Thus, while it helps a little to say that it feels like you're going slow and your watch is going fast, it is more accurate to say, as heads do, that you're high, as in a higher level of generalization. Another metaphor describing the high is this:

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<sup>11</sup> Kurland, A. and Unger, S., "The Present Status and Future Direction of Psychedelic LSD Research with Special Reference to the Spring Grove Studies," January, 1969 (mimeo).

imagine walking on your knees, underwater about four feet deep, then standing up into the fresh air and blue sky. Now imagine that the water is clock time (or, as Heidegger called it, *Das Element*) and that time is to us what water is to a fish. Now ask yourself—what is this fresh air and blue sky *above*?

It must be another *kind* of temporal experience. One which generalizes clock time, hence both transcends and illumines it, as a generalization illumines a particular. Clock time is seen as *only one* of the kinds of temporal experience you can have when you become aware of other kinds.

But how is this possible? Isn't there only one kind of time, the succession of one moment after another, that is, what Bergson called duration? Perhaps the physicists are the right people to answer this question. But be prepared even there for a surprising answer, since some physicists have now accustomed themselves to the idea that time is not an invariant, and that not all fundamental qualities (e.g. the positron) are, as they say, anisotropic,<sup>12</sup> or one directional. And it just may be that there are *other* kinds of time if we but knew how to look for them.

But, whatever the physicists find, theoretical and clinical scientists do not have to pore over abstruse mathematical equations to become aware of an experience in themselves and in their constituency of a very common experience, namely, that sometimes(!) experience seems to drag, so that minutes seem like hours, and, "at" other times, experience is so joyful that hours seem like minutes.

What I am asking you to imagine, if you have not had a psychedelic experience, is a region of consciousness in which time becomes so elastic that both expanding and contracting time become only two of the qualities of another whole region of temporal experience. In addition, I not only ask you to imagine it, but I suggest that the experience of this region is absolutely commonplace, a common characteristic of everyday life.

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<sup>12</sup> Whitrow, G. J., *The Natural Philosophy of Time*. Harper (Torchbook), New York, 1963.

To understand this, you have but to reflect that a generalization, *any* generalization, consists of arbitrarily drawing an imaginary temporal parenthesis around a number of remembered experiences you have had before, so that you say, in effect, these are all kind "A" and the rest are kind "not A." That is, as Hegel <sup>13</sup> noted long ago, negation is constitutive of assertion. You must say this is *one of these and not those* in order to say this is this. You must, as Plato <sup>14</sup> noted long before Hegel, *re-cognize* in order to cognize at all.

Dialectical theorists are wholly familiar with this line of reasoning, which was sufficient unto the task of describing how we generalize as long as the world moved by at a relatively slow and manageable pace. In such a world, the frequency with which a number of A's came by was relatively comfortable, and one was under no special press to construct categories to subsume all such A's. Aristotle, as I recall, constructed a metaphysic in which 10 categories subsumed the entire cosmos.

But now when the pace at which new A's enter experience is so fast and furious that we must become specialists in order to manage ever smaller quadrants of daily life, the situation is almost totally different. Marx described an industrial revolution that took a hundred years to elapse. We now process experience via computerized machines that change the nature of the environment in ten years.

And heads devise environments in which a dozen movies, a dozen symphonies and a dozen Kaleidoscopic strobe lights barrage their consciousness with sensations as awesome in number and kind as the birth of a galaxy billions of light years in "size."

Confronted by a rate of experience of such stupendous (or mind blowing) complexity, the human mind must attempt to recognize faster than ever before. To do so requires wholly new *kinds* of generalizations. Therefore, we should not be surprised

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<sup>13</sup> Hegel, G. W. F., *Logik*, 2 volumes.

<sup>14</sup> Gioscia, V., "*Plato's Image of Time*." Ann Arbor, University Microfilms, 1963.

that many people in diverse regions of society have begun to move beyond generalizing only visible objects, by attempting to generalize (invisible) *times*. Many are beginning to learn how to have such experiences comfortably and joyfully because they know that just as duration generalizes rest, as velocity generalizes duration, as acceleration generalizes velocity, so there are other kinds of temporal experience which have as their particulars, changes in the rate of change. They confirm William James' <sup>15</sup> view that there are regions of mind as unusually different from our waking consciousness as our waking consciousness differs from our dreams.

One of these regions, I hold, is filled with that kind of time heads call "high," a region which consists of the *generalizations* of our more banal experiences of duration, velocity, and acceleration. I think we have become aware of it recently, because the number and kinds of change-experiences thrust on us by our hurtling cybernetic environment—has made obsolete our usual method of making generalizations, that is, of *recognizing* our world in traditional spatial categories.

This view gives us the basis of an answer to our central inquiry which may now be rephrased as follows. Could it be that a higher more general *kind* of time-experience may be in conflict with a lower more special time-experience, as a meta-message may be in conflict with a message, as in the double bind theory of schizophrenia? That a bum trip consists of the annihilating terror of being in what feels like two different *times* at once? Could it be that time, which we thought at its very interior core to be the rate of things, might consist of levels of itself characterized by differing rates of occurrence, such that clock time is only one specific form of experience?

The hypothesis is attractive, since it helps to explain why some schizophrenics are described as stuck in "concrete (linear) thinking" while others seem lost in a strange world of racing images. It helps to explain why "talking somebody down from a bum

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<sup>15</sup> James. W., *Varieties of Religious Experience*, various editions.



trip" consists essentially in telling him to "go with it"—"get into it"—"ride it" "follow it" "it's all right—it's all valid experience." It even helps to explain why it's called a trip, as if it were a voyage in time.

In this connection, it is instructive to recall the theoretical paradigm of the double-blind theory of schizophrenia. Bateson and his co-workers wrote:

Our approach is based on that part of communication theory which Russell has called the theory of logical types. The central thesis of this theory is that there is a discontinuity between a class and its members. <sup>16</sup>

If we recall that the *genesis* of a logical class is a generalization made to re-memberallexperiences of a given kind, it begins to be clear that double-bound (schizophrenic) persons are those told simultaneously to remember an experience as a member of a class and "at" the same time to deny validity to the experience of that class. In other words, the bind prohibits the experience of generalization (uniting past and present experiences in a synthesis), yet commands the present experience to be familiar. This annihilation of memory negates the very process of present experience.

Bum trips, like schizophrenia, are therefore well described as failed dialectics, since their pathology results from the negation (of "normalcy") not itself being negated. Some therapists encourage the schizophrenic to "go on through" the process of madness, since they believe, and, I think, correctly, that madness is only the first moment in a dialectical process, that madness itself must be negated after it negates "sanity." <sup>17</sup> The above is only a very fancy way of defining the word "freaky" in the context of a "freak out" philosophy, which regards episodes of madness as prerequisite to the achievement of a "higher" synthesis.

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<sup>16</sup> Bateson, G., Jackson, Weakland, D., Hally, J., "Toward a Theory of Schizophrenia." Reprint from Behavioral Science, vol. 1. no. 4:251-264, 1956.

<sup>17</sup> Laing, R. D., The Politics of Experience. Penguin Books, London, 1966.

In the instance of schizophrenia, our hypothesis suggests that there is indeed a double bind at work in its genesis, but that double binds are a very special sort of *temporal* contradiction in which the person is not only asked to remember what he is commanded to forget; he is also asked to experience two different times simultaneously. Yet this is a patent impossibility unless the person can be made aware that he will not lose his mind but gain another dimension of it by entering a region of experience in which such time conflicts are only special cases of another kind of time, -which, if he chooses, he can inhabit comfortably. Unfortunately, few therapists are aware that there is such a region, and therefore find it impossible to offer support and encouragement to a patient who is trying to find it. Therapists addicted to the view that there is only one kind of time, clock time, will obviously not be able to avail themselves of this clinical prerogative.

Heads, however, know all about this region, which is why, on the one hand, they are not baffled by a bum trip (e.g. a temporarily stalled dialectic—a 'thang up') and why, on the other hand, somebody bumtripping prefers an experienced head to a therapist innocent of this information. A head will say—"Keep going," a "strait" therapist is likely to say—"Come back." As in the case of the "generation gap," here are two groups changing at different rates of change: the one attempting to devise learning experiences for themselves which expand the ability to handle exponentially increased rates of information confrontation, the other advising a diminution of that same ability. This is often regarded as antipromethean advice.

Although the traditional name applied to the class of events described above as failed dialectics is the word "alienation", there are several reasons to believe that the term is dated, i.e., obsolete.<sup>18</sup> Originally, Feuerback used the term to describe the condition of estrangement *lovers* felt when they were drawing apart when they wanted to draw together. Hegel applied the term to *all* dialectical processes which were half-complete. Marx applied the term to

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<sup>18</sup> Feuer, L., "What is Alienation? The Career of a Concept" in *Sociology on Trial*, M. Stein and A. Vidich (eds.), Prentice-Hall, New York, 1963.

*social classes* in unequal relation to the means of changing their historical situation. While it is correct to observe that so-called alienated youth stand in an unequal relation to the masters of our technological environment, and to observe that youth is "alienated" from such institutions as the draft, universities, business, and political parties, it is necessary to observe a crucial difference between Marx's proletariat and today's psychedelic generation, namely, *this generation does not want to belong to a culture it finds obsolete. It wants to change the rate of culture change, not simply its contents.*

For this reason, we must begin to speak of the post-cultural era as the ideal of radical youth. For the same reason, we may no longer properly regard them as a "sub-culture" having most of their norms in common with us and a few deviant norms thrown into the bargain. In a very real sense, the generation of youth who are experimenting with technologies which may well master rates of experience far beyond our present mastery, may with some justice regard the strait world as alienated from the kind of post-cultural world we shall all soon inhabit if current technology continues to accelerate its rate of change.

It seems preferable to reserve the term alienation for those situations in which two lovers, or classes, or sub-cultures, stand in unequal relation to the *means* of achieving a goal they clearly envision as their desirable condition, and to apply the term achrony when the discrepancy experienced by antagonists is one of *rates* of change. They are very different experiences which ought to have their own terminologies. (The final chapter discusses how achrony generalizes alienation by focusing on the *rate* exponents of that condition. Suffice it here to say that it is difficult to agree on the means of change while disagreeing sharply on the rates which seem likely to bring it about "in time.")

### 3.5 Conclusion

The central nervous system functions, as Freud observed, like a cell wall, keeping certain things in and certain things out, by regulating the rate of substances exchanged between cell and environment. LSD seems to have the power to speed up the pace at which the central nervous system engages in a dialectic with the environment. It seems to do so by opening the door to higher regions of temporal experience, such as changes in the rates of change. When these rates are harmonious, like notes in a chord, we experience a synchrony of times, a joy which is very like the music of our experience. When they are "out of sync," as video people say, we experience a shattering horror, a temporal bind, in which various aspects of ourselves seem to be proceeding at different and conflicting paces. This sort of depersonalization, i.e., of feeling in two times at once, is at the root, we believe, of *all* "mental illness," in varying degrees and amounts.

The same condition, in which one rate of experience is in conflict with another, characterizes the so-called generation gap, which, at the moment, comes on like a piper cub and a rocket going in opposite directions through a hurricane. Similarly, we may employ the term achrony to describe the rate discrepancy between those blacks who want dignity now and those moderates who insist it will take a long time.

Achrony, then, differs from alienation as acceleration differs from duration. It is not simply a condition of estrangement from the means of change, but a condition of temporal dysynchrony. Just as, in the spatial metaphor, you can't do anything about what's bothering you if you aren't in the same *place* as it is, so, in the temporal metaphor we have described above, you can't do anything about the rate of experience that oppresses you if you aren't in the same time dimension as it is.

The special pathology which becomes the lot of those who are unable to master the variations of temporal experience which the current pace of social change inflicts is therefore much more severe

than those forms of pathology it generalizes, since it no longer suffices to know *what* the pathogen is. We know. It is the pace at which technology outmodes our powers of generalization. The crucial issue is: can we devise modes of consciousness which can comprehend and thus master the forms of time we now passively experience.

For it is one thing to trip in a mixed media environment that blasts away outmoded concepts of time and space, which most experts agree is what acid does. It is quite another for a whole society to dwell serenely in a comfortable mastery of its rate of change, a condition of temporal peace we call synchrony. It is not obvious that we can manage the latter with anything like the felicity of the former.

The urgency of attaining a post-cultural era is not lost on the young, who know, perhaps better than those well socialized in the forties, that *if* we are to survive the seventies, we must immediately begin to devise radically new methods and strategies. It is an instance of bitter irony that we call those engaged in that adventure "alienated youth."

# Chapter 4

## **The Coming Synthesis: Chronetics and Cybernation (The Architecture of Social Time)**

### **4.1 Prologue**

Rearviewing the decade of the sixties, we can now estimate that technology has wrought more rapid social change in the last ten years than in the past ten millenia. This makes it imperative, yet more difficult, to forecast the seventies. Certain broad parameters seem partially visible, which support the view that radicals (i.e., those who go to the roots) will devote their considerable energies and talents in certain directions, among which is the elevation of control over rates of social change to first priority. Why this forecast seems likely, and what the radicals' efforts will probably be, are the principal topics of this chapter.

### **4.2 Introduction**

Waves of awareness seem to occur in societies in a way very similar to waves made by a pebble in a pool, although, in our time, the pace of social change calls for a much more turbulent 'metaphor, perhaps a river rushing angrily through its rapids. Recourse to such a metaphor would help. us to describe why there are still persistent efforts to label those who enjoy the psychedelic experience as social deviants who lack respect for law and order, notwithstanding the spreading wave of awareness on the part of many investigators that the psychedelic revolution and the cybernetic

revolution are as inextricably related as feedback is to information.  
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Nevertheless, the very pace of the wavefronts which help us to understand the relation between the age of computers and the age of acid requires us to attempt some sort of predictive navigation, lest that feeling of racing blindfolded along the river of change quickly becomes a helpless panic. Those "scientific" forms of inquiry and scholarship which the young rightly denounce as rearview mirroring are no longer sufficient, (if they ever were). In order not to crash we must attempt prophecy, for it is rapidly becoming a truism that the hurtling pace of social change is accelerating. Even if hindsight permits us to conclude that the technology of information expansion gave rise inevitably to the politics of consciousness expansion, it is time now to inquire, "What does the future look like to radicals of the post-psychedelic generation?"

Two sources of "data" relevant to this inquiry are 1) scientific-technological forecasts and 2) social-cultural innovations. Locating these data in the context of a theory of social change <sup>2</sup> may enable us to see, in the most general terms, a little of what may be in store for us, assuming we shall survive until the 21<sup>st</sup> century.

### 4.3 The Politics of Negation

Why does it seem like such a long time since the hippies first offered their flowers to our surprised faces, proclaiming the birth of a new culture embracing peace, love, and play, in opposition to our war, fear, and work ethos? The answer seems simple—so much, so much has happened since 1960. Vietnam has grown from a nightmare into a chronic international psychosis. A few tribal communes have mushroomed into thousands, scattered all over the planet. Black power emerged, universities became policed enclaves. Yippies and Chicago. At "Woodstock", a half-million

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<sup>1</sup> Gioscia, V., "*Groovin' on Time*." See Chapter 2, this volume.

<sup>2</sup> Gioscia, V., "*On Social Time*." See Metalog, this volume.

longhairs came together, turned on, and grooved on their music, with lower rates of "social pathology" than the society at large. Man has extended "his" ecosphere to include the moon, Nixon became president.

Once, Whitehead could write that there had been more change in the first 50 years of the 20th century than there had been in the 50 prior centuries.<sup>3</sup> Now, reviewing the decade of the sixties, we can say that there has been more social change in the last decade than there was in the previous five, notwithstanding the rapid invention and diffusion of automobiles, airplanes, radios, television sets, telephones, and jet planes, each forever altering the communication basis of social structure. All this *before* computers.

I have elsewhere described how the computer should be seen as a phoenix rising from the ashes of the industrial revolution, whose death knell it sounded.

Just as the second (automated) industrial revolution generalized the first by dealing with the informational exponents of energy-processing rather than simply with energy constellations (mechanical objects) one at a time, so the second (psychedelic) chemical revolution generalized the first (narcotic) one by dealing with the temporal exponents of getting high rather than simply getting drunk time after time.<sup>4</sup>

My attempt there was to show that an age whose technology processes billions of bits of information per second creates the need for corresponding expansion of human consciousness in order to experience that age, and that LSD was seized upon by the young as the facilitating agent of that necessary expansion. In short, "acid" did for consciousness what computers did for tech-

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<sup>3</sup> Whitehead, A. N., Science in the Modern World. New American Library (Various editions).

<sup>4</sup> Gioscia, V., "*Groovin' on Time*." See Chapter 2, this volume.



nology.<sup>5</sup> It spread like a wave through the children of the middle class made affluent by that technology. The turned-on generation promptly focused its expanded awareness on the values of its predecessor generation, and, finding them dangerously anachronistic, proclaimed the dawn of a new political age with new political values.

Thus was born the politics of negation, which, like every negation, came directly from the loins of its parent culture. Just as the industrial worker found his prior serfdom suffocating, so the children of cybernation found the industrial liberalism of their parents untenable.

Parents were at a loss to understand the phenomenon behavioral scientists called "the generation gap". Why did the young want so much sex so quickly and so extrafamilially? Was the family all that bad? Why were so many dropping out of school, notwithstanding counter-pressures from the draft? Did not the young want an education? Was leisurely life on the campus so intolerable? Was it preferable to living in filth-strewn poverty? Did the young actually believe that rural communes could replace urbanism as a way of life? Did they believe that film and videotape could become alternatives to mass media? Sure, parents said, there are flaws in the institutions of our culture, but wasn't working to change them better than trying to build a counterculture?<sup>6</sup> And what was all this talk about Mao, and Che—were the kids communists, fer Chrisake? Weren't they afraid of chromosome damage from LSD, and doesn't pot lead to heroin addiction? (Chorus: "What is the younger generation coming to?")

The children of cybernation treated these inquiries as double binds, commanding on one hand, conformity to (parents' views of) current society, and demanding, on the other, a rigid adherence to social norms long outmoded. They knew their culture was far beyond such quaint institutions as thermonuclear war, a

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<sup>5</sup> McLuhan, M. and Fiore, Q., The Global Village. McGraw-Hill, New York, 1968.

<sup>6</sup> Roszak, T., The Making of a Counter-Culture. Doubleday, New York, 1969.

dollar fifty minimum wage, and briefcase bureaucracy. They were not interested in patching up brutal institutions—they wanted to replace them, and not just them, but the whole tissue of their interconnection, which we call culture. Hence their fondness for visionaries who imagine another *kind* of life, not just repairs to the old one.

It was therefore not a sufficient diagnosis to say that the young were “alienated”, i.e., that they could not share in the benefits of our society because their work was inequitably rewarded.<sup>7</sup> Their work could not be rewarded in the old culture, for their work, during the sixties, was the negation of that culture, not one institution at a time, but the whole of it, from its economy to its sciences, from its drugs to its nightclubs. Negation was the watchword,<sup>8</sup> by which they meant living in *deliberate* alienation from the principal institutions of society, quietly, painfully, being “cool”, exploring their “heads,” “doing their own things” while avoiding parents, police, and the draft. Like explorers on a new continent, the trick was to avoid the hostile natives while building a community of their own. Better still, find out why the natives are so hostile, and turn ‘em on to peace, love, and play.

To appreciate the magnitude of this undertaking, imagine yourself to be a 19 year old, fully aware of the power of the military, of industry, of government, of the media, and of their attitudes to your long hair and freaky clothes, and then say to yourself—we’ll change all that, because it’s violent, inhuman, and very likely to bring the entire species of man to a whimpering radioactive germ-infested end. Imagine trying to create an alternative *planetary* culture for the human species because you know that nothing less will help it survive. If those were your aims, where would you look for resources.

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<sup>7</sup> Gioscia, V., “*Time, Pathos, and Synchrony*.” See Chapter 3, this volume.

<sup>8</sup> Marcuse, H., *Negations*. Beacon Press, Boston, 1968.

## 4.4 Beyond the Politics of Negation

The first resource of the young is their youth, which, in our time, means that they are incredibly sensitive to the changes occurring around them. While it may seem at first paradoxical, a moment's reflection reveals that it is in fact this very same sensitivity to our potentially catastrophic ecology that reveals to them its potentially beneficial resources. Actually, this is the perennial role of the critic, whose awareness of how good it might be enables him to denounce how bad it really is.

Critical youth of the seventies will therefore not be more content than their predecessors of the sixties with information doled out to them by universities, media, government, etc. The reverse is probably closer to the mark. Nor will those few "counter-institutions" they have founded, e.g., underground newspapers, film, music, be able to handle the job of informing the more than 120 million people under 25 who will populate the U.S. seventies, even if a thousand more newspapers, films, and records were to find their way into the sun. For these are only negative institutions, known to be temporary, doing the job till replacements can be fashioned.

There are several technological resources which participant observation reveals to be under active consideration by the young. Note that they require incredibly high levels of sophistication just to understand their *potential* usefulness, let alone their mastery. The young people of the seventies who are now building these devices will deserve more than ever before the term radical, since that word, as everyone knows, means, "one who goes to the roots".

1. *Videotape and Cable TV*: The fact that there are more tv sets in the world than there are bath tubs serves as a testament to the enforced passivity of the generation which owns them, for there is no way for the tv viewer to relate actively to the medium except to turn it on and off. By and large, radical youth now regard mass tv as sop unworthy of them, and even more of them will continue to do so until it stops pushing

consumer values at them. They are not into "conspicuous consumption" and their own art is vastly superior.

But video *tape* is video feedback, which provides the enthusiast the chance to do, indeed, to be, his own program, not simply in the living room, but in the classroom,<sup>9</sup> in the community, even in therapy. Have you seen yourself on videotape? Have you watched a group of young black kindergarten kids doing so? Or observed a dance class, or a theatre group, or a family therapy session make systematic use of this instant playback process to probe into where they are really at? To enjoy themselves? To make joy for others? Young radicals have been familiar with these experiences for some years now, and will press for their increasing "political" utility. Beyond the emotional liberations this medium can deliver, note that "they"—e.g., universities, tv networks, government—will be unable to subject the young so equipped to their customary editorial policies. Community news shows become possible, decentralizing the cybernetic forms of control that now program them. Conservative estimates tally 5 million vt sets now privately owned.<sup>10</sup> If it doubles every year, as tv did, we shall have 160 million vt sets in private hands in 5 years, many of them in radical hands.

But this is only half the news, since there is every likelihood that we shall interconnect our videotape systems by cable just as we currently interconnect our telephones, opening the door to such fascinating possibilities as direct (vs. representative) democracy on every level, from neighborhood to nation. Jefferson's dream of a fully informed electorate voting on everything could come true, if this drastically de-stratifying technology were not already perceived as the drastic threat it is to the existing power structures. Imagine a government without secrets, or a bureaucracy without specialization (ie., special access), or a society where information is not power

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<sup>9</sup> Ryan, P., "Cable Television and the Schools," in *Birth, Death and Cybernation*. Gordon and Breach, New York, 1972.

<sup>10</sup> *New York Times*, January 6, 1969.

for some, but for all. I am not suggesting that such a society will come about in the 70's, but I assure you attempts in that direction already occupy a good deal of radical attention.

I will not frighten you by suggesting that some combination of videotape, cable tv, and some kind of post-LSD chemical will make a bid to replace the present educational dungeons we call schools and universities. Electronic art, now in its infancy, will have matured beyond the point where a few millionaires can hoard the 10,000 most precious paintings on the planet. When we have the technology to fold feedback upon feedback upon feedback, we shall loose a revolution in consciousness several layers deeper, higher, wider, than we can presently imagine without exhausting the *present* technological capabilities of videotape and cable. We are doing such experiments at the Center for the Study of Social Change.<sup>11</sup> Who knows what lies beyond. Do radicals?

2. *Lasers and Holographs*: Once, in a moment of mirth, Tim Leary suggested that the way out of our present predicament was to put all the metal back underground. Perhaps that is impossible, but the least of the laser's potentials lies in its ability to do without wires, for, as you may know, a laser is a beam of polarized light whose special properties enable it to carry energy and information far more effectively than wires ever could.

Recent laser applications include drilling holes only 1 micron wide and 1 micron apart on special tapes, such that 10,000,000 bits of information can be stored on a piece of tape one inch square.<sup>12</sup> This makes it possible to put the entire Library of Congress (the world's largest) on 5 drums of tape which can be scanned by a computer in millionths of a second.

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<sup>11</sup> With the cooperation of Frank Gillette and others who then constituted The Raindance Corporation.

<sup>12</sup> Ragosine, V., "Magnetic Recording," *Scientific American*, November, 1969. See also *Dow Digest*, July, 1969 for a description of Precision Instrument's "Unicorn System."

Alternatively, one could carry a 500 volume library on a piece of paper no larger than a dollar bill, or enable the creation of such gadgets as wrist tv phones, or portable computers no larger than a shoe box doing whatever cooking, cleaning, and communicating Mrs. Housewife used to do while wholly automating Dad's entire factory.

It's going to be very difficult to pose as an expert (i.e., to have privileged access to information) on anything in such a world. Hence, it's going to be very difficult to make rules based on special privilege. This does not make radicals unhappy.

Another application of the laser will be the very widespread use of synchronous satellites (those which seem to stay in the same spot in the sky because they rotate with the earth) to replace telephone switchboards. Dial your friend in China on your wristphone and be in "instant" touch with him *and his culture*. International boundaries tend to dissolve under this kind of gentle prodding.<sup>13</sup> Perhaps international wars will have the same fate? Maybe not in the seventies, but please be assured that more and more radical energies will be devoted to using these technologies for the political values noted above.

A third major application of the laser is its use in making holographs, those weird plates of film which fix all the light impinging on them so that they are rather more like electric windows than snapshots, since by changing your angle of viewing you change the information you get. If the only use to which holographs were put was the transformation of 2-dimensional tv into "tri-d", that alone would be as significant an advance as tv over films, or film over radio. But such McLuhanesque advantages pale in the face of recent evidence

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<sup>13</sup> The *New York Times* recently contained the news that the Republic of India was installing just such a system to foster literacy in some 10,000 villages. (This project has since been "cancelled.")

ee, however, the brilliant paper by P. Slater, "On Social Regression," *American Sociological Review*, 28:339-364, 1963.

that the nervous system of man seems to follow principles very similar to laser holography, such that information (memory, tradition, learning—call it what you will) seems to be stored in synapses like light captured on holographs, so that investigation of one leads to knowledge of the other.

In other words, this technical breakthrough in physics turns out to be a conceptual breakthrough for neuropsychology. It is difficult to overestimate the significance of this finding since it opens the door to understanding how the nervous system coordinates not only our entire physiology, but also our transactions with the world of experience. It gives one the feeling that we have understood nothing before, that it all lies before us. Fine, say the radicals, while professionals moan and feel incompetent.

Yet, there is an application of laser physics which transcends even those described above. Recently, it was announced that physicists had focused a very powerful laser on a very few atoms of fusible material, producing in effect a tiny, controlled thermonuclear explosion, like the one which powers the sun. If this fact fails to tax your imagination, recall that work requires energy, that controlled thermonuclear fusion can become an extremely cheap source of unlimited energy, with which man can power enough production to eliminate scarcity for all of the future. This means enough food for everyone, and enough energy to send a thousand rockets to the moon, Mars, and beyond so there will be room for those so fed, not to mention the permanent replacement of enforced muscle labor by fusion-powered machines. I pass over the side benefit of planet-wide ecological health in the form of *no* chemical pollution of the atmosphere, although I hope that happens before the 15 years ecologists say we have before evolution on planet earth dies of it. In short, controlled thermonuclear fusion would mean placing at the disposal of man energies comparable to those of the sun, which Kepler, you may recall, believed was God, because it powered earth's revolution.

3. *The Body*: The body is becoming the most universally accessible research facility because anyone well enough to do research has one. Anyone with a few cheap biomonitors can wire up his autonomic nervous system to some inexpensive readout indicators and set about conditioning his own autonomic functions. Scientists at the National Institute of Child Health and Development have in this way shaped heart rates and rhythms. Many undergraduate students are currently building systems which visually display brain wave rhythms as colors keyed to their emotional preferences, to teach each other the language of each others' autonomic-cerebral functions, with the aim of more direct and intimate communication. The day may not be far away when messages of this sort will dive to the hormonal depths of our natures so that a "word" of comfort may soon substitute for the cruder "medications" we call tranquilizers, sedatives, barbiturates, stimulants, antidepressants, etc. We have come a long way from reading out the biophysical correlates of selected clinical "interpretations"; we will soon be building them to order. Control of brain waves, heart beats, and other so-called "involuntary" functions will then become quite "voluntary", so that a science of voluntary endocrinology does not seem beyond our imminent grasp. And, if Darwin or Freud or Reich or any of a dozen others were right, we may at last begin to understand and hence heal our frightened orgasms. I assure you—radicals have been into this field for quite a while, not without considerable guidance, by the way, from their newly found yoga friends. Those unhappy with the term "ecstasy engineering" may prefer the concept of affect "enhancement". You will find that the terms don't matter when you speak autonomic. Many radicals already do.
4. *Others*: One could go on with the list of roots radicals will investigate in their attempt to seize the reins of evolution. One could mention the world-ecology game currently being played by Buckminster Fuller in his attempt to plot the redistribution of all world resources, including air, intelligence, and synergy. One could describe how environmental ecologists are build-



ing furniture designed to interact with human processes; or gravitronics, in which the very waves of gravity are studied with a view toward liberating man from their grasp; or tachyonics, in which theories of particles which *only* exist at faster than light velocities bid fair to generalize not only the bulk of all contemporary relativistic physics but all notions of before and after since, in such a world, a faster than light particle returns *before* it leaves.

But such ventures are really beside the point of our present inquiry, which is, what does the future look like to post-psychedelic radicals. So far, we have merely recited a list of technological potentialities which radicals will try to use in their "political" attempts to build a new planetary culture. Is there any data which indicate they'll succeed? That is, to betray my sympathies, are there any grounds for hoping that radicals will succeed in their use of the above technologies to guide social change in a desirable as opposed to its presently suicidal direction? There are a few.

#### TOWARD AN ARCHITECTURE OF SOCIAL TIME

## 4.5 Toward an Architecture of Social Time

Beyond the obvious benefits of their youth, the children of cybernation share certain other "chronetic" advantages, among which are their *inability* to swim well in the turgid waves of capitalism but to frolic like surfers in the new media. Hence, even if they only continue their present activities, we may predict with some confidence that they will not adjust their technology to the so-called free market, but to their new political values of peace, love, and play. That is, they will continue to try to make technology serve them, rather than serving it, as we do in consumer society.

But can they bring it off? Aren't they foolish trying to tame the technological monster? When the New York Times asked Abbie Hoffman on April first what he thought was foolish, he said,

"A hundred longhairs toppling the presidency—that's foolish." Similarly, when a prominent longhair got arrested recently on a technicality, he "got off"? when he threatened to call a tv press conference announcing Yippie support for Mayor Lindsay. These anecdotes serve to illustrate the contention that the children of media power know how to use it. The principle is simple—feedback. Like those tiny Japanese wrestlers who turn an opponent's superior strength against him, Yippies forced the media, by making news, to broadcast counter-cultural commercials.

The same is true of underground film, psychedelic art, miniskirts, and let's be honest, pot and acid, which a rapidly increasing number of middle-class professionals are using with increasing enjoyment, learning how from—you guessed it—their longhaired children, or students, or patients. Now, as the number of longhaired children increases, so does the number of parents of longhaired children, who then inevitably create a powerful middle-class pressure against harsh drug laws, to which even the Department of Justice cannot long remain immune. One of our respondents put it this way: "I turned my old man onto pot. He's a judge and he digs it. So next time a kid is up in front of him, he'll be with the kid, cause he smokes too, dig?" Again, feedback.

Anecdotes of this sort underscore the point that there are energies within the establishment which radicals can bend to their own purposes. It is therefore an oversimplification to ask whether a large enough *number* of radicals can assemble enough energy to accomplish their purposes. Like Yippies and Japanese wrestlers, radicals are learning how to turn superior strength against itself, an effort in which they will enlist not only the formidable democratizing power of the new technologies themselves, but also some exceedingly strong sociological powers.

What is meant by the phrase, "... the democratizing powers of the new technologies"? Are the new technologies inherently democratizing? The answer comes in view if we recall that videotape, cable, lasers, holographs, and autonomic engineering each increase the rate of human communication. When more infor-

mation reaches more people faster, pattern recognition must be accelerated, since more patterns cognized means more patterns recognized. Recognition facilitates reflection. Reflection generates criticism. Increasing criticism generates pressure for change.

Another way of understanding the impact of technologically accelerated information flow is the following: When events occur too rapidly to feel one at a time, we respond by grouping or classifying; we can then say "all of those". But when the rate of information flow is so rapid that many "all of thoses" arrive in a very short time, we must now group all of *those*. In short, rapid information flow creates a pressure toward higher levels of generalization, which transcend prior classifications of events.

Cyberneticians will recognize here an old story—information overload, requiring new programming. "Heads" are equally familiar with this law, for LSD barrages the organism with a faster rate of experience than previous categories can tolerate, thus "blowing" the mind, i.e., dissolving pre-conceptions.

Hence, the impact of each of these technologies *can* be democratic in tendency, since each of them consists precisely in an acceleration of the amount of information processed in a given amount of time. VT consists of faster feedback, cable of more interconnections. Lasers move more information than miles of thick cable. Each holograph is like a thousand electric windows. Note that interconnecting them multiplies the rate.

As the number of persons with access to this greatly increased rate of information flow is vastly increased, there occurs an overloading of the previous categories they used to process that information. The same mind-blowing fate awaits those categories of culture we call norms, the rules governing behavior. As the rules governing behavior are barraged from all sides with information from as many perspectives, the rules are subjected to overload strains they cannot survive. Just as you can no longer hide unseemly facial gestures on a 2-way videophone, so you can no longer propagandize a community if your cables have cameras at each terminal. Just as you couldn't comfortably watch starving Biafran

children while eating your tv dinner if they could watch you too, so government will find it hard to restrict tv access and will be unable to maintain secret court hearings while demanding increased citizen participation.

Similarly, lasers and holographs will bring to billions of people the ability to communicate with each other more, and more often, than their present cultural separation permits. The same is true of the new autonomic languages we shall soon learn to speak, across current cultural boundaries. In sum, the democratizing *potentials* of these new technologies lie in their power to negate preconceived categories of privilege, and to necessitate higher levels of generalization. That is, they accelerate transcendence.

But the democratizing power of the new technologies is not the only energy to which radicals have access. There are formidable sociological energies as well. To observe them, we need only note that radicals have already demonstrated considerable ability to accelerate their own pace of social change, accelerating ours in the bargain. Does anyone seriously expect them to slow down in the foreseeable future? The fact seems to be—they *are* making a new and faster culture, not just negating the old one. We are already changing faster than we want to, though not nearly fast enough for them. They are democratizing faster than we are, and we envy them for it. They seem to know where the pace-makers of social change are, and they seem to know how to regulate them.

For example, they demand more democratic universities. First we gas and club them, then admit they were right, then go along part way. Would we have gone so far so fast without their urging?

They are democratizing sexuality, insisting that we throw off once and for all those remains of puritanic morality which still infect us. We bellow in outrage, arrest them for nudity and indecent exposure, then flock to *Oh Calcutta*, *Che*, and *I Am Curious (Yellow)*. Would we have gone so far so fast, if not for them?

They exhort us to play instead of mechanical labor. We call them bums, parasites, and loafers, arrest them for vagrancy, then automate another thousand jobs and fly off to Acapulco.

They: turn on with drugs different from ours. We resurrect prohibition, barricade the Mexican border, give them 15-year sentences for possession of two marijuana cigarettes, then secretly try it ourselves and find it is better than 2 martinis on the rocks. Maybe this time they'll help us avoid the silly retrogression that prohibition was. I doubt we could do without them.

But examples are not theory. It does not suffice, although it helps, to note that the Woodstock and Isle of Wight Festivals assembled a half-million longhairs peacefully, joyfully, playfully. For numerical strength is *not* the root issue.

## 4.6 Chronetics and Cybernation

The root issue seems to be: how does technology induce social change. The answer seems to lie in the realization that technology itself is the result of two intersecting environments, which we call "science" and "culture", the former referring to a specific set of beliefs (or preconceptions) which the main body of professionals regard as the "laws of nature"; and the latter referring to an unstated but even more firmly held set of beliefs (or preconceptions) which the majority of men in a given society regard as the laws of *human* nature. "Discoveries" in one field, without interaction with the other, simply do not become "technology", by which we usually mean the material techniques a culture builds for itself to mediate its environment.

Thus, technology does not, by itself, explain why social change comes about, for it is first necessary to inquire why a given technology is adopted. Why, for example, did the Chinese discovery of rocket power never get beyond the level of firecrackers for 5000 years. Why did Plato's discovery that the earth was round lay dormant until the Renaissance. There are many other exam-

ples. Although we are all familiar with the phrase, "Nothing is so powerful as an idea whose time has come", we seldom make full theoretical use of it. Social change, in my view, occurs exactly then—when an idea finds its fertile time. Knowing when and why the time is right—or better, knowing how to *make* it right—would enable one to understand and, hence, to modify social change.

It begins to be apparent that there are very sound and sophisticated "political" reasons for radicals' investigation of communications technology, since communication is the life blood of culture—the medium, as it were, in which given cultural norms are the messages. A generation which mastered those communication processes could indeed refer to itself as the architects of social time, since their principal energies would be devoted to the investigation of how most efficiently to communicate the most information relevant to species survival to the largest number of people, in the fastest possible time.

Radicals' investigation of media physics thus turns out to be a political act, aimed at altering those assumptions on which all human cultures have based themselves so far, i.e., the belief that war, fear and mechanical work are the necessary attributes of human nature. Radicals hope that new planetary media will render wars obsolete by rendering national boundaries obsolete; that they will render fear of the stranger obsolete, for who will be the stranger when all men communicate as brothers; and that they will render dull work obsolete by providing lovers with time to love while fusion energy powers the world's production.

Perhaps an apochryphal story is the way to end this attempt at prophecy. Legend has it that Marx was once confronted with the objection that his vision of history was transhistorical and naive if he thought all men under Communism would finally be happy. He is said to have replied, "I did not say all men would be happy. Perhaps, when that time comes, men will finally begin to suffer as *men*—all prior suffering having been animal."

Perhaps young radicals' vision is comparably transhistorical. Perhaps technology will overcome them, leaving robots the heirs

of men. My attempt has been to show that this is very unlikely. One thing is certain—the time is right, and they know it.

# Chapter 5

## Psychedelic Myths, Metaphors, and Fantasies

### 5.1 Abstract

Subcultures create their own dialects composed of special words and phrases embodying their special experiences. Hip language is an example. Consideration of some aspects of the special vocabulary used by psychedelic enthusiasts provides an entry into the special myths, metaphors, and fantasies of their "subculture". Among these are the "electric" metaphor (e.g., turned on, channels of communication, bit, etc.); the cybernetic metaphor (e.g., feedback, playback); McLuhanisms (e.g., media, message, cool); and others more manifestly psychiatric in reference (e.g., paranoid, hang up, etc.).

This chapter arrays these sociolinguistic data in support of the hypothesis that psychedelic myths, metaphors, and fantasies are largely *responses* to discrepant rates of social change engendered in post-industrial societies by their variety of new technologies. Discrepant rates of social change engender discrepant rates of experience, a condition we term "achrony". It is suggested that "achronistic" experiences generate the psychedelic myths, metaphors, and fantasies discussed. The question raised is—are radical hopes "mere" fantasies?



## 5.2 Introduction

Participant observation is a method of research which suffers paradoxically from its own merits, since it yields up far more data than one can neatly conceptualize and statistically manipulate. Nevertheless, clinicians and social scientists have long been aware that it is often the method of choice, especially when the universe to be sampled is of indeterminate size or character, or when the subject of inquiry is of such known complexity that the complexity itself becomes the subject of inquiry.

For example, clinicians and social scientists whose interests acquaint them with members of the psychedelic generation quickly become aware of a bewildering complexity of themes recurrently expressed by members of this subculture. These include aspects of Eastern mysticism, Western pharmacology, Egyptian theology, Greek astrology, Japanese diets, and a veritable panoply of similarly esoteric elements. Early in their encounters with psychedelic protagonists, clinical and social scientists are greeted with what seems to be a private language, complete with its own nouns, verbs and adjectives as well as syntax, grammar, and structure. Increasingly, many investigators are beginning to conclude that their ignorance will remain fixed unless they master to some degree the complexities of this sociolinguistic universe. And, as they do so, they become aware, along with their increasing fluency, that the words and sentences of this subcultural jargon, like the words and sentences of their own professional vocabularies, resemble icebergs, only a fraction of which are available to "conscious" observation, the remainder being submerged in a sea of shifting sociocultural and idiosyncratic currents. If we wished to know, in a given encounter, not only what the words mean in general, i.e., in American speech, but what they particularly mean, i.e., to the individuals speaking them, we would be well advised to devote attention to both aspects. The principal aim of this chapter is to focus attention on the sociocultural aspects of psychedelic speech, to assist those investigators who wish to understand how what is (1) cultural, what is (2) sub-cultural, and what is (3) psychological, may be more sharply delineated. Such efforts follow

the lead of Henry Murray, whose maxim, "All men are like all other men, some other men, and no other men", became part of the founding philosophy of that field anthropologists call "culture and personality".

The general hypothesis woven through the paragraphs that follow is that language is properly included in that class of social events which have in recent years experienced the tremendous impact of the changing technologies characteristic of contemporary societies. Specific hypotheses with regard to the impacts of particular technologies on particular populations are then derived and tested with sociolinguistic data. I will attempt to show that an understanding of the impact of certain technologies on the lives of the psychedelic subculture helps us to distinguish psychedelic myths (i.e., beliefs shared by most 'members of the subculture) from metaphors (favorite comparisons used by the subculture to compare itself with the general American culture) and from fantasies (apparently idiosyncratic acts of imagination by individual members of the subculture). Failure to draw such distinctions increases the danger that observers will infer psychological disease (e.g., hallucinations) where none exists, and conversely increases the danger that legal and social scientists will attribute to pharmacological agents powers that actually reside elsewhere (e.g., the technologies characteristic of post-industrial societies).

### **5.3 Method and Procedure**

In addition to its usefulness in managing complex data, participant observation permits great flexibility of operation, so that one can learn, not only from living in the neighborhoods where his "subjects" (including himself) live, but one may move about in the many places where his subjects behave, including hospitals, universities, coffee houses, and underground theatres. Here too, the method suffers from its virtues, since cogent objections against the reliability and validity of the data so derived may be well-founded. Suffice it then to assert at this point that I have learned the language in the many places where it is spoken. You will have to

judge for yourself whether the generalizations I derive therefrom describe the population with which you are acquainted.

Procedurally, I will first present a list of words and phrases drawn from this language. I will then show that groups of these words and phrases can be shown to have their origins and contexts in the several technological characteristics of our society. I will then attempt to show *how* the experiences generated by the various technologies operating in contemporary society generate some of the myths, metaphors and fantasies characteristic of the subject population.

## 5.4 Selected Aspects of the Psychedelic Dialect

A glossary of words used by the psychedelic generation published in 1966, began with the caution, "Of course, by the time you read this, it may well be out of date". It begins with the word "acid", of course, then lists the word "backwards", which it defines as 'tranquilizers or any central nervous system depressant'.

Proceeding alphabetically, on our own list, we would next list the word "bit", which means any item of information or behavior, as in "that bit". A "bummer" is a bad trip, or any bad experience. Someone who has had too many trips is said to be "burnt-out". Someone who has had a number of good trips is likely to be "cool" about it, i.e., relatively uninformative unless asked by a trusted person.

A trip may begin well but may end badly. The painful termination of any experience, by extension, is termed "crashing", or "coming down hard". This is especially likely if one "uses" "crystal" (or "speed", or "forwards" or "ups", i.e., amphetamines or other central nervous system stimulants). Someone who is deeply into the interior (vs. the social) aspects of a trip is "destroyed" (or "zonked", "out of his mind", or "spaced"). Contrary to popular belief, it is entirely possible to "dig" (or enjoy) such experiences.

One can "get into" them if one knows how. One can even dig experiences which "blow your mind", i.e., dissolve those structures of consciousness on which we ordinarily rely for "sanity". One who does not understand such mental events will probably "bug" (bother) one who does, with his irrelevant questions. One who knows how "high" another is may get a 'contact high" (empathetic euphoria) in communicating with him. "Copping out" means resorting to conventional vs. "hip" explanations or behaviors, i.e., giving up.

If something is really "groovy" (particularly enjoyable) one may say it is "crazy". An "out of sight" or "far out" (avant garde) experience is particularly groovy, but not quite "mind blowing". People who don't know how to "groove" are said to be a "drag" (i.e., they reduce one's joy). Drags tend to "bring down" or "turn off" people who would prefer to be "high" or "stoned" (using a psychedelic drug or being high or stoned on, or by, anything else they happen to be "into" or "grooving on"). The trick is to "turn on" (be high on something, not necessarily "dope", i.e., any pharmacological substitute) and to stay turned on. Then one can "grok" (dig communicating, or meditating joyfully and profoundly).

If one "flips", or "flips out", one may be either particularly enthusiastic or psychotic, depending on whether such "freaky" (unusual) experiences are dug or one gets "hung up" (panicked or very worried) about them. Such "hassles" (bothersome trivia, worthless rituals, meaningless events) are considered to be "drags" or "downs" by real "heads" (regular users of psychedelics). Heads who "smoke joints" (use marijuana) or "drop" (ingest) LSD *regularly*, usually distinguish themselves from those who do so *very often* (pot or acid freaks), although they may also be music freaks, or print freaks, or sex freaks, etc., depending on which activity they very often engage in to turn themselves on.

Heads who dig "out of sight gigs" (experiences which require some skill) regularly "rap" (talk intensely) about them with other heads making similar scenes. "Riffs" are scenes where really good

rap occur, although uninitiates may "put down" (deplore) or "bring down" (ruin) them unless caution is exercised. When bad or "heavy" scenes generate "paranoia" one has to decide whether to "split" (leave); whether others are "straight" (naive); or represent "the man" (straight authority). Failure to make a decision leaves one "uptight" (tense) and unable to "go" (groove).

People who have dropped tabs of acid or toked on a joint of grass, who have successfully integrated these experiences for themselves, are said to be "together" (healthy) although one is even more healthy if one has gotten both his head and his scene together. One can then feel "good vibrations" and "know where it is really at". Such people used to be called "with it"; they now have their own "bags", "gigs", "scenes", etc. They enjoy "balling" (intercourse) and instantly recognize cats and chicks who are "into it". They are: seldom hassled because they know how to "score" (buy drugs) without getting "busted" (arrested) or getting "burnt" (buying counterfeit drugs). They are very "spacey" people who like to go through their own "changes" so they generally avoid "shrinks" like the plague.

The foregoing list, it should be recalled, is a biased sample. Nevertheless, if we regard the subcultural dialect from which the list derived as a symbolic organism having an ecology and an evolution analogous to other living organisms, we may begin to investigate how this dialect achieved its present form, and examine how it relates to its parents.

## 5.5 Technology as Environment

Following Hegel, or clinical practice, we may begin anywhere, confident that the whole story will eventually unfold. Previous work suggests that we will reach the heart of the matter faster if we observe that many of the words selected bear the imprint of the technologies which originally created them.

Thus, the central terms which have become the most widely known by reason of frequent repetition are acid and trip. An acid, as everyone knows, will dissolve most metals. In this context, Leary's demand that we put all the metal back underground serves to reveal a feeling very common in the subculture, that mechanical and metallic experiences are to be avoided and replaced, hopefully by better ones; but if such experiences cannot be removed or replaced, perhaps dissolving them in another sort of acid will help for the time being. And, if one can simultaneously dissolve the machine and travel, out of sight of all such machines, so much the better will the trip be. We sometimes forget that taking trips of the more ordinary variety, using automobiles, railroads, ships, and airplanes, has become absolutely commonplace for the great majority of Americans only in the last 25 years, when mass transportation became a technological reality.

Again, as everyone knows, it is not simply the availability of mass transport, but of rapid transit which describes our era of jet planes and 400 horsepower cars. Taken in conjunction with another well-known fact, i.e., that highway accidents claim more deaths than wars, one begins to account for two more popular metaphors—speed and crash. In the dialect, "speed kills" is a familiar graffiti which puns deliberately on highway technology by pointing out that one who goes very fast on drugs is as likely to crash as his highway counterpart. This same awareness of the hurtling pace of our era seems to underlie such words as backwards and forwards, whose drug translations seem to be regressing and accelerating. The word "rushing" means a particularly delightful experience of those first few flushes of euphoria that begin many drug scenes.

The word "scene" of course is usually associated with drama, most often, in our era, with film or tv drama. Similarly, riffs and gigs derive originally from the speech of musicians who performed in these media. Both travel and media experiences may go too slowly, in which case they will be said to drag.

Such "interpretations", however, are rather commonplace. Almost as well-known are the terms "turn on" and "turn off", which remind us, according to McLuhan of the fact that the psychedelic generation is composed of the first generation of children raised entirely in an electric environment, consisting not simply of tv sets which one can only turn on or off (as Vice President Agnew observed) but of an entire industrial establishment powered no longer by muscles and steam but by electricity and its 20 year old wonderchild, the computer.

Computers make automation possible because they process billions of bits of information per second, which is not only exponentially faster than machinery but exponentially more productive. As noted elsewhere, an era which processes that much information that fast calls forth a corresponding increase in the consciousness of the people who live in that era. As McLuhan says, the computer is the LSD of the business world. Turning the quote around, it has been said that acid is the computer of the turned-on generation. In other words, as noted elsewhere, the psychedelic revolution is the *result* of the cybernetic one, and is an appropriate response to it.

Put it this way: heads are trying to do psychologically what computers have done sociologically, that is, exponentially expand the ability to process vast quantities of experience very rapidly. Such experiences tend to vanish into the future very quickly. They tax the imagination, which responds with such phrases as "outta sight". Minds which have dissolved preconceptions (programs) which prevent such rapid processing may be said to be "blown", as if their fuses were trying to handle more current than they were designed for. Too much of this sort of thing will earn the description "burnt out".

Paradoxically, electric media require more participation because, so to speak, the gaps between the billions of bits they use to move information must be filled in by the observer. Such media also require higher levels of participation because the pace at which they deliver information is so fast. If a picture is worth a

thousand words, how many words is a two-hour tv documentary worth, requiring the viewer to reach conclusions on more matters in a day than granddad had to decide in a lifetime. Media which foster increased participation are said to be "cool"; those which suggest less are said to be "hot". It was no accident that the generation which insisted on marching on Washington, called itself "cool", i.e., responding to the pressure of our electric media to participate faster at higher levels of consciousness in a world of vast informational complexity. Political "trips", as it were.

When you're "where it's at", you are like the diamond stylus tracking the grooves of an LP record. Your feelings will follow the changes in the chord structure of the music. One of the best compendia of myths, metaphors and fantasies easily available is the Beatles' recently released book of illustrated lyrics. Although books and print are regarded as hot media, suitable only for intellectuals and other professionals, still, the lyrics are a groove, as they say.

Rockets which must reach transorbital velocities (beyond 25,000 miles per hour) are not now readily available to the common man except as he imaginatively identifies with the astronauts who recently landed again on the moon. This relative unavailability should not hide the fact that this extension of man's ecosphere, even beyond the media extensions of his nervous system, was the principal value of the journey. Hence, we should not be surprised to note that the words "spaced out" or "spacey" are the most recent additions to the psychedelic dialect, since the technology of space flight is the most recent extension of our technological environment. Similarly, since, it is absolutely essential for NASA's computers to include in their calculations the most minute alterations in the relative positions of sun, moon and earth, we should not be too surprised to note that astrology is one of the principal myths of the psychedelic sub-culture.

The need for brevity prevents any extended discussion of astrological language here. We may pass beyond this topic by simply



noting that astronautics is a major technology in the same environment in which astrology is a currently flourishing mythology.

The general notion which each of these parallels between technology and language suggests is one with which students of the human mind should be familiar. It is the maxim that we must understand what consciousness is conscious of in order to understand what consciousness is. Since we already know that the principal impact of technology is to change the world we live in, we should be able to conclude rather quickly that language, one of the principal incarnations of consciousness, will contain reflections of the environments man is conscious of. We should also not be surprised to discover in the language of one of our principal subcultures, reflections of those technologies which have most changed the world from a pre-industrial agrarian society into a post-industrial cybernated one. In short, there should be words for the experiences technology has fashioned for the subculture, as indeed there are.

The question of central interest in this chapter, however, is not whether the subculture is sharply aware of its technosphere; few will argue that it is not. What we wish to discuss is whether the forms of awareness they cherish are real, sound and healthy, or are they unreal, unsound and unhealthy? We want to know whether the language of this subculture "describes things that aren't there"; in short, whether radicals are experiencing the sociological equivalent of an hallucination in their hopes for social change.

## 5.6 The Mind Metaphor

Hang ups, hassles, bum trips, visions, crashes, paranoia, flips, freak outs, being stoned, zonked, spaced, and vibrations, are words which the psychedelic dialect uses to describe forms of consciousness which are readily admitted to characterize the subculture's style of awareness. In short, they are far from oblivious to what *we* might call fixations, obsessions, psychiatric episodes, hallucina-

tions, depressive states, paranoia, lapses of consciousness, frenzies, narcosis, euphoria, empathic identification, etc.

The problem seems to be that they often value such experiences positively, whereas we are more likely to view them as pathognomonic indices supportive of diagnoses of mental unsoundness. This is something of a paradox, since a major part of their awareness of such phenomena derives from the fact that they are the most psychiatrized generation in history. For, if by technology we mean the logic of a set of techniques, we may say that the psychedelic generation has been made more aware of the logic underlying psychiatric techniques than any prior generation in history, precisely because of the widespread adoption of the techniques of psychiatry in contemporary America. Similarly, shall we dismiss their largely negative evaluation of contemporary American social sciences as spiteful reaction formations, or are there grounds for concluding that their rejection is healthy and sound, notwithstanding the fact that they live in one of the most thoroughly social scienced worlds ever to occupy the planet.

In other words, how shall we account for the fact that psychedelic language seems to adopt words and phrases derived from the mechanical technologies they deplore while rejecting words and phrases derived from the psychiatric and social technologies they have been raised on.

Although the answer to this question goes to the heart of the matter, and will help us to distinguish sound from unsound myths, metaphors and fantasies, there is one further paradox we must confront before we can spell the answer out. It was to this final paradox that Wittgenstein alluded when he said: "Whereof man cannot speak, thereof should man be silent." He referred to the fact that in each of our lives, we fling a bridge of shared meaning across that chasm which separates our tiny individualities from that massive infinity which is the universe of all (or no) meaning.

Culturally, we know that a population will collectively erect this bridge by consensually validating a set of beliefs, or myths, which enable the consciousnesses of that people to be shared. Yet,

like the fantasies which egos erect to preserve sanity, they remain largely out of awareness, i.e., unconscious. When challenged, such myths and fantasies will be vigorously defended by the persons or populations espousing them, since they feel they require them to remain sane. Their content is the wisdom of things unseen, and their function is to *maintain* unseen the very bases of consciousness, without which consciousness could not be, yet with which consciousness cannot be conscious *of* its bases.

So it is with the psychedelic dialect, which is based on premises of which it seems unaware, just as psychiatric and social science are based on premises of which they are largely unaware. And, just as it is the proper function of research to uncover these assumptions (or myths) so that we may learn a little more about what makes us human, so it is the proper function of psychedelic protagonists to uncover the assumptions (or myths) underlying the trip philosophy, and its attendant forms of consciousness.

But how can those devoted to psychedelic exploration seek the help of psychiatric and social scientists if those scientists begin with the assumption that psychedelic explorers are *ipso facto* unwell, devoting their time to exploring the blind alleys of mental pathology. If most scientists say that tripping *is* hallucinating, and that ends that, we should expect psychedelic protagonists to reject the so-called "scientific assistance" (e.g., psychotherapy) just as peremptorily as science rejects theirs. Which both of them, in fact, do.

If a person wonders whether his paranoia about being arrested and hospitalized for observation is real or delusional, where does one draw the line between the likelihood of his arrest and his alleged paranoia? For, the more he reveals to the establishment his preference for those forms of consciousness he consensually shares with the members of his own subculture, the more likely *is* his arrest. How do we know that his feelings of profound distrust are sound or unsound merely by listening to him, when the establishment constantly barrages him with "information" saying that he and his whole subculture are "sick". More to the point, how

is *he* to know? Faced with a culture which seems to him to prefer to remain unconscious of its own genocidal tendencies, how can we expect his culture to trust ours? And it is no use arguing that each culture has a right to its own myths, metaphors, and fantasies, for the fact is that the establishment (though not its avant garde) simply condemns the psychedelic enthusiast, if not for his pathology, then certainly for his imprudence. Let us inquire how this situation came about.

## 5.7 Achrony

Just as a simple list of words fails to capture the nuances of a dialect, so the simple enumeration of those technologies in our ecosphere fails to depict the complexity of those forms of consciousness which must experience them. We cannot simply add the impacts of the technologies rampant in our society, since each is quite distinct, and we scientists know that it is not permitted to add apples, oranges, and say, pills. But even if we had simple numbers measuring the impact of our several technologies, we would be forced to multiply, not add them, to approach their true impact—which I believe to be so vast and far-reaching in their multiple impact that nothing comparable has ever before happened to the human species. I think the total impact of the technologies of our age has produced a generation more unlike its parents than its parents were unlike the apes from whence they sprung.

Permit me to explain this conclusion, which might otherwise seem to be an hallucination. All human cultures so far have been characterized by a *pace* of evolution sufficiently slow to permit parents to transmit their lifestyles to their young. Apes did this, but poorly, since their communications were restricted to a relatively few media, such as imprinting, kinesics, or direct mimicry. Humans mastered another whole universe of symbols when the neocortex permitted the invention of language and other symbolic media, e.g., music, paint, sculpture, etc.<sup>1</sup> But 20<sup>th</sup> century tech-

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<sup>1</sup> and *vice versa*

nologies have changed all that, for we now invent culture faster than we can transmit it, even *with* electronic media which process billions of bits of information per second. Hence, the so-called generation gap is in reality a chasm we in the establishment cannot bridge because the gap is widening faster than we can build across it. It is a situation which prompted Margaret Mead to observe that now, for the first time in history, our children must become our teachers. But even that forecast seems optimistic, since there is no guarantee that we could learn fast enough even if we tried, and we don't even seem to be trying.

There seem to be temporal strata in our society very like those geologic strata which mark the ages of the earth; there are faults and fissures in our culture like those on the surface of our planet; there are mountains and valleys in the temporal nature of our contemporary experience; yet, we are strolling about as if we were still in the garden of Eden while our children are screaming warnings to us that the species Man is in great peril. We will often be in error if we mistake their cries of warning for the shouts of children gone mad. I am saying that their mythos is valid if it says our society must be made over because it is based on an obsolete warrior culture, and that we must soon learn to make love, not war.

A generation whose vision is so drastically other than ours might well regard itself as "freaks", that is, a race of mutants who find themselves alone and afraid in a world they most emphatically did not make, but who accept the responsibility to make it over, lest they too perish.

I am saying that their metaphors are valid if they hold that we are like blind men walking the steep cliffs of species suicide, and that their communal philosophy of brotherhood promises a better chance of species survival than the bureaucracies we presently inhabit. I am saying that very often, we accuse them falsely of hallucinating because they see things we say aren't there because we refuse to look at them, e.g., imperialism, genocide, racial oppression, ecological poison, and a generalized reign of psychological

terror and violence supported by threats of nuclear and/or germ warfare. In such a world, he is mad who is not paranoid.

So that the citizens of psychedelia should receive no more glory than is rightfully theirs, we must recognize that their responsibilities are as staggering as their "pathologies". I do not claim that they are *without* pathology, that *all* their myths are right, that *every* metaphor they use to distinguish themselves from us is true, that *each* fantasy is beautiful and fine and good. There are "sick" ones, to be sure, and broken ones, and lost ones.

But the point lies deeper. In an age whose technologies thrash the waters of time about so violently, by unleashing wave after wave of rigid and turbulent social change, we shall all be caught, one way or another, in cross-currents which pull us now one way, now another. Therefore, it no longer suffices to say that we live in an age of anxiety, or a period of alienation, or an era of anomie, because, in our time, those pathogens are not only chronic but accelerating their "influence. It seems, to paraphrase Shakespeare, that time itself is out of joint, a condition we have termed "achrony".

Achrony describes the plight of those caught between discrepant rates of experience. It seems to me that the term fits the psychedelic generation, who have been forced to endure more rapid shifts in the rates of their experience than any before them, engendered by the most powerful and the most rapid world-changing technologies man has ever invented.

The miracle in such a world is that so *few* of them hallucinate, that is, mistake for a direct sensory experience forms of awareness that derive from another time, be they memories (voices) from the past or visions (terrors) of the future.

## 5.8 Conclusion

You have by now no doubt become aware that I have been making a rather unsubtle plea. I will make it explicit: Fellow scientists, in

our confrontations with the long-haired, freaky-clothed members of the psychedelic generation, let us make particularly special efforts to understand their political condition as the context of their psychological lives. Let us distinguish sharply between the madness of our civilization and what may only be the sadness of the child before us. And let us try to remember that all men are like all others in some aspect if we but look deeply enough.

# Chapter 6

## Metarap: Who You Are is How You Change (An essay on Temporal Stratification and/or the Cybernation of Transcendence)

### 6.1 Rap I

#### 6.1.1 A. N. Whitehead, 1938.

The planets, the stones, the living things all witness to the wide preservation of identity. But equally, they witness to the partiality of such preservation. Nothing in realized matter of fact returns complete identity with its antecedent self. This self-identity in the sphere of realized fact is only partial. It holds for certain purposes. It dominates certain kinds of process. But in other parts of process, the differences are important and self-identity is an interesting fable. For the purposes of inheriting real estate, the identity of the man of thirty years of age with the former baby of 10 months is dominant. For the purposes of navigating a yacht, the differences between man and child are essential. The identity then sinks into metaphysical irrelevancy. In so far as identities are preserved, there are orderly laws of nature. In so far as identities decay, these laws are subject to modification. But the modification itself may be lawful. The change in the individual may exhibit a law of change, as for example the change from baby to full grown animal. And yet such laws of change are themselves liable to change. For example, species flourish and decay; civilizations rise and fall; heavenly bodies gradually form, and pass through sequences of stages.



### **6.1.2 Margaret Mead, 1970.**

Today, suddenly, because all the peoples of the world are part of one electronically based, intercommunicating network, young people everywhere share a kind of experience that none of the elders ever have had or will have. Conversely, the older generation will never see repeated in the lives of young people their own unprecedented experience of sequentially emerging change. This break between the generations is wholly new: it is planetary and universal.

### **6.1.3 Buckminster Fuller, 1970.**

Is the human an accidental theatergoer who happened in the play of life—to like it or not—or does humanity perform an essential function in Universe. We find the latter to be true... In 1951 I published my conclusion that man is the antientropy of Universe. Norbert Weiner published the same statement at the same time.

### **6.1.4 Buckminster Fuller, 1970.**

Within decades we will know whether man is going to be a physical success around earth, able to function in ever greater patterns of local universe or whether he is going to frustrate his own success with his negatively conditioned reflexes of yesterday and will bring about his own extinction around planet earth. My intuitions foresee his success despite his negative inertias. This means things are going to move fast.

### **6.1.5 The Beatles—In Abbey Road**

“And in the end  
the love you take  
is equal to the love  
you make.”

## 6.2 Rap II

Wouldn't it be a groove if we could sit back now and breathe a satisfied sigh of relief now that the sixties are over, and say, well, we made it through. It certainly was a freaky 10 years. Computers, acid, rock. Whew.

Of course, we can't. Now world ecology has to be done, or no more man. Tempting as it might be to rest a while, we know we either put the planet together in a new way or we're finished. Done.

There seem to be a number of approaches.

### 6.2.1 Some say:

We'd better hurry up and industrialize the "developing" nations or they'll gang up and wipe us out. Spread the wealth. Sure, capitalism isn't a perfect system, but what is. Industrialization would at least feed 'em and clothe 'em, right?

### 6.2.2 Others say:

Listen, that capitalist rap is thirty years dead, man. Haven't you heard about electronics and the *second* industrial revolution. We don't process matter (energy) anymore—we process information. People don't have to work, pulling levers any more. Any repetitive process can be programmed, electronically. Automated, man.

### 6.2.3 Others:

What are you guys talking about. Don't you realize that we're in the mess we're in because nobody paid any attention to the *systems* those automated processes are part of, so now we have a polluted planet. From now on, we have to figure how automation relates

to the ecosystem. Haven't you ever heard of feedback. You know, where the "effect" loops back to influence the "cause". From now on, we either plan for how our machines feed back on our life styles, or, like Leary said, all the metal back underground. I'm not for electronic laissez-faire *either*, man.

#### **6.2.4 Still others:**

I find it hard to get into your progress metaphors. They all seem to ignore the terrible pain we're all in. I mean, how can you dream of rosy futures while Vietnam is tearing the skins off hundreds of thousands of young guys like us, while the pigs are practicing genocide on the panthers, while the trial is screaming that justice is only for the silent majority. Not to mention what they're doing to us.

My scene is to let it bleed. I don't wanna fix it. It's broke, man. We need a new one. So, some of us got our shit together, built a dome out in New Mexico, and we live close to the land. No more mine-yours games, no more technology. Just getting into each other, man, finding that quiet still center within ourselves.

#### **6.2.5 Others still:**

Jesus. You sit out there in the woods all peaceful and groovy but somebody *else* has to keep them off your back. You think they're gonna leave you alone, man, with your "sexual communism" and your dope and your "deprived" children. You think you can just concentrate on what's going on inside your head, and make believe you don't hear the whole civilization crashing into ruins all around you. Wake up, man. They're killing your brothers and your sisters right now, and you're next.

## 6.3 Rap III

### 6.3.1 First observer:

Obviously, they're all correct. The electronic industry is probably more aware than they are that national boundaries are obsolete. The synchronous satellites are only the top of the iceberg. Trans-national conglomerates became necessary as soon as data banks in the computers could handle the complexity of a thousand branch offices. And before that, radio, telephone, jets, and television went beyond national boundaries.

The problem is not *whether* to spread the wealth, but *how*. Right now, we've got three political ecosystems;—us, the Russians, and the Chinese—worrying about how to get the Africans and the rest of the "little" countries on their side, like South America, or India, or the Middle East. To borrow a phrase from the kids, the concept "nation" is not where it's at. The problem is, how do we get beyond ideologies and belief systems which define spreading the wealth as imperialism, Communism, Maoism, what have you. Personally, I think the kids are gonna do it. I mean, kids all over the planet are more like each other than they are national citizens, and I give them a lot of credit. They're gonna do it. I'm confident.

### 6.3.2 Second observer:

Sure, sure, the kids are a new post-industrial culture, beyond ideology and all that. Sure they live in an electronic ecosphere communicating planetary consciousness with each other like puppies at the teat. They don't have to work because the computers will do it all. Don't you see, though, that that is precisely the problem. They have to come up with a new "post cultural" culture so they'll be able to live in their electronic ecosphere, but there's absolutely no precedent for coming up with a new planet-wide post-electronic culture. So *how*, to borrow your phrase, are they gonna do it. Even the universe didn't do it *ex nibilo*.

### 6.3.3 Third observer:

They won't have to. Didn't you hear 'em talking about cybernation and systems theory. Our minds boggle at the thought that each and every last unintended consequence of every little flea bitten automated factory product will have to be reckoned into the bargain, but, fer chrissakes, that's what computers are, don'tcha see, the screw driver that comes with the general systems theory manual. Instead of thinking about the hardware all the time, try to realize that the kids *are* designing the software. What do you think rock and roll is. What about those costumes. Aren't their communes attempts to get past the wreckage of the nuclear family, that casualty of industrialism? Their whole generation seems marvellously capable of responding to our technosphere with an ecosphere of their own. Don't you think the kids raised on computers and television, the kids now in grammar school, are going to be sufficiently flexible to take the steps they'll have to take. I think, just as the industrial generation came up with liberalism, and the computer generation came up with acidox, well, in the same way, the current generatibn is gonna come up with a hip version of cybernetics. They've had their McLuhan to cut their eye teeth on, so their politics is McLuhanesque. Look at Abbie Hoffman. Uses the media like a stick ball bat. He knows about feedback, let me tell you. And his kids are not gonna take any nonsense from trans-national conglomerates or the Soviets or the Maoists. They're gonna use the planet's media like Tom Paine used pamphlets. I think technology has met its match in the next generation. They're gonna make it serve them, not serve it, because they're not content to be the software for a hardware they can't control.

Don't tell me about no precedents. They've got plenty, and then some.

### 6.3.4 Fourth observer:

You're all missing the point, although I agree with what's been said. Using your own cybernetic metaphors, you could arrive at a more general formulation than you have, instead of getting stuck on the particulars, as I think you have. Look. Even Marx recognized that a given technology (or means of production, if you insist) calls forth a given ideology (or culture, with your permission). So, we design an electronic technology and they obligingly come up with hip cybernetics. The point is, *can they come up with a new culture before a new hardware system elicits it*. In other words, if a new consciousness is always a response to a new technology, how do we know that the technologies now on our drawing boards—say, Tri-d—are going to elicit a brand of culture that will get us by—that is, insure species survival. The problem, it seems to me, is much more serious than you guys seem to have seen.

Put it this way. What if man is a feedback loop for planetary evolution, that is, man's role is to monitor life on the planet. If so, he may be able to adjust a few things here and there, turn a few dials so the boilers don't blow up, so to speak. But that doesn't give us any guarantee that he can design a better planet, or a better man, for that matter.

I'm asking whether the feedback theory of consciousness provides any hope at all. If it's an after-the-fact mechanism, I don't think it offers us any hope at all. More specifically, if you think all those kids out in those communes are doing anything more than becoming conscious of their condition *after* they're in it, I'd like to be told about it.

### 6.3.5 Fifth observer:

You don't understand feedback, or some other other things I'm gonna tell you. Let me start with an example. You know what happens after a forest fire. The forest goes into a condition of positive feed, proliferates like mad, changes its rate of growth, not because

it wants to, as the teleologists would have us believe, but because the surrounding systems it interfaces with no longer maintain it through their feedback on it. Its growth becomes unchecked for a while, like a computer programmed to scan without any limits put on it. It becomes a temporary runaway, you might say.

Now, very similar processes occur in human populations. You can see it in demographic systems, and even more generally, you can see it in norm systems, that is, in whole cultures. You can even see it in psychological terms, when kids "blow their minds" with some chemical or other, which removes the nice neat negative feedbacks imposed on them by their surrounding ecosystems, let's say, families and/or schools.

Similarly, when a new technology is introduced, you don't just get a response to *it*—you temporarily release the culture from its priorly programmed equilibrium with its peer cultures so that, for a while, its inhabitants are freed up to grow wild for a time, before a new set of negative feedbacks lock in.

I see it as a kind of breathing, a kind of rhythm characteristic of any system. Call it cybernetic music, if you want. So, if I'm right, what this means is that the whole electronic revolution did not just spawn a bunch of hairy rock and roll respondents, although it certainly did that. But not *just* that. It cut loose a generation of kids from a set of obsolete (i.e., no longer enough) norms that were locking them in, asking them to live in the post-industrial ecosphere with feedback loops still hooked into the old Newtonian mechanics.

The point is, when electricity turned 'em on (by turning mechanical feedback *off*), they proliferated, not just like a forest, with more of the same *kind* of trees, but came up with something *new*, that wasn't there before. *That's* how this planetary consciousness came about. But, beyond that, the point is that feedback, both positive and negative, does not simply maintain systems in equilibrium. Somehow it combines to create things that weren't there before. *Ex nihilo*. Whether they're new forms of consciousness on a given planet, or new planets in a given galaxy, human conscious-

ness is not unique in creating, not just responding: The whole universe seems to do it. And I think the kids are catching on to that fact.

One final illustration. One afternoon, we were sitting around in the office, and somebody asked whether I thought the universe was running down, you know, the entropy form of the second law, and if it was, how did I account for evolution. And did we think the universe was running down because our society was, or was our society coming apart because the universe was.

So I trotted out my Fuller memory and tried to explain that there seemed to be two aspects of Universe that were not customarily seen together, that. just as there is radiant, or dissociative, energy, so also is there emergent, or associative, power, which Fuller calls synergy. So that things don't just come apart, they also come together. In other words, it's a mistake to talk about receding galaxies without also talking about gravitation, just as it's a mistake to talk about cultural *disintegration* without also talking about new forms of cultural (or post-cultural) *integration*.

Now don't get me wrong. I'm not saying that there seem to be nice neat forces at work in the universe which we can ride like surfers so we have nothing to worry about. That's sort of like saying isn't it nice our legs just reach the ground. I see nothing in these generalizations to guarantee that man the species has to make it. Maybe we're dinosaurs and maybe there's a new environment growing that we can't live in.

But I don't think so. I think what's happening is that we're gradually beginning to use more and more of those neurons the shrinks are always telling us we're only using 5% of, that we're giving ourselves challenges now that force us to become the creators, rather than the creatures, of evolution. It may be, and I think it is, that the time has come for us to think of "consciousness" and "culture" as only 2 of a larger set of parameters, and that they're not particularly cordial ones at that, locked as they always have



been, till now, in a series of feedback loops we don't particularly care for anymore. And the guys who say there are no ways out haven't got a shred more evidence than the guys who say there are.

I dunno. Wasn't it James who said there are forms of consciousness as different from what we call normal waking consciousness as that is from sleep. Seems like there oughta be. I'd hate to think we're the most advanced life forms in the universe.

## 6.4 Metarap I

Critias: How is the century proceeding?

Timaios: Not bad. Not bad at all. Mathematicians recovered quickly when Godel showed them no postulate system can remain perfectly consistent if carried far enough. Reimann took them beyond Euclidean space. Einstein of course opened the way for new theories of time, but they're still a little wary. It's hard for them to think without simultaneity—makes them feel the universe isn't *there*, you know. Still, they've developed the calculus. Made some moon shots already.

Critias: That's promising. How about their music?

Timaios: Same there. Looks good. They went atonal a while ago. The young have a form they call rock which unites poetry, folklore, protest, etc. Electronic sounds are strangely beautiful, in their primitive way. Some of the abstract ballet is magnificent too.

Critias: Art?

Timaios: Earthworks. Holograms. Light. Fine. Very fine.

Critias: Physics?

Timaios: Wonderful. They're just crossing the bridge between sub-atomic "particles" and sub-nuclear fields. Fellow named Gellmann looks very promising, and another named Feinberg may just have a way for them to generalize Einstein. A few of them are trying to detect gravity waves. Shouldn't be long before they master them. Also, some pretty interesting things happening with lasers, communications hardware, and the like. More interesting, some are beginning to wonder why some life forms (populations of bacteria, for example) seem to "obey the same laws", as they say, that populations of gas molecules do. Shouldn't be long before they find that the *rate* of negentropy is very slow at the gas level, and gets faster as you go up the evolutionary scale.

Critias: What about war technology. Are they still constructing those deadly systems?

Timaios: Yes, but the young seem to be withdrawing from all that. Culture lag. There are still a large number of "neutral" technicians employed in war industries but I think it'll phase itself out as the young mature.

Critias: How about their therapists. How far have they gotten?

Timaios: That's a bit more complex. Some overlap with the social scientists, but they're all so stuck in their craft unions. The medieval thing. Psychiatrists either clung to biochemistry or psychoanalysis for a while. Then they found groups, then families, etc. Some of them are going quite far, actually. Systems approaches, communication contexts, ecology. Beginning to see that *any* level below can be programmed by the next level up. Like the physicists. Too bad they don't talk to each other very often. Social Psychiatry looks good, if they can figure out a way around the so-called community mental health centers, which got coopted by all that money. But the communities

themselves are forcing an evolution. The Blacks and the Puerto Ricans. Magnificent people. Great dignity.

Critias: An old story. The people grow beyond their chains. Tell me—is there joy?

Timaios: Among the youth. They are the only ones. They found certain chemicals, much like the Hindi used to use, and released themselves from the self-prisons which mirrored their machines. It wasn't long before they found that transcendence could be facilitated if one had enough friends of like mind. At first, they used them mainly as aphrodisiacs, but they soon found the experience of awe was a door to higher realms. Very hard for them to do, since their whole culture was going the other way, so to speak. But they are doing it. They rear their children differently, they revere each other, stare gently into each other's eyes for long periods. What is most promising is that they now experience time dilation, in which, as you know, minutes seem like hours, hours seem like days, and days seem like weeks. During such experiences, when the veils of illusion fall from their eyes, they probe new depths, ascend new heights, widen their vistas, but most important, they do so together. Hence, they begin to build the foundations for the next era.

Critias: What do you think is next for them?

Timaios: As I said, the young are now aware of time dilation. It will not be long before they find ways to guide the rates of any process, be it space flight, planetary ecology, cultural integration, psychological maturation, or anything else they desire.

Critias: Have they begun temporal design?

Timaios: Not yet. But, as I say, they're beginning to rear their young differently, as citizens of the planet who cannot bear to see any starve while they have food, any killed

while they have life, any lonely while they have mates. They do not tolerate wealth while any need, nor do they honor progress here at the expense of regress there. The most sensitive among them are accustoming themselves to living in continuous change, and are beginning to thrive on it.

Soon, they will find that even change changes, and will have to accustom themselves to that process as well, whether it changes slowly or rapidly.

It is difficult, Critias, for me to distinguish my hopes for them from my estimates of their future. They seem to know that joy is the emotion which accompanies transcendence, but they seem reluctant to swim in the oceans of time even while they begin to enter endless space.

Critias: How old are they?

Timaios: About a million years, in their present form.

Critias: And you want to hurry them. Let them cling like puppies to the breasts of their cultures. They will be gone soon enough.

# Chapter 7

## Drugs as Chronetic Agents

### 7.1 Introduction

In previous chapters we have reported data derived from participant observation of the various scenes in which young people use the drugs of their choice in the special ways they have chosen. For the most part, the observations were carried out with one or another drug the focus of our investigation. For example, we examined the heroin scene and reported on it to the exclusion of the other drugs concurrently used by the heroin users. Similarly our investigation of so-called "glue sniffers" was conducted and reported separately. The same is true of our reports of the psychedelic scene.

Our reasons for doing so were partly historical, since the heydays of various drugs were at different times, and partly practical, i.e., one cannot discuss everything at once. But the principal reason for the separateness of our studies was a theoretical one, in that each drug study was conducted as an empirical test of a set of hypotheses derived from a larger theoretical interest. We have for some time now been engaged in the study of time processes, i.e., how time and its mysteries are understood in the various disciplines, ranging from astrophysics to anthropology. Our attempt has been to derive a set of generalizations descriptive of time processes in ANY discipline, in other words, the study of time itself, not simply the time of the physicist or the psychologist. We call this study "CHRONETICS", and define its scope as the study of temporal processes in their own right. We seek, in short, to determine whether there are general laws which all time processes obey, and if so to determine what they are.

The first problem we confront in such an effort is one with which all investigators are confronted, no matter what their field, namely, to what extent is our ordinary experience a bias which blinds us. In other fields, say, geology, one may experiment with the elements of one's concern, *e.g.*, rocks, rivers, rain, etc. But how does one experiment with time? How do we know whether the assumption is correct that time is an invariant, which "flows evenly", to use a popular expression, or whether the assumption of invariance blinds us. to possible variations in temporality. It is tempting to regard recent evidence from physics as confirming the view that time varies considerably at subnuclear levels of observation, and hence that time may also vary elsewhere. But this courts the danger of going beyond the limits of the data.

Thus we were struck very early in our investigations by the almost total unanimity of our research subjects' reports that their drug experiences altered their experience of time. A similar unanimity is found in pharmacological, psychological, and phenomenological reports, further confirming our subjects views. In the remainder of this chapter we shall attempt to summarize our previous findings concerning which drugs change the experience of time in which ways, and to justify our tentative conclusion that drugs are taken by those who take them (indeed, also by those who prescribe them) principally for that reason, namely, to alter the rate of experience.

In addition to this psychological effect, however, we shall endeavor to show that the temporal aspects of certain social processes are also involved, so that when we refer to drugs as chronetic agents we are not restricting ourselves to exclusively subjective or psychological parameters but explicitly to those aspects of experience with which the sociologist is rightly concerned, which we might call sociological architecture.

In this sense, notwithstanding the summary nature of this paper, the investigations here reported must be regarded as preliminary, for it is a long way from demonstrating that our experience of time may vary under certain conditions to establishing that

there are laws of time variation whose discernment the chroneticist properly pursues across the ranges of many disciplines.

We invoke as our measuring instrument the cybernetic notion that human beings, in their subjectivity as well as in their sociation may be heuristically regarded as information processing systems, characterized initially (and minimally) as receivers, programmers, and broadcasters. That is, we perceive, think, and communicate. And of course, more. Much more. How do drugs alter these processes?

## 7.2 Chronetic Phenomenology

There are three classes of drugs with which we are concerned, which in the street language of our subjects are called "downs", "ups", and "trips", referring in the first case to narcotics, sedatives, barbituates, and alcohol, i.e., CNS depressants. Trips include marijuana, LSD, mescaline, psilocybin, psilosin, etc., i.e., psychedelics, to employ Osmond's term. As every neurologist knows, heroin, morphine, methadone, *et. al.*, have the property of constricting the pupils of the eye, which the street talk calls being "pinned". Of course this means that less light is entering the retinal chamber and indicates that the amount of information the subject tolerates is reduced in proportion to dosage. The "input" function to the higher cortical centers is sharply reduced by narcotics, not only visually, but across the entire sensorium.

Subjects report that the heroin high is like the astronaut's perspective in that time changes in the environment are seen as from a great height, so that the net effect is an experience in which things seem to go very slowly, if at all. At high dosages, "time seems to stand still", so that the euphoric experience of timelessness seems paradoxically to last forever. This helps to understand why the heroin experience is so cherished by those who cherish it. Even though, to the outside observer it seems to last for such a "short" time, to the serious heroin user, time seems to have stopped, and his joy is eternal. Our subjects report it is exactly this temporary

eternity they seek. So do the makers of the 7,000 year old Sumerian tablets which instruct the religious novice in its preparation.

Ups, on the other hand, have an entirely different set of subjective reports associated with them. One subject described his experience of "meth" (speed) as follows:

Hey, man, dig it, here's how it feels... Do you like to drive fast in your car, man. Imagine you have this racing car, see, with no windshield, see, and, they say you can have NYC all to yourself with all the other cars gone. So you go speeding around corners at 90 and open up to 200 miles an hour along Park Avenue, man, whizzing, and spinning around the whole city all to yourself. You can do anything as you want, an' you can go as fast as you want to go. Dig it man, imagine all that power just *walking*, man, or *screwing*. Wow.

Clinicians will be sensitive to the omnipotent undertones in our subject's report, to the grand ideas of power and exhilaration. They will not be unfamiliar with the fact that "coming down" or "crashing" from "speed" (meth) is severely depressing, often to the point of persecutory ideation and feeling characteristic of the paranoid experience.

Note, however, in our subject's report that it is the *rate* of his experience he centrally cherishes. So much is this the case that he will often use too much, then resort to barbituates to slow down, in what soon becomes a cycle of speeding, slowing, then speeding again, for days, sometimes for weeks at a time, with little thought of food, sleep, or sociation. The fact that speed is alleged to confer long periods of sexual potency bordering on Priapism is considered to far outweigh the fact that it renders the serious user anorgastic. It is as-if one were trying to move faster than time itself, squeezing in more than mere clock time permits.

Speed "freaks" are notorious broadcasters, who will talk without interruption for 4 or 5 hours, at a very fast clip, usually to the



considerable consternation of their "straight" friends. They believe they understand things superbly well and deeply for the first time and are very eager to share this new-found wisdom with anyone who will listen for as long as they will listen. This seems to be due to the fact that the CNS is stimulated, not at the perceptual-sensory level, but at the higher cortical levels, so that sensory information is processed faster. It is exactly this rapid illumination speed freaks report they want.

"Heads" or adepts of the psychedelic experience well know that trips seem to last far longer than clock time measures. Even a half a marijuana cigarette will permit the smoker to feel that a three minute musical selection has the temporal characteristics of a symphony and the four hour high correspondingly feels like 8 or 10 hours. Acid (LSD) a far more potent drug, is almost impossible to describe to those who have not experienced it. Like sex, talking about it doesn't quite convey the qualities of the experience. For, in addition to its ability to vastly expand the range of sensory delights, LSD induces the most complex chronetic patterns yet known to man, such that serious users regularly report variations in the variations of the time experience. Moments of eternal stillness alternate with extremely rapid pulsations and rhythms: feelings of rest, velocity, acceleration, and changes in acceleration are common, and reports of even more subtle and complex changes in time experience are common. That this experience is deliberately sought is indicated in McLuhan's aphorism that the computer is the LSD of the business world (just as) LSD is the computer of the counter culture.

What computers and acid have in common is the processing of information at extremely high speeds. Computers operate in nanoseconds. No one knows how *low* LSD reduces synaptic thresholds, nor, consequently, how *high* it increases the rate of neural firing. What is well known, by heads at least, is that, in addition to its ability to open wide the "doors of perception", acid is also well named, for in the cybernetic analogy what seems to happen is that the *amount* of *data* is increased while the *programs* for its conceptual management are simultaneously dissolved. It feels like

a fuse has blown, so that too much current is flowing. (Hence, the expression "mind-blowing".)

It is exactly this experience of sensory overload, de-programming and re-programming, that heads seek. Whether the insights and experiences had with this powerful substance are "valid" or "illusory" is a question for more research than present federal laws currently permit. Suffice it to note that the extremely rapid chronetic changes LSD includes are cherished by those who favor LSD, as well as the feeling that a 12 hour experience of this sort is regularly compared to a week or a month of continuous ecstasy. In this context, one is not surprised to find recent opinion in theological literature holding that the sacred mushroom (*amanita muscaria*) was the agent inducing the mystical experiences that led directly to the formulation of the major world religions.

### 7.3 Chronetic Sociology

If we focus now upon the *population* who favor the drugs discussed above, not simply upon the subjective experiences of their individual members, a chronetic pattern of another sort emerges. Brevity prevents an extended discussion of the "measuring instrument" we employ as a sociological tool. Suffice it to say that *the rate of social change* is increasingly adopted as a criterion in the social sciences, in our era of rapid social change. If we ask "what is the relation between our three classes of drugs and the rates of social change experienced by differing classes in America," a clear pattern becomes visible.

Thus, until very recently, narcotics use was principally the predilection of the lower class, whose rate of change was widely acknowledged to be the slowest in the fastest emerging society in the world. This experience, which we have elsewhere termed "anachronistic", is severely "painful" to those who experience it, since it is not only an experience of extreme alienation, but of *increasing* alienation, whose *rate* of increase is increasing. Under such circumstances, heroin might be said to be the medication of

choice, since it is *par excellence* the pain killer. It is a situation in which one might turn around Marx's classic phrase that religion is the opiate of the people. Unfortunately, as the *rate* of alienation increases in the middle class, we find an increase in the incidence of narcotics there as well. This is becoming more widely known every day.

The upper lower and the lower middle classes are not, as a group, experiencing a rate of social change identical to the lowest class. In fact, it seems that we have an explanation for the popularity of "ups" in this population when we note that their wish to "catch up" with the bourgeoisie who are "moving up" faster than they is temporarily granted by a class of drugs whose property is to confer the illusion of acceleration. Note also that the illusions of "progress" and "getting ahead" are beliefs entertained by this group far more actively than the lowest class, who despair, or the upper middle class, who pride themselves on "having arrived". The "violence" often attributed to the "coarse, gruff, working culture" is not untouched by speed's illusion of omnipotence, nor by its stimulation and feelings of social persecution. They "go" together, as it were.

The most rapid rate of change in our society is experienced by those who, like the computer, must process vast amounts of information in a very little time, i.e., the most highly educated, those whose participation in the cybernetic revolution of our times is deepest. Typically, the children of upper middle class parents are those most barraged with novelty in our society, since they paradoxically have the leisure time in which to suffer from information overload. The Berkeley rebels were born the year mass TV was born, and study after study reveals they spent more time in front of their TV sets than they did before parents and teachers *combined*. Not to mention books, magazines and films. Or the threat of nuclear holocaust. Or planetwide pollution. Confronted with the massive responsibilities to "solve" these massive crises, knowing that species Man will not long survive unless he quickly devises ways and means to turn away from a chemical which confers the ability to process huge amounts of information in a very short

time. For theirs is the first generation for whom the experience of accelerating social change is the *norm*, and they know they have no choice but to thrive on it. Imagine their dismay when they are simultaneously commanded to thrive on change and do nothing to bring it about. Their patience with the slow moving institutions which thus double bind them is therefore somewhat astonishing.

Let us hope it doesn't wear too thin. For they are, literally, our future. It is for them that we must attempt to discern the laws of time and change, for without knowledge of these laws, we seem, as a species, about to perish. With such laws, hopefully, the next generation might have a chance to become chronetic agents of an entirely new kind.

# Chapter 8

## Frequency and Form

What I am doing with my life is building a set of generalizations comprehending how time works. I call the comprehension of the time laws of any process "chronetics".

I've been working at it a "long" time and have done it in some strange places. Like, a dissertation on Plato's theory of time, which started in '58 but didn't come till '63. Like, in '65 getting a videotape system installed in a family therapy agency so that families and therapists could play back their sessions during their sessions. Like getting headaches trying to transform the laws of general relativity into classroom sociology since 1953, though I hate the math. Like trying to figure out acid time expansion during acid time expansion. Etc.

This rap is about the chronetics of software, in other words, some thoughts on the time forms of current communication events.

As everybody knows, Universe is *not* a very large expanding balloon with galactic light bulbs interspersed "at" varying distances. Einstein told us Universe is not a *simultaneous* assembly of things. Universe isn't *there*—in fact, man's invention of the concept reveals his terror crouching behind a facade of omniscience. Currently, our mythos is that Universe is "really" atoms (i.e., waves of energy spiralling at light velocity) arrayed hierarchically (i.e., a few is a gas, a lot is a planet, a very lot a galaxy, etc.). Whitehead said the *only* philosophical mistake. you could make (hence the error of *every* philosophical mistake) was thinking you could simply locate anything anywhere. This "fallacy of simple location" is the intellectual form of man's wish to evade the terror which would flood him were he to admit the Heraclitus vision that all is flux.

The emotional form of this saving illusion is hubris—pride—the myth of individual autonomy, the ‘pursuit of loneliness’. Freud once wrote that the human central nervous system works like the osmosis process of the cell wall, whose main function is to keep some fluids in but most fluids out. Fuller suggests the inside is the inside of the outside—the outside the outside of the inside. Laing ponders why some people who spit in a glass of water can’t—*can’t* drink it. Others can. Recent experiments by Italian physicists, who ran electrons going “one way” against positrons going “the other”, both “at” the speed of light, lead them. to believe there’s another whole realm “underneath” quantum atomics which is continuous, i.e., not “composed” of quanta, but of processes.

So in my view, there is no Universe anywhere, “at” any instant, for there are no instants. Better—“there” isn’t. Time is. What seems to be happening is a myriad of energy rates dyssynchronously modulating. Nobody seems to know why there are different rates, or how they change. Recent speculations include a realm on the “other side” of the light velocity barrier wherein “particles” only go faster than light, and if they slowed down to light velocity would annihilate as in  $e = mc^2$  (F einberg). Others, at the Princeton Center where Einstein thought, wonder if there isn’t a realm under the atoms where time “goes the other way, or not at all.”

What I’m trying to suggest, in mosaic, is a Universe of varying frequencies, in which occasional synchronicities are called communication.

Now, some frequencies, after million year evolutionary periods of interacting dyssynchronously, have come into a harmony which we call sensation. Air waves and ear vibrations in synch result in our experience of sound. Light velocities in harmony with retinal photochemistry result in vision. Rates of neural transmission, when exceeded or unreachd, do not result in experience since there are limits within and only within which nerves fire. Overload or underload, outside certain limits, result in nothing. No experiences. No communication.

Hence, Fuller says, human "sensory equipment can tune directly with but one millionth of the thus far discovered physical Universe events. Awareness of all the rest of the millionfold greater than human sense reality can only be relayed to human ken through instruments devised by a handful of thought employing individuals anticipating thoughtfully the looming needs of others."

This is probably an overestimate. There is no reason to believe that the tiny region of human synchronicity with Universe frequencies which is our band of experience is as much as a millionth, because it well may be that the range of frequencies goes from  $-\infty$  to  $+\infty$ , I have no quarrel with Bucky's adorable naturalism, but the range of options for synchronicity may be vaster than he has said. So far.

Even if the spectrum is *not* that large, it serves as a perspective on which to map the tasks of software design. Like Huxley's remark that any good plumber could have done better than god-evolution with the human appendix, it seems to be the case that the human sensory channels are fairly crummy samplers of the range of universe frequencies. Hence, any software system which sets the outer limits of its responsibility as fostering the synchronicity of *present* human wavelengths could be guilty of a reactionary nostalgia. Filling in the gaps of the sensory range now is a *tactic* worthy of admiration, but it shouldn't be confused with the *grand strategy* which, minimally, in my opinion, must include not only the design-expansion of the realm of human experience, but the design expansion of the range of synchronicities in our local region of universe. Man may be negentropy, but there's more to Universe negentropy than man. How to tune in on *that* is the larger task. To say nothing of feedback.

It will be objected—"this is visionary—idealistic—there are many more pressing urgencies presently at hand." To which a good reply might be "if you're unaware of the spectrum you're working in, you're working with unnecessary blinders."

To put the matter differently—the larger the generalization, the more significance (meaning, value, importance) the event. That's why we're interested in Cosmology. That's why we fly space ships. That's why we seek Atman, Buddha, Satori, enlightenment, trip.

Software, therefore, results whenever dyssynchronous frequencies are mediated, i.e., related in some form of temporal harmony. It is not very far from the Platonic vision that the music of the planetary spheres is in proportion to the ratio of string lengths on a lute, to the view which reveals that the fundamental units of software are the chords and rhythms of perception. It is utterly banal to hold that the "bits of digital information" metaphor comes anywhere near the kind of planetary orchestration man is beginning to compose. This vision can be ecologized by the recognition that software results not simply from passing items of perception around among human sensors, but whenever and however Universe frequencies are proportioned. Man is not the only Universe function producing software. It is an entirely common even in Universe, and may in fact turn out to be its fundamental process, i.e., how it basically forms, so that, to do it is to be like the Druids at Stonehenge dancing to the rhythms of the cosmos. *Groovin'*, as it were.

But there's more. Recent evidence suggests that brain waves can very easily come under deliberate control, that alpha highs can be turned on at will, that autonomic nervous system-endocrine interactions can be accelerated-decelerated consciously, that, in short, electronic yoga is now an increasingly popular research sport. It begins to seem as if experience, not surgery, is the design avenue for the deliberate human evolution. All this before the mass availability of mini-laser communications technology, holographic environments instead of rooms/walls of plaster, liquid crystal read out systems, etc., etc.

So, it's time to ask—what are the chronetic laws that govern the accelerating process of which electronic software is only the current mode? By this I do not mean "how soon will the matter transmitter be invented" or "will lunar language finally substitute



Einsteinian categories for Aristotelian ones." Such inquiries are an exercise in linear prophecy only, necessary but not sufficient. I'm more interested in temporal design and its prerequisites.

For example, sociologists have unwittingly placed at the foundation of their game the notion of "expectation," by which they seem to mean what Eliot meant when he said the human kind can stand very little reality—raw. People seem to have to know how long a thing will be what it is to know how likely it will stay what it is so they can expect it to remain what it was so when it comes by again they can say—ah yes—that bit—nothing new (terrifying) there. They want to be able to anticipate recurrence and periodicity, so they can generalize, and say, oh yes, it's one of those—I've seen it before—it won't hurt me because none of them ever did before. When things (societies, cultures, groups, etc.) change fast, faster than they can be generalized, people experience future shock—they need to experience and generalize faster than they can. When they repeatedly fail, they conclude (generalize) 'I can't know what to expect.'" This hopeless condition is known as despair. Are there ways to accelerate the formation of generalizations which can stave off this despair. Does acid do it? Will videotape? How? It will be perceived that these questions are special cases of the more general question: how to mediate discrepant frequencies—that is—what forms of software (generalization—culture) do we require in this temporal myriad we call home.

Surely, a beginning is the creation of a new planetary network of communications hardware and software, so those who now dance to vastly different drummers can come together in the first voluntary civilization ever to steer spaceship earth: evolution consciously deliberately joyously, freed of the fetters of national political (i.e. humanicidal—ecocidal) idiocies.

More important, I think, is the work heretofore left to mathematicians, physicists, philosophers, psychiatrists, and other intellectuals—that is—identifying the waves and frequencies of which our experiences are the result, intuiting the laws which govern them, and designing better freer forms in which to live.

For example, a friend of mine set up his hardware so his five year old son could:

1. watch a Sesame Street broadcast
2. watch himself watching Sesame Street on a second live monitor
3. make a tape of himself, watching his tape while watching himself on a live monitor watching himself on tape
4. tape himself with a 5 second delay loop on one monitor and try to mimic that so that the second monitor is in sync with the first
5. play with variable delay loops on both monitors (2 decks)
6. play with multiple variable delay loops and live monitors
7. vary recording and playback speeds while doing any/all of the above.

Not surprisingly, the boy began asking his father to help him do things that went beyond the design limits of the hardware. To explain why he couldn't, his father began drawing diagrams of multiple feedback loops with variable time loops, which the kid dug on the basis of his experience. Then the five year old started wondering how to design hardware so he could have the experience he wanted. He had found the limits of the temporal rhythms built into the hardware available to him, and imagined himself beyond them, i.e., temporal design. He wanted more software than there was in his world. I pass over the obvious corollary that he also immunized himself to the information pollution belching from commercial TV. What interests me about such experiments (which we occasionally do at the Center) is the experimental immersion in complex time pools which are not only exciting but architecturally motivating.

A question which bothers everybody involves ecological recycling—there's an awful lot of good information around which we could share better if only those maverick data banks were set up. After all, it's chronetically silly to shoot tape at light speed, then air mail it to friends in London. And, since "they" own the satellites, all they have to do is charge prohibitive rentals so we can't move our information as fast as we shoot it. So Far. *They* are not gonna rent us time to create alternatives to them.

So, it seems to me, we are going to have to come up with software which is not only good for us but good for them, too. That's what global means.

We have no choice but to take them with us—i.e., turn them on to the benefits of our way. We're gonna have to go beyond the hip ethnocentrism we built to defend ourselves against them. We can't any longer enjoy being so "far out" that nothing happens. This could turn out to be a fatal underload.

The only choice we have, in my opinion, is to produce software which mediates their (slower) frequencies and our (faster) ones into those which harmonize both of us with the (much faster) vibes of a really global synchronous system. To put it crudely, we have to show the satellite-computer people (e.g., the "defense department") how our way is better for all of us; that a planetary form is better—for all of us—than cartels.

I guess my own naturalism is unmasked in the following optimistic statement—somehow the people always recognize a masterpiece, so, as entry into the next phase, that's what we have to do. Which is not, in the strict sense, a political, but rather a cultural-aesthetic task.

The dilemma—you can't have a revolution unless your head's together, but you can't get your head together unless you have a revolution—here arises. I'm suggesting that both tasks—solidarity and revolution—are facilitated by broadening the collective imagination with such questions as: What is that process of which industrialism, then automation, then cybernation are the accelera-

tively appearing moments? What are the unknown time rules such processes follow? Can we design other frequencies and forms?

I think so. But, as Fuller says—“This means things are going to move fast.”

# **Part 1: Metalog**

# Chapter 1

## On Social Time (II)

### 1.1 Prologue

The first draft of this chapter was written 5 years ago when I was an Instructor at Queens College, CUNY and Director of Research at Jewish Family Service. It remained unpublished in mimeo form since then because I wasn't sure it was not simply an elaborate hallucination. What faith I now have in the ideas put forward is largely due to the sensitive audience granted me by Philip Slater at Brandeis, and Henry Murray at Harvard, who first encouraged me to get on with it, and by the students and colleagues who since have patiently helped me to put my obsession with time into the somewhat legible form before you.

### 1.2 Introduction

Galileo's attempt to vindicate his conviction that light moved at a finite velocity took the form of an experiment in which one of two observers stationed about a mile apart agreed to signal when he saw the light emitted from his partner's lantern. If light possessed a finite velocity (measurable at the distance of one mile by two interested observers), his hypothesis would have received its vindication. But we know now that it moved too fast for him. Speculation and experiment have since revealed (Fizeau, Michelson-Morley) what we now regard as a common-place, i.e., light travels in finite velocities, i.e., it "takes time." Most of us are now aware that Einstein's theories of relativity have something to do with a four-dimensional space-time continuum. But, shoemakers to

our own lasts, not until recently did we perceive the relevance of these "physical" speculations to our daily concerns. So light takes time..... ?

A moment's reflection reveals that the physicist's concern with the velocity of light is similar, if not homologous, to the social scientist's concern for words and gestures, because, just as light is information for the astronomer, so words and gestures are information for social beings.

But a striking difference between light and word emerges if we note that each photon delivers its information as it strikes a photoreceptor, whereas it is notoriously observable that people may pour out streams of words and gestures onto each other without communicating very well at all. Some of this difficulty is understood; we know about perspectives, frames of reference, points of view, codes, categories, metaphors, and a host of other intervening obstacles which alter the message as it is getting through. We know about transmission failures, and we know that reception may be garbled by malfunctions in the reception process. We tend to assume, in the absence of the above alterations, that the content of a given communication will have its intended consequence.

But, returning to the Galilean metaphor, what if there is nothing wrong either with the lantern or with the observers' visual acuity? It may still happen that communication fails. Perhaps, under such ideal circumstances, not the content but the rate of communication (e.g. the reaction-time of the observers) needs examination. It may be, and we shall attempt to convey, that even perfect (noiseless) contents often do not communicate because phenomena associated with the rates, speeds, accelerations, decelerations, and similar temporal parameters are involved.

Thus messages which arrive too fast to be recorded will be missed, much as Galileo's assistants failed to measure light's speed. Conversely, talk made too slowly will bore and precipitate ennui, much as a tape recording, played too slowly, will growl. That these conditions may obtain in those quadrants of the universe of

social behavior customarily studied by the social scientist is the hypothesis of this chapter.

### 1.3 Alienation, Anomie, Anxiety

We shall elsewhere observe that Marx's alienation, Durkheim's anomie, and Freud's anxiety have, in addition to their alliterative resemblance, a more central similarity which derives from the concern these men shared for the pathologies of urban man. When Marx described the "alienation" the worker suffers because the injustices of feudal serfdom have been replaced by newer modes of production and distribution, he rejoices that a liberation has taken place, but he is saddened (and angered) because the former peasant now has no choice but to sell his time, ie., his labor per hour. Tyranny has been removed only to be supplanted by a new form of subjugation. To this point hath the dialectic come, as Hegel observed in other circumstances.

Durkheim's fundamental explorations of anomie also implicitly participated in a temporalist orientation, for he focused, especially in Suicide, on those situations in which a *former* division of labor and its concomitant set of norms, values, and roles, were made suddenly obsolete by a *subsequent* division of labor, with its new set of norms, values, and roles. He was of course far from insightful into the obverse situation, the *disintegration* of a coherent social harmony into a *prior* condition of organization, resulting in an inappropriately complex norm system straddling the disorganized situation.

While it seems not uncertain that Freud was aware of the writings of Marx and Durkheim, it is almost banal to point out, in our era, that Freud's theory of anxiety was very much an expression of his own particular genius. This is especially evident in what many regard as the best of his sociological works, namely, Civilization and its Discontents. This ground breaking work in psychoanalytic sociology may be heuristically summarized as follows. When the division of labor in a society increases and complexifies, the



number of norms and values increases concomitantly. But, when this larger number of norms and values is introjected, becoming ingredient in the personality, spontaneity is decreased, because, increasingly, the forms and patterns of gratification available to the organism are subject to increasingly complex social definition. As Marcuse has aptly demonstrated, it is a situation in which increasing sublimation calls for increasing repression. Or, to put the matter more prosaically, it seems to have been Freud's view that complex civilization creates a complex superego, which then accumulates controlling dominion over the organism's pleasure seeking. The thesis that our civilization prevents us from enjoying our congenital polymorphous perversity is rather univocally endorsed by Norman Brown as the cultural plight of contemporary western man.

Thus it is not very far from the thesis of Civilization and its Discontents to the following proposition: *In a given social system, as the number of normatively defined interactions increases, the number of spontaneously defined interactions decreases.*

The generality of this proposition calls for several clarifying amendments, since it is almost too obvious that the theoretical import of the Freudian statement is not far removed from the theoretical import of Durkheim's classical formulation. In both, complexity finds its criterion in a simple enumeration of norms. Somewhat more subtly, we point now to the theoretical intimacy of this hypothesis with certain aspects of Marxian Sociology, in which the increasingly laborious definition of the worker's role brings about his increasingly alienated situation.

At the heart of these formulations, we believe, is a temporal assumption, which we may tease out by exploring the notion of spontaneity. Certainly, we must avoid imputing to these theorists a wish to avoid any and all socialization processes and to leave as unimpinged as possible the noble savage, natural man. Each would agree that a human isolate is inhuman, and that a man alone is no man at all. Yet each found a certain measure of inexorable necessity in the very "state" of affairs he deplored.

If we do not inquire into this inexorability, we shall be left with nothing more than theories of pathogenesis. If however we can make some reasonable formulation of the "native" possibilities of man, that sort of humanity he has *prior* to alienation, anomie, and anxiety, then perhaps we shall be able to state at least some of the prolegomena to a sociological theory of human joy, as well as the conditions under which human life is subjected to pathology.

If it is impossible to make any headway here, then we shall have to resign ourselves to a perennial entrapment between alienation and freedom, mechanical and organic solidarity, thanatotic and erotic life, or, more generally, to an impotence when confronting the desire to transform the social basis of Life and Death. Faith in an inevitable "progress" now seems worn thin.

The approach, we suggest, is to be found in the characteristics of our own age upon which so many writers, from Marx to Merton, have commented. I refer to the twin conceptions of social process and social change, and, to paraphrase Whitehead, to the fact that we have witnessed more rapid change in the twentieth century than in the twenty centuries before it.

## 1.4 Social Process and Social Change

Two root metaphors seem to be employed with especial frequency in the social scientists' conceptualization of social process and social change; the part-whole metaphor, and the space-time metaphor. Relating these to each other we may derive the four-celled paradigm of fig 1.4.1.

	space	time
part	(I) particle	(III) instant
whole	(II) gestalt	(IV) process

Table 1.4.1

In cell I, we locate the particle point of view, in which things, events, processes or changes are construed as the resultant configuration of a number of individual particles. Thus a molecule is a number of atoms, a galaxy a (very large) number of stars and planets, a group a "composition" of individuals. Processes and changes are ascribed to the addition or subtraction of parts. Many gas particles will set up a gravitational field, eventually forming a galaxy; many individuals will enter into patterned interactions, eventually forming a group. For example, population pressure (the increase in number of individuals) has not infrequently been allotted the engine role in social processes and social changes.

Critics who castigate this sort of conceptualization in the social sciences as "methodological individualism," argue that the derivation of social relations from the units of behavior is reductionist, atomistic, and primitive. Proponents assert that their thoughts are modeled on reality and are therefore genuinely descriptive of the situations which capture their interests.

In cell II, we locate the gestalt point of view, in which things, events, processes and changes are construed as self-defined wholes. A molecule may be intellectually analyzed or "broken" into its component atoms, just as a group may be analytically separated into its component individuals. But gestaltists insist that a molecule is a molecule, and a group is a group, *prior* to our analytic operations. They say that galaxies whirl and eddy, groups migrate or form communities, *as wholes*. Methodological individualists criticize this view as sociologistic, and, occasionally, psychologists view thinking of this sort on the part of their sociological colleagues as peculiarly unspecific. Proponents argue that anything less than gestaltic thinking distorts the reality of groups, commits the fallacy of misplaced concreteness, and is ultimately reductionist. A group is a group is a group; its processes and changes are *sui generis*.

In cell III we confront the instant point of view. Clock-time, for instance, is said to consist in the sum total of units measured. Thus an hour is "really" 60 minutes, a year 365 days, etc. For

particalists, analysis of change or process consists in measuring the number of instants and charting what happens *at* each instant. The sympathy between the particle view and the instant view becomes apparent here, since *at* is a spatial referent. But *where* is an instant? Nevertheless, sympathy is not identity, so that protagonists of the instant persuasion may, with equal justice, chide the particle advocate by asking "when is a particle?" The relativity enthusiast confronts an instantist critique of the familiar  $e = mc^2$  equation when it is noted that a particle "at" the velocity of light would have to achieve infinite mass. Similarly the analyst of social change who advocates an historical perspective is asked to note in his analysis of change what the state of affairs was when he observed the problem system.

In cell IV, we meet the proponent of the process point of view. He is the most adamant critic of reductionism, whether of type I, II, or III. He holds that the whole time of events, physical and/or social, must be perceived in its entirety. He holds, with Heidegger, that time is to man what water is to the fish, so that, if we abstract man from his element, we court the danger of asphyxiating our analysis. Like light, he reminds us, life takes time. If we make non-temporal analysis, we will speak in artificialities. Just as we cannot hope to understand (*verstehen*) the drama if we merely conceive (*begreifen*) of the separate scenes, so we must perceive man in his actual enduring social process. Snapshots provide lifeless models for so chronic a reality as man.

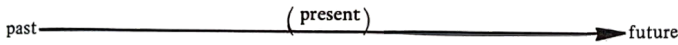
Critics of the processualist are quick to object that processes actually consist of 1) particles, 2) gestalten, or 3) instants. To these the processualist may respond with a superior grin. But he meets a more constructive critic in the social scientist who says: "Well and good. Whole processes are whole processes. But how shall we understand them? Where do we mark off beginnings, middles, and ends? How do we know how long a given process lasts, where one leaves off and another begins? If you require that we reconceptualize what we have heretofore regarded as events composed of parts, what concepts shall we employ?"

These, in our view, are sage inquiries. We shall not affront our critic by calling him a reactionary who demands a crystal ball as the price of progress. How indeed shall we think processually? How shall we measure change? Before presenting our views on these matters, let us describe more explicitly one characteristic of the four-fold paradigm presented above; it is cumulative. This we have attempted to convey in our sequential enumeration. The simplest, and, we believe, least helpful perspective for the social scientist's analysis of process is the particle view, depicted in cell I. Passing over the degree of probability that we shall someday so integrate "Science" so that we will have a continuum of perspectives ranging from Physics to Anthropology, and from Geology to History, we hold that present day social science has little to gain from an atomistic point of view because it introduces far more complexity and sheer number than we can presently handle. A similar remark applies to cells II and III (the gestalt and the instant, respectively.) For no one is really interested in charting, let us say, the history of American Culture, *second* by *second*. And why stop there? The cesium clock given to us by Professor Mossbauer will complicate seconds into billions of units per second. One could carry the argument further by resort to logical devices (borrowed from Zeno, *et al.*).

It is the wiser course to proceed empirically. We must investigate, by employment of tools now available, how, in fact, the processes relevant to human actions have been understood by their various participants and investigators.

We shall find, if I am not seriously in error, that the traditional western conceptualization of time is a linear depiction, involving past—present—future terminologies, and such variants as beginning, now, and eventually; birth, life, death; thesis, antithesis, synthesis; origin, process, recapitulation, and others. In these schemes, investigations of social processes are assumed to be intelligible when referred to a linear metaphor, such that marking off units of time of varying "lengths" are held to be meaningful. Thus we say "a short time," "a long time," in a myriad of ways, whether we call them seconds, days, months, years, light-years,

or eons. It will be perceived that these are reductionist since they employ a spatial model. In assuming that time is two-dimensional (i.e. linear), we make it impossible for phrases like "a hard time," "an easy time," "a high time," and/or "a low time" to make any but euphemistic sense. Thus, fig 1.4.1



**Figure 1.4.1**

Let us agree, since it exists, that this linearization of time is one possible conceptualization. But let us not assume that this two-dimensional view is the *only* possible conceptualization of social process. What if time may be viewed as 3 dimensional, or 4, or by extension, n-dimensional, as the mathematicians say. In other words, instead of charting experience on what we gratuitously assume to be a two-dimensional graph, let us inquire how time is experienced in various social situations. In this way, we can avoid forcing the views of time that other cultures have made into our pre-conceived framework, borrowed from an ethnocentric and outmoded physics. (For example, the traditional Chinese view of time would not "fit" our western paradigms at all.) In addition, by seeking a more general view, we may regard such concepts as alienation, anomie, and anxiety, which were plotted on a before and after linear model, as genuine, but amenable to supplement.

By focusing on socially experienced time, we derive further benefit by not assuming, as Newtonian physics was wont to assume, that time is an absolute, a constant, proceeding at some unknowable rate. If it "takes" linear time to measure linear time, we shall remain caught in a self-contradictory scientific agnosticism, unless we choose another path. Such a path, we hold, comes into view when we focus on socially experienced time. We may *then*, if we choose, investigate how the assumption of two-dimensional physical time captured such a prominent place in the halls of social speculation.

Experienced time is notoriously variable. Sometimes events seem to last forever, so that we become impatient for change. A boring play comes to mind as an example. "At" other times, events seem to rush by at such great speed, that we wonder if we shall ever "catch up" (e.g., the information explosion). Sometimes events are so deliciously pleasant that we hardly notice the passage of time at all (e.g.—sexual ecstasy). Sometimes we hurry, sometimes we dawdle. Sometimes events are so fraught with meaning that we are weighed down by them—we feel heavy, laden. These banal illustrations serve to focus for us the variability of experienced time, and the intellectual provincialism of charting such experiences two-dimensionally.

Although we know that travelling at a constant velocity produces no sensation of motion, we also know that alterations in speed (acceleration, deceleration) are readily detectable. The adventures of the astronauts have taught us that a measure of increase in relative mass *due to acceleration* is called "G," and the reciprocal measure of decrease due to deceleration is known as "negative G." We even know that there are upper "G" limits for humans, and that some people can tolerate more "G" than others.

The social homologues of these phenomena, in our view, lie behind the intuitions of alienation, anomie, and anxiety. Thus, when the worker's time is measured by a production schedule over which he has no control, he is alienated from his "natural" time. When the norms no longer or too suddenly define "normality", anomie appears. When timeless fantasies urge gratifications more immediately than the ego can mediate, fixation, regression, or "free-floating" anxiety may result. But these are lamentations concerned only with "too slow" or "too fast," that is, they employ linear time models. Are there others?

## 1.5 Achrony, Synchrony, and Social Process

Since a large number of approaches is open to us, we must attempt brevity. Hypothesizing that social processes occur at various rates, we shall first describe how people *feel* when caught in circumstances of varying rates of behavior. We will then examine some homological group phenomena, beginning with the familiar linear model but varying rates "along it." We may then inquire about acceleration and deceleration along the familiar "arrow of time" (customarily drawn as a vector, perhaps because time is irreversible, or perhaps only because we believe it is). We shall then look into other dimensions of time.

Thus, in life cycle terms, birth is beginning, although we know that the infant does not perceive time as "directional." Similarly, death is an ending (although some hold it to be merely transitional). Freud has taught us much about birth, death, and about fixation and regression, linear temporal metaphors which suggest that the organism may "go on" while the psyche "gets stuck" or retrogresses. He said little about those who race, whose feeling when the pace of events exceeds their own is a compulsion to hurry. Sociologically, a two-dimensional linear model has also been used to describe the visionary, the chiliastic sect, the millennialist persuasion, and other futurist orientations, their opposite numbers being described as conservatives, reactionaries, *contre-temps*, or, in Thomas Mann's phrase, "children with their heads on backward." Those who have been "left behind," those who "lag," "losers," and a host of others also receive their baptism here.

Since all men are born, pass through the age-statuses recognized by their cultures, and die, we may say that relating to the processes of social time is a cross-cultural necessity, and that every culture organizes these passages of time in some way. But, lest we restrict ourselves to the linearity we criticized above, let us recall our question whether other temporal modes of experience are possible.



Thus, medieval thinkers were accustomed to turn their eyes "upward" to heaven and "downward" to hell, two forms of eternity, the one blissful, the other horrendous. Law was said to emanate from "on high," and an institutionally prescribed ascetic regimen was believed to liberate men from the coarse materiality of terrestrial cares and to merit peaceful salvations "above" and "beyond" the sorrows of earth and its vale of tears. In our own age, we hear these eternalist intonations in the "high" of the narcotic user or in the pronouncements of the totalitarian state, which, claiming to have fathomed the laws of history, and thus being "above" them, arrogates the power and the right to direct the "destinies" of lesser mortals. Indeed, the association of immortality with upward directionality was as familiar to the Greeks as to our Calvinist forebears. Both located gods "on high."

Conversely, the insulted, the damned, the enslaved, and the oppressed all ask to have their burdens lifted from them. The yoke of tyranny is described as heavy. Those whose lives consist of endless repetitions (cycles, rituals), whose hope of a better future has been foreshortened, whose "downtrodden" plights seem without remedy, are customarily described as suffering in the "depths" of despair. We call the poor the "lower" class. Satan inhabits the "underworld."

How to account for the genesis of these vertical metaphors? Let us first relate them to the horizontal vector of time described above. We arrive at a depiction which may be drawn like fig 1.5.1.

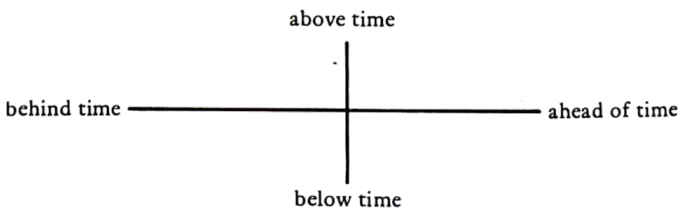
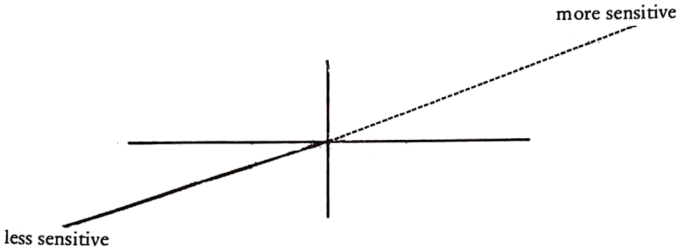


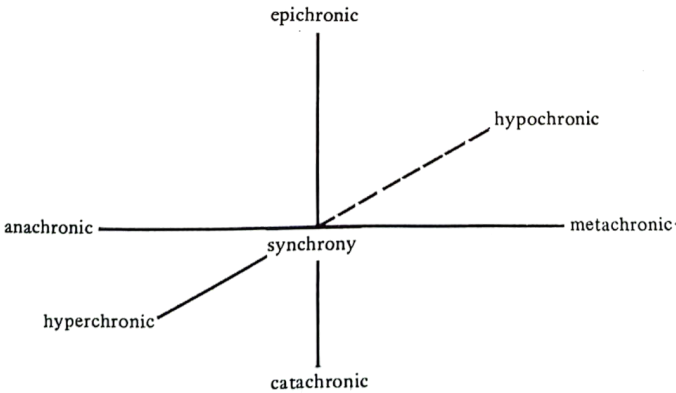
Figure 1.5.1

If we add one more dimension, designed to capture a continuum of sensitivity to time, such that we may chart those who are either sensitive to the feel of "time's flow," or those who are fairly dull with respect to it (and those in between), such that they complain of its heaviness or exalt its lightness, we arrive at something like fig 1.5.2 (imagine it to be 3 dimensional).



**Figure 1.5.2**

Adding Greek terms to the paradigm, referring to the root "chronos" for time, we derive the lexicon in ??.



**Figure 1.5.3**

We are now ready to describe more fully what each of these terms are designed to convey.

Perhaps the most convenient beginning will be made if we note that there are two perfectly respectable English words corresponding to two of our categories, i.e., synchronize, and anachronism. By anachronism we usually understand someone or something which "time has left behind."

If we inquire now, as Murray and Erikson do, whether there resides in each of us a sense of our *rate* of experience, it follows that we may also sense variations in this rate. If for example, we say that someone is falling behind in his work, we are referring to an anachronistic rate of attainment. Such a statement is possible only on the assumption that there is a rate of attainment which would "keep up with" the rate of expectation. Although this is customarily referred to as "normalcy," we prefer, for reasons which we hope will soon become apparent, to designate that situation in which the rate of attainment is in harmony with the rate of expectation by the word "synchrony." In the language of the hipster, he who is synchronic is "with it." When "the time is out of joint," we observe achrony. Referring to the diagram above, synchrony is the sphere whose diameters are equal. Achrony may be depicted as a misshapen or asymmetric sphere.

How many forms of achrony are there? Although it seems at first sight to be unusual, it is equally possible for someone to be "ahead" of his expectations—to go faster than a "normal" rate of process. The precocious child, the avant-garde painter, the bohemian who feels the entire planet to be populated by reactionaries and squares, are instances of what we call the metachronic orientation. So is the person who must race headlong, all the time; he constantly feels he must go faster than he can, as if "time were running out." He may do this because he wants to decelerate his "falling behind" (to prevent becoming an anachronism) by adopting a faster rate, which, unfortunately, he then feels is too fast for comfort (a metachronism). "Sometimes it takes all the running one can do just to stay in one place," as Alice remarked in Wonderland. The rabbit who was always rushing because he was late, late, late, also describes a typically metachronic orientation.

Sociologically we may observe a metachronic process when, for example, a goal is achieved before the participants are ready for it. Sudden attainment of a position of increased responsibility qualifies as a model frequently encountered *in vivo* by revolutionaries who rise to find that the ship of state steers heavily now that they have suddenly assumed the helm. Similarly, our interpretation of the "delinquency" literature leads us to view as anachronistic the period between biological and sociological pubescence. Were it not for the fact that "legitimate" property and sex "rights" are conferred on young people long after they are biologically ready to have them, we would have no time known as "adolescence." The time lag between biological and sociological maturity which seems to accompany every urbanization of a formerly agrarian culture is thus, in our view, an anachronizing process for the young.

Another illustration is to be found in the predicament of the technologically unemployed. We confront here a strange situation in which millions of workers whose old skills are anachronisms can find no work in an economic system which complains of a shortage of metachronic technicians with new skills. This condition is as neatly paradigmatic of wholesale achrony as we can imagine. The "economy" which metachronically creates new roles faster than it can fill them serves also to illustrate the reciprocity between rushing and lagging rates of social process.

While it would be possible to show that anachronizations may occur anywhere along the continuum of the processes of individual development which Erikson calls the life cycle, systematic elaboration of the group process equivalent of these ideas must wait upon a more elaborate formulation which will make it possible to study the paces involved in group phases of development in their sequence and continuity.

The anachronic and metachronic orientations are, then, characteristic ways of experiencing dyssynchronous rates of experience. They may be used as reciprocal terms, since they are relational concepts. Thus, someone who feels he is behind may rush, and someone who is rushing may feel himself slowing down. Con-

versely, someone who feels behind may experience relief by speeding up a bit, and someone who feels himself hurtling may feel relief by relaxing a bit. Somewhere between these extremes, people sometimes feel that their rates are comfortable, that they are "doing alright," "making it," "groovin'." <sup>1</sup> This horizontal aspect of the paradigm is familiar enough, capturing the linear model to which we have been accustomed. Our terms are the simplest we can devise to focus on rate variations.

The epichronic situation and its reciprocate, the catachronic, refer to feelings of being "above" or "below" a given social process. Although we often say that distance may be comfortable (in the face of danger) or uncomfortable (when "far" from a desirable outcome), we sometimes say that "rising above" a painful situation will alleviate its stressful implications. Thus the "buzzing blooming confusions" of too complicated a set of roles may take on meaning when seen from (high) above. Although we know that details are often lost in this stance and that pattern is achieved only at the cost of variety and richness, we argue that when pattern is sought, detail must be sacrificed. That will be the view of the epichronic person who tries to rise politically above the bewildering chaos of memberships too complicated for his comfort. He may pronounce that nothing really changes, that all action is illusion, or that cycle and repetition are the co-monarchs of true reality. He may even deny that time is real at all, by erecting unchanging, inflexible dogmas which are true "for all time" over which he now feels the master. Parmenides comes to mind, or the early Plato of the "eternal" forms. Mercia Eliade's works are especially valuable in this context. Mysticism (of one kind) serves as another illustration of the epichronic attempt to alleviate the slings and arrows of outrageous process by climbing into a timeless realm where eternal order reigns. Paranoia (of one kind) serves as another.

Socially, we observe the epichronic stance in the application of power to what the powerful regard as a threatening situation.

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<sup>1</sup> Cf. V. Gioscia, "Groovin' on Time," paper presented to the Hahneman Medical College Conference on Psychedelic Drugs, November, 1968. See Chapter 2, this volume.

Martial law is its most obvious incarnation, the denial of civil liberties a less obvious but perhaps more insidious replication. The "majority" which imposes its will on "minorities" is a familiar case in point, as is Marx's analysis of the refusal of the capitalists to distribute the rewards of a new mode of production as rapidly as they accumulate. Injustices have never been difficult to catalogue; instances of power, the reciprocate of oppression, are no more difficult to compile. Recondite analysis of power, however, is another question.<sup>2</sup> We focus here on that frequently noted situation in which those who oppress are angrily envied by those they oppress, a phenomenon which Anna Freud has named "identification with the aggressor." It is not entirely dissimilar to Hegels' analysis of the master-slave antinomy. Others have pointed out that relationships of this sort may also be in evidence in intergenerational conflicts.<sup>3</sup>

The catachronic is not so fortunate. He feels that the process of events which constitute his situation are too heavy to be altered by his poor strengths. He is depressed. He feels that "time hangs heavy on his hands," that life is unjust and unfair. Regulations and edicts, whether official or informal, weigh him down. He is a creature of the depths, insulted, injured, damned. The decisions which effect events are made by those "above" him, but the climb up to that level is too arduous for him. He may despair, sinking lower and lower, possibly into suicide. A milder catachronic will sing "low down" blues.

Just as we see a reciprocity between the anachronic and the metachronic, who seem sometimes to shuttle back and forth along their continuum, so we may observe a reciprocity between the epichronic and the catachronic. Frequently, one who feels himself to be living catachronically will seek release from his depthful

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<sup>2</sup> An advance toward a more empirical analysis of this question has recently been made by my former colleague Herbert Danzger in "Community Power Structure: Problems and Continuities," *American Sociological Review*, 29:707-717, 1964.

<sup>3</sup> Eisenstadt, S., From Generation to Generation. Free Press, Glencoe, 1955. See also, A. Van Gennep, Rites de Passage, M. Vizedom and G. Caffee (transl.). University of Chicago Press, Chicago, 1960.

prison. Narcotics will turn off feelings of catachrony and transport the user almost magically into an epichronic realm where time moves so slowly (if at all) that the feeling of being "down under" is almost instantly replaced by a feeling of "being high."<sup>4</sup> Alternatively, the catachronic may sink into a self-defeating hedonism where every impulse is given free reign. Durkheim's egoistic suicide is homological—his altruist resembles our epichronist in that he may feel the ultimate values to be more valuable than his own life, justifying his martyrdom. Joan of Arc comes to mind. For the epichronic, time should move very slowly if at all. For the catachronic, it moves too slowly, if at all. The former wants order, the latter escape.

Durkheim's "fatalistic" suicide is similarly homological to the "fatalism" of the catachronic orientation. Thus, when we asked Oscar Lewis why it seemed to him that the bearers of "culture of poverty" always seemed hopeless and resigned, without viable plans of action, he replied that it was because they knew "damn well there was little they *could* do" about the inequitable allocation of the world's good things.<sup>5</sup> Similarly, the low castes, wherever and whenever observed, have traditionally been described as people who do not regard time as benevolent. Among the untouchables of India, time is a "tooth" which tears away at the flesh of life. Albert Cohen<sup>6</sup> described the lower class time orientation of the delinquent as immediate and hedonistic, in contrast to the middle class boy who learns to postpone present gratifications, in the *hope* of more and better gratifications "in the future."

We turn now to our third axis, the continuum of sensitivity. Here we enter uncharted regions, involving such unknowns as temporal thresholds, rate tolerances, affective sensibilities and

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<sup>4</sup> Gioscia, V., "Adolescence, Addiction and Achrony," in *Personality and Social Life*, R. Endleman (ed.). Random House, New York, 1965.

<sup>5</sup> Remarks elicited on the occasion of a colloquium which Professor Lewis gave at Queens College of the City University of New York on Oct. 30, 1964.

<sup>6</sup> Cohen, A., *Delinquent Boys*. Free Press, Glencoe, 1955. See also, R. J. Barndt and D. M. Johnson, "Time Orientation in Delinquents," *Journal of Abnormal Social Psychology*, 51:343-345, 1955.

insensibilities. Why are some of us more sensitive to time's passage than others? Why do some of us feel speed to be exhilarating while others abhor it. Some drive a car at a steady pace, comfortably within the speed limit for hours on end, while others enjoy speeding; the temporally timid and the rate rebel, as it were. Why?

Although these are presently imponderables, we include them for several reasons: 1. we recognize these phenomena repeatedly albeit crudely, 2. we have devised an experimental technique for their investigation, 3. they tantalize our theoretical appetite.

Certain questions which we cannot at present even ask intelligently (ramifications of point 3 above) motivate us to attempt the construction of a bridge from feelings about rate-of-behavior phenomena to the sociological circumstances which generate them. For example, imagine an era in which the pace of social change is said to be great (i.e., our own). Imagine further, two populations, one of hyperchronics (i.e., people very sensitive to change) and one of hypochronics (i.e., people not particularly bothered by the rapidity of events). Will the hyperchronics become more catachronic sooner? Will the hypochronics "adjust" more easily, becoming willing compulsives in the "rat race" for success? We do not at the present know the answers to these questions, nor even whether these are intelligent questions.

Nevertheless, before passing on to the attempts we are making to investigate these phenomena experimentally, three further aspects of the achrony-synchrony paradigm require elaboration. The first is the relation of achrony and synchrony to the general issue of affect and emotionality; the second is the relation of our paradigm to the general issue of dialectical thought; the third is the extent to which the paradigm described above rests on an assumption of uniform acceleration and/or deceleration. That is, we have discussed so far only those aspects of temporal behavior which either increase or decrease *at a constant rate* of increase or decrease. Before we enter into a discussion of such temporal phenomena as experience which is taking place at a decreasing rate of increase;



or conversely, at an increasing rate of decrease (and other such phenomena), let us consider the question of dialectical time.

## 1.6 On Dialectical Time <sup>7</sup>

### 1.6.1 Thesis:

Freud wrote:

There is nothing in the id that corresponds to the idea of time; there is no recognition of the passage of time, and—a thing that is most remarkable and awaits consideration in philosophical thought—no alteration in its mental processes produced by the passage of time. Wishful impulses which have never passed beyond the id, but impressions too, which have been sunk into the id by repression, are virtually immortal; after the passage of decades they behave as if they had just occurred. They can only be recognized as belonging to the past, can only lose their importance and be deprived of their cathexis of energy, when they have been made conscious by the work of analysis, and it is on this that the therapeutic effect of analytic treatment rests to no small extent.

Again and again, I have had the impression that we have made too little theoretical use of the fact, established beyond doubt, of the unalterability by time of the repressed. This seems to offer an approach to the most profound discoveries. Nor have I myself made any progress here. <sup>8</sup>

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<sup>7</sup> This section is a slightly edited version of a paper presented to the International Congress—Dialectics of Liberation, London, July, 1967.

<sup>8</sup> Freud, S., New Introductory Lectures, Standard Edition, op. cit., vol. XXII, p. 14.

Marcuse accepted the gauntlet thrown down by Freud in the foregoing passage, but it was his genius to perceive that the couch was not and could not be an adequate instrument to deal with what he called "surplus repression:" that is, the extent to which cultures engender far more repression by political oppression than the amount he felt to be minimally necessary. Attempting to forge a synthesis between a Marxian analysis of society and a Freudian analysis of civilization, Marcuse addressed himself to the issue of time in the last five pages of his Eros and Civilization.<sup>9</sup> There he writes that:

... Death is the final negativity of time, but 'joy wants eternity.' Timelessness is the ideal of pleasure. Time has no power over the id, the original domain of the pleasure principle. But the ego, through which alone pleasure becomes real, is in its entirety subject to time. The mere anticipation of the inevitable end, present in every instant, introduces a repressive element into all libidinal relations and renders pleasure itself painful. This primary frustration in the instinctual structure of man becomes the inexhaustible source of all other frustrations—and of their social effectiveness. Man learns that 'it cannot last anyway,' that every pleasure is short, that for all finite things the hour of their birth is the hour of their death—that it couldn't be otherwise. He is resigned before society forces him to practice resignation methodically. The flux of time is society's most natural ally in maintaining law and order, conformity, and the institutions that relegate freedom to a perpetual utopia; the flux of time helps men to forget what was and what can be: it makes them oblivious to the better past and the better future.

This ability to forget—itself the result of a long and terrible education by experience—is an indispens-

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<sup>9</sup> Marcuse, H., op. cit., pp. 211–212.

able requirement of mental and physical hygiene without which civilized life would be unbearable; but it is also the mental faculty which sustains submissiveness and renunciation. To forget is also to forgive what should not be forgiven if justice and freedom are to prevail. Such forgiveness reproduces the conditions which reproduce injustice and enslavement: to forget past suffering is to forgive the forces that caused it—without defeating these forces. The wounds that heal in time are also the wounds that contain the poison. Against this surrender to time, the restoration of remembrance to its rights, as a vehicle of liberation, is one of the noblest tasks of thought.

This magnificent passage nonetheless leaves us with a question: "*How* shall we re-member?" (the pun is deliberate).

Freud and Marcuse are united in giving central importance to the notion of time in the task of liberation. To Freud's relatively bourgeois program, Marcuse, a "left Freudian," adds the social-political dimension. But Freud and Marcuse are also united more in depicting the plight of the repressed, than in the definition of political prescriptions. They whet our appetite for exploration.

Insofar as he is inspired and provoked by Marx, we may say that Marcuse is not only a left Freudian, but also a "left Hegelian." But even the "right Hegelians" (e.g., Kierkegaard and many of the existentialists) did not fail to see that insight into temporal process was central to their concerns as well. Heidegger's Sein und Zeit<sup>10</sup> is illustrative. It falls short in my view, because, though it stresses that time lies at the root of all consciousness, it construes time in a hopelessly naive linearism, and restricts its attention unnecessarily to what I shall later characterize as "mere becoming,"

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<sup>10</sup> For a particularly instructive exegesis of Heidegger's view of time, see, for example, William Barrett, "*The Flow of Time*," in R. M. Gale (ed.), The Philosophy of Time. Doubleday Anchor, New York, 1967.

thus effectively precluding attention to the possibilities of what I shall call "transcendent becoming," i.e., liberation.

The intimate connection between anguish, the existentialist notion of pathos, and linear temporality, is not merely intimate but necessary, because anguish results whenever temporal experience is politically linearized. That is, whenever a society insists that the only viable choice is a millennialist utopia or a contemporary "ekstasis," it does so by oppressively constricting temporal experience to one dimension. Indeed, Marcuse's One Dimensional Man<sup>11</sup> reveals the poverty of this thesis.

The situation is no better when we turn to a group I will call the middle Hegelians, i.e., the advocates, disciples, and students of Husserl's phenomenology (among the principal figures here I would include Albert Schutz, Maurice Natanson, and others).<sup>12</sup> Phenomenologists of this sort<sup>13</sup> accomplish a valuable inventory of the contents and processes of consciousness, but in so doing, it seems to me, they begin with the temporally fragmented structure of consciousness when it would be preferable to account for it, both genetically and epidemiologically, tasks which too often fall outside of their charted domains.

Nor may we expect promising fulfillment from the "genetic epistemologists," among whom we must of course name Piaget as the most talented investigator. Piaget's work on the genesis of the concept of time<sup>14</sup> demonstrates, with the pungent clarity we have come to expect from him, that the notion of time, contrary to Bergson and the phenomenologists, is not 'an immediate datum of consciousness;"<sup>15</sup> that, for his youthful subjects, there are

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<sup>11</sup> Marcuse, H., One Dimensional Man. Tavistock, London, 1967.

<sup>12</sup> Cf. M. Natanson (ed.), Philosophy of the Social Sciences. Random House, New York, 1963.

<sup>13</sup> For a recent history of the varieties of phenomenological philosophies, cf. H. Spiegelberg, (ed.), The Phenomenological Movement, 2 vols. Martinus Nijhoff, The Hague, 1968.

<sup>14</sup> See, for example, his chapter, "Time Perception in Children," in J. Fraser (ed.), The Voices of Time. George Brazillier, New York, 1966.

<sup>15</sup> See Bergson, Time and Free Will. London, 1910.

in fact four distinct steps through which contemporary western children go at various ages before they arrive at the notion of time with which the phenomenologists begin. Piaget's subjects distinguished: (1) events of arrival; (2) events both of arrival and of departure; (3) distance traversed by moving figures; and (4) measure of the distance between moving figures. Piaget is able to conclude from these and similar experiments by his colleague Paul Fraisse<sup>16</sup> that the notions of temporal succession, temporal order, temporal duration, and temporal velocity are initially distinct and *subsequently* miscible notions.

Nor have clinical enquiries into the pathology of the "time sense" been lacking. The Dutch psychiatrist, Meerloo, has summarized this literature<sup>17</sup> for us. His review catalogues the extent to which the allegedly normal time sense in western subjects may disintegrate into weird mixtures of the elements described by Piaget and into other strange temporal compositions. However, neither Meerloo nor Piaget examine or take into account the extent to which the pathologies of the time sense derive from *political oppression* and/or "psychological" repression. Indeed, this failing is as often encountered among the phenomenologists, as among experimental and clinical investigators.<sup>18</sup>

No such defect characterizes the recent work of Jean-Paul Sartre, whose preface to his Critique de la Raison Dialectique has appeared as "*Search for a Method.*"<sup>19</sup> I will not summarize this well-known work since a curt summary could not do justice to its bold and promising character. Suffice it here to say that in it, Sartre attempts to unite and synthesize, and then to go beyond the dialectical heritage of Hegel and Marx, the phenomenological heritage of Heidegger and Husserl, the psychoanalytic heritage

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<sup>16</sup> Fraisse, P. The Psychology of Time. Harper, New York, 1963.

<sup>17</sup> Meerloo, "The Time Sense in Psychiatry," in Fraser, op. cit., pp. 235 et seq.

<sup>18</sup> Cf., however, R. Wallis, Time: Fourth Dimension of the Mind, Harcourt Brace and World, New York, 1968, for a cybernetic treatment without this failing.

<sup>19</sup> Cf. V. Gioscia, "Groovin' on Time," paper presented to the Hahneman Medical College Conference on Psychedelic Drugs, November, 1968. See Chapter 2, this volume.

of Freud and the new Freudians, and even to carry forward his own "existential manifesto." He does so by giving centrality to the notion of "project," which goes beyond the Hegelian notion of *process* in that it is a call to action, and not merely a call to vision. He accepts, it seems to me, Marx's critique of the Hegelians that the task of philosophy is not to understand the world, but to transform it. He insists that no middling compromise can be reached between the determinations which social forms impose on consciousness, and the character of freedom which his existentialism proudly defends.

I have passed in review the thoughts of the foregoing men to underscore the fact that these leading theoreticians to whom we look for guiding vision, without exception, have focused their principal energies on the notion of temporal experience, and yet none has produced a major tract on the subject. In the paragraphs that follow, I suggest some considerations which seem requisite for a beginning—notes, as it were, toward a new epistemology of experienced process.

### 1.6.2 Antithesis:

Freud, Marcuse, Heidegger, and Sartre, not to mention Hegel and Marx, did not fail to allude to "the divine Plato," as Freud calls him. They were not unfamiliar with Plato's epistemology which, unfortunately, is far too often accepted as sufficiently well-expressed in the famous allegory of the cave. Sartre somewhere (I think in "*Anti-Semite and Jew*") tells the charming tale of a young French student, rushing excitedly to his Professeur, asking eagerly, "Professeur, Professeur, have you read Monsieur Freud?" whereupon the old man peers above his spectacles and gently informs the budding metaphysician (approximately): "My son—the better part of Freud you will find *chez Platon*."

And yet, those who go to Plato's Republic for the final statement of his epistemology will commit a grievous error in scholarship by failing to study a work which Plato wrote nearly forty years after he wrote the Republic, i.e., his Timaios. Elsewhere, I have

shown <sup>20</sup> that the epistemology of The Republic was replaced by the sociology of the Timaios, in which the pun on re-remembering, to which we alluded previously, receives Plato's customarily magnificent allegorical depiction.

Plato is at great pains in this work to distinguish mere becoming—the incessant repetition of what went before—from another sort of becoming, in which time serves not merely as the line on which repetition is plotted, but as the mediation by which both memory and society have their being, such that time trans-forms Ideas into realities, which thus *become members* of the real forms of being. Analogously, time transforms memories into vital social membership. In more classical language, it is *Logos* that transforms *Ananke* into *Eros*. (We will not here discuss the mutilation this allegory suffered at the hands of Christian theologians.)

Nor can I emphasize strongly enough the complete error of those interpretations of Plato which impute to him the view that the temporal world here below is merely a copy of the eternal, changeless realm above. This view is expressed in The Republic, but is abandoned and replaced in the Timaios by the view that time transforms mere succession into genuine growth and creativity; in other words, that time is the negation of mere becoming.

What does this mean? It means, in brutal summary, that if we do nothing to change them, things will go on as before; that there is an inertial death (*Ananke*) in the affairs of men which conspires to *keep* things as before; and that mere succession holds no promise of change (*Logos*). And, yet, where we would expect Plato to write that bold imagination paints a future whose compelling beauty pulls us forward into transformative action, we find, on the contrary, that in the Timaios Plato finds the motive for action *not* in a naive futurism, but in the vital re-remembrance of the past. This is not the reactionary nostalgia so many of his positivist commentators have imputed to him, <sup>21</sup> because those who remember (re-member)

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<sup>20</sup> Gioscia, V. Plato's Image of Time, op. cit.

<sup>21</sup> Cf. Popper, K., The Poverty of Historicism.

that time and time again, the change whose consummation they devoutly wished did not come about, dooming them to the sterile repetition again and again of forms of behavior which led nowhere, will not be emboldened by the forecast of *another* repetition. As long as the time of memory is construed as a linear time, events which succeed prior events cannot be novel; cannot be new; cannot hold the promise of genuine change. It is only when men *refuse to repeat* what they remember all too bitterly has already occurred, that they "rise above" the one-dimensionality of linear time.

We may illustrate the foregoing with a geometric metaphor, more congenial perhaps to Pythagoras than to Plato. Imagine, if you will, a pencil, moving along a straight line (the familiar "arrow of time"). There is no way for the pencil to include in its movement prior points along the line, as long as the pencil remains on the line. For the successive points on the line to be comprehended (i.e., co-present), it is necessary that we move from one dimension to two, from the line, that is, to the plane. Similarly, to go beyond a merely flat planar surface, all the points on the plane may only be comprehended by adding another dimension, the solid. This much was familiar even to Euclid. It remained for Einstein to show that the three dimensions of the solid may only be transcended in the fourth dimension of time.

Let us translate this geometry into political language. When the laws of an era dictate that the shoemaker must stick to his last, the shoemaker is doomed to the repetitious monotony of performing again and again his act of making shoes. Should he remember that his wish to move beyond what he has already done so many times before, has, so many times before, been prevented by the law, which restricts him to the obdurate repetition of his activity, he may seek recourse to one of two illusory releases: the one, a post-historical heaven in which all injustices will be rectified; or, a contemporaneous "ek-stasis" in which he rises illusorily above his present, only to find himself sole occupant of an empty mysticism. From his prison of incessant repetition, he seeks release either in a post-temporal illusion, or in a transtemporal (epichronic) escape. We should not be surprised to find that it is often the same law



which compresses his temporality which is at the same time the staunchest advocate of his post- and trans-temporal illusions, i.e., religion.

It is not without bearing to note that the cobbler's attempt to "rise above" the compressed time perspective which his repetitive work inflicts on him leads him to the image of a vertical time dimension, as it should. The sadness of the cobbler's plight is not his imagination of the vertical dimension. This is valid. But no transcendence comes from an *illusory* attainment of a dimension of time which rises genuinely above mere compressed linearity.

But even Plato does not tell us why some shoemakers refuse to stick to their lasts when their memories inform them that they have never done anything else, and why others do not protest at all. This question, in my view, is absolutely central to the critique of dialectical consciousness, because we cannot be satisfied with insisting that vertical time has value if we do not distinguish when it is illusory from when it is real. We must pass beyond bland assertion that there are kinds of time, that linear time is alienated time, that vertical time is the dimension in which genuine protest occurs. We must enquire not only *why* some protest, but *when*.

We may begin our enquiry by focusing on an aspect of time which has unfortunately received more attention by the physicists than by philosophers, the notion of rate of time. Just as Hegel and Marx wrote of the transformation of quantity into quality, so we may explore the transformation of succession into transcendence by enquiring whether an experience is the same when it occurs at different rates. For example, is anger anger when it is sudden and intense, or does anger become violence under these circumstances? Is the industrialization which the United States accomplished in a hundred years comparable to the 50 year industrialization of Russia? The 15 year industrialization of China? Or are these experiences quite different—(one is tempted to say *essentially* different) *because* they occur at differing rates? When Marx's proletarian sells his time per *hour* in completely repeatable units, is his oppression identical to that of the computer-programmer who

processes billions of bits of identical information per *second*? Is the civil rights activist who demands power *now* no different than the gradualist, who counsels patience, even though both enlist their efforts in the same cause?

We think not. Nor is the death of thousands of unknown soldiers in the war between Athens and Sparta the same as the death of thousands of unremembered Japanese in one hour at Hiroshima. For death is not dying—death, if it be more than a concept, simply occurs, but dying is a process which takes time, as do oppression and liberation. Just as oppression prevents dialectical transformation by compressing experience into monotony, so does a liberating dialectic require a different kind of time, “vertical time.”

If vertical time exists, the beginning of an answer to our question “When do some revolt and others submit?” now begins to emerge. Revolt occurs not simply when oppression exists, but when hope increases and, “at” the same time, the rate of oppression mounts, such that even post-temporal illusory hopes are dashed. When people begin to sense that the very pace of their oppression is so rapid that it exceeds the pace of their hope for transcendence, such that their efforts at change will be outpaced, when even their illusory hopes become untenable.

This kind of sensitivity is exquisitely delicate. It resembles the perception of a man about to be toppled by winds of gale force, who in one moment will lean forward ever so slightly to brace himself for the next onslaught; and in the next moment, bend a little to deflect the head-on force he faces. Unlike the fly who pounds again and again against the window pane, a man remembers and comprehends the last rush of wind in his attempt to face the next one. So to speak, he negates the mere pastness by creating a new effort in which the meaning of the past is dialectically transformed. The name of this quality is courage, without which time merely buries memory—with it, memory may be transformed into vision.

Simply stated, then, we must learn to see not only that enforced repetition is lifeless and mechanical, but that the negation

of mere repetition is provoked when the *rate* discrepancy between repetition and transcendence (losing and gaining) becomes impossibly oppressive. Yet we must move into a new dimension of temporality in our efforts to transform mere repetition, since otherwise we leave behind the angry memory of mere repetition on which bold imagination feeds.

Freud was not unaware of this. Does he not portray the compulsion to repeat as due to the "inability" of the repressed to enter consciousness, i.e., to enter real time?

Conflict theorists will be quick to point out that such a portrayal of courage would be an exercise in romantic existentialism, if the time dimensions discussed pertained only to an asocial experience. "What," they will ask, 'have you to say when, from the halls of leisure, the lawmakers send an edict that the oppressed will be disloyal if they do not continue as before?" The point of this objection may be re-phrased in the following way: When, from their position of pseudo-eternal power in vertical time, masters insist that slaves remain on the line—that it is in the nature of slaves not to transcend—we begin to see that the shaping of temporal experience is the central instrument of political oppression.

Let us take two contemporary examples: the drug subculture in the United States and the Red Guards in China. It is well-known that the most terrible rates of drug addiction in the United States are to be found in the inner ghettos of its huge cities, and that to the extent that addiction is prevalent, to the same extent need little violence be feared. It is as if narcotics anesthetized violence for those whose oppression is nearly complete, since not merely generations of poverty have been inflicted on the residents of these areas, but in fact there has come into being a whole culture of alienation which oppresses them faster than ever. As Laing has written:

From my own clinical practice, I have had the impression on a number of occasions that the use of heroin might be forestalling a schizophrenic-like psychosis. For some people, heroin seems to en-

able them to step from the whirling periphery of the gyroscope, as it were, nearer to the still centre within themselves.<sup>22</sup>

We might pose a question here of the following sort: If the gyroscope is whirling so rapidly that those in the periphery of its arms will be thrown off with centrifugal force, perhaps heroin creates a temporary feeling of temporal stillness. But the poverty of this sort of temporality lies exactly in its short-lived "temporary" duration.

The pitiful attempts to reduce the incidence of addiction by temporizing with offers of equal opportunity for monotonous degrading work emerges in this connection for what it is—an attempt on the part of the establishment to preserve the status quo by tossing a few bones to the mad dogs without altering one whit the barbarous cages in which they are forced to live. Addiction in America is overwhelmingly the condition of black adolescent males. It subsists in a hugely lucrative market situation which not only prescribes but asks the victims to pay for a temporizing peace above and beyond a faltering civilization.

The same may not be said of the Red Guards, who cannot be accused of attempting to retreat into an epichronic illusion. They were not prevented from efforts to participate politically in their society. But we must ponder two questions: 1. Shall we endorse their "violence"? 2. Is their vision of a post-contemporary China illusory in any degree, i.e., do they, like the early Christians, seek heaven forever after?

In both cases we confront an intergenerational stratification wherein age, not production, becomes the stratifying criterion. It is by now a commonplace to observe that teenagers the world over are resorting to one or another of the strategies cited above: some resort to revolution, others resort to anaesthetic drugs. This is because the rate of change of their civilization now exceeds

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<sup>22</sup> Private communication, cited in P. Laurie, Drugs—Medical, Psychological and Social Facts. Penguin Books, New York, 1967.

the rate at which they are socialized. They, like he who faces into the winds of change, perceive exquisitely that the styles of becoming which gave birth to their growing personalities are out of synchrony with the world they must experience. They perceive, in short, that they are required to repeat forms of life which are outmoded, i.e., dead.

In all of the illustrations presented above, we may observe the phenomenon of *rate discrepancy*. In each of them, a group has arrogated to itself the pseudo-eternal right to decide which kinds of time belong to whom. But we must question the banality of the perspective which says that slow anger is tolerable, but quick violence is not; that gradual industrialization is democratic but rapid industrialization is totalitarian; that civil rights will gradually be achieved, but not now. We may also see that some drugs serve only too well to anesthetize the violence of bourgeois values; and we must ponder whether there are alternatives to the forms of violence which seem necessarily to accompany full political participation.

Perhaps an interim summary of this doctrine which holds that rate discrepancies constitute a new form of oppression, to which we have given the name *achrony*, is in order. It might read approximately as follows: We have a sense of rate in our experience which derives equally from vital memory and imaginative vision. When the pace of experience gains on hopes for transformative and vital change, men see genuine goals and bend their labours toward them. When, however, men perceive the *rate* of receding visions to exceed the rates of their own powers, they are tempted either to revolution or to despair. The fine line between those who protest and those who submit must be drawn not along a path of mere becoming, but must be envisioned in a time context in which the different kinds and dimensions of time are fully drawn. Persons, institutions, generations—indeed, whole cultures may torture themselves and each other by failing to attend, not merely to dialectical alternatives, but to the rates at which dialectical transformations must exceed the rates of anti-dialectical temporal compressions.

If anxiety demands too much time between the impulse and the gratification; if blind alienation prevents dialectical growth; if anguish describes the impossibility of "ek-stasis;" then achrony depicts the destruction of the sense of lived process. Synchrony—"being with it"—*is* the experience of dialectical growth, of *contemporal* transcendence.

## 1.7 Synthesis:

We may begin to account now for Freud's admitted lack of "progress" when confronted with the issue of time. His was a linear perspective. And yet, in his paper, "*On Negation*,"<sup>23</sup> he made unknowing headway into the field he thought had baffled him.

Similarly, despite his courage in attempting to forge a dialectical Freud on the anvil of Marxian insight, Marcuse has not yet explicitly focused his dialectical genius on a theory of time.

The existentialists rightly wish to rescue human freedom from the linear determinations of a mechanical causality, but in viewing all time as linear and mechanical they were able to preserve a kind of freedom only at the expense of dialectical thought. The genetic epistemologists achieve a richness of descriptive power no less vivid than the phenomenologists, but since both define their spheres in large measure apolitically, they build a certain irrelevance into their work.

These are not the faults of Sartre's work. Sartre insists that the projects in which men engage be defined in terms of present memories and present goals which are determined by personal and social pastness as well as personal and social futurity—*not* by a transtemporal (ecstatic) mysticism, nor by a post-temporal (millennialist) illusion. For Sartre as for Marx, the automatic dialectic they attribute to the Hegelian Absolute is false and untenable.

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<sup>23</sup> Standard Edition, op. cit., vol. XIX, p. 235 et seq.

Without vital membership in a *project-class*, history cannot be enacted, nor can the polis be transformed. These, he rightly insists, are the *sine qua non* of liberation. Unlike those scholars who claim that we must see what is to be done *before* we do what must be done, Sartre rightly reveals that we *cannot see* what must be done until we begin to *do* what must be done.

With the utmost respect for the dignity with which Sartre has assumed the burden of creating the critique of dialectical reason, I suggest that it will be necessary, if his critique is to enjoy theoretical viability, for him to include a critique of non-dialectical time. That is, a hard and courageous attempt must be made to liberate ourselves from the outmoded Western conception that (political) life takes place only in linear chronological time. We must insist that the dimensions of time may be even more numerous and far more rich than the customary depiction of three dimensions of space. We must cease borrowing from bankrupt physicalist philosophies which assume that time is exhausted by the naming of the past, present, and future. We must allow ourselves to be stimulated and provoked by the possibilities of intergalactic voyages which must, somehow, transcend the speed of light (which I, for one, resent). It may be impossible for an electron to be other than it is "*at*" any given instant. It is not impossible for a man. Nor, for that matter, for a positron. <sup>24</sup>

Men transcend mere succession when they remember their membership in political classes whose traditions they transform in political projects. It does not suffice mechanically to dogmatize that political events consist of a thesis, an antithesis, and a synthesis. It is now more than ever apparent that the concept of time, which Hegel first inserted into Aristotle's principle of contradiction in a gigantic intellectual leap spanning two thousand years of historical time, must be carried forward another step. For Aristotle, a thing could not both be and not be at the same time. For Hegel, since things both are and are not, they could not simply be "*at*" the same time. Marx, like Plato, saw being as historical challenge. Sartre sees being as historical projects. We must begin

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<sup>24</sup> Cf. Wallis, R., *op cit*.

to fashion a perspective which reveals not merely the necessity to negate mere succession, but to seize power over the *rates* at which liberations must come about.

Sartre pronounced that existence must precede essence, lest freedom be an absurdity. We must learn to assert that recurrence precedes occurrence; that both remembering and imagination nourish action; that membership is liberating; and that those who demand that we participate too slowly, oppress us.

## 1.8 Vertical Time <sup>25</sup>

But does "vertical time" exist? What do the phrases "the vertical dimension of time" and "vertical time" mean? The suggestion is that Westerners who can snuggle comfortably in the view that space "has" three dimensions (line, plane, and sphere) should try to conceive the possibility that time, like space, may have more dimensions than the two which define it as a line. (Past, present, and future are points *on* the line.)

Let us focus now on the experience of the vertical dimension, and attempt to depict how it is inherently dialectical. It lies in the very heart of that process we call "generalization" to array a large number of common "instances" under one idea, to which we commonly affix a name, which labels it as the class, or set, of all such objects. We usually perform this magic on classes of objects we can see, visually, and for similar reasons, have come to believe that only visible objects lend themselves to the process of generalization. And, since time is something we don't see, visually, we have come to believe that it is not a member of the class of generalizable objects.

But this is false, as the astronauts of more than one nation continue to visibly demonstrate. Their trips are vivid proof that

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<sup>25</sup> Portions of this section derive from the paper, "*Time, Pathos, and Synchrony.*" See Chapter 3, this volume.



a very substantial theory of temporal generalizations does in fact exist.

And, as has been argued elsewhere,<sup>26</sup> the LSD trips of those astronauts of inner space we call "heads" also provide us with proof that times too are experientially generalizable, that tripping is an experience of temporal generalization, in which the exponents of time, or rates of temporal change, and not simply mechanical succession, are deliberately enjoyed for their own sake. Heads who manage to trip successfully and without discernible damage, are perfectly comfortable with shifting rates of joy. Indeed the more rate changes one enjoys, the better the trip. This is so because acid, for 'thead," seems to confer the mysterious ability to expand the apperception of time, such that, when you have more time to enjoy what you're into, you enjoy it for a longer time.<sup>27</sup>

To put it another way—if you experience your experience occurring at a slower rate than your wristwatch, you will feel like you have more time to spend on each experience. However, you aren't *experiencing* slower than your wristwatch. In fact, you're processing *more* information than usual (for example, your eyes are dilated, letting *more* light in). Thus, while it helps a little to say that it feels like you're going slow and your watch is going fast, it is more accurate to say, as heads do, that you're "high", as in a higher level of generalization. Another metaphor describing the high is this: imagine walking on your knees, underwater about four feet deep, then standing up into the fresh air and blue sky. Now imagine that the water is clock time, (or, as Heidigger called it, *Das Element*) and that time is to us what water is to a fish. Now ask yourself—what is this fresh air and blue sky *above*? It must be another *kind* of temporal experience. One which generalizes clock time, hence both transcends and illumines it, as a generalization illumines a particular. Clock time is seen as *only one* of the kinds

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<sup>26</sup> Gioscia, V., "Groovin' on Time." See Chapter 2, this volume.

<sup>27</sup> Kurland, A. and Unger S., "The Present Status and Future Direction of Psychedelic LSD Research," with special reference to the Spring Grove Studies, January, 1969 (mimeo).

of temporal experience you can have when you become aware of other kinds.

But how is this possible? Isn't there only one kind of time, the succession of one moment after another, that is, what Bergson called duration? Perhaps the physicists are the right people to answer this question. But be prepared even there for a surprising answer, since some physicists are now accustoming themselves to the idea that time is not an invariant, and that not all fundamental qualities (e.g., the positron) are, as they say, anisotropic,<sup>28</sup> or one directional. And it just may be that there are *other* kinds of time if we but knew how to look for them.

But, whatever the physicists find, theoretical and clinical scientists do not have to pore over abstruse mathematical equations to become aware of an experience in themselves and in their constituency of a very common experience, namely, that sometimes(!) experience seems to drag, so that minutes seem like hours, and, "at" other times, experience is so joyful that hours seem like minutes.

What I am asking you to imagine, if you have not had a psychedelic experience, is a region of consciousness in which time becomes so elastic that both expanding and contracting time become only two of the qualities of another whole region of temporal experience. In addition, I not only ask you to imagine it, but I suggest that the experience of this region is absolutely commonplace, a common characteristic of every day life.

To understand this, you have but to reflect that a generalization, *any* generalization, consists of arbitrarily drawing an imaginary temporal parenthesis around a number of remembered experiences you have had before, so that you say, in effect, these are all kind "A" and all the rest are kind "not A." That is, as Hegel noted long ago, negation is constitutive of assertion. You must say this is *one of these and not those* in order to say this is this. You must, as

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<sup>28</sup> Whitrow, *op. cit.*, provides the best definition of this term. See also Wallis, *op. cit.*

Plato noted long before Hegel, *re-cognize* in order to cognize at all.

Dialectical theorists are wholly familiar with this line of reasoning, which was sufficient unto the task of describing how we generalize as long as the world moved by at a relatively slow and manageable pace. In such a world, the frequency with which a number of *A*'s came by was relatively comfortable, and one was under no special press to construct categories to subsume all such *A*'s. Recall that Aristotle constructed a metaphysic in which 10 categories subsumed the entire cosmos.

But now, when the pace at which new *A*'s enter experience is so fast and furious that we must become specialists in order to manage ever smaller quadrants of daily life, the situation is almost totally different. Marx described an industrial revolution that took a hundred years to elapse. We now process experience via computerized machines that change the nature of the environment every ten years.

And heads devise environments in which a dozen movies, a dozen symphonies and a dozen Kaleidoscopic strobe lights barrage their consciousness with sensations as awesome in number and kind as the birth of a galaxy billions of light years in "size."

Confronted by a rate of experience of such stupendous (or mind blowing) complexity, the human kind must attempt to recognize faster than ever before. To do so requires wholly new *kinds* of generalizations. Therefore, we should not be surprised that many people in diverse regions of society have begun to move beyond generalizing only visible objects, by attempting to generalize (invisible) *times*. Many are beginning to learn how to have such experiences comfortably and joyfully because they know that just as duration generalizes rest, as velocity generalizes duration, as acceleration generalizes velocity, so there are other kinds of temporal experience which have as their particulars, changes in the rate of change. They confirm William James' view that there are regions of mind as unusually different from our waking con-

sciousness as our waking consciousness differs from our dreams.  
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One of these regions, I hold, is filled with that kind of time heads call "high," a region which consists of the *generalizations* of our more banal experiences of duration, velocity, and acceleration. I think we have become aware of it recently, because the number and *kind* of change-experiences thrust on us by our hurtling cybernetic environment, has made obsolete our usual methods of making generalizations, that is, of *recognizing* our world in traditional spatial categories.

This view gives us the basis of an answer to our central inquiry, which may now be rephrased as follows. Could it be that a higher more general kind of time may be in conflict with a lower more special time as a meta-message may be in conflict with a message, as in the double bind theory of schizophrenia? That a bum trip consists of the annihilating terror of being in what feels like two different times at once? Could it be that time, which we thought at its very interior core to be of the rate of things, might consist of levels of itself characterized by differing rates of occurrence, such that clock time is only one specific form of experience?

The hypothesis is attractive, since it helps to explain why some schizophrenics are described as stuck in "concrete (linear) thinking" while others seem lost in a strange world of racing images. It helps to explain why "talking somebody down from a bum trip" consists essentially in telling him to "go with it"—"get into it"—"ride it" "follow it" "it's alright—it's all valid experience." It even helps to explain why it's called a trip, as if it were a voyage in time.

In this connection, it is instructive to recall the theoretical paradigm of the double-blind theory of schizophrenia. Bateson and his co-workers wrote:

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<sup>29</sup> James, W., The Varieties of Religious Experience, various editions.

Our approach is based on that part of communication theory which Russell has called the theory of logical types. The central thesis of this theory is that there is a discontinuity between a class and its members. <sup>30</sup>

If we recall that the *genesis* of a logical class is a generalization made to re-member all experiences of a given kind, it begins to be clear that double-bound (schizophrenic) persons are those told simultaneously to experience a particular and yet deny validity to the experience of its class. In other words, the bind prohibits the experience of generalization (uniting past and present experiences in a synthesis) yet commands the present experience to be familiar. This annihilation of memory negates the very process of present experience.

Bum trips, like schizophrenia, are therefore well described as failed dialectics, since their pathology results from the negation (of "normalcy") not itself being negated. Some therapists encourage the schizophrenic to "go on through" the process of madness, since they believe, and, I think correctly, that madness is only the second moment in a dialectical process, that madness itself must be negated after it negates "sanity." <sup>31</sup> The above is only a very fancy way of defining the word "freaky" in the context of a "freak out" philosophy, which regards episodes of madness as prerequisite to the achievement of a "higher" synthesis.

In the instance of schizophrenia, our hypothesis suggests that there is indeed a double bind at work in its genesis, but that double binds are a very special sort of *temporal* contradiction in which the person is not only asked to remember what he is commanded to

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<sup>30</sup> Bateson, G., Jackson, D., Haley, J. and Weekland, J., "Toward a Theory of Schizophrenia," *Behavioral Science*, vol. 1, no. 4:251-264, 1956. See also "A Note on the Double Bind—1962" by the same authors in *Family Process*, vol. 2, no. 1, 1963, and Watzlawick, P., "A Review of the Double Bind Theory," *Family Process*, vol. 2, no. 1, 1963.

<sup>31</sup> Laing, R., *The Politics of Experience and The Bird of Paradise*, Penguin Books, London, 1967, and the other works by the man whom *Time* magazine calls "The Metaphysician of Madness" (issue of Feb. 7, 1969).

forget: he is also asked to experience two different times simultaneously. Yet this is a patent impossibility unless the person can be made aware that he will not lose his mind but gain another dimension of it by entering a region of experience in which such time conflicts are only special cases of another kind of time, which, if he chooses, he can inhabit comfortably. Unfortunately, few therapists are aware that there is such a region, and therefore find it impossible to offer support and encouragement to a patient who is trying to find it. Therapists addicted to the view that there is only one kind of time, clock time, will obviously not be able to avail themselves of this clinical prerogative.

Vertical time, then, although depicted spatially in our paradigm as a perpendicular to the linear arrow of time, bears the same relation to linear time as the plane bears to the line it generalizes. It is the dimension of all linear times, as well as a kind of time of another sort. Are there even other sorts? The question leads to an examination of the sociology of emotion.

## 1.9 Sociogenesis of Affective Process

Sociology, at present, seems to be without a theory of emotion.<sup>32</sup> We find occasional descriptions of socioeconomic predicaments and correlated "states" of feeling in what are customarily described as cross-sectional studies, i.e., sociological slices of life. But we are still very far from the day when we shall be able to say, with a comfortable degree of certainty, that people in situation "A", will probably feel emotion "a", in "B", "b". etc. When, for example, we speak of an "angry mob," we do not necessarily mean that each numerical individual feels anger. As Freud aptly demonstrated in *Group Psychology and the Analysis of the Ego*,<sup>33</sup> an angry mob may consist of a few angry men and a majority of decompensated

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<sup>32</sup> My colleague Richard Rabkin has taken a significant step in this direction, however, in his "Affect as a Social Process," *American Journal of Psychiatry*, vol. 125, no. 6:85-91, 1968.

<sup>33</sup> Freud, S., "Group Psychology and the Analysis of the Ego," Standard Edition, op. cit., vol. XIX.

followers. Reductionism of type I looms as a danger here, because, in our day, a feeling is said to be the property of an individual, not a quality of social entities. And yet we say that feelings motivate groups. Thus we may speak of a "restless" people, a "ferocious" people, a "quiet peace-loving" people, and of "warlike" peoples, only by pretending not to reduce the sociological phenomenon to an arithmetic of individuals.<sup>34</sup>

Emotions and feelings, in our view, are the feedback of anticipated actions, the registry of the future, as it were, of altered conditions of social readiness (or unreadiness) in the face of new stimuli, be they fantasies or cultures.<sup>35</sup> Groups, in our view, consist of the patterns of the behaviors of people whose relations to each other are patterned by the groups they form. Thus, what a given individual feels when he behaves in a group is relevant to the question of the social genesis of affect exactly insofar as his feeling is defined as a feeling by those behaviorally concerned with his behavior, including himself. To be sure, the feelings which the person and his "others" each feel also shape the patterned interactions in which they engage, but the extent to which there is something like an emotion feedback which characterizes the *pattern* in which they are engaged (let us imagine it as a "tough company to work for"), and the extent to which this pattern priorly shapes what they feel is, it seems to us, much in need of exploration as well as terminology. It was toward the cognitive aspect of this issue, we believe, that Durkheim was moving when he employed the term "collective representation." Although reductionism is always bothersome it was not the reductionism of his formulation, we believe, but the difficulty of the problem of social affect which seems to have perplexed him, his contemporaries, and his disciples. Thus it received minimal attention. No argument is offered here that

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<sup>34</sup> Gioscia, V., "Perspective for Role Theory," *American Catholic Sociological Review*, vol. 22, no. 2:142-150, 1961. See also, Gioscia, V., "Types of Types" in *Expanding Theory and Practice in Family Therapy*, N. Ackerman et al. (eds.) Family Service Association of America, New York, 1967. Both are reproduced in the appendix.

<sup>35</sup> See M. Marx (ed.), *Theories in Contemporary Psychology*, Macmillan, New York, 1964, chapter 28: "Affect and Emotion," H. Peters, espec. pp. 440-442. See also: P. H. Knapp, *Expression of the Emotions in Man*, International Universities Press, New York, 1963.

we are any more able to tackle the question. We do make a brief, however, for the possibility of investigating the phenomenon of social affect in the context of a temporalist orientation, since, if people have feelings about the quality of their life-processes, and if, as we have suggested, the social conditions which determine the extent to which their lives proceed at satisfactory or unsatisfactory rates simultaneously determine what we are calling social affect, then perhaps the time has come to begin a proper investigation of social affects. <sup>36</sup>

Again, our everyday vocabulary provides us with a beginning. We say, for example, that the "mood" of a meeting was "sullen," "anxious;" that a party was exciting, a play, depressing, etc. These macroscopic determinations of the "emotional" qualities of social groups do not permit of reductionist descriptions. Thus, a cocktail party may be experienced as exciting even if one or two individuals were down and out. If we insist on asking how many people have to be counted as dull before a whole party is said to be dull (type II reductionism) we barely begin to recognize that groups have properties analogous to individual feelings. Yet, *somehow*, we intuit these holistic estimates. Were we more systematically to investigate the social circumstances of these intuitions, we might find that there are patterns of "group affect." That these are difficult conditions to "operationalize" no one will deny, but difficulty is not impossibility; let us begin to move beyond static dissections and "snap-shot" studies. Since a lengthy exegesis would be inappropriate here, a few introductory remarks about the emotional relation between dialectical conceptualizations and the achrony-synchrony paradigm will have to suffice. <sup>37</sup> Some clarity is achieved if we ask 'does acceleration ameliorate the anachronic situation?' or Conversely, "does deceleration ameliorate the metachronic condition?" Do they make it "feel" better?

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<sup>36</sup> See, for example, the beginnings of such an investigation employing the clinical method in N. Ackerman, Psychodynamics of Family Life, Basic Books, New York, 1958. But also see P. Slater, *op. cit.*

<sup>37</sup> We intend to spell out these relations more fully in a work now in preparation.



We are tempted to respond with a categorical "no" but that would be aprioristic. The reasoning behind our temptation is as follows: Hegel and Marx, the best protagonists of dialectical thinking, were nonetheless (actually, all the more) creatures of their age, which, it will be remembered, were the halcyon days of Newtonian physics. Newtonian time is linear, regarding past, present, and future as a sufficiently elaborate formulation of "actual time." Yet, even for Hegel and Marx, the extent to which the dialectic of Being—non-Being was resolved in Becoming implicitly involved more than linear continuity. After "A" receives its mediation by "B", the new reality, "C", is not merely more of "A" or more of "B" or even some sort of "A plus B." To the extent that synthesis of the antinomy between "A" and "B" has taken place, to that same extent, they alleged, did a transcendence, (i.e., a new reality of a "higher order") emerge. <sup>38</sup>

More concretely, Marx did *not* write that the condition of the alienated was improved merely because it continued to endure into the future. Actually, the converse is true: the "longer" alienation lasts, the worse does it become. <sup>39</sup> Nor, in his view, was it possible merely to accelerate the pace at which "profits" were distributed more equitably, since the conditions which motivated the "capitalist" to retain at the rates at which they retained were as constitutive of their class structure as injustice was constitutive of the class structure of the proletariat. The dialectical negation (revolution) of the oppressive thesis (profit motive) must bring about a *new* order (synthesis), a pattern of social reality whose seeds were sown in the former, but whose fruits are to be reaped only in a wholly *new* set of social realities.

Similarly, retraining today's unemployed by allocating monies from today's profits would, it is argued, present an insuperable

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<sup>38</sup> Hegel, G. W. F., *Phenomenology of Mind*, Sir J. Baillie (transl.), 2<sup>nd</sup> ed. rev. Macmillan, New York, 1949. See also Hegel's *Science of Logic*, 2 vol. Macmillan, New York, 1929.

<sup>39</sup> See L. Feuer, "Alienation—The Career of a Concept" in *Sociology on Trial*, M. Stein and A. Vidich (eds.), Prentice-Hall, New York, 1963, pp. 127 et seq. See also P. Berger and S. Pullberg, "Reification and the Sociological Critique of Consciousness," in *History and Theory*, vol. 4, no. 2:196 et seq., 1965.

(i.e., more cost than profit) barrier to "progress" (more profit than cost). Or, in the instance of the adolescent, it is argued that a social structure in which puberty actually brought with it the privileges of adulthood would topple the present social structure of age-status stratification.

Thus, an anachronistic situation is not transformed into a synchronous one merely by hurrying. When the rates of behavior are too slow, acceleration makes them go -faster, not feel better. Someone who goes too slowly doesn't feel slow, he feels "bad." Someone who goes too fast doesn't feel rapidly, he feels distressed. In short, the feelings which characterize the various achronistic orientations are those which characterize an incompleated dialectic. Hegel described "the unhappy consciousness;" Marx described prolonged estrangement.

Synchrony, then, is not the middle road between turgidity and rapidity—it is the apperception of harmony which accompanies generalization. The painter who says "It is going well" describes a process in which synthesis is occurring at a pace comfortable for his talents, be they mean or inspired. When no generalization, creativity, synthesis, transcendence, growth, development (call it what you will) is experienced, 'life disintegrates into the dimensions of achrony, i.e., too fast, too slow, too high, too low, too good, too dull. Synchronization, then, is the dialectical resolution of achrony; achrony is the disintegration of synchrony. When it "goes well," paradox of paradoxes, *we do not notice the time passing*. The "interval" between creative urge and creative act lies unmarked: we do not need to "pass the time" nor "long for the day" when our hopes will be fulfilled. In short, when we dwell upon the rate of satisfaction, we do not enjoy the process—we criticize it.

Religions have made much of "timelessness." So have Freud and Eliade.<sup>40</sup> The perfect simultaneity of desire and fulfillment has been universally extolled as the ultimate happiness of man.

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<sup>40</sup> Cf. M. Eliade, Cosmos and History—The Myth of the Eternal Return. Harper, New York, 1954.

This is so, not, in our view, because there is a "place" where this kind of process is actual (whether it be heaven or the id), but because, for each of us, though far too rarely in our lives, we have experienced "times" in which we needed to note no duration, no passage, no motion. The extreme rarity of these experiences, and conversely, the all too frequent occurrence of forms of achrony, is coterminous with the extent of human pathology.

This helps us to understand how each of the achronistic orientations contains an illusion of synchrony in its portrait. The epichronic timeless heaven seems synchronic, as does the anachronic blissful nirvana. The metachronic utopia resembles the catachronic relief in suicide. In each orientation, there is an attempt to compensate for the lost time, whether it be the "injustice of birth"<sup>41</sup> or the attempt to recapture "innocence" or "paradise lost." Sensitivities are sometimes modified in such ways to lessen the pain of loss<sup>42</sup> inflicted by death.

It has commonly been observed that cultures vary in their definitions of the ultimate good. But the proliferation of the cultures of man need not blind us to the fact that no man, be he "primitive" or contemporary, enjoys mere endurance. All men, it seems, though they variously describe it, have experienced what we here call synchrony, that is, moments in their lives when a harmony of paces was felt so pleasantly that they did not need to "mark" the passage of time.

Thus, synchrony is a dialectical experience, and the various forms of achrony, tentatively described here, represent moments of pain when the pace of experience is without genuine mediation. It is as if there were a beautiful pace of feeling natively within us, the result of the concatenation of our biological, social, and cultural development, which we alter only at our peril.

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<sup>41</sup> This phrase is one of a number of translations of a fragment of Anaximander. See, for example, The Greek Philosophers, R. Warner. Mentor, New York, 1958, p. 24.

<sup>42</sup> Choron, J., Death in Western Thought. Collier Books, New York, 1963.

## 1.10 Varying Variations

We have clocks to measure linear time, “biological clocks” which regulate and synchronize physiological times; are there psychological and sociological clocks as well,<sup>43</sup> which measure variant sensibilities to the tempo of experience? How many “dimensions” of temporal experience are there?

These inquiries, however basic they seem, are themselves based on the assumption of a uniform, i.e., invariant rate of experience. There are still others.

Let us turn then to the question of non-uniform increases and decreases in the timing of experience. We may begin by inquiring whether we sometimes feel accelerations in the pace of experience which we nevertheless somehow feel to be decreasing accelerations; in other words we know that we are quickening the pace of our achievement, but that the rate of quickening itself is slowing down. The curve of sexual ecstasy reaching orgasm is an example. Another example occurs when we tromp on the accelerator of a very finely tuned car. We first experience an increasing rate of acceleration, in what statisticians refer to as a “J” curve. But as we approach the limit of acceleration within that gear, although we are still accelerating, we are picking up speed at a slower rate. Were we to remain in this gear, the statistical description of our speed and rate of acceleration would begin to reverse its slope and taper off, and gradually resemble a plateau. Thus fig 1.10.1.



**Figure 1.10.1**

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<sup>43</sup> The New York Academy of Science recently convened an Interdisciplinary Conference on time, in which the matter of “natural clocks” received nearly definitive treatment. See their “*Interdisciplinary Perspectives on Time*,” Proceedings, *Journal of the American Academy of Science*, 1967.

To continue the metaphor: If we were engaged in an exploration of the performance characteristics of this gear range and of no other, we would begin to apply the brakes in order to bring the car to an eventual halt. And, as any racing driver knows, in our effort to decelerate the vehicle, we do not apply a uniform pressure to the brake pedal, which means that while it is true to say that the vehicle is decelerating, we know that it is not decelerating at a uniform rate. When our foot is on the brake, we are increasing the rate of deceleration, and when our foot is off the brake, although we are still decelerating, we are decelerating less rapidly. Thus fig 1.10.2.



**Figure 1.10.2**

In this situation anachronizing and metachronizing occur at non-uniform rates. In other words, we may perceive increasing or decreasing acceleration or deceleration. The perceptive reader will note that we have so far restricted our attention to the customary linear dimension of time captured in differential equations. It remains to demonstrate that homological phenomena occur along the other two axes of our paradigm. We present schematically all such possibilities on page 159.

The situation in which the racing car initially accelerates acceleratedly corresponds to our cell "2b," that is, it metachronizes metachrony. When it begins to slow down its rate of acceleration, it corresponds to our cell "2a," that is, it anachronizes metachrony. Similarly, when it slows down initially, more rapidly than it slows down later on, we observe a metachronizing anachrony and eventually, an anachronizing anachrony: ("1b" to "1a" respectively).

Let us attempt to describe sociologically related phenomena along the other axes. Imagine a culture in which there is a grad-

	Anachronizing (a)	Metachronizing (b)	Epichronizing (c)
Anachrony (1)	1a	1b	1c
Metachrony (2)	2a	2b	2c
Epichrony (3)	3a	3b	3c
Catachrony (4)	4a	4b	4c
Hyperchrony (5)	5a	5b	5c
Hypochrony (6)	6a	6b	6c

**Table 1.10.1**

ual (i.e. uniform) accumulation of oligarchical political power. One thinks of the coalition of wealthy families who arrogated to themselves the powers of the citizenry of glorious Athens. This "trend" was perceived. In order to "bring down" the rate at which this oppression of the Athenian population was taking place, the politically jealous would have either to dissipate the rate of power-concentration, or seize power themselves before it was too late: that is, either catachronize the epichrony, or epichronize themselves. (3d, or 3c respectively). More prosaically, we might describe this situation as one in which the pace of political evolution is felt to require either *devolution* or *revolution*.

A full description of each of these achronistic interactions lies beyond the scope of this paradigmatic analysis, and must await the concatenation of data from studies now in progress. However, one further illustration seems in order, since the two examples we have given each illustrate only one dimension of our paradigm.

Imagine a situation in which a young man is "looking forward anxiously" to a date with a pretty young woman who has recently entered his ambience. As the appointed hour approaches he becomes increasingly "anxious," but since the eventual consummation is "nearer" than before, his anticipation is now mixed with a mildly pleasurable eroticism. For a few brief moments he entertains the (paranoid) suspicion that the assignation may not come to pass, which "chills" him momentarily. But he "puts this

thought from his mind," and returns to the pleasure of his original fantasy with "heightened" anticipation.

We see here an initial increase in his "anticipatory anxiety" which he hypochronizes by envisaging a more pleasurable erotic effect. This fantasy, however, unleashes an even greater torrent of hyperchronic "anxiety" which he handles by increasing the degree of his hypochronization, i.e., denial of "anxiety." He attempts to achieve, as it were, a "euchronistic" equilibrium.

It will be noted that without the actual experience which he so fondly awaits, a genuinely "synchronous experience" will not be had. This serves to refocus our attention on the abstract character of the above illustrations, since, quite obviously, not only the diagonal, but the horizontal and the vertical dimensions of the paradigm are requisite for a fully synchronous experience. As noted above, the empirical description of complicated life processes which demonstrate the co-constitutive mutuality of the axes of paradigm remains to be accomplished. It should not be necessary to point out that actual occasions will not be easily described only by resorting to simple pairs of adjectives; we expect that social processes will trace a crooked line through our neat and hence naive categorizations. That this is the predictable fate of "ideal types" is well known.

For example, accelerating decelerations and decelerating accelerations are far simpler phenomena than those we find incarnated in the cross-cultural universal we call music. Were we to devote some attention here to repeating rates and varying durations between them, and to some of the archetypes of rhythm, tempo, cycles, and other forms of periodicity, we would risk opening the temporal typologist's pandora's box.

It is sometimes speculated that the first form of time which the unborn organism experiences is the maternal heartbeat, of which the organism becomes "aware" through the periodic surging and swellings in its intrauterine abode. Others are of the opinion that

the prenatal organism is made aware of the beats of its own heart through its own periodic swellings and pulsations. Thus, in the "preemy" nurseries which are charged with the responsibility of providing the neonates with an environment which most resembles the uterine paradise from which it may feel "untimely ripped" it has been found that the placement of clocks, metronomes, or other rhythmic devices correlates very highly with apparent decreases in infant discomfort and increases in metabolic well-being. Similar experiments with animals have resulted in similar findings.

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Graphically, we depict such recurrences as "periodic functions" and we are accustomed to measuring the intervals between peaks and troughs of such mathematical entities as sine curves, and of other less uniform functions, such as brain waves. We draw attention here to the fact that little attention has been paid to related phenomena in a sociological way. Moore's work is instructive.<sup>45</sup> Pareto's cyclical theory of history is also a case in point, as is Sorokin's typology of civilization processes. So is Gurvitch's work.<sup>46</sup> Some have alleged that the cyclical theory of "eternal return" was opened out in the "Judeo-Christian" conception of history wherein man, from his transcendental beginning in the Godhead, proceeds through a linear history toward his ultimate transcendental transfiguration; others see in this only a larger circle. Even Engels seemed unable to defeat this image, falling into an interpretation that the Universe endlessly repeats itself, the corollary of which seems to be that man has been before and will be again, yet strive we must for *THIS* dialectic must be fulfilled. From such a frame of reference, even Spengler's dreadful anatomy of human times seems a relief. In short, although the phenomenon of periodicity has been paid attention in fields of endeavor as far removed as embryology and the so-called "philosophy of history,"

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<sup>44</sup> See, for example, H. F. Harlow, "*The Heterosexual Affectional System in Monkeys*," *American Psychologist*, 17:1

<sup>45</sup> Moore, W., *Man, Time and Society*. Wiley, New York, 1963.

<sup>46</sup> Gurvitch, G., *The Spectrum of Social Time*, F. Reidel, Dordrecht, Holland, 1964, a work whose intelligibility is hidden behind an almost impenetrably private vocabulary.



yet little attention has been devoted to non-linear patterns of occurrence on small group levels of analysis,<sup>47</sup> or, for example, in large organization analysis.

And yet, the units in which we measure time for ourselves are ALL recurrent, since recurrence lies at the very heart of what we call time. Seconds, minutes, hours, days, weeks, months, years, centuries, each, in our language, *recur*. It was this need to recognize the unit of measure which drove Plato to paint his theory of knowledge as an allegory in which the soul was enabled to know a reality because it remembered the true reality (of which the present was only a copy) originally experienced in the eternal (unrecurring) realm of "Truth." (We pass over the fact that this allegorical depiction has been seized upon by the literal-minded, as Plato's final words on the subject of cognition.) We meet here a terribly difficult epistemological paradox which has not been resolved even in the wonderfully sophisticated laboratories of the learning theorists, for (to paraphrase Heraclitus) if we have never confronted the phenomenon before, we seem to be without standards for its recognition. Yet, if we have met the unknown thing on some other occasion, it is not unknown. In the former instance, the phenomenon is unintelligible; in the latter, trivial. Even the psychoanalysts, who assert that we compare new experiences to phantasies in order not to be overwhelmed by their novelty, have not been able to establish to their mutual satisfaction, how we handle "original" phantasies. That Jung's "archetypes" were offered as a solution to this problem is as well known as its many criticisms. Equally well-known is Sartre's rebellion from the position which asserted that the models (nee essences) of realities, were they to pre-exist the realities themselves, would foredoom man to a sterile repetition of already blueprinted situations, thus making human freedom a mockery and an illusion.

In short, if we do not accede to a prior criterion of measurement, we cannot measure; yet, if we accede, we seem to preclude

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<sup>47</sup> Slater, P, *Microcosm*. Wiley, New York 1966. Those who seek a paradigm of excellence in their quest for understanding of group affect will find it in Slater's work. See also his *Pursuit of Loneliness*, Beacon Press, Boston, 1970.

novel measures. Of course, this theoretical trap does not ensnare our actual experience, since there is a huge difference between understanding what we do and actually doing it. We make "serendipitous" discoveries all the time, without having a theory of serendipity. Our purpose in outlining these theoretic pitfalls is precisely to point out that the familiar and the linearly recurrent are *not* the sole criterion but *a* criterion, so that we may the more readily distinguish between the two. It is well known that Einstein had to define anew in order to transcend the limits of Newtonian physics. Equally familiar is the description of the conservative *vis a vis* the progressive: the one "holds onto" the familiar, the other "embraces" novelty. In Mertonian terms, these are the ritualist versus the innovator. In our view, special attention needs to be devoted to the time-sense of these personnel, since it may well be that the specific content clung to or sought for is irrelevant to the social dynamics of those who prefer the *recurrent* to, shall we say, the *occurrent*.

Let us pass from these cerebral devices to an illustration more appealing to the viscera. In matters of music, we confront a richness of variation in temporality unsurpassed, it seems to us, in any other field of human effort. Until very recently, music was written with an indication to the performer that a certain measured tempo was to be followed throughout, and that the insertions of artistry permissible to the performer and the conductor were to be made within such composerly limitations as were contained in such phrases as "*allegro con vivo*" or "*crescendo molto vivace*" etc. More generally, we know that some cultures seem to have a preference for slow and moody symphonies, others seem taken with Jazz; some prefer marches, other, festival dances. It would seem that there are favorite rhythms, not only in individuals but in whole social entities, such as cultures, sub-cultures, and even smaller groups which we occasionally designate as *aficionados*.

These poor illustrations serve to focus our attention on the fact, well known but little studied, that people seem to have variant experiences of periodicity, and that we might do well to investigate the relations between the durations and recurrences which charac-

terize what we might call social rhythms. From Freud's "repetition compulsion" to Pareto's cycle of elites, there is a very large area of virtually unexplored territory. Nietzsche's eternal return may not, in some future study, turn out to be very different in motive energy from Rank's postulated wish to rebecome the placid foetus, nor may it be unlikely that the Utopian linearist differs significantly in temporal form from his younger brother, the adolescent impatient for adult sexual privilege.

To phrase these matters in our own language, we might write that human life seems to embody not only variant speeds, variant accelerations and decelerations, and variations in the uniformity or non-uniformity of these parameters of observation, but seems also to consist of recurrences of events of varying intervals and periodicities. Were this not so, we might derive views of the real world as utterly repetitious and therefore uninteresting, boring, even fatally irrelevant to experience, or, on the other hand, so filled with novel unfamiliarity that the very attempt to find pattern and order is doomed to failure.<sup>48</sup> In language which some will deem more properly sociological we might point out that, so to speak, the "function" of a norm is to render predictable in some degree a behavior which would otherwise be unpatterned, chaotic, and hence, a-social. To the extent that the stranger speaks in words we have learned to recognize as our own, is he not strange; to the extent that events are commensurate with our expectations, to that extent may we direct our behavior to whatever outcome we desire. However, the converses are also true: the stranger with whom we cannot communicate stirs up a restlessness; the scene in which we may not in any sense predict the outcome of our behavior will demolish our behavioral repertory. In sum, *recurrence precedes occurrence*; it isn't "logical," but it's true. When it doesn't, in the ways we have outlined above, we have achrony, in varying degrees and types. And yet, as we have outlined above, synchrony includes

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<sup>48</sup> Cf. Harley Shands, "Coping with Novelty," *Archives of General Psychiatry*, vol. 20, no. 1:64-70, 1969.

novelty; creativity, paradoxically, is never *ex nihilo* but always *de novo*.

## 1.11 The Videochron

Two sets of experiments we have been conducting constitute pilot studies designed to investigate these phenomena. One is frankly modelled after Sherif's now classic studies in the "auto-kinetic phenomena."<sup>49</sup> In his design, subjects in a dark room were asked to report how far a light was moving. It was found that isolated subjects could be induced to cluster their responses around a group mean, that the mean was variable and subject to experimental alteration by the introduction of "liars."

We proceed as follows. Subjects are seated (alone, in groups; we vary it) in a room, for a standard interval (say 10 minutes). They are then asked how long they think they were in there. Some subjects are given busywork (routine tasks), others are given important work (this takes a little interviewing). They are asked about durations. "Liars" are introduced to alter means. Differences are highly interesting, and will be reported as soon as we can write them up systematically. We were looking for differences in hypothesized rate thresholds, and we found them. So much for Box III.

We were bothered, however, by the artificiality of the experimental situation. What we needed was a situation in which small groups were engaged in actual (not experimentally induced) interactions, whose pace we could modify without creating an unlife-like situation.

As luck would have it, we were invited to investigate the patterned interactions that took place in what was called "Multiple

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<sup>49</sup> Sherif, M., "A Study of Some Social Factors in Perception," *Archives of Psychology*, no. 187, 1935.

Family Therapy,"<sup>50</sup> a situation in which several families together with their identified adolescent schizophrenic patients, a therapist and an observer (ourself) experienced 90 minute therapy sessions.

Hypothesizing that varying rates of interaction would fit our paradigm, we naively tried to make intelligent observations *during* the sessions. We were quickly overwhelmed by the sheer complexity of the data. Tucking our catachronic tails between our legs, we slunk away for simpler pastures.<sup>51</sup>

We were aware that Cornellison<sup>52</sup> and his co-workers had done some interesting things in psychiatric research, such as showing the film "Snake Pit" to a back ward of schizophrenic patients, i.e., a snake pit. They liked it. Cornellison also showed snapshots of patients, taken during therapeutic interviews, to the patients. Catatonics who had long been severely withdrawn responded dramatically, reentered the arena of social communication, and began the long road to recovery.

Henry Murray has reported on some aspects of a series of experiments in which he and his associates engaged.<sup>53</sup> As usual, the design of Murray's study is fascinating, and as usual, he attempts to study those aspects of personality which everyone agrees are most intriguing but which seem to most investigators to be least amenable to experimental observation.

Briefly, Murray and his co-workers have devised a dialogue to be filmed and then shown to the participants. Each of the two members of this proceeding have exchanged written autobiographical statements which pretend to reveal deep values and other philosophical reflections on the conduct of experience. Dur-

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<sup>50</sup> See Laqueuer, H. P., Morong, E., and LaBurt, H., "Multiple Therapy: Further Developments," *International Journal of Social Psychiatry*, August, 1964.

<sup>51</sup> Nevertheless, we shall report on these observations eventually.

<sup>52</sup> Cornellison, F. and Arsenian, J., "A Study of Psychotic Patients (exposure) to Self-Image Experience," *Psychiatric Quarterly*, 34: 1-8, 1960.

<sup>53</sup> Murray, H., "Studies of Stressful Interpersonal Disputations," *American Psychologist*, 18: 28-36, 1963. See also, Nielson, G., *Studies of Self-Confrontation*, Munksgaard, Copenhagen, 1962, pp. 221 et seq.

ing the discussions of these values, one member of the dialogue suddenly descends into a vituperative polemic, much to the other's astonishment. Presumably (or perhaps axiomatically), this switch in plan from a pleasant discussion of life's values to an anxiety-laden defense of one's metaphysics provokes behavior which will correlate with rises and falls in "measurable" anxiety levels. Because the subject (he upon whom the barrage of insult falls) is asked to write what he remembers of the session at various time intervals *after* it has happened, and because he is confronted with tape recorded and filmed documents of this actual occasion, <sup>54</sup> the experimenters are able to estimate the relation between re-exposures and *retention*, *reintegration*, *retroactive inhibition*, etc. Although this seems to be the best of all possible worlds in which to measure anxiety and its consequences, an experimental design on which we have been working during the course of a series of pilot studies conducted during the last few years, embodies a principle very similar to Murray's, yet offers some peculiarly Murrayian advantages lacking in Murray's own original design.

Instead of filming a proceeding which involves only two persons, we have been recording proceedings at various levels of numerical<sup>55</sup> and sociological complexity on television tape. <sup>56</sup> This has several advantages of which the following is perhaps the most noteworthy. Since television machines record instantly on electromagnetic tape, there is no film developing *time* required for the playback. In effect, this means that a group may *re-experience* the proceeding immediately after (indeed, during) a session or at variable time intervals thereafter. By telerecording their re-experience as many times as we wish or by editing the playback for sound or speed, we may begin to investigate the temporal aspects of group process in a temporal way. To put the matter differently, we may

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<sup>54</sup> The relevance of these "moving images" of the self to the theories of Mead, Cooley, and their contemporary "self-image" protagonists remains to be elaborated.

<sup>55</sup> See Paul Ryan's work on Threeing, eg. The Three-Person Solution

<sup>56</sup> Although videotapey technique has since come into its own, the theory seems to be emerging far slower than the process. The work of Albert Scheflen is likely soon to remedy this situation. See however, Berger, M. M. (ed.), Videotape Techniques in Psychiatric Training and Treatment, Brunner/Mazel, New York, 1970.

vary the temporal aspects of the proceeding in order to observe the subjects' estimates of the temporal aspects of the proceeding. In short, the telerecording design allows the investigator to vary time, instead of pretending that time is a constant for all interactions. The fact that we may then record proceedings of variable "times" and measure their inexperienced duration comes to us as an added benefit. The decision to allow subjects to witness their behavior during the playback has led to some interesting tests of the extent to which an individual's anxiety is a function of the group apperception of time.

It is usually claimed that the record of a therapeutic session presents the patients with the reality of the situation, and that repeated re-exposure acquaints him with it in a healthy way. If it should emerge that repeated exposure to a proceeding in which one is involved (what Cornellison has called "self-image experience") is of potential clinical application, we would not be unhappy.

Perhaps a slightly more technical paragraph will be permitted. We are becoming increasingly sophisticated in the use of "projective tests." We know that people will "distort" photographs, drawings, stories, sentences, in proportion as they need to do so. This helps us to understand their needs and "press", since we assume we understand the projective devices. If we represent an audio-visual record of an actual proceeding, we may find that some significantly new temporal dimensions of the personality become visible to the researcher.

More specifically, our pilot studies indicate that the assemblage of television equipment, including a fixed camera which transmits to a tape recorder, which transmits to a monitor (an assemblage we call the Videchron), permits us to vary one aspect of experienced time for the experimental study of actual occasions. The theory is relatively simple.

Note that while you speak, you listen to your speech, editing, as it were, as you go along. You can't see your facial gestures, even if you try, unless you see a mirror. But the mirror is simultaneous

editing. Unless you are uncommonly "reflective," you may not notice that you sometimes talk and gesticulate very rapidly, at other times very slowly. With the Videchron you have the opportunity.

Now imagine that you are witnessing a group discussion in which you were a participant, but that the playback is taking place at a very slow rate. You will now have more time to feel what you felt then at clock-time. Conversely, if we play back faster than the-rate at which we originally recorded, you now have less time to feel what you then felt. By varying the rates of playback, we can find when you're comfortable, when you're not. And if we ask you how you felt, you don't have to re-behave, which would re-introduce your editing.

Next we put you in a fast-moving group, a slow-moving group, an alternating group, etc., until we find a pace, or a pattern in which you feel comfortable. We expect, by clever interviewing, to find the circumstances in which you adopt various achronistic orientations. Although it is too soon to report significant statistics, the trend seems to be that individuals have mean pace-thresholds which groups can vary somewhat, that groups have mean pace-thresholds that individuals can vary, somewhat, and that pace sometimes acts as an independent variable, sometimes dependent.

The Videchron enables us to experimentally investigate alienation, anomie, and anxiety on the small group level. By devising production-distribution-consumption schedules as tasks for small groups, we may induce alienation by the application of injustice. Whether such investigations, which might eventually reveal methods of reducing alienation (other than "violent" revolution), are therefore moral is an issue which disturbs us. Similarly, by anachronizing the normative structure of a group, or by metachronizing sudden norm changes, we may induce anomie. The moral issue looms here as well. The induction of anxiety, however, has been pronounced ethical by our society, if and when it takes place in professionally conducted therapy sessions. Here social legitimation has been granted, presumably because the therapist permits



no more anxiety than the patients can tolerate. But even here, "the human kind cannot bear very much reality," as T.S. Eliot said."<sup>57</sup>

Space does not permit a more exact description of the experimental ramifications of the achrony-synchrony paradigm. Among the issues which we must leave to another time are the relationship between the forms of anxiety (e.g. "separation," "castration") at phase-appropriate stages in the socialization of the child, and the achronistic orientations which develop as "defenses" against them. We intend also to explore the notions of immortality, timelessness, and their relation to the experience of mortality and death. Freud himself wrote:

Again and again I have had the impression that we have made too little theoretical use of the fact, established beyond doubt, of the unalterability by time of the repressed. This seems to offer an approach to the most profound discoveries. Nor unfortunately have I myself made any progress here.<sup>58</sup>

Thus Freud invites inquiry into the relation of time and anxiety explicitly, while Marx and Durkheim do not. The relevance of the achrony-synchrony paradigm to the notions of alienation, anguish, and anomie, hinted at above, require further exploration. We are presently engaged in this undertaking, under the hypothesis that discrepant rates of behavior in different sectors of the social system may serve as indices for predicting *when* human pathology will occur.

## 1.12 Summary

By focusing on experienced time and on rates of behavior, a paradigm of variants of time-experience was presented. An experimental technique for the investigation of varieties of felt

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<sup>57</sup> Eliot, T. S. (from "Burnt Norton") in *Four Quarters*, Harcourt, Brace and World, New York, 1943, p. 4.

<sup>58</sup> Freud, S., "New Introductory Lectures," Standard Edition, op. cit., vol. XXII, p. 74.

time was discussed, as were correlations with the concepts of alienation, anomie, and anxiety. Pilot studies in this area were described, as were possible implications for further research.

## 1.13 Epilogue

If the reader who found himself made uncomfortable by the anacoluthic style of my work, which hops from one discipline to another frequently without benefit of logical nexus, will bear with me for a few more paragraphs, I would like him to know whereof it comes. That my principal mentor is Galileo was made apparent in my point of departure. But my *hubris* is larger, since I take my task to be the founding of a new cross-disciplinary science, which I would like to call "chronetics." Groping toward that purpose, I have drawn considerable consolation from Einstein's forward to the "*Dialogue concerning the two Chief World Systems*," where he wrote:

It has often been maintained that Galileo became the father of modern science by replacing the speculative deductive method with the empirical experimental method. I believe, however, that this interpretation would not stand close scrutiny. There is no empirical method without speculative concepts and systems: and there is no speculative thinking whose concepts do not reveal, on closer investigation, the empirical material from which they stem. To put into sharp contrast the empirical and the deductive<sup>59</sup>

Galileo's disposal were so imperfect that only the boldest speculation could possible bridge the gaps between the empirical data. (For example, there existed no means to measure time shorter than a

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59 ...?

second)... His endeavors are not so much directed at "factual knowledge" as at "comprehension." <sup>60</sup>

Chronetics should consist of both. And more. Much more.

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<sup>60</sup> Galileo, Dialogue Concerning the Two Chief World Systems, Stillman Drake (transl.), forward by Albert Einstein. University of California Press, Berkeley, 1967.

4.1 For example, in his chapter on the doctrine of the *Timaeus*, Ross (W.D. Ross, Plato's Theory of Ideas (Oxford: Clarendon Press, 1951).) discusses the role of Time not at all.

4.2 Gauss, Philosophischer Handkommentar zu den Dialogen Platos, p. 157.

4.3 Jowett, The Dialogues of Plato, II, pp. 456–7.

4.4 Bury, "*Plato and History*,"<sup>61</sup> p. 5.

4.5 Walsh, Plato and the Philosophy of History. See also Barker, Political thought of Plato and Aristotle, Nettleship, Lectures on the Republic of Plato, Popper, The Open Society and its Enemies, and numerous anthologies which present Plato's Republic but seldom if ever present the Timaeus.

4.6 A.E. Taylor, Commentary, pp. 689 ff. 4.7 J.F. Callahan, Four Views of Time in Ancient Philosophy (Cambridge: Harvard University Press, 1948), rightly says that A.E. Taylor errs here because of his adoption of Aristotle's notion of Time.

4.8 There are several aspects of Plato's discussion of Time and Society which bear a marked resemblance to some aspects of the philosophy of Anaximander, but a discription of these similarities and differences would require a lengthy discussion which would take us into the origin of Plato's doctrines, whereas it is only our purpose here to present and examine Plato's doctrine. For example, while it would be instructive to investigate the extent of Plato's indebtedness to Anaximander's dark saying about the reparation which things offer in Time for their injustices, (see, for example, John Burnet, Early Greek Philosophy (4<sup>th</sup> ed.; London: Adam and Charles Black; New York: Tne Macmillan Co., 1930), pp. 52–53.) it would necessitate more comment than we have room to present here.

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<sup>61</sup> essay or book?

A.1W.D. Ross, Plato's Theory of Ideas (Oxford: Clarendon Press, 1951), p. 2.

## Chapter 2

# PLATO'S IMAGE OF TIME (AN ESSAY IN PHILOSOPHICAL SO- CIOLOGY)

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PLATO'S IMAGE OF TIME  
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But now the sight of day and night, and the months  
and the revolutions of the years have created num-  
ber and have given us a conception of time, and the  
power of inquiring about the nature of the universe,  
and from this source we have derived philosophy,  
than which no greater good ever was or will be  
given by the gods to mortal man.

—Timæus 47

## 2.1 Introduction

If one knew of an important writer who had written a number of consecutive and cumulative works, but if one chose to read the tenth in the series because he felt that it gave evidence of a stylistic superiority, one could be criticized for exercising a stylistic preference at the expense of his own doctrinal enrichment.

For example, if it is true that Plato wrote his dialogues over a period of many years, and that in some of the later works he reconsidered his philosophy of time, one could criticise that reader



who chose to look for Plato's philosophy of time only in those dialogues to which he is attracted, by reminding the reader that he ignored the possibility of later modifications of doctrine which Plato may have attained.

In this age of process philosophies, we seldom witness scholarly interest in Plato's views of time and history. And yet Whitehead has remarked that not only the process philosophies, but, in some sense, all European Philosophy consists of a series of footnotes to Plato.

If it could be shown that there is a Platonic philosophy of time and that this philosophy is as seminal for the process philosophies as Whitehead's remark indicates it to be, it would seem well worth the effort to investigate this topic with some thoroughness. In addition, he who begins to read the scholars who have written in this area will quickly discover that many of them seem to prefer to study those dialogues which have come to be called the "middle" group.

As the reader will see in the pages to come, there has recently been a quickening of interest on the part of modern writers in the views of Plato on the question of time and its meaning, and these writers have attempted to investigate the relations between Plato's philosophy of time and contemporary process-philosophies. Several writers have addressed themselves to reconsiderations of the meanings of Plato's theory of time and the implications which this theory might have for contemporary investigations. For example, W.H. Walsh discusses the controversy which arose after the publication of K. Popper's two volumes, in which Popper wrote, somewhat angrily, that Plato's "view of the world" was "fundamentally historical." Although Walsh later agrees with Popper's assertion that Plato was at bottom a "totalitarian" he disagrees strongly that Plato's view of the world was historical at all, and, in the remainder of his article, examines with great care and patience Books VIII and IX of the Republic to show that Plato did not really possess a "philosophy of History."

While it is not the aim of this study to discuss these two writers, it is instructive to cite them as examples because they contain views which are representative of certain aspects of Platonic scholarship in our generation. Walsh represents the tendency to view the Republic as the final source of Plato's philosophy of the Polis; Popper represents that view which regards Plato as one of the first "social scientists" whose interest it was to observe and classify those irrevocable patterns in nature which make prediction of future events possible.

R.G. Bury has also addressed himself to the question whether Plato has a philosophy of history, and, although he does not regard the Republic as the final source of Plato's reflections on this topic, and pays rather extended attention to the Timaeus, he nevertheless concludes that Plato does not achieve a sufficiently gradualist position to qualify as a genuine philosopher of history.

E. MacKinnon is of the opinion that an adequate conceptualization and subsequent insight into the meaning of the notion of time in contemporary physics must begin with the thoughts which the classical Greeks gave to this topic. He cites passages from the Timaeus to show that Plato's thoughts on time can be fruitfully consulted by a modern theorist and that such a consultation facilitates the modern's attempt to understand contemporary physical theory.

The contemporary student of Plato has been delighted with the extensive commentary which has been flowing from the pen of Gauss in his six volume Handkommentar, and it might be mentioned that in the final volume Gauss devotes considerable attention to Plato's Timaeus and the social function of Plato's theory of time in the cosmology which this dialogue develops.

In a similar vein, although of slightly less recent vintage, one notices in Bertrand Russell's Mysticism and Logic an extended discussion of the relation between a conception of time and the sort of insight which he describes as "mystical." There the reader confronts the statement that Plato, like all "mystical" writers, regarded the reality of time as illusory, and Russell supports his

claim by appeal to the Parmenides. He does not distinguish between the character or Parmenides which Plato has created in his dialogue, and the real Parmenides whose doctrines we must reconstruct from the fragments of his works bequeathed to us through the ages.

There is the now familiar quotation from Whitehead's Process and Reality to the effect that an analysis of Plato's thought is rare from an antiquarian interest; it reads in full, "The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato." This statement is of considerable import since it appears in a major work of a major philosopher of our own era, who is known to have been deeply influenced by Einstein's notion of time in his Relativity Physics. For this reason, Whitehead's philosophy may be viewed as a process philosophy because of its radical temporalism.

Again, in a similar vein, Heisenberg perhaps the most distinguished of living physicists, has recently written that the key to the hoped-for solution to the fundamental enigmas involved in the constitution of matter, is to be found in Plato's Timaeus, where it is said that mathematical forms and not fundamental particles of a solid stuff are at the basis of the Universe.

Two groups of writers can be distinguished in the foregoing citations; one group of writers concern themselves with political and sociological questions, and the others are concerned with cosmological questions. It is therefore a matter of importance to note that Plato does not suffer from this division of subject matter; in the Timaeus, it is precisely these two seemingly disparate themes which he unites. Thus it is something of a problem for modern writers to account for the separation of cosmology from politics which most writers assume in approaching Plato's written works, although this separation is foreign to Plato himself.

Therefore, in addition to showing the relevance of Plato's thought to modern speculation, we must point out that some modern writers have divided Plato against himself, and have viewed his philosophy as if it were divided among the academic special-

izations which characterize modern universities. Or, to put the matter differently, we ought to realize that Plato's perspectives do not mirror our own perspectives, and that Plato's approach to certain fundamental questions about the ultimate origins of society and the Universe differ from our own. But it does not suffice to say that Plato's focus differed from our own; one must account for the difference, and explain how it was that Plato was able to consider cosmological and sociological questions as inseparable.

To account for Plato's undivided focus on what we would consider separate problems, it is necessary to anticipate some of the conclusions which we shall reach in subsequent chapters. Briefly, it can be said at this juncture that Plato included cosmology and sociology within a larger perspective, a perspective in which the origin of the Universe and the origin of society were seen as stages in a temporal process, so that he first presents an account of the origins of the Universe and then, presents an account of the origin of society, at a later time. But it should not pass without comment that Plato's account of the origin of the Universe was set down for the purpose of deepening his account of the origin of society, and that his discussion of the account of the Universe is preceded by statements to the effect that it is only upon the broad canvass of the entire Universe that the best account of society's origins can be painted.

the reason for this metaphorical phraseology is not arbitrary, and in the remainder of this study it will become evident that one must frequently resort to metaphor to explain Plato's meaning because Plato himself makes use of metaphor throughout his Timaeus, indeed, throughout most of his philosophy. This emphasis on metaphor, in fact, becomes one of the central problems for any commentator on the Timaeus and its philosophy. For Plato has fashioned his philosophy of time in such a way that it is impossible to be faithful to Plato's thought without a heavy emphasis on imagery. As we shall see, Plato's discussion of the reality of time contains not only a number of images but a definition of time whose central term is the word image. Since Plato defines time as an image, it becomes the problem of the commentator to reveal as

clearly as possible the significance of this definition and the reason for his inclusion of image as one of its principal terms.

In short, it would be impossible to discuss Plato's Timaeus and its doctrine of time without paying considerable attention to Plato's use of the word image, and the meaning of this word in its philosophical context. But there is another reason for discussing Plato's time-image, and again, to anticipate briefly what shall be discussed in the concluding portions of this study, we may say at this juncture that Plato has put imagery at the heart of his time-philosophy because it is the function of an image to present complex unities in a simple vision, on which one may, if one wishes, focus the more divisive powers of logical analysis. In short, Plato's use of image invests his doctrine of time with a great unity, which subsequent analysis finds to be a rich source of philosophical insight.

There is unanimous agreement among scholars that Plato concerned himself with those inquiries which he felt were important for a philosophy of life in community. It should not, therefore, be surprising to find that a sociologist who is interested in a full and complete history of sociological theory, endeavors to examine Plato's philosophy of society. Since, however, Plato does not separate his sociological theory from his cosmological philosophy, the sociologist is faced with the necessity of familiarizing himself with those parts of Plato's philosophy which most contemporary sociologists would exclude from current definitions of the province of sociology. This ought not give rise to the conclusion that the contemporary sociologist has forsaken his calling; rather, it should be interpreted as the willingness of the sociologist to extend his inquiry into those regions of thought where the theorist he is following has taken him. In this sense, it is clear that Plato's sociological thinking must read it in its given context, and to do so, it is necessary to notice that Plato has made this context cosmological. It follows that the sociologist who reads Plato's theories of society without a comprehension of their stated cosmological context is attempting to take Plato's theory of society out of its

given context, and that, to do so violates the general canons of scholarship.

The most explicit formulation which Plato made of his philosophy of time is found in his Timaeus. In this dialogue, he reexamines some of the ideas he formulated in the Republic, and, in so doing, makes the context of his examination of society explicitly temporal; that is, he suggests that it is necessary to know about time in order to know about the best form of society, and he examines these two problems together in the Timaeus.

The most important focus of this study is to set out the meaning of this apparent juxtaposition of problems and to show that it was no arbitrary mingling of themes, but a theoretical synthesis which flows from a central Platonic insight.

It will be established that the Timaeus is very probably the last dialogue Plato completed and edited, that it is followed only by the incomplete Critias and the unedited Laws. These facts, taken together with the fact that the Timaeus recapitulates some doctrines of the Republic, give the Timaeus a central importance in Plato's reflections on society. Only much later in history do we find divisions of thought about society into the academic disciplines called Political Philosophy, Sociology, Economics, Anthropology, etc. Such divisions were not made in Plato's era, Plato wrote the Republic, the Statesman, the Critias, and the Laws, and in each of these dialogues he asks questions which twentieth century thinkers would regard as crossing over traditional academic boundaries. Therefore, although it might seem altogether strange to the modern reader, it is nonetheless true that Plato put together the themes of society and astronomy in the Timaeus, and that he linked them through his investigation of the reality of time.

It is necessary to clarify the claim that the Timaeus, is the last completed dialogue of Plato. The claim that the Timaeus is a "late" dialogue means that the doctrine of the Timaeus contains certain generalizations of doctrine which show it to be a more mature work, the result of subsequent reflection on the doctrines of prior works. The words "more mature" therefore mean that the doc-

trine of the Timaeus includes, generalizes, and goes beyond other dialogues which are therefore doctrinally "earlier." Therefore, it should be evident that the characterization of a dialogue as "late" or "early" or "middle" refers not only to the period of Plato's life during which it was composed but also to the degree to which its doctrine represents a reflective advance over prior positions and themes.

More specifically, it will be shown that the Timaeus contains a discussion of the themes of eternity, time, and image, and that these three themes are related to each other in such a way as to be inseparable from each other and from the question of the basis of a society.

Thus, the statement that the Timaeus precedes the Critias and the Laws and succeeds the Republic means not only that these dialogues were written before and after each other respectively; it means also that the doctrine of the Timaeus is a "later doctrine" than the Republic, i.e., that is a reflective advance over the doctrine of the Republic. However, it should be pointed out that the precise meaning of this hypothesized advance will have to be spelled out in the following chapters. It is not possible to reach a precise meaning on this point here and now, because it is necessary to say exactly how and in what way the doctrine of the Timaeus constitutes an advance over prior dialogues, which it is the whole business of this study to describe.

Briefly, all that can be done here in the Introduction is to anticipate the conclusion, which is that the Timaeus refers to doctrines developed in the Republic, Parmenides, Theatetus, Sophist, Statesman, Philebus, and modifies the doctrines developed in these dialogues in a new way, referring "back" to them, and referring "forward," as it were, to the Critias and Laws. Again, this is not to say that Plato was perfectly conscious of a precise and detailed plan to write the Critias and then the Laws, and that he knew full well in advance what the exact formulations of doctrine were to be in these future dialogues. No such definite finality is necessary to follow out the hypothesis of this study. Most Platonic

scholars agree that Plato planned to write a trilogy, of which the Timaeus was the first dialogue, but we cannot even be sure that he fully intended to complete the trilogy. It may well be, as Cornford says, that Plato planned only to complete the Critias, and then changed his mind and wrote the Laws instead of the Hermocrates. Again, this does not damage the hypothesis of this study.

In short, all that is maintained here is the view that the Timaeus contains Plato's most mature reflections on the themes of eternity, image, and time, and that in the Timaeus this trilogy of themes receives the most explicit formulation Plato gave it. This late formulation reformulates some of the ideas Plato had formed in the Republic, and therefore, one ought not look to the Republic for the final formulation of Plato's philosophy of eternity, time, or image. Further, the themes of eternity, time, and image are treated in the Timaeus in an explicitly sociological framework, and are said to be part and parcel of the inquiry into the best society and its basis in time.

It is necessary to clarify the special use of the term "hypothesis" as it will be employed in this study. By hypothesis is meant nothing more than a tentative assertion of a conclusion, such that one states an hypothesis and then musters "arguments" in favor of it. The hypothesis in this study is a tripartite one: it involves the tentative assertion that the Timaeus is a "late" dialogue, that is, it was written during Plato's last years and it contains his most mature reflections on the doctrines which it discusses; it involves the tentative assertion that the doctrines of the Timaeus constitute a maturation and are the results of a progressive evolution which can be traced through the group of dialogues which the scholars have agreed to call the "late" group; and it involves the tentative assertion that the themes of eternity, image, and time, can be focused upon as those themes which Plato devoted his maturing efforts to expand and deepen by repeated reflection upon them. Finally, the tripartite hypothesis involves the tentative assertion that Plato's thoughts on the basis of society gradually shifted from an "eternalist" to a "temporalist" orientation; that is, in his early works, Plato reasoned to the conclusion that society is based on an



eternal model, and in his later works he reasoned that society also shares in a temporal . process, or, to be more exact, in the reality of time itself.

Thus it is necessary to distinguish the word "hypothesis" from other uses of the term. For example, in the Parmenides Plato discusses eight "hypotheses" and his meaning there seems to be that one may tentatively assert a proposition, and then, by reasoning logically to the conclusions which flow from it, and by asking whether these conclusions seem acceptable or not, either accept or reject the hypothesis. This is not the meaning of the term hypothesis as it will be employed here, for we do not intend to begin with the assertion that the Timaeus is a late dialogue in which certain views are put forward. Rather we will attempt to ascertain whether there are acceptable arguments on whose basis it seems reasonable to conclude that the Timaeus is what we hypothesize it to be and whether it says what we say it says.

Finally, it is necessary to distinguish the term hypothesis from the usage of the so-called physical sciences, wherein "data" are brought forward to "validate, verify, and confirm" the hypothesis. In the sciences, an hypothesis is said to be a "testable" proposition by reason of "operationalizing" its terms; i.e., describing the operations through which the investigator has gone in the process of reaching his conclusions.

As used in this study, the term hypothesis means that a conclusion has been tentatively reached and an insight has been developed by the writer as a result of reading the statements and works cited, and that he regards his views as reasonable conclusions because he has interpreted certain passages in a certain way. The term hypothesis is used because the writer does not regard his conclusions as definitive and exhaustive, but as probable and reasonable conclusions. In this, the method of hypothesis and arguments in favor of adopting the hypothesis as a conclusion resemble but are not identical with the methods of the sciences, because it is impossible to measure an interpretation with physical instruments or to reveal by what processes or operations one has

reached his conclusions. Nevertheless, it is claimed that, by focusing his attention on the passages discussed, another student of Plato will probably be brought, if not to identical, then to similar conclusions.

One could, then, assert that it is the hypothesis of this study that the Timaeus is a late dialogue in which Plato has united several themes from the late dialogues into a new unity, and that this new unity of themes places society on a basis different from the one it received in the earlier dialogues. Then the chapters devoted to the several aspects of this hypothesis could be viewed as "data" which conspire to "verify" the hypothesis; i.e., make it seem more reasonable than another view.

There are, then, three important problems surrounding Plato's philosophy of time. First, to get the philosophy of time into its Platonic context, it is necessary to show the chronological relation of the Timaeus as a dialogue to the other dialogues. This is an "external argument" which attempts to establish the relative chronology of the dialogues by relatively non-interpretative criteria, i.e., criteria which do not demand an insight into the meaning of Plato's thought. Second, it is necessary to set the philosophy of time in the Timaeus in its philosophical context. This is an internal argument, which traces the development of Plato's philosophy of time through the late dialogues, in which he considered this problem. Third, it is necessary to show how the definition of time emerges gradually from Plato's thought in the late group of dialogues, where the use of an image becomes gradually more appropriate.

These problems form a cluster about a deeper point, and it is this deeper point which deserves the best efforts towards clarification. Since Plato investigates the meaning of time, eternity, and image together in his effort to describe the basis of the best form of society, it is necessary to reveal as clearly as possible how the themes of eternity, time and image are related to the basis of society. This constitutes the primary purpose of this study.

As we said above, the twentieth century has witnessed an increasing concern for what is called the Philosophy of History, which includes an attempt to understand human behavior in its historical setting. Plato is infrequently consulted in this attempt, and when he is, the Republic is most frequently consulted. If it can be shown that Plato in the Timaeus devotes his most mature reflections to the meaning of human life in society in its historical setting, then the tendency to regard the Republic as the definitive source of Plato's reflections on man in history may receive a small counter-thrust. It may well be that Plato's philosophy of time and society, seen together as they are in the Timaeus, contains the seed of an insight relevant for our times.

As to the format of this study, certain preliminary remarks are in order. In the second chapter will be found a discussion of those arguments drawn from relatively non-interpretative sources which set the Timaeus in its chronological order. That is, it will be demonstrated that the Timaeus is in fact the last completed work we have from the pen of Plato, since the Critias is unfinished and the Laws is unedited. The argument in the second chapter is as external as it is possible to be, and relies as little as possible on insight into the meaning of Plato's thought. It is devoted to the scholars' discussions of Greek language and with certain topographic features of the dialogues. The order of the dialogues according to the "ancients" is recounted; stylistic and linguistic criteria are described and the conclusions reached by these methods are stated in support of the hypothesis. Certain details of Plato's life which are known from sources other than Plato's own writings are brought forward as additional support for the claim that the Timaeus is a late work. Finally, the same chapter examines the information available to us in Plato's Seventh Letter. The problem of its authenticity is discussed and the relevance of this information is described.

In the third chapter, the order of the dialogues is taken to be correct, as established by the external criteria, and, assuming this order, the themes of eternity, time, and image are traced through the Republic, Parmenides, Theatetus, Sophist, Statesman,

and Philebus. The gradual culmination of these themes in the Timaeus is anticipated by tracing the development of these themes through the late dialogues. It is therefore not appropriate to call this chapter only an internal or interpretative argument in support of the hypothesis that the Timaeus is a late dialogue, for it is concerned with the meaning of the doctrines of the several dialogues as well as the gradual progression of doctrine which becomes visible by reading the dialogues in sequence.

The fourth and fifth chapters are devoted to a commentary on those parts of the Timaeus which pertain to the trilogy of themes of eternity, image, and time, and those aspects of prior dialogues which are pertinent to these themes as the Timaeus treats them. In the final chapter the relation of eternity, time, and image to the Philosophy of Society is discussed in detail; certain references to the Critias and the Laws are made for additional clarification.

The final chapter is therefore devoted to the Philosophy of Society and the Philosophy of Time in their concatenation and interrelationship. Some modern studies of Plato's philosophy of history and the conclusions which these studies reach are there discussed, and, where appropriate, differences between their conclusions and the conclusions of this study are presented. Plato's Philosophy of Time and his Philosophy of Society are shown to be interdependent.

Finally, it should be mentioned that the study will draw on the original Greek sources only insofar as there are controversial points of grammar, and that English translations are used throughout.

The writer realizes that this study concerns only a small part of the whole philosophy of Plato, and he humbly admits himself to the company of those more learned than himself who assert nonetheless that one never masters Plato but continues to learn from him at each reading.

The plan of the thesis, then, is quite simple. The second chapter will show that there is a significant measure of scholarly agreement on the order of the dialogues. The third chapter will trace

the doctrines of eternity, image, and time through the late group of dialogues. The fourth and fifth chapters will show the interrelation of these themes in the Timaeus. The concluding chapter will show the relationships between Plato's philosophy of time and his philosophy of society, and point out what these relationships signify for a philosophy of history in the Platonic manner.

The study aspires to show that Plato regarded the eternity of the Forms as the sole basis of perfection when he was in his middle years, and that the Republic may well be taken as representative of the philosophical reflections Plato articulated during these years. But, during the last years of his life, Plato rethought many of the themes of his earlier years, and, as the result of significant experiences and significant reflections on them throughout his later years, finally arrived at a reformulation of the doctrines of the middle years. In his late reformulation, the temporality of the Forms takes on new meaning.

Whereas the Republic placed society on an eternal basis, the Timaeus places society on a temporal basis. But one should not conclude that Plato has simply shifted from one pole of a dichotomy to its opposite, for such a view would be incorrect. Rather, one should follow Plato through the doctrinal reformulations he accomplishes in his late dialogues to see how he has expanded his philosophical horizons, and in that way, one may arrive, as the writer has, at the view that Plato has ascended new philosophical heights, in which the simple dichotomy between time and eternity is no longer valid or fruitful, and that one best comprehends the basis of society by comprehending the processes which we call Time. One should not infer that Plato has abandoned former insights in his later doctrines. On the contrary, his former insights are included in his new doctrines, not merely as special cases but as points of departure. He retains the old in the new.

## 2.2 The Order of the Dialogues

In the first chapter, it was stated that an attempt will be made in this study to verify the hypothesis that the Timaeus is a late dialogue in which Plato significantly reformulates his earlier doctrines of eternity, image, and time. It was stated that the hypothesis was to be investigated by dividing it into two logically interrelated aspects; first, the order of the dialogues will be established and their relative chronology will be documented; second, the doctrines of the late dialogues will be traced insofar as they develop the tripartite theme of eternity, image, and time.

It was said that the first aspect relied upon criteria which demand an interpretation of the significance of Plato's style, and that the second aspect depends on an interpretation of Plato's thought. In this chapter, the criteria which do not depend on an interpretation of Plato's thought will be discussed. This chapter assumes that some knowledge of the order or Plato's dialogues is needed in order to interpret them intelligently, and so the chapter which discusses how the scholars established this order precedes the chapter which discusses Platonic doctrine.

It should be stated at the outset that one cannot simply assume that a dialogue which was composed later than another is therefore necessarily a more mature work. This is precisely what must be demonstrated. In this chapter, the chronology of the dialogues is ascertained insofar as this is possible by citing the conclusions of those scholars who have specialized in the use of stylistic criteria. If one establishes the chronological order of composition there is a valid presumption that it also represents some sort of development in doctrine. If, then, one shows in addition that the doctrines developed follow an ascending order of reflection, the point is made. Thus, the arguments are not independent of each other.

If it can be shown that there is a development of doctrine which can be traced through the late dialogues, then it can be shown that this progression facilitates comprehension of the doctrine of the Timaeus. More specifically, the themes of eternity, image,

and time can be traced through the late dialogues only after one knows which dialogues are late and in what order they should be read. Thus the chronology of the dialogues and the progression of doctrine are not separate items but logically interrelated aspects of a larger argument.

It would be possible to postulate an order for the dialogues which would support the view that the doctrine of the Timaeus is a culmination, and each scholar could do this without reference to non-interpretative criteria. But, in this way, so many different postulates would ensue that it would become impossible for scholars to reach any agreement among themselves. This in fact is what happened when doctrinal criteria alone were used, and it resulted in such widespread disagreement that a need for some sort of non-interpretative criteria by which to establish the sequence of the dialogues was finally perceived. Further, the reliance on interpretative criteria alone and the subsequent differences in the alleged order could support the conclusion that the relation of the dialogues to each other had no bearing on their respective doctrines, since each scholar might postulate a different chronology. But Plato himself contradicted this view in those of his dialogues which refer to each other, as, for example, in the Timaeus, which refers to the Republic almost explicitly by repeating those doctrines of the Republic which are found nowhere else in those of Plato's written works which have come down to us.

The procedure followed in this chapter is as follows. First, the testimony of the ancients is adduced. Then the efforts of scholars to use stylistic and Linguistic criteria are described. Then, biographical information about Plato's life and travels is recounted. Finally, Plato's own description of his life and his travels is presented. By drawing from each of these sources, one can compile a composite picture of the criteria by which the order of the dialogues can be established, without reference to an interpretation of Plato's thought. It will be shown that all of these sources lead to the conclusion that there is a group of dialogues which are later than others, and that the Timaeus is the latest of this group. In the next chapter, it

will be shown that the doctrinal interpretation of these dialogues leads to a greater insight into the doctrine of the Timaeus.

### 2.2.1 The Traditional View

Writing in his "*Commentary*," A.E. Taylor presents an impressive list of ancients who authenticate the Timaeus as Plato's work. He cites Aristotle's references to passages of the Timaeus and the fact that Aristotle refers to the Timaeus as a completed dialogue. In addition to reminding us that Aristotle may be presumed to know the works of his teacher, Taylor cites, in regard to the authenticity of the Timaeus, the testimony of Theophrastus, Plutarch, Chalcidius, Xenocrates, Crantor, Poseidonius, Procius, Plotinus, Boethius, Cicero, and Diogenes Laertius,<sup>1</sup> This list is offered against the view of Schelling, who contended that the Timaeus was spurious, and by it, Taylor demonstrates that those who do not recognize the Timaeus as authentic are in the decided minority. There is little need to recapitulate all of the scholarship on each of these authors' claims and it is certainly safe to regard Taylor's scholarship in these matters as impeccable.

To this List, Cornford adds the names of Galen, Theon, Derclydes, and Adrastus, who not only knew the Timaeus to be Plato's own but in addition agreed that it was the work of Plato's maturity. Summing up his own argument, Cornford says, "All the ancient Platonists from Aristotle to Simplicius, all the medieval and modern scholars have assumed that this dialogue contains the mature doctrine of its author."<sup>2</sup> Again it seems unnecessary to repeat the details of Cornford's scholarship which may, like Taylor's, be regarded as impeccable. Both authors state that the ancients regarded the Timaeus as Plato's mature work.

But the testimony of the ancients is hardly sufficient to establish beyond doubt that the Timaeus is both Plato's work, and, in

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<sup>1</sup> A.E. Taylor, Commentary on Plato's Timaeus (Oxford: Clarendon Press, 1928), p. 4.

<sup>2</sup> F.M. Cornford, Plato's Cosmology, p. viii.



addition, a work of Plato's old age. Citing the ancients lends a great deal of support to the claim that the Timaeus is authentic, but the claim that it is a late work bears closer scrutiny. This is especially true in view of the fact that, at one time, a lively controversy with regard to the alleged maturity of the Timaeus took place among the scholars.

Between the time of the ancients and the moderns, the Timaeus was not unknown. Jaeger presents a short and terse history of the Timaeus in the middle ages. Beginning with the fact that Plato's Timaeus deeply influenced Augustine, and through Augustine, the whole of the middle ages, and continuing through the Renaissance by way of the Byzantine theologian and mystic Gemistos Plethon, who brought Plato to the Quattrocento, Jaeger also describes the treatment Plato received at the academy of the Medicis, where Marsilius Ficinus taught from the text of the Timaeus.<sup>3</sup>

Jaeger notes a change in the eighteenth century, when Schleiermacher seems to have resuscitated a Plato who was nonetheless very much alive. However, theretofore, Plato had been regarded as a mystic and as a theologian whose doctrine was as systematic and systematized as the Aristotelianism of the Schoolmen. Plato was regarded only as the author of the theory of ideas.<sup>4</sup>

According to Jaeger, it was Schleiermacher's contention that the form which a philosophy took was a creative expression of the philosopher's individuality, and it was Plato's genius, he thought, to dramatize, and to use philosophy as a "continuous philosophical discussion aimed at discovering the truth."<sup>5</sup>

Immediately after Schleiermacher's view became known, there followed a period during which the philological investigation of every last minute hypothesis of Plato's was undertaken

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<sup>3</sup> Werner Jaeger, Paideia: The Ideals of Greek Culture (3 vols.; New York: Oxford University Press, 1943), II, pp. 77-78.

<sup>4</sup> *Ibid.*, p. 78.

<sup>5</sup> *Ibid.*, p. 79.

with the painstakingly precise attention for which philologists are deservedly famous. However, it soon became evident that the forest was being obscured by the trees.

It remained for C.F. Hermann<sup>6</sup> to regard the problems of authenticating not only the authorship but the chronology of Plato's dialogues as of paramount importance, and Jaeger tells us that Hermann came to regard the dialogues as "stages in the gradual development of Plato's philosophy."<sup>7</sup> Thus Hermann brought "into the center of interest a problem which had hitherto been little considered, and gave it much greater importance. This was the problem of the dates at which the several dialogues had been written."<sup>8</sup> Since various authors developed differing opinions on the dating of the dialogues by using doctrinal criteria alone, it was the task of philology and researches into stylistic differences and minute characteristics of language to fix the date of composition as exactly as possible.

## 2.2.2 The Stylistic Controversy

T. Gompers presents an entire chapter on the question of the authenticity and order of Plato's dialogues.<sup>9</sup> He makes a good summary of some of the chief difficulties to be encountered in an evaluation of the results of the whole stylistic controversy, and gives evidence of how and to what extent the whole question has been settled,

He begins with a tantalizing supposition: suppose Speusippus had sat down one afternoon, and, in fifteen minutes, written on a scrap of paper the order of the Platonic dialogues. But, of course, Speusippus did no such thing, nor did anyone else, so that

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<sup>6</sup> C.F. Hermann, *Geschichte und System der Platonischen Philosophie* (Heidelberg: 1839), in Jaeger, op. cit., p. 79

<sup>7</sup> Jaeger, op. cit., p. 79.

<sup>8</sup> Ibid., p. 80.

<sup>9</sup> Theodor Gompers, *Greek Thinkers*, trans. G.G. Berry (London: John Murray, 1905).

the scholars were left with the need to know the order of the dialogues, but, also, they were left with a need to construct methods of establishing the chronology, with no hints from Plato or the Academy as to which methods would prove the most fruitful. <sup>10</sup>

Initially, each man interpreted the dialogues in what he felt was the logical order of Platonic philosophy. But this produced almost as many logical orders as there were interpreters.

According to Gompers (and others, including Jaeger) it was Schleiermacher who first attempted to find his own way out of this myriad of opinions. By viewing Plato's doctrine developmentally, and, starting with Aristotle's guarantees as to certain authentic passages and chronologies, he set about constructing an orderly arrangement of the dialogues. However, this attempt got off to a wrong start because, since only approximately half of Aristotle's works are extant, it became possible for some to construct what was called the argument from silence, i.e., those works of Plato which Aristotle did not mention might be regarded as spurious. <sup>11</sup> Gompers points out that this was really an excess of Platonic zeal since it included only those works which Aristotle claimed were Plato's best. <sup>12</sup>

Notwithstanding these efforts, Gompers states that even in ancient tradition, the Laws were regarded as Plato's last work. Campbell then perceived that there were stylistic similarities between the Laws and the Timaeus and the Critias, including the fact that some 1500 words were used in these works which do not appear in any of Plato's earlier works. <sup>13</sup> In addition, these works appear last on the list of Plato's works which was kept by Aristophanes of Byzantium, the Librarian of Alexandria. But these are not final criteria. Gompers asks "...is not an author's 'advance,' his progress towards perfection the surest criterion for the chronological arrangement of his works"? He answers his own question in

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<sup>10</sup> Ibid., p. 275.

<sup>11</sup> Ibid., p. 278.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid., pp. 279, 283.

the affirmative, but reminds us that this road leads to diverse and varied interpretations of "advance," because there are so many possible meanings for this term. <sup>14</sup>

For these reasons, the stylistic methods were tried. Describing them as "linguistic...and verbal statistics," <sup>15</sup> Gompers lists some of the criteria employed:

- a) number and use of particles
- b) new words and phrases
- c) certain formulae of affirmation and negation
- d) special superlatives <sup>16</sup>

He goes on to say that the use of these criteria produced "astonishing agreement between many different investigators." <sup>17</sup> They noted that the style of the Laws, known to be late, (from other sources) was very similar to the style of the Timaeus, Critias, Sophist, Statesman, and the Philebus.

He concludes:

The determination of the chronologically separate groups and the distribution among these groups of the individual dialogues...are problems which may be regarded as finally solved; the more ambitious task of settling the chronological order within all the groups cannot yet be said to have been completed. <sup>18</sup>

However, Jaeger claimed,

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<sup>14</sup> Ibid., p. 284.

<sup>15</sup> Ibid., p. 285.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid., p. 286.

<sup>18</sup> Ibid., p. 287.

This method, in its turn, was at first successful; but it was later discredited by its own exaggerations. It actually undertook, by the purely mechanical application of language tables, to determine the exact date of every dialogue. <sup>19</sup>

Before entering into this lively controversy, it is necessary to distinguish a few crucial points; otherwise, Jaeger's claim that the movement discredited itself will not be intelligible. First, let it be noted that it is sometimes impossible to distinguish very well between the date of composition of a dialogue, that is, the period of time during which Plato is said to have actually written down his thoughts, and the date at which the dialogue appeared, that is, was circulated, and, as we should say, released for publication. Although it is sometimes possible to indicate that a dialogue was actually composed in the late period of Plato's life, one cannot simply equate a late doctrine and a late writing. This distinction is necessary if one is to assert that the doctrine of the Timaeus is a late formulation in Plato's life, and, as our documentation will attempt to indicate, both the formulation of doctrine and the actual composition of the Timaeus seem to be very late, according to the sources available to us. But one cannot jump immediately from the conclusion that a dialogue was written late to the conclusion that its doctrine is therefore, on that basis alone, a late doctrine. It should be pointed out in this regard that we have no way of knowing whether Plato did or did not compose in the last years of his life, dialogues whose doctrine and style we should call early or middle doctrines. Like anyone else, he might incorporate in late writing what he had formulated much earlier. Although it is unlikely that Plato set early or middle doctrines down on paper in his late years, it is almost impossible to establish this unlikelihood to a degree of satisfaction which would entirely eliminate controversy. For example, the last few pages of the Philebus seem not to be in the same style or in the doctrinal spirit as the rest of the dialogue. It may well be that this dialogue was left unfinished by Plato, and was completed by the Academy after Plato's death, and that the completion was accomplished by an academician whose

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<sup>19</sup> Jaeger, loc. cit.

insight and doctrinal leaning corresponds to what we should call the middle period of Plato's philosophy.

However, in the instance of the Timaeus, it is claimed here that both the doctrine and the composition of the dialogue are to be placed in the last years of Plato's life, and that it was probably a late doctrine, because it was composed late. These are the two sides or halves of the argument which we are following in the attempt to verify our hypothesis. On the one hand, if the dialogue was written late, we have probable grounds to infer that its doctrine is a late one. But it is unwise to conclude only from its late composition that the Timaeus contains a late view. In addition to establishing its date of composition one must examine its doctrine, to see whether it reveals a more developed form of Plato's later thought. Having made this distinction, it is now possible to pass in review the main points of the stylistic controversy, whose protagonists and antagonists tried by what we are calling non-interpretative criteria, to establish the late date of composition of the Timaeus.

Campbell <sup>20</sup> presents a brief outline of the history of attempts to date the dialogues. He recounts how Schleiermacher was so assured that Plato had a complete system of philosophy to expound that there must have been a pedagogical order of the dialogues which Plato intended so that his students could gradually master his philosophical system.

Campbell says that Schleiermacher's conception of a "complete system gradually revealed" was a stirring one which caused a renaissance of Platonic scholarship. Later, C.F. Hermann's statement that the gradual development of Plato's thought in the dialogues was not a pedagogical gradualism but reflected the slow maturation and development of Plato's mind, brought about a quickening of interest beyond even that which Schleiermacher had precipitated. Ueberweg discerned that the Sophist and the Statesman must be placed between the Republic and the Laws on the basis of Hermann's view. Ueberweg and other Hegelians

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<sup>20</sup> L. Campbell, "Plato," Encyclopaedia Britannica, 11<sup>th</sup> ed., Vol. XXI, pp. 808-824.

felt that the non-being of the Sophist represented a dialectical advance over the Republic and welcomed the chance to demonstrate this point of view by mapping out the dialogues in a series of dialectical advances. <sup>21</sup> Grote, on the other hand felt so strongly that the Protagoras was Plato's most mature doctrine that he discounted the chronological attempts of Schleiermacher, Hermann, and Ueberweg.

Campbell adopted a different method of reasoning. Starting with the conclusion that the Laws remained unedited because Plato died before he could do so himself, and noting that the Laws contains a reference to the death of Dionysius II, and inferring from the tone and style of the Laws that it is almost a monologue and represents a departure from the Socratic dialogues, and adding the agreement of the Ancients with his own view, Campbell concluded that the Laws is probably the last of Plato's works. Then, Campbell reasoned that both the Timaeus and the Critias presuppose the Republic, and both resemble the Laws in style and tone. Thus they should both precede the Laws. Since the Sophist and the Statesman seem to belong together, he placed the Philebus between them and the Timaeus and Critias. So, Campbell concluded, the order of the late dialogues must be begun at the Sophist, and followed by the Statesman, Philebus, Timaeus, Critias, and Laws. <sup>22</sup> He says, in addition, that Dittenberger and Ritter followed him in taking this view, and that Lutoslawski later reached the same conclusions. <sup>23</sup> Jaeger says that he himself reached these same conclusions by another route. He also agreed with Campbell that the Parmenides, and Theatetus immediately precede the Sophist.

It should be pointed out that Campbell's chain of reasoning depends on the placement of the Laws as the last of the dialogues, and this placement does not rest exclusively on non-interpretative bases, since it includes the criterion of the tone and style of Plato's language. One must have at least a comprehension of the tones and styles of the language in which Plato wrote and some knowl-

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<sup>21</sup> Ibid., p. 810.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

edge of the relation of style to the content which is expressed by language. To avoid confusion, it is necessary to define certain terms as they are employed in this study. By stylistic criteria, I mean the use made by reputable scholars of observations such as the presence or absence of Socrates in a dialogue, or the apparent attempt on Plato's part to have his passage read more smoothly and without unnecessary interruptions. Such devices as the avoidance of hiatus and the use of anacoluthic sentence endings are here called stylistic. The term stylometry refers to the application of statistical procedures to the number of particles in a paragraph, or to the frequency of certain words in one dialogue as against another; clearly, it carries metric connotations, and necessitates only the sort of competence which can easily be programmed into a computer. Whereas the stylistic reader must understand what he reads, the stylometric reader ought to avoid understanding the passage he subjects to statistical criteria. A similar difference could be found between counting a number of unknown objects, which, by analogy, would represent the stylometric method, and concluding that the objects so counted are a strange lot of objects, which, by analogy, would represent the stylistic method. It is one thing to count the number of clausulae and quite another to notice that a passage reads more smoothly because of the presence of a number of clausulae. Thus objections to the use of stylometric scholarship need not carry equal weight if referred to stylistic scholarship. It would be impossible, for example, to put words of the Laws into a computer and arrive at the conclusion that the Laws is a late dialogue, without at the same time programming into the computer the criteria according to which one says that a certain language style is late or early. There are similar studies concerning the language of Homer in progress at Columbia University, and there too, the criteria of "lateness" must be agreed upon before the "purely mechanical application of language tables to determine the exact date of every dialogue" is undertaken. Thus, Campbell's argument should read as follows; if the Laws is agreed to be last, then the remainder follows on stylistic grounds. And it should be tallied against Jaeger that the placement of the Laws as last does not rest on "purely mechanical" criteria.



This conclusion bears directly on the question of the chronology and the relation of the Seventh Letter to the Timaeus, because the Seventh Letter contains a description of certain events in Sicilian politics in which, Plato was directly involved. These events were significant experiences for Plato, and their impress is discernible in certain passages of the Timaeus. Detailed comment on the impact of the Sicilian journeys on the doctrine of the Timaeus will be reserved for the discussion of the doctrine of the Timaeus in the fourth chapter. Suffice it here to point out that the autobiographical material Which the Seventh Letter makes available was taken over by the stylists,<sup>24</sup> <sup>25</sup> and added to their attempts to establish the order of the avavoedee: Again, this shows that the stylistic criteria cannot be viewed as "purely machanical." On the one hand this limite the extent to which stylistic criteria may be said to be non-interpretative; on the other hand, since interpretative sources enter into stylistic researches, it seems to add to the reliability of stylistic criteria in establishing the order of the dialogues.

A.E. Taylor says that the real impetus for the stylometric method was received from Campbell's groundbreaking edition of the Sophist and Statesman, and that Dittenberger, Ritter, and Lutoslawski continued and extended Campbell's efforts, but, he adds, these scholars were able to agree further that there was a definite break in style between the Theatetus and the whole group of dialogues Which Campbell had called the late group. However, Taylor says that the stylometric tabulations, while they could establish whole groups of dialogues which shared a style, could not effectively establish the order of dialogues within a given group.<sup>26</sup>

It is interesting to follow A.E. Taylor's shifting emphasis and reliance on the stylistic researches. In the article which he wrote

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<sup>24</sup> U.V. Wilamowitz-Moellendorff, Platon, I, (2<sup>nd</sup> ed.; Berlin: Weidman, 1920), in Jaeger, op. cit., p. 80.

<sup>25</sup> Jaeger, op. cit., p. 84.

<sup>26</sup> A.E. Taylor, "Plato," Encyclopaedia Britannica, XVIII (Chicago: Encyclopaedia Britannica, Inc., 1957), p. 49.

for the Britannica,<sup>27</sup> Taylor says there are no stylistic grounds for placing the Timaeus late in the order of Plato's dialogues. However, in the Commentary on the Timaeus,<sup>28</sup> there is a rather extensive description of the stylistic and stylometric criteria and @ rather extensive reliance on both of them, albeit accompanied by a critique. Later, in Plato, the Man and his Work,<sup>29</sup> there is a recapitulation of the stylistic criteria and a somewhat limited reliance upon them. One can only conclude that Taylor did not deem it worthwhile to inform the readers of the Britannica on the intricacies of the stylistic controversy. Nevertheless, in all these works, Taylor concludes that the Timaeus is the work of Plato's last years.

It is informative therefore, to read Taylor's description of the stylistic criteria. He summarizes those used to establish the late group as follows:

1. a reduction of dramatic style
2. a lesser role for Socrates
3. the presence of a lecture
4. periodic versus poetic style<sup>30</sup>

He says, in addition, that the last dialogue which bears the marks of Plato's earlier style must be the Theatetus, and that he shares this view with Ritter<sup>31</sup> and Lutoslaweki.<sup>32</sup>

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<sup>27</sup> Ibid.

<sup>28</sup> A.E. Taylor, Commentary, p. 4.

<sup>29</sup> A.E. Taylor, Plato: The Man and His Work (6<sup>th</sup> ed.; 5<sup>th</sup> print.; New York: Meridian Books, Inc., 1959), p. 346

<sup>30</sup> A.E. Taylor, Commentary, p. 4.

<sup>31</sup> Constantin Ritter, The Essence of Plato's Philosophy, trans. Adam Alles (London: George Allen & Unwin, Ltd., 1933).

<sup>32</sup> W. Lutoslawski, Origin and Growth of Plato's Logic (New York: Longmans, 1928.)

A.E. Taylor's recapitulation of the stylistic criteria is especially interesting in view of the fact that he follows Burnet rather carefully, and yet Burnet states, "I have ventured to assume the results of the stylistic researches inaugurated by Lewis Campbell in 1867."<sup>33</sup> It is also interesting to note that Burnet, like Taylor, refers to these researches as stylistic and not stylometric, which indicates that he is not willing to go so far as Lutoslawski's application of calculus to the frequency of hiatus and the use of clausulae in Plato's dialogues. On the other hand, Burnet himself makes use of "stylistic" arguments when he notes that the early dialogues make use of dramatic form and employ the person of Socrates centrally in that endeavor, whereas the later dialogues do so with less and less emphasis on drama and on Socrates' interlocutory role. On this basis Burnet too concludes that the Timaeus is the work of Plato's old age, but reserves decision as to whether the Philebus precedes it or not.

It is frequently recognized that Burnet, A.E. Taylor and Cornford collectively form something of a school, and so it is appropriate to take Cornford's remarks on the order of the dialogues into account. This is especially true since his translation of the Timaeus is the most recent and constitutes a valuable synthesis of scholarly efforts to understand this dialogue.

In his Plato's Cosmology Cornford discusses the dating of the Timaeus but makes only peripheral reference to the stylistic criteria.<sup>34</sup> He cites Wilamowitz<sup>35</sup> to the effect that Timaeus speaks with an authoritative tone, and makes little use of the gently poetic questionings of Socrates. Cornford also cites Ritter to the effect that the fourth person of the Timaeus is left unknown, perhaps because Plato wanted to keep open the possibility of writing a fourth dialogue in the series.<sup>36</sup> But Cornford, like Burnet and unlike A.E. Taylor, makes little mention of the whole matter of

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<sup>33</sup> John Burnet, Greek Philosophy (London: Macmillan & Co., Ltd., 1914), Part I, p. 212.

<sup>34</sup> Cornford, op. cit.

<sup>35</sup> Wilamowitz, Platon, I, p. 591, in Jaeger, op. cit., p. 80.

<sup>36</sup> Constantin Ritter, Neue Untersuchungen über Platon (Munich: 1910), p. 181.

stylistic dating. He assumes the results of the stylists but prefers to place the Timaeus and Critias just before the Laws for reasons of doctrine rather than for reasons of style.

Ritter says that he learned most "from the English," meaning Burnet, Taylor, and Cornford, and that his own researches brought him into "remarkably close agreement... with respect to their chronological determinations."<sup>37</sup> Briefly, his conclusions are these: there are six major groupings of dialogues, and the last group, composed of the Sophist, Statesman, Timaeus, Critias, Philebus, and Laws, must be late because a "careful study of the differences in language and expression" creates an "indubitable means of determining their genuineness as well as the approximate date of their appearance."<sup>38</sup> In addition, he says that there are changes in *style* and writing which are less precise but no less observable by the trained observer, and that perhaps the strongest of these considerations is the transition from the "poetic" style in the early works to the "didactic" style of the later works.<sup>39</sup> It is interesting to observe that when Zeller challenged Ritter to try the stylistic methods on a modern writer's works, whose chronology could be independently verified, Ritter was able to arrive at the correct chronology of the works of Goethe.<sup>40</sup>

Perhaps a summary of the stylistic controversy is in order at this point.<sup>41</sup> Briefly, it began with the efforts of Schleiermacher to reveal what he felt was the pedagogical gradualism of Plato's dialogues. But Hermann felt that the gradual development in the dialogues revealed not Plato's pedagogical process so much as the gradual growth of Plato's own insight. Campbell started with the assertion that the Laws was the last work of Plato and noted stylistic similarities between the Laws and a whole group of dialogues, which included the Sophist, Statesman, Philebus, Timaeus, and

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<sup>37</sup> Ritter, The Essence of Plato's Philosophy, p. 9.

<sup>38</sup> *Ibid.*, p. 27.

<sup>39</sup> *Ibid.*, pp. 29-30.

<sup>40</sup> G.C. Field, Plato and His Contemporaries: A Study in Fourth-Century Life and Thought (London: Methuen & Co., Ltd., 1930), p. 68.

<sup>41</sup> Ross has summarized these results in tabular form: see Appendix A.

Critias. Ritter modified the stylistic criteria and made them more precise, and arrived at astonishingly similar conclusions. In turn, Wilamowitz and Lutoslawski carried the work further (and perhaps to excess) by accomplishing stylometric word-counts and establishing frequency tables for the number of particles, clausulae, and hiatus. They too reached similar conclusions. It emerged that the comparison of styles of writing employed by Plato in the dialogues could be used by several relatively independent scholars to reach agreement on the chronology of the dialogues, and, on this basis, it was agreed that the Timaeus was a work of Plato's old age, since the Timaeus and the Critias resembled the Laws, more than any other work of Plato, in its style and composition. The researches of Burnet, Taylor, and Cornford assume these stylistic results and take them up into a more comprehensive view of the dialogues. This however does not alter their opinions that the Timaeus is the work of Plato's old age. Taylor and Burnet are uncertain whether the stylistic methods can place the Timaeus after the Philebus and conclude that if this is to be done it must be done on other grounds. More recent researchers have little or nothing to add to the stylistic probability that the Timaeus is the work of Plato's old age.

The criteria used by these authors are said to be non-interpretative, insofar as they refer to the use of grammar, style, language devices such as expletives, hiatus, clausulae, etc. But other criteria, such as the death of Dionysius II, the decreasing importance of the role of Socrates in the various dialogues, do, to a certain extent, demand a degree of insight and interpretation of the style of the dialogues, and are used both as starting points for stylistic analyses and as parts of such analyses. They cannot be said to be purely mechanical, nor are they wholly objective, but their use by what Ritter calls "trained observers" has led to a remarkably wide and detailed agreement on the part of scholars to the effect that the Timaeus is the work of Plato's old age.

Before we pass on to an examination of those details of Plato's biography which help to establish the sequence of the late dialogues, there is another point which deserves attention, and it is

the matter of those dialogues which Zeller and Ritter call the "transitional dialogues," namely the Parmenides and the Theatetus. It is necessary to note that a number of those scholars who have constructed chronologies of the dialogues have reached agreement that these two dialogues must be placed after the works of Plato's middle period, which include the Republic, and before the last period, which begins with the Sophist. In the next chapter, the doctrinal significance of this placement will become evident. It is necessary here only to document the assertion that reputable scholars have agreed to place the Parmenides and Theatetus immediately before the dialogues of the late period.

### 2.2.3 Biographical Criteria

Up to this point, we have seen that there is a long and honorable tradition which regards the Timaeus as the work of Plato's old age, and that stylistic criteria, used by a small but highly reputable number of Platonic scholars, has brought about a condition of wide and detailed agreement that the Timaeus is Plato's work and that he wrote it in his last few years.

To these sources, let us now add a review of those details of Plato's life which may be useful in determining the order of the dialogues. Again, so far as possible, the argument here will attempt to avoid any interpretations of Plato's thought, in keeping with the attempt to divide the evidence in favor of the hypothesis into two inseparable but logically discrete aspects.

Unfortunately, the biographical information which we possess about Plato is painfully scant, since most of what we know about Plato's life has to be derived from the dialogues and the letters. The date of Plato's birth is usually said to be 427, although A.E. Taylor gives 428. Similarly, the date of Plato's death is usually given as 347 but A.E. Taylor gives 348. All agree that these dates are approximate. The consensus seems to be that Plato was approximately eighty or eighty-one when he died.

Plato was descended from an aristocratic family. His mother's first husband was Ariston who traced himself to Poseidon; her second husband was Pyrilampes, who related himself to Pericles. Plato's mother, Perictione, was of the family of Solon. <sup>42</sup>

Plato had two brothers, Adeimantus and Glaucon, and a sister, Potone, whose son, Speusippus was therefore Plato's nephew as well as successor as head of the Academy. Plato was the youngest child in the family. \*? According to Cicero, Plato's introduction to Archytas (the Strategus of Tarentum) was extremely fortunate since Archytas later rescued Plato from slavery, into which he had been sold by Dionysius II. <sup>43</sup> the incident of Plato's slavery was also recorded by Philodemus in his Index Academicorum. <sup>44</sup> However, without the Seventh Letter it is not possible to set a precise date for this event. Cicero only tells us that Plato was in Sicily and that he was ransomed by Archytas from the slavery into which he had been sold. <sup>45</sup>

After citing the well known details of Plato's birth and aristocratic lineage, Ritter reminds us that Plato was born during the Peloponesian war and that soon thereafter Pericles succumbed to the plague. Plato was six when peace was concluded with Sparta in 421 and he was fourteen, an Aimpressionable age, when the Athenian fleet was destroyed off Sicily. <sup>46</sup>

In 405, when he was approximately twenty, Plato met Socrates, and Ritter tells us that even his exceptional education in the arts of drama and poetry were not enough to prevent Plato from committing his poetic works to the flames, since they were not up to the new philosophical standards Socrates had impressed on him. <sup>47</sup>

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<sup>42</sup> A.E. Taylor, "Plato," Encyclopaedia Britannica, pp. 48-64.

<sup>43</sup> According to Field, Plato's benefactor was Archytas (Field, op. cit., p. 16), but according to Gompers it was Anniceria (Gompers, op. cit., p. 261).

<sup>44</sup> Field, op. cit., p. 18.

<sup>45</sup> Gompers, op, cit., p. 261.

<sup>46</sup> Ritter, The Essence of Plato's Philosophy, pp. 21-22.

<sup>47</sup> Ibid., p. 22.

When "The Thirty" came to rule, Plato was asked to join with them, but he could not bring himself to take part in a regime which he felt to be responsible for the injustice of Socrates' death, so he went instead to Megara for a few years. <sup>48</sup>

Plato also travelled to Egypt, Crete, Cyrene, and Italy and Sicily. The Sicilian travels were "of great significance" for Plato's philosophy. In addition to Archytas of Tarentum he met other Pythagoreans in Syracuse. It was during these travels that he also met Dion and Dionysius I. Plato was at this time forty years old; Dion was twenty and Dionysius forty-three. <sup>49</sup>

Many years later, after the unfortunate and misconceived rivalry between Dion and Dionysius II, Plato was sold into slavery at the island of Aegina but was soon ransomed, His benefactor refused reimbursement, so Plato took the sum and applied it to the purchase of a plot of ground in the gardens of Akademos, where the founding and administration of his school occupied his attention for the next twenty years. <sup>50</sup>

In 367, Dionysius I dies and Dionysius II is advised by Dion to send for Plato. A rivalry takes place between Dion and Dionysius. Plato is allowed to return to Athens for the duration of the war in which Syracuse is engaged, on the promise that he will return as soon as it is over. Plato leaves and Dion is banished. <sup>51</sup>

Five years later, Plato returns. He tries, with less success than before, to have Dion reinstated. He returns again to Athens in 360. Three years later, Dion assembles an army and marches on Syracuse. He meets with some success but is later assassinated. According to Ritter, <sup>52</sup> Plato mourns with deeper grief than he had for Socrates, although Ritter does not reveal the source of his information.

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<sup>48</sup> Ibid., p. 23.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid., p. 24.

<sup>51</sup> Ibid., p. 25.

<sup>52</sup> Ibid., pe 26.



In 347, Plato dies. Ritter says: "To the end of his life he was mentally alert and active and enjoyed the honour and respect conferred upon him by his circle of disciples." <sup>53</sup>

By accepting the authenticity of the Seventh Letter, Ritter is able to conclude that the Parmenides and the Theatetus were written before Plato's Sicilian adventures and that the late dialogues were written thereafter. <sup>54</sup> Thus Ritter is of the opinion that the Parmenides and Theatetus immediately precede the late group and should be read before them, since, in this order, the changes in style and doctrine between the Parmenides and the Theatetus and the late group became more clearly recognizable. In short, the influence of Plato's Sicilian experiences can be better discerned in the late group, and this influence is not detectable in the Parmenides and Theatetus.

One final biographical point deserves attention before we pass on to a discussion of the relevance of Plato's letters to the matter of establishing the chronology of the dialogues, and it is the problem of determining the relative influence of Socrates on Plato's life.

While this problem seems at first sight to belong to a discussion of Plato's biography, actually it does not. While it is true to say that we have as little information about the details of Socrates' life as we have of Plato's, the fact is that we can only determine the influence of Socrates by examining Plato's thought. It is frequently asserted that Plato wrote in the dialogue form because he held Socrates' method of communication in such high esteem, and this is probably true. But there seems to be no information which could help us to determine whether the order of the dialogues was influenced by Socrates. It seems better to postpone this question until the next chapter, where we take up the doctrines of the dialogues, and the influence of Socrates' thought on Plato's doctrine.

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<sup>53</sup> Ibid., p. 27.

<sup>54</sup> Ritter op. cit., pp. 329 ff.; Untersuchungen uber Platon (Stuttheeres 1888), pp. 88 ff.

It might be noted in anticipation that Plato does give several hints, through the Parmenides, Theatetus, and in the whole group of late dialogues, of the extent to which the doctrines of these dialogues are "beyond" Socrates, that is, ask the sort of questions which Socrates probably would not have asked.

Let us pass, then, to a discussion of Plato's Seventh Letter, which reveals in some detail how Plato's Sicilian experiences influenced him. Such information will be useful in understanding some of the passages in the late dialogues.

## 2.2.4 The Letters

J. Harward<sup>55</sup> has made a very useful compendium which contains an impressive amount of material on the Letters. He cites a number of ancients who regarded the whole collection of Plato's letters as authentic, including Diogenes Laertius, Plutarch, Lucian, Cicero, and Aristophanes the grammarian of Alexandria.<sup>56</sup> Although Jowett<sup>57</sup> followed Karsten<sup>58</sup> into the opinion that the entire lot was spurious, Harward says that the increasingly wide use of stylistic criteria soon dissipated the influence of their opinions. The stylists were thus able to overcome the views of Jowett and Karsten<sup>59</sup> which were that the letters were written in too lowly a style for them to be regarded as Plato's own, that the philosophical doctrine of the letters differs too widely from Plato's theory or Ideas, and that there are no sources from which we may conclude that Plato was actually ever in Sicily.<sup>60</sup> Wilamowitz was particularly strong in asserting the letters to be genuine, and his criteria were largely stylistic, that is, he was able to conclude

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<sup>55</sup> J. Harward, The Platonic Epistles (Cambridge: The University Press, 1932).

<sup>56</sup> Harward, *op. cit.*, p. 60.

<sup>57</sup> B. Jowett, The Dialogues of Plato (3<sup>rd</sup> ed.; New York: Scribner, Armstrong, & Co., 1878) preface.

<sup>58</sup> H.T. Karsten, De Epistolis quae feruntur Platonicis (Utrecht: 1864), in Harward, *op. cit.*, p. 61.

<sup>59</sup> Harward, *op. cit.*, pp. 71-72.

<sup>60</sup> Field, *op. cit.*, p. 16.

that the satire of the letters was not too lowly for Plato, but was in fact written with many of the idioms and phrases which Plato favored in his late years.

Thus, there are few scholars today who would reject all the letters, although some scholars reject some of them, as we shall see. But in the main, the wave of scepticism has subsided. Thus, Harvard is able to compile a list of scholars and tabulate which scholars accept which of the letters.

The Seventh Letter in particular, has been accepted by Taylor, Burnet, Ritter, Hackforth, Wilamowitz, Souilhe, Bury, and Field.<sup>61</sup> These scholars were able to agree largely because of the stylistic criteria as applied to the letters. Harvard discusses these criteria in some detail. He divides them into four groups, which include the following:

1. choice of words, including neologisms and expressions known to be current in certain years by reference to other authors.
2. word order, including inversions of normal word order, hiatus, elision, the use of clausulae
3. sentence structure, including extra parenthetical clauses, hanging nominatives, a string of terse, clipped unmodified verbs, following intuitional rather than strictly logical order.
4. circuitous mannerisms and tautologous phrases<sup>62</sup>

One notices that the foregoing criteria are neither strictly stylistic nor strictly stylometric. In order to make use of them it would be necessary to be a "trained observer" as Ritter says, and, in addition to noticing the presence of these devices of style, one could, if so inclined, make tables and count the frequency with which these mannerisms occurred. But the deeper point is that

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<sup>61</sup> Harvard, *op. cit.*, p. 76.

<sup>62</sup> *Ibid.*, pp. 86–96.

the most reputable Platonic scholars were able to agree on the basis of these criteria that the Seventh Letter was both genuine and late. Harward says "...the stylistic features in common (between the Seventh Letter and the Laws) are so striking that they stare the reader in the face,"<sup>63</sup> Ritter makes a similar comment when he says, "On any unprejudiced reader it (the Seventh Letter) cannot fail to produce the impression of the natural outspokenness of a narrative of personal experience."<sup>64</sup> Cicero himself says, "praeclara epistula Platonis ad Dionis propinquos..."<sup>65</sup> To these, Harward adds his own views since Plato regarded Kallipos as a "fiend incarnate," and since it was Kallipos who had Dion murdered, and since Kallipos wrote to Plato of the death of Dion in 354, and since the death of Dion is recorded in the letter, but the letter does not record the death of Kallipos, which occurred a year later, it is probable that the letter was written between 354 and 353.<sup>66</sup> From all of these probabilities, Harward concludes that the letter was composed after the Sicilian journeys and before the Laws. This places the letters in a setting which is either immediately before or contemporaneous with the Timaeus. As we shall see after a discussion of the Seventh Letter in detail, it is probable that it precedes the Timaeus.

Having shown on the basis of reputable scholarship the authenticity of the Seventh Letter and its late composition, I would like now to summarize its contents, in order to point out certain experiences Plato had relevant to the doctrine of the Timaeus.

Plato begins by telling that his motive for visiting Sicily as the desire to see the people there freed by the best laws for the situation, and, in addition, he will recount in the letter the process in which he reached the formation of his opinions on the matter (324b).

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<sup>63</sup> Ibid., p. 86.

<sup>64</sup> Ritter, Neue Untersuchungen uber Platon, p. 408.

<sup>65</sup> Tusc. Disp. V, 35, in Harward, op. cit., p. 189.

<sup>66</sup> Harward, op. cit., p. 192.

He describes his youthful aspiration for a political career and recounts that some of his relatives, (Critias and Charmides) were members of the Thirty, and that they had asked him to rule with them (324 b,c). But he declines because he sees that their rule, like most revolutionary regimes new in power, suffered excesses. These were particularly visible in these attempt to send Socrates on a dishonorable mission (324 e). It was finally certain, when Socrates was sentenced to death at the hands of this regime (325 c). Plato notes sadly that the older he gets the more he realizes the extreme difficulty of handling public matters (325 d). He noticed that not only the written but the unwritten laws were extremely inflexible and therefore hard to mold. As a matter of fact, those in Athens struck him as incurable, and for the time, nothing could be done (326 a).

We then read a small recapitulation of the Republic doctrine of the philosopher-king. Plato tells his readers that the situation in Sicily, like the one in Athens, is so difficult that there will be no peace for the sons of men until either philosophers are kings or those in power lay hold to some philosophical illumination (326 b). It was with these expectations that Plato first arrived in Sicily. He is repelled by the life of vice and court debauchery which he finds there, and says that here as elsewhere such immorality will inevitably lead to a succession of tyranny, oligarchy, and democracy (326 d).

However, while there, he instructs the young Dion who is extraordinarily adept at this sort of learning, and Dion resolves to "live for the future" which of course makes him terribly unpopular at the court (327 b,c). However it is his hope that Dionysius will learn too, and in this way peace and happiness will be introduced (327 d). This fits in with Plato's desires not to be "only a man of words" (328 a-c) and, in addition, helps Plato to prove to himself that he does no dishonor to philosophy by inaction (329 a). However, Dionysius does not devote himself to philosophy. Moreover, Dion is perceived as a threat and is expelled from the court. Plato becomes a prisoner of the court (329 c-d). Dionysius flatters Plato,

but Plato is aware that it is his status and not his philosophy which Dionysius desires (330 a).

Plato reflects on these experiences for his readers, and tells them an allegory to the effect that the physician is to his patient as the philosopher is to the state, and that, just as the physician prescribes diet, so the philosopher prescribes laws and constitutions which will eventuate in a good state (330 d–331 e). This too is reminiscent of the Republic. Again we are told that the good governor is he who frames good laws (332 b). To do so, a man must have loyal friends, and there is no surer test of vice than a man without friends (332 c). Such a man is Dionysius, whose early years were hungry for want of education and proper training. Thus he was raised discordantly, and, beyond the fact that he is wrecking Sicily, the greatest poverty arises from his lack of harmony with himself (332 d). Nevertheless, a way must be found to free Sicily by the introduction of just laws (334c). A way might be found if only Dionysius can be brought to harmony with himself. If it is not possible to introduce order through Dionysius, then other means must be sought, for the source of light is the soul at harmony within the man (335 a–d). Plato's hope is high and his desire is strong, but the worst crime is committed: Dionysius refuses (335 e).

Thus the second venture ends worse than the first, due to a "fiendish" ignorance of matters of the soul and of philosophy on the part of Dionysius (336 b–c).

We are reminded of the early lesson of the letter, i.e., that a period of temperance after a revolution is as rare as it is necessary. Perhaps it follows that this is the time when just laws should be enacted but it is unfortunately true that this is also the time when such an enactment is least possible. Perhaps this task will remain for the future (336 e).

How should such laws come to be? Plato answers his own question by saying that only the best men can make the best laws, and actually goes into the proportion of men to the population (337 c).

The motive for Plato's third trip to Sicily is given. We are informed that Dionysius is eager to have Plato return, and that he has made progress in his study of philosophy. Archytas and his Tarentine circle of Pythagoreans implore Plato by letter, and one, Archydemus, even accompanies the trireme which is sent to supply Plato's passage. In order not to betray Dion and his other Tarentine friends, Plato allows himself to be convinced (339 a-e).

There follows what one writer (Ritter) calls a philosophical digression into the nature of the process wherein philosophy is "imparted" so that the student will see a "marvellous road" open before him (340 b,c). Here we have a recapitulation of some of the thoughts Plato had set down in the Phaedo and in the Republic, where he described how the soul, reflecting on herself, sees a whole new realm (340 d).

"There neither is nor ever will be a treatise of mine on the subject" says Plato, in what seems at first to be a deep paradox. What can a philosopher mean whose Magnificent dramatic dialogues are revered as perhaps the highest insights ever written? Is it all a game? The key to this, is to be found in the Seventh Letter, which explains to the friends of Dion that Plato never fell from honor and was not among the murderers of Dion nor among the followers or participants in the horrible rule of Dionysius who had him killed. Plato is not addressing a learned academy nor an audience of philosophers but a group of friends and former associates of Dion who cannot understand how the great Plato and his philosophy could not save Dion from an unjust fate.

To the claim of Dionysius that he was learning philosophy from the one lesson Plato had given him and that he was in fact producing learned treatises of originality and brilliance, Plato responds not only that his philosophy can't be taught in a few lessons, but that its deepest meanings cannot be taught at all, but must be experienced as a fire which is enkindled in the soul after an arduous preliminary regimen in the company of teachers who have been so inflamed (341 d,e).

If philosophy cannot be taught as a series of learnable propositions, how can one expect to learn it in writings and disquisitions? To bolster this argument and to derive it from higher knowledge, Plato launches into a short essay on the steps and stages on the way to philosophical insight. There are, he says, three preliminary steps and two later stages through which philosophical knowledge is imparted (342 a).<sup>67</sup>

The "instruments" of this process are names, definitions, and images (*eidola*). Names are notoriously flighty and subject to the winds of change and fashion. Definitions are frequently contradictory and refer to aspects which shift. Images may be drawn and fashioned at will but what images attempt to convey is not necessarily subject to these inconsistencies (342 b,c). More proximate but still very distant is knowledge of the thing and closest is the thing itself as it is. If somehow one does not go through the first three, (names, definitions, and images) one cannot even aspire to the fourth, (knowledge of the thing) much less the fifth. It is much the same with the Good, the Beautiful, the Just, Bodies, even Characters of the soul, and with all that is done or suffered (342 e).

Plato distrusts the fixity and unchangeable character of language as he hesitates to put down in words which seem firm and clear what cannot be grasped so easily (343 a). Words, definitions, and images contain much that is opposite to the things themselves (343 b). Philosophy is so hard that men satisfy themselves with images. Most men cannot study philosophy, and even those who do, find it hard if not impossible to speak of. Perhaps, after the preliminaries of words, definitions, and images, a birth will take place but unless the preparatory steps are taken, naught will avail the ambitious, such as Dionysius. In addition, if there is no "natural inclination," even these steps will lead nowhere (344 a).

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<sup>67</sup> Not *learned*. Plato is talking about the communication of philosophy, not the stating of it, nor the acquisition of it, but the process in which, so to speak, philosophy happens.



What is needed is a "sudden flash" which will arrive only occasionally and then only after long preparation (344b). Therefore, Plato warns his audience, do not expect to plumb the deepest meanings of philosophy too rapidly. And, even if a treatise on Laws, written by a great writer, should cross your attention, do not think that you see there the most precious thought of their writer; you do not. These, he implies, are images drawn for your information, but they are not philosophy, in its deepest sense (344 c).

Moreover, Plato tells his readers that his reverence for the truth is such that he will not entrust it to vehicles. That which is inexpressibly beautiful should not be dragged down in homely expression. The inner harmony of philosophy will not mix with the discordant decadence of Dionysian politics. On the other hand, once truths of this sort have been experienced, there is no need to write them down because there is no danger of forgetting them. Once possessed, they live on (344 d). So ends the "philosophical digression."

Plato returns to his history of the events of his third stay in Sicily. He is implored to stay on by Dionysius' promise to restore Dion's property and income. Plato is asked to remain for a while to consider the plan, but while he does so, the last trade ships leave and the season for travel comes to an end (346). (He has been tricked.) After the ships are gone, Dionysius sells Dion's property (347). Plato is told that Herakleides will not be harmed, even though he led a guard's revolt for higher pay, but again Dionysius goes back on his promise. Plato is ousted from the palace gardens on the pretext that they are needed for a festival (349).

Plato begins to realize that his friendship for Dion is disadvantageous, that he no longer shares the tyrant's confidence, that he is no longer useful, either to himself or to the tyrant, and that his friends at the court are gradually being arrested.

He sends for help to Archytas (350). A trireme of thirty oars is sent, with Lamiskos, a Pythagorean, in command. Plato is taken to Dion, who immediately plots revenge against Dionysius II. This

time, Plato pleads not to be included, because of his advanced age, and because Dion is plotting to injure someone, and Plato will not be a party to violence (350 c).

Plato gives out another allegory. Like the brave captain of a good vessel who underestimates the brutal ferocity of a storm, it became Dion's fate to die at the hands of Dionysius' forces, but it was a death with honor.

Plato ends the letter by saying that he felt it was necessary to explain the paradoxical turn of events in Sicily, and he hopes he has done so (352).

Since reputable scholars have agreed that the Seventh Letter is Plato's own, and since, in all probability it was written between 354 and 353, we must place it in the late period. We should expect the extraordinary experiences of Plato's Sicilian travels to have a marked influence on the doctrine of those dialogues written after the travels which the Seventh Letter record.

However, in order to show what influences these experiences had on the doctrine of the Timaeus, it is first necessary to pass in review the doctrines of the dialogues between the Republic and the Timaeus. This task is the burden of the following chapter. It is possible at this point only to anticipate how the Seventh Letter leads us to expect that the Timaeus will reveal the influence of Plato's Sicilian experiences.

Thus, there is confirmatory evidence to be derived from the Seventh Letter for the view that the Timaeus is a late dialogue. This is indicated in the statement (at 344c) that even if a great writer were to write a treatise on laws and if such a treatise were to come to the attention of the Sicilians, it should not be regarded as philosophy but as a set of images. The fact that this statement is put in the hypothetical future seems to indicate that the Laws have not yet been written (at least, not completed). If the Laws is Plato's last effort, and if the Timaeus is as closely related to the Laws as the stylistic criteria indicate, this statement would seem to

indicate that the letter itself was written before both the Timaeus and the Laws. We have already cited evidence for this view.

It is the business of the next chapter to spell out the doctrinal criteria on which this same conclusion can be reached. There, the relevance of the doctrinal points of the Seventh Letter will be introduced.

Perhaps it is not inexcusable to ask the reader to recall at this point that the division of the initial hypothesis into two methodological procedures, has, at this point, only dealt with one half of the argument, and that both halves are necessary to establish the hypothesis. Thus, one concludes from this chapter that the external sources, individually and collectively, point to the Timaeus as a late work. It now needs to be demonstrated that the doctrine of the Timaeus is a late doctrine. Thereafter, it will be shown that in the doctrine of the Timaeus we find not only a later doctrine than its predecessors, but a more developed doctrine, consisting of a culmination and synthesis of the themes of eternity, image, and time.

## 2.2.5 Conclusion

I conclude this chapter with the conviction that the Timaeus is a late dialogue, probably written after Plato's Sicilian adventures. It is difficult to fix a precise date for its composition. It is certainly after the first two Sicilian adventures and certainly before 347, the year of Plato's death.<sup>68</sup> Stylistic criteria place it in the same age grouping as the Laws. This makes it probable that the Laws and the Timaeus occupied Plato's attention alternately during the same set of years. This means that the Timaeus trilogy and the Laws were both written in the last years of Plato's life. I think it is probable that the Timaeus was written after the third Sicilian adventure, after Plato's indebtedness to the Tarentine Pythagoreans had increased a great deal. I feel no need to separate the Laws, the Seventh Letter, and the Timaeus more precisely because I think

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<sup>68</sup> i.e., it is in all probability not a posthumous edition.

that work on all three of them could have proceeded together, yet I feel it is probable that the Seventh Letter precedes the completion of the Laws and the Timaeus. Cornford's hypothesis that Plato stopped in the middle of the Critias in order to complete the Laws is especially attractive.

## 2.3 The Doctrine of the Dialogues

### 2.3.1 Introduction

In the foregoing chapter, the chronology of the dialogues according to reputable scholars was presented. The conclusion that the Timaeus is a late dialogue was reached by these scholars by utilizing several criteria, including stylistic interpretations, biographical information, agreement among some of the ancients, and certain relevant information which Plato set down in his Seventh Letter. It is now the task before us to confirm this conclusion by appeal to doctrinal development in the dialogues which precede the Timaeus. This will be done by showing that there are significant themes in the dialogues which precede the Timaeus, which are gradually modified and expanded until they are treated in a new way in the Timaeus.

It is obviously impossible in these few pages to present a detailed summary of all of the philosophical doctrines which Plato treated in each of the dialogues to be discussed. Therefore, only those themes which specifically culminate in the Timaeus will be passed in review. It is assumed that no significant distortion of Plato's philosophy will be made by selecting three themes which Plato discusses together in the Timaeus, and that no distortion will be introduced by tracing these themes as Plato develops them in the dialogues which intervene between a logical starting point and the Timaeus.

The first problem, then, is to determine a logical point to begin our investigations. The Timaeus itself gives us the starting point

because it begins with a recapitulation of certain themes in the Republic. This seems to be a clear indication that the investigation of Plato's later philosophy must include some sort of comparison with the Republic and the doctrines of the so-called middle period. In the discussion which follows, it will be assumed that the doctrines of the Republic may fairly be taken as representative of the doctrines of the entire middle period, and that reference to the other dialogues of the middle period will be made only when it seems clearly necessary. Thus little mention will be found of the Phaedo, Phaedrus, and Symposium, and our inquiry will focus mainly on the Republic.

The Parmenides and the Theatetus constitute a special group of dialogues, as Ritter has observed. In these dialogues a special critique of the doctrines of the middle period is undertaken by Plato himself. Thus, if one plans to trace the development of certain doctrinal themes by starting with the Republic and continuing through the late dialogues, one ought to interpose between the Republic and the "late" dialogues, the Parmenides and the Theatetus, and their respective doctrines, insofar as they discuss the themes in question.

In the subsequent discussion of the doctrines of the late dialogues, it will be shown that the critique of the middle doctrines by the Parmenides and Theatetus had brought Plato to the recognition of a need for new doctrinal formulations. Thus, it will not only clarify the doctrine of the Republic but it will shed light on the Sophist, Statesman, and Philebus if we examine carefully the critique made by the Parmenides and Theatetus. In this way, one may examine the sequence of doctrinal modifications which Plato made as he matured, and one may discuss both the doctrines and the doctrinal advances as one treats each succeeding dialogue.

Certain confirmations of the view that the Timaeus reformulates old doctrines in a new way will be sought in relevant passages from the Critias and the Laws, but these are only taken as lateral confirmations, and not as indices, of the extent to which the

Timaeus contains significantly new doctrinal formulations. They form, as it were, testable corollaries of the main hypothesis.

The three themes which I have selected to focus upon are the themes of eternity, image, and time. It should be noted that the words eternity, image, and time are not technical terms for Plato, and that their meaning will be found to change as the sequence of dialogues approaches the Timaeus. For this reason, I prefer to call them themes and not terms or ideas or doctrines.

I have also made a methodological choice. It would be possible to select the passages from each of the dialogues which discuss eternity, image, and time, and by placing them together, one could discuss each theme separately. But there is another way, which seems more faithful to Plato's own method, and that is to pass each dialogue in review, and, in passing, point out those passages which are relevant to the themes of eternity, image and time. This latter method has been adopted.

In the chapters which follow the present one, a more or less interlinear commentary will be offered on those passages of the Timaeus which are relevant to the three themes I have selected for study. In this way, the gradual advance of Plato's thought is given what I feel is an appropriately developmental context.

I maintain, then, that in the middle period, i.e., in the Republic, Plato formulated a doctrinal position with respect to the relations of eternity, image, and time, that he began a critique of this position in the Parmenides and Theatetus, and that he began a new formulation in the Sophist, Statesman, and Philebus, which reached a new height in the Timaeus. The reader is asked to judge for himself in what follows whether this claim is credible.

### **2.3.2 The Republic**

In the Republic, Plato retains the doctrine of the Forms, and seeks particularly to find the Form of Justice, its nature and origin (357 d). However, this is a hard task which can only be performed by

those whose eyesight (for the Forms) is particularly good (368 d). For this reason, it is decided that perhaps the method of inquiry had better be adapted to those whose sight is not so perfect, so that, instead of attempting to gaze directly on the Form of Justice, it will be better to adopt a "shortsighted" method, namely, seeing Justice where it is writ large, in the state (369 a). This will bring about an unfortunate mutilation of pure vision, but it is inescapable. Moreover, it is a better method than the one adopted by such "story tellers" as Hesiod and Homer who rather tell lies than avoid distortion (377 e). These authors do not realize that "children" do not know the difference between allegory and fact. It were better that the truth be not told at all than told badly, yet the problem of representing truth in images is not a small one. The primary requirement is that truths must be represented, if at all, in a true way, worthy of their contents (379 b). "Because we do not know the truth of ancient traditions, we make falsehoods as much like the truth as we can, and there is no use in this." (382 d)

Here in the opening passages of Book II, Plato tells us that one encounters difficulty in attempting to reveal those truths which have been seen by one's excellent eyesight, to those with less than perfect vision. Images of truth are, for such men, dangerous, and should be avoided.

Nevertheless, Plato does not stop the process of inquiry. Reluctantly, he will try to see the truth of the Form of Justice as it is writ large in the state. This tells us that the whole Republic is, in its own way, an allegory, designed not so much to spell out the legal machinations of a *polis* as to take a shortsighted view of the Form of Justice. We know this interest in Justice to be a lifelong concern of Plato. It is cited here to document the fact that even in the middle dialogues, Plato is not unaware of the danger of misrepresenting the gods, and that at this point in his development he uses a short-sighted method. He makes the decision to undertake a vision of Justice in the state despite his awareness that his description of the state will only imperfectly incarnate Justice in an image, which in this case, is an allegory (368 a). The problem is that allegories only imperfectly imitate the Form of Justice, which

Plato tells us next in the famous allegory of the guardians and their education. It is necessary for the guardians to know the Forms, or else their guidance shall be lacking in some perfection, yet they are surrounded in their youth by "images of moral deformity (401 b)." Physicians, like judges, must cure by use of mind, and "a virtuous nature, educated by time, will acquire a knowledge of both virtue and vice (409 e)." Thus, it will be necessary for the guardians to be exposed to both perfect and imperfect images of Justice, and, if they are strong, and if their souls are in harmony (410 e), they will rule well, despite the limitations which mere images of Justice impose on their thought.

This limitation of images is termed the "royal lie" and the "audacious fiction" (414 b). It is recognized that the sights of youth are like dreams, and that their education is an acquaintance with "appearance," but youth is in a process of formation in the womb of the earth. Perhaps it might not be possible to so educate the guardians in the first generation, but in the next, their sons will probably adopt this view (415 b). Here Plato anticipates the difficulty that a new set of laws may not be accepted with open arms by a generation of men, but the need is great; new laws must be found and promulgated. Yet the basis for new laws, i.e., a clear sight of the Forms, is impossible. It is as if Plato were scandalized by the need to speak the truth of the Forms in a language of imagery and allegory, yet, the political necessity (the need to know the truth) cannot be denied. Eventually, the guardians will see through the mere images of their education if they are instructed in these matters "and others not mentioned (423 e)." For that reason, there is no need to legislate about particulars, since these will flow from the character of the institutions (425 c).

In order to legislate about the "greatest and noblest" institution (427 b) the one which deals with temples and sacrifices, Plato introduces the "method of residues" which we would call the method of gradual elimination. By presenting the given activities, which are presumed to be known, and by eliminating all the unacceptable ones, Plato arrives at a list of virtues which ought to characterize the guardians (428 a). (As we shall see, this method



of residues is by no means the same as the method of division in the Sophist). Then, by eliminating lesser virtues, Plato arrives at the conclusion that the guardians ought to be temperate, wise, courageous, and just (432 b). And by further use of the method of residues, it is decided that Justice is the ultimate basis of the perfection of the state (433 a). As we shall see, this conclusion will be expanded in the Timaeus, where *Time*, not Justice is said to be the basis of perfection.

Justice itself is said to be "the having and doing what is a man's own, and belongs to him (433 b)." If a man does what he does, and does not attempt to do what others do, then Justice will have introduced harmony into the relations of the citizens.

Just as the classes of the state are to be in harmony with each other, so the soul's virtues will be in harmony with each other, if education proceeds correctly. Yet Socrates confessed that he does not understand this notion of harmony too well. The technical insight into music and the harmony of string lengths is best left to the musician, as the matter of gymnastic is best left to the gymnast. Socrates relates the need for harmony in the soul; the images of this harmony in the particular instances of music and gymnastics are not directly his concern.

This is true because it behooves a man, and a state, to be a unity, whereas a skill in a large number of particulars strains unity. 'thus, each class in the state has one and only one function, just as each man in the state will have one and only one occupation. Thus for the shoemaker to fight will be unjust, just as the fighter should not make shoes.

However, Socrates begins to doubt that his method of residues is working very well. He reminds us that we are seeking a knowledge of Justice and that we are trying to achieve it by seeing Justice writ large in the state, but the discussion seems to be bogging down in particulars. However, he hopes to "strike a spark" and in that way release a vision of his subject (434 e). He says:

I must confess that the method we are employing seems to be altogether inadequate to the accurate solution of this questions for the true method is another and a longer one. Still, we may arrive at a solution not below the level of the previous inquiry (435 a).

This is the same intractable necessity to reveal visions of a more perfect eye to those with less than perfect vision. However, the method of employing images does reveal a "shadow" of Justice, and therefore, it is useful (443 c). So, on this basis he traces out the division of labor in a society, showing that each man who fulfills his appointed task is just only insofar as he does not encroach upon the appointed task of another. To do what another ought to do is a double injustice, both to oneself and to the other. The solidarity of the "imaginary commonwealth" (456 d) rests on this Justice, and, in the same way, the soul of the man who tries to cross his line of responsibility will be unjust. The relation of these divided responsibilities is injustice. We must assume this to be so, for we are reminded that the allegorical investigation of the Form of Justice is like dreamers feasting on a dream, and that the state here investigated is "imaginary (458 a)."

Does unity, achieved by the harmony of each individual (soul or class) performing his one task, really work. "The inquiry has yet to be made whether such a community will be found possible...and in what way...(471 c)."

To answer this, we must inquire what is the least change to be introduced into the state which would bring about the imaginary harmony we seek. The philosopher-king is the person who will accomplish this. Why do we need the philosopher-king? Because it is he who sees the Forms in their direct "Beauty" (476 b) and he knows the difference between knowledge of something and knowledge of nothing. When one knows, he knows something, and this is true knowledge. When one knows nothing, he is in "ignorance" (477 b). The realm of opinion is in between, where what one knows both is and is not. True knowledge is of the immutable

and the eternal, and only this is rightly called knowledge (478 e). this sort of knowledge and this sort alone should characterize the philosopher-king, and all those who deal in opinions about the Justice of this or that or the Beauty of this or that occupy some intermediary region which will not fit them for ruling, nor for introducing into the state the least change which will make it a just state. Only knowledge of the eternal and immutable is knowledge. And yet, as Galileo remarked in another age, it moves: the dialogue which castigates mere images continues on its allegorical way.

Not only is it true that Knowledge which deserves the name is eternal and immutable, but further, those who dwell in the realm of opinion are called Sophists, whose cant and mere talk is subject to every whim and caprice of opinion, changing from day to day and from speech to speech. Such men cannot deserve the honor of navigating at the helm of state, for they follow the fancies of the demanding crew, whom they are supposed to lead (488 a). Just as most do not possess the clarity of vision to see Justice, these men do not know how sweet philosophy is. Few know this (496 c). For this reason, there has never been a state ruled by the philosopher king, and none exists at the present (499 a). We see how necessary it is to found the state on justice yet we have confronted the supreme difficulty of revealing justice to the inhabitants of the realm of opinion. It is confessed to be impossible, and for that reason, rather than try to show the Sophist the form of justice, we had better imagine a state where youths are educated from the start to see through the dreams which characterize the realm of opinion.

If then, in the countless ages of the past or at the present hour in some foreign clime which is far away and beyond our ken, the perfect philosopher has or has been or shall be hereafter compelled by a superior power to have charge of the state, we are ready to assert to the death that this our constitution has been, is, and yea, will be at any time, only when the muse of philosophy is queen. Neither is

there any impossibility in this: the difficulty we do not deny (499 d).

Here is a striking juncture, for in it, Plato tells us that the vision of the eternal and immutable Form of Justice is only to be had by philosophers, that images are not completely satisfactory (since the Sophists deal in them), but that there is no impossibility in imagining the philosopher-king performing his role, perhaps in the past, perhaps at present, or perhaps in the future. The themes of eternity, image, and time, are joined in one passage. The eternal realm of Forms is the domain of the philosopher, not the Sophist, who dwells in the realm of opinion and changing imagery. At present, we have no philosopher-king, but, since he is not impossible, he may be sought in another time; perhaps past, perhaps future, or perhaps in the present somewhere far away.

What will be the task of the philosopher-king.

...He will look at Justice and Beauty as they are in nature and again at the corresponding quality in mankind, and then inlay the true human image, moulding and selecting out of the various forms of life: and this He will conceive according to that other image, which, when existing among men, Homer calls the form and likeness of God (501 b).

It will be his task to see the forms and to legislate in such a way that men are made in him image. To do so requires a very high wisdom indeed, and the education of the guardians must therefore be truly philosophical. They will not be allowed to take the shortsighted path: theirs will be the "long way." To this astonishing exhortation, it is objected: is there a higher form than Justice, and the still more astonishing answer is: yes. This is the idea of the Good and the Beautiful (504 d).

The Good and the Beautiful are not to be represented on the same level as Justice. For them, nothing short of the most perfect representation suffices (504 e). Yet, even the best opinion is only like a blind man hoping to find his way along a straight road

(506). To discuss the idea of the Good is too much of a task for the present, but Socrates deigns to discuss the "child of the good"; he warns his hearers to be on guard lest he render a false account, although he has no intention of deceit (506 e).

What follows is an extended metaphor concerning sunlight, the eyes, and the things seen, in which Socrates explains that the sun is not sight but the source of sight,

he whom I call the child of the Good, whom the Good begat in his own likeness, to be in the visible world in relation to sight and the things of sight what the Good is in the intellectual world in relation to mind and the things of the mind (508 b).

This is the immediate prelude to the famous allegory of the divided line, in which the ambivalence which Plato seems to show with respect to images is somewhat clarified. It emerges that there are two sorts of images, those which pertain to the visible world and those which pertain to the intelligible world. In the intelligible sphere, reason apprehends the Forms, understanding apprehends images of the Forms. In the same way, there are divisions in the visible world: the reflections of the Forms in the visible world, when perceived truly, are reflections and images, but when they are not perceived truly, are mere shadows and opinions (510 a). In the intelligible realm, images function as hypotheses, suggesting but not confirming the Forms and the ideas.

Perhaps the most famous of all philosophical allegories is the next image which Socrates presents, the allegory of the cave (514 a). We are told that the divided line can be seen more concretely in the cave allegory. Going from the lowest to the highest of knowledge, we first have shadows, then the objects which cast the shadows, themselves only images of the Forms. Then, the understanding captures images of the Forms and finally, reason sees the Form (515e). It is noteworthy, despite the familiarity of this allegory, to point out that the path of philosophical knowledge is laden with two difficulties: the first is the blinding clarity of the Forms when first seen: the second is the need to readapt one's eyes to the

dark of the cave upon redescending (516 e). However, since the soul likes to climb, and prefers not to descend back into the cave, the guardians will have to point out that the whole state suffers if the enlightened ones do not redescend to enlighten in turn their former fellows (519 c).

Here we again confront two kinds of images, or rather two levels of images. This is an advance beyond the first books of the dialogue, where all images were weve copies, dangerous and to be avoided. But, Plato has not brought the realm of the Forms any closer: rather, he has added a small measure of validity to the images of the Forms. It is no longer true that no truth whatever can be had in the visible wordl: now, *some* images are valid, others are not. It is still true, however, that images do not perfectly reveal the Forms.

There is one further step in the treatment of images in the Republic which deserves emphasis. After Socrates describes the visible universe and the starry heaven as the most beautiful and perfect of all visible things (on this basis the guardians are to be instructed in geometry and astronomy) he says that these sciences are not to be learned for their own sake, but because they contain instructive images of the "divine" (532). The unfortunate thing is that those who study the number of stars do not look for number itself, and even those who study numbers themselves do not reflect upon why some numbers are harmonious and some are not: they ignore the "images of the divine," not knowing that what they study is only like the truth, but is not the truth (533 c).

The seeds of a new insight are here, but it would be stretching the point to say that we are now fully 4nstructed in it. It becomes true to say that for every level of truth, the level just beneath it "images" it. For this reason, there are two kinds of image in the divided line: from the higher vantage point of perception, mere sensation is only a shadow, the lowliest kind of image. From the point of view of reason, understanding is only an image. Similarly, every perception, from the higher point of view of understanding, is only an image. Image is thus a relative term, not necessarily

opprobrious, since to advance from a shadow to an image is an advance in the right direction, i.e., toward greater insight.

This is an important doctrine in several respects, not the least of which is the new validity which images have been given. It is also important to stress the relativity of images to the respective truths which they reveal, because it is just this function of revealing the higher truth which the Timaeus develops in a new way. In the Republic, Plato admits the functional role of images with some hesitation. In the Timaeus, this hesitation is gone, and images are said to be perfectly appropriate revelations in themselves, since they are proportional to their paradigms.

Next we are given a Pythagorean myth of the origin and outcome of strife in the state, in which the diameters and circumferences of circles are described by means of the numbers for which the Pythagoreans are famous. The perfect stpiplede circle is one whose diameter is a perfect number; i.e., one which is the sum of its divisors, as six is divided by and is the sum of 1, 2, and 3. Unevenly divided circles introduce strife in the state. This is the sort of tale the muses tell, and Homer speaks their language (545 e). However, while these tales are true in their way, Plato says that there are more pressing investigations, and little is made of the whole procedure. It is quickly introduced and quickly abandoned. Suffice it here to note that in this Pythagorean allegory time is represented by a revolving sphere, and, like a sphere, has a beginning, a middle and an end, so that the forms of government which correspond to the periods of time have a definite sequence. One might extract here a whole political philosophy of history in the Pythagorean idiom, but it can be shown by a discussion of the Timaeus, that a philosophy of political forms and their temporal sequence along Pythagorean lines is far from the sort of treatment Plato can give to this subject.

Plato resorts once again to an image of the soul, but this time it is an ideal image, the best possible. The soul is pictured as consisting of one part polycephalous beast, one part lion, and one part man (588 c), just as the state consists of three classes, one of

knowledge, one of ambition, and one of money (580 da). Having discovered this as a result of the inquiry into the state as the image of the justice of the soul, Socrates says now that the ideal city is a pattern laid up in heaven, and "he who desires may behold this, and beholding, govern himself accordingly. But whether there really is or ever will be such a one is of no importance to him, for he will act according to the laws of that city and no other" (592 b).

The last book of the Republic again takes up the problem of representing this ideal realm in images which the short-sighted might be able to see. Here Plato rejects imitative poetry as mere copy-making, so that even the painter, who paints new images which did not exist before, 4s an inferior kind of creator, for when he copies the bed which the carpenter makes of wood, even the wooden bed is only an imitation of the Form of all beds. The painter copies, the carpenter copies, but the idea of the bed is original and is not a copy of any thing or of any idea.

Thus, the doctrine of the Republic, insofar as it concerns the realm of Forms, describes this realm as a sphere in which what is remains what it is, and does not become something else. These Forms are the archetypes of the visible world, which, from the point of view of the Forms, consists of images and copies of the Forms. Images are subject to time in the guises of generation and corruption, and are changeable, and, therefore, are not truly real, since they are not immutable and eternal.

One last doctrinal theme of the Republic remains to be cited before we pass on to the next dialogue. It is the Myth of Er. Like the small Pythagorean allegory which purported to explain the origin of strife, it represents an attempt on Plato's part to plumb not only the depths of things but to discern their origins. The Myth of goes beyond the Pythagorean myth of political philosophy in that it is meant to be a brief cosmogony, not just the origin of this or that political form. To those who search the Republic for a literal political philosophy and its correlations with the soul, it might seem strange that the Republic should end on a note of myth. However, to those who see that the Republic is an allegor-



ical attempt to portray the realm of Justice, (which is timeless) in terms which the shortsighted can comprehend, (namely, the images of the changing present) it comes as no surprise that the Republic ends in a myth. In fact, since the whole Republic itself, is confessedly only a short-sighted representation of an eternal realm, there should be no jarring of consciousness when the Myth of Er is presented. The whole dialogue reads like an attempt to say what seems unsayable to those who think that saying things means they are true.

However, there are certain characteristics of the Myth of Er which ought to be singled out, in addition to its cosmogonical character.

The Myth of Er recounts the alleged journey of a slain warrior into the world after death, where he is allowed to see what happens to the souls who perish. Some are doomed to wander beneath the earth for ten times the normal lifespan (reckoned as ten times one hundred) and others are allowed to spend their time in a realm of "inconceivable Beauty." Thereafter, the souls are allowed to choose from a wide assortment of lives those they think they would enjoy in their next mortal period on earth.

The more interesting feature of this myth is the description of the stars and planets spinning in their relative spheres around the spindle of Necessity; the Fates, daughters of Necessity, may interrupt these revolutions momentarily or give them direction. The fates represent the tenses of time, one for the present, one for the past, and one for the future. Here is the circular image of time again, in which the revolutions of the spheres of the heavens is taken to be the meaning of time: that is, the spinning of the spheres is the motion we call time. Notice, however, that here in the Republic, time derives from necessity. As we shall see, this is quite different from the doctrine of the Timaeus.

One of the most provocative features of this myth, is the perpetual recurrence which is said to characterize life, and the circular imagery in which this doctrine is cloaked. For, if it is taken seriously as a myth, it tells us that the number of souls must be a

constant, and the careers of men are predetermined by their former lives. How could the experience of such a realm elude our conscious thought in the mortal portion of life? We are told that the souls must drink of the "waters of forgetfulness and negligence" before they return to a mortal abode (621 a).

this is a strange metaphor, especially when coupled with the doctrine of reminiscence, or with the description of the after-life in the Phaedo. What is the meaning of the "water of forgetfulness"? It pertains to the theme we have been describing throughout the Republic: the eternal realm of Forms, the visible world of time, and the strange distance between them which makes the truth of the eternal realm almost impossibly unintelligible to the visible life. Here in the Myth of Er the souls who have lived for a thousand years in the realm of "inconceivable Beauty" are made to forget this experience by imbibing the waters of forgetfulness. In this way, a mythical answer is made to the problem of the difficulty of remembering the realm of Forms, the true home of the soul. Since the soul has been in the realm of the Forms, this former life is the basis of the soul's subsequent recognition of copies of the Forms in this life. This accounts for Socrates' constant attempt to be the midwife of insight. He hopes that a particularly well-chosen image might awaken the soul's memory of the eternal realm. His whole pedagogy is based on this premise.

On the one hand, this elevates philosophic discourse to a very high level. On the other hand, it puts the whole responsibility of achieving insight into the Forms on a lesser and inferior type of insight. This contradiction did not escape Plato, but he did not resolve it in the Republic. We shall have to look to succeeding dialogues for its resolution.

### 2.3.3 Summary of the Republic

We have seen that the Republic presents an attempt to gain insight into the eternal realm through the investigation of Justice as it is in the state, that this is an allegorical attempt to see the Form of justice in the soul, and in that way to see Justice itself. However,

we are told repeatedly that one needs good vision for this, and that not everyone has good vision. Further, even those with good vision have a difficult time communicating with those who have less than perfect vision. This forces him who has seen the Form of Justice to resort to images and copies of the Form of Justice, which, unfortunately results in a mutilation of the truth of the Form. We are forced to rely on myths which are like the truth but are not the truth. They bring us close to the truth but not close enough. The height and distance of the Forms is the reason for this difficulty, and it is only partially diminished by the use of imagery, which is unfortunately always changing, becoming, and passing away. We must have the truth as it is, yet we cannot, for the realms of eternity and time are too discrete. While time derives from necessity, the Forms derive from eternity, and images constitute an in-between realm of compromise.

### 2.3.4 The Parmenides

It is generally agreed that the Parmenides and the Theatetus must be placed midway between the middle and the late dialogues. If it is true that Plato gradually developed his doctrines, one should expect to find in the Parmenides some criticism of the Form-theory as it was developed in the Republic, and some sort of further development of doctrine. In order to present the details of this hypothesized development, it is now necessary to examine the doctrines of the Parmenides which pertain to the themes of eternity, image, and time, and to see how Plato modifies his view of the relation of these themes to each other and in what way the meaning of these themes in themselves is changed. As we shall see, the eternal realm of the Forms and the relation of this realm to the realm of visible things, as described in the Republic, is brought face to face with some sharp criticisms, in the light of which Plato modifies the positions he took in the Republic.

It is also generally agreed that one may logically divide the Parmenides into two parts, the first of which is a dramatic introduction and the second of which constitutes the body of doctrine.

In this second part, Plato divides his subject into a series of eight hypotheses. Before we discuss them, it might be wise to describe what the word hypothesis means as Plato uses it in the Parmenides.

First, Plato does not mean by hypothesis what is usually meant by this word in contemporary usage in our own day. We are accustomed to the provisional character of hypotheses and we regularly expect them to be written in the form of if-then propositions. Thus for example, we usually begin an investigation by asserting that, if a given theoretical view is true, then we should expect to find the certain conditions to obtain. Then we seek out the conditions, describe them as impartially and fairly as we can, and thereafter determine with what accuracy the conditions resemble those we predicted would obtain.

But Plato's method in the Parmenides is different from the methods just described. He proceeds in a similar but not identical way: for he first decides to examine whether a given proposition is true or false and then, first assumes the truth and then the falsity of the proposition in question, which he follows with a demonstration of the logical consequences of these assumptions. If he arrives at an absurd consequence by assuming the proposition to be false, he begins again by logically deducing the consequences of assuming the proposition to be true. In short, Plato asks what are the consequences of assuming a given proposition to be true or false, and it is these propositions which he calls hypotheses. His method differs from our own in that we are accustomed to confront our hypothetical propositions with observations which may or may not agree with predicted observations. Plato examines the logical consequences of a given view; we predict which observations shall be made if the hypothesis is true. While these two methods have much in common, they are obviously not identical.

The eight hypotheses which Plato discusses in the Parmenides are not equally relevant to the themes of eternity, image and time, so that the short summary of the doctrine of the Parmenides which follows should not be regarded as an attempt to summarize the entire significance of the dialogue.

The dialogue begins with a recitation of a youthful work of Zeno's, which asserts that the existence of the many leads to logical absurdities even more ridiculous than the alleged absurdities which are said to flow from the assertion of the existence of the One. The basis for this assertion of absurdity is the statement that the many would have to be both like and unlike, and that therefore the Like would be Unlike and the Unlike Like, i.e., since there are both like and unlike things, both Like and Unlike would have to be said of them (127 e).

Socrates asks whether it is possible to assert that there is a Form of Like and a Form of Unlike, and that, instead of saying that each thing is both Like and Unlike, perhaps things share in these Forms, and in that way, things will only share in these Forms and will not have to be both like and unlike in themselves (129 a). While it would not be difficult to think that things shared in the Forms in this dual way, it would of course be impossible to assert that the idea of Like and the idea of Unlike themselves shared in a dual way in some higher Form. A thing might participate in the One and in the Many and in that way it could share in both of them without being both of them, and thus different from itself. In the same way, things could share in both Rest and Motion, Same and Different, and other pairs of opposites (129 e).

Parmenides and Zeno smile in admiration at this view, as if they were amused at the craft of this philosophical child named Socrates, who, at the time of this dialogue, is said to be no more than twenty years old (130).

Parmenides elicits from Socrates the admission that his method leads to the assertion of a Form for the Just, the Good, and the Beautiful, and of all that class of notions (130 a). Therefore, there must be a Form of man, of fire, of water, etc. Similarly, there must be a Form of hair, dirt, mud, etc.

...Visible things such as these are as they appear to us, and I am afraid that there would be an absurdity in assuming an idea of them, although I sometimes get disturbed and begin to think that

there is nothing without an idea; but then again when I have taken this position, I run away, because I am afraid that I may fall into a bottomless pit of nonsense, and perish; and I return to the ideas of which I was just now speaking, and busy myself with them (130 d).

Parmenides responds that this is due to Socrates' youth, and that a time will come when philosophy will have a firmer grasp.

Parmenides then puts the issue squarely: are there or are there not Forms in which things participate, and in that way come to have the qualities of the Forms. Socrates says there are (131 a). Here we have the central problem of the Parmenides posed with exact precision: are there Forms and is there an eternal unchanging realm where they abide. This realm and its characteristics are assumed to exist so that they can be examined in a new way. The problem of the manner in which the Many participate in the One is chosen as the topic by which this issue is best focused, and they agree to discuss it.

The first objection Parmenides offers to this view is the problem of accounting for the way in which a Form could be said to be in the many and yet remain one Form. For, . if the Form were in the many, it would seem to be divided among them, and hence, not one Form, but many. Nor is it possible for the whole idea to be in each of the many for then the idea itself would be many (131 c).

The second objection Parmenides raises is as follows: if the Idea of Greatness (or Oneness, or Justice, etc.) arises as the Idea under which the many are comprehended, must not an Idea of the Idea arise which is the source both of the Idea and of its distribution in the many, and then an Idea of it, and so on, until an infinite regress 4a reached (132 b)?

Socrates attempts to evade this by asking whether the Idea may not be only a mental unity assigned to the class. Parmenides shows that even such an Idea would be subject to the same critique,

for an Idea of the Idea would have to arise to give meaning to the first idea, and so on.

Socrates then attempts to say that the Ideas are really patterns fixed in nature, and that things resemble them. This is subjected to the same critique: another Idea would have to arise in which both the pattern and the thing would be like.

The theory, then, that other things participate in the Ideas by resemblance has to be given up, and some other mode of participation has to be devised (133 a).

These are not even the gravest objections which can be raised against the theory of the Forms. Even worse consequences follow once one perceives that the Ideas cannot exist in us or be known by us so long as they remain where they are said to be, for then they are there and not here with us. And if we cannot know them, is there any basis of intelligibility: how can we know, and what can we know (133 b). Parmenides asserts that only a long and laborious demonstration can remove this difficulty, which necessitates much training, (not good eyesight alone).

Parmenides begins then, by facing directly the problem which the Republic began to examine; i.e., if there is a realm of Forms separated from the realm of things, the relation of one realm to the other seems impossible, and with that impossibility of separation, partially bridged by the reluctant admission of images, the basis of true knowledge (and Justice, Good, Beauty, etc.) disappears. One falls thereafter into a "pit of nonsense." The further consequence is that anyone who might have knowledge of the Forms would be unable to have knowledge of us, since we are in a different realm (134 e). Separated realms leads to nothing less than the destruction of reason (135 c). All this arises out of the youth of Socrates, and his lack of training.

Parmenides holds out a hopes he says that there is more truth to be found, if, after affirming the hypothesis of separated realms and inspecting its logical results, the hypothesis is also denied, and

the results of this denial are similarly subjected to logical investigation. One should further test this method by both affirming and denying such hypotheses as the existence and non-existence of the One and the Many, Rest and Motion, Like and Unlike, Generation and Destruction (136 b).

Notice the characteristics of this method. The existence *and* the non-existence, Rest *and* Motion, Generation *and* Destruction, are to be tested. *Both* sides of the argument are to be followed. Nowhere has the question yet been asked whether there *are* two sides. It is assumed. As we shall see, it is this assumption of a dualism running through the nature of Forms, Ideas, things, perceptions, etc., which Plato is subjecting to the light of his analysis.

So much for part one of the Parmenides. In the next portion Parmenides employs his method of affirmation and denial in eight hypotheses. In them, he subjects nothing less than the basis of the theory of Forms to a searching critique.

The first hypothesis of the eight is said to be Parmenides' own One; if this sort of One is, it cannot be many (137 c). From this it follows that it has no parts, no beginning, middle, end, is not like or unlike itself or another, is neither same nor different, is neither at rest nor in motion, is neither great nor small, limited not unlimited, equal or unequal. The relation of the One and time is set forth as follows:

The One cannot be older, or younger, or the same age as itself, because that would imply Likeness, which it was shown not to have (140 a). Therefore it cannot exist in time at all (141 a). "And if the One is without participation in time, it never has become, or was becoming, or was at any former time, or has now become or is becoming, or is or will become, or will have become or will be hereafter."

Most true.

But are there any modes of being other than these?

There are none.

Then the One cannot possibly partake of being.



That is the inference.  
Then the One is not. (141 a)

But can all this be true about the One? I think not.  
(142 a)

The result of the first hypothesis is clear: starting on the assumption of the One as unrelated, it follows that nothing can be said about it, not even that it is One. Assuming the logic to be impeccable, the hypothesis leads to its own contradiction. Such an hypothesis is untenable. Therefore, all the things which we tried to predicate of it, and found ourselves unable to predicate of it, are not predicable of it (*if it is what we assumed it to be*), that is, unrelated. If it is unrelated, it is unspeakably other. Therefore, we must seek for other ways to speak intelligently about it.

Here is the first clear attempt to close the gap between the unreachably eternal and the irrevocably temporal, a gap which is now clearly faced and admitted to present an obstacle to intelligent thought. The One, therefore, cannot be in a completely separated eternal realm. It must somehow be in some sort of relation to the temporal realm. The ways in which the One is so related are the topics of the next hypotheses.

The second hypothesis (142 e–155 a) begins with a different assumption. It affirms that if the One is, its unity and its being are different. Therefore, it is a whole of two parts, unity and being. Each part, furthermore, is a one (142 d). Therefore, the One of hypothesis II contains division within it, and therefore becomes the recipient of the predicates which its former indivisibility made impossible. It is now, however, susceptible of both sides of the pairs of contraries which were formerly inapplicable. It is now One and Many, Infinite in number and Limited in number, Same and Other, in itself and in another, at Rest and in Motion. Further, these predicates are both applicable by affirmation, but, because each pair is contradictory, they are also inapplicable.

If the One is a One of parts, it partakes of time, which is always moving forward (152 a). Therefore, the One becomes older,

younger, and is the same age as itself. Yet, Since it is the same age as itself, it is neither older nor younger than itself (152 e).

In the same way, it is younger, older, and the same age as the Other and the Others (153 e). And, in the same way, it is not older, younger, or the same age as the Other or the Others (154 a).

Therefore, since the one partakes of time, and partakes of becoming older and becoming younger than itself and the Others, and neither is nor becomes older or younger than the Others, the One is *aid wee* and will be, and was becoming, is becoming, and will be becoming. "And, if we are right in all this, then there is an opinion and science and perception of the One" (155 d).

Two conclusions may be drawn from the second hypothesis. First, the One, by hypothesis, is no longer so separate and so isolated that nothing can be known or said of it, so that it is now said to be in time and becoming, *and* not in time and becoming. Second, it is, by the same token, *both* like and unlike itself. But this is far from the final doctrine of the Parmenides.

In the first hypothesis, the One was indivisibly One and nothing could be said or known of it. In the second hypothesis, the One is divisible and therefore, everything can be said and known of it. But this is nor more satisfactory than before. Previously, we avoided contradictory predications at the expense of knowledge; now, we have knowledge, but it pays the price of contradictory predications. Since it is no more helpful to say everything of it than it is to say nothing of it, another way must be found to discuss the One intelligently.

Hypothesis IIA interposes another method by which the One can be intelligently discussed. The One cannot be the bare unity of hypothesis I nor the divided unity of hypothesis II. Hypothesis IIA tries to see whether one can avoid the scandal of contradiction by making predications of the One at different instants, so that there will be no one time at which the contradictory predicates of hypothesis II need to be applied simultaneously. In its own way, it introduces some considerations of not-being, which, as we shall

see, are pursued further in subsequent dialogues, especially in the Sophist.

If, as hypothesis II asserts, the One is divided, and partakes of time, it cannot both be and not be at the same time (155 a). (This is precisely what is to be proved). Therefore, there must be an instant between the instant when the One is (said to be anything) and the One is not (said to be anything) (156 a). Similarly, there must be an instant between its generation and its corruption. In the same way, there must be an instant between the instant when the One is in motion and the instant when the One is at rest, when it is like and when it is unlike, etc. The strange instant between the instants at which predication may be asserted is a very peculiar sort of instant, for, if the predicates which we assert of the One are asserted of the One insofar as it is in time, the instant between these instants cannot be in time, and might therefore be called not-time. Plato does not use this term. He calls it "queer instant" and says that the divided One of hypothesis II leads to the conclusion of contradictory predicates, and that these cannot be simultaneously asserted (157 a). But if they cannot be asserted at the same instants, perhaps they can be asserted at different instants. Yet at any given instant, if we do not assert *both* sets of predicates *and* neither, (i.e., both affirm and deny them) this instant cannot be in time at all.

Hypothesis IIA may be called the "linear" hypothesis, by which is meant that in it, time is examined as if it consisted of a series of instants, a sort of Zenoism of time, an imaginary line. Plato here applies the third man argument to a linear image of time, a series of instants, yet, if time is a series of instants, a third instant will always be found between the two surrounding instants at which predication is made. It seems that Plato here asserts that time cannot consist of a series of instants and that predication is made impossible by so viewing it.

If becoming, motion, change, generation, alteration, and locomotion are in time, and their contraries are also in time, we cannot avoid the difficulty of contradictory predication by assuming that time is a series of instants, nor can we say that the pairs of pred-

icates switch over from one instant to another in an interstitial instant. For, if a predicate is asserted of the first instant and the contradictory predicate is asserted of the third instant, at the point of the second instant, nothing can be asserted, and we are back to hypothesis I where we can neither affirm nor deny anything of the One. However, this philosophical gymnastic has not been unfruitful. We know now that the need to make intelligent statements about the One is not satisfied by assuming that it is a completely separate One. We know that we cannot say that it is completely divided, for then it is really a Two. And we know that we cannot insert the instant between the One and the Two in order to fasten predicates on either end and allow the middle to be the transition, for then the middle is neither One nor Two.

I hope it does no violence to the spirit of philosophical continuity to say at this juncture that the remainder of the Parmenides may be briefly summarized. The Parmenides does not attempt to solve its problem within itself, but leads one beyond it. The third hypothesis points out that parts in their multiplicity, and parts in their relation as parts of a whole, must be distinguished, and on this basis, their limitation and relative infinity can overcome the contrariety they seem to suggest. In this way we avoid the contradiction of saying that the parts are both limited and unlimited and therefore cannot be predicated of the One. In fact we must say that the parts participate in the One as parts, but that parts by them selves are merely unlimited.

The fourth hypothesis considers the relation of the One to Others, that is, each part, as a One, has some of the properties of the Other insofar as it is a part. The fifth hypothesis considers the need to understand how the One, the parts, and the Others limit each other. (This point will be pursued at some length in the Philebus). The sixth hypothesis examines the characteristic of the Other insofar as it is only other. The seventh hypothesis considers the result of assuming the existence of the many without assuming the existence of the One. This is said to result in mere opinion, which is inadequate precisely insofar as it sees only the many as many and ignores the many as parts of the whole. The

elgth hypothesis points out that the assumption of the existence of the Many without the One results in a contradiction because without the One there is no Many.

### 2.3.5 Summary

I would like to summarize the doctrine of the Parmenides insofar as it pertains to the hypothesis of this study. It is, I think, an examination of the naive assumption that the realm of the Forms in its bare unrelated purity renders intelligent predication, and therefore, all intelligent discourse, impossible. It asks how and in what way we may *both* speak of the Forms *and* speak of appearances without separating their respective realms. It states that the realms are related (in some way-hypothesis III) but it never really reveals this way with any precision or clarity.

However, for the purposes of this study, an important, conclusion has been stated. We saw in hypothesis IIA, that it is not possible to regard time as a series of instants strung out along an imaginary line, and that the instant is, in some way, not-time, a "queer instant."

As we shall see, in one of the next dialogues, the Sophist, the generalization of this problem of not-time is examined: i.e., the problem of not-being. A new method of division of predicates is introduced in the Sophist and developed in the Statesman. The question of limit and measure is examined in the Philebus, and, finally, the divisions of becoming and the nature of time are examined in the Timaeus.

However, between the Parmenides and the Sophist there is another dialogue which intervenes, the dialogue which is generally agreed to follow the Parmenides. It seems to be the task of this next dialogue to examine the protagonists of hypothesis VII, in which it is said that there are those who hold that the Many exist and can be known. This is the subject of the Theatetus.

### 2.3.6 The Theatetus

This dialogue sets itself the problem of examining knowledge, and asks itself to answer such questions as "do we know," "how do we know," and "are there kinds of knowledge." Where the Parmenides focused on the consequences of hypothesizing that the realm of Forms is completely separated from the realm of things, the Theatetus inquires into the basis of knowledge from the other direction, namely, it focuses on the world of things and seeks the basis for speaking of it intelligently and knowingly.

In the interests of brevity, only those portions of the Theatetus which are directly relevant to the analysis of the themes of eternity, image, and time will receive comment in what follows, and no implication should be drawn that the entire significance of the dialogue consists in these portions to the exclusion of other important aspects of the dialogue. It is the business of the following comments to focus on the significance of the problem of knowledge and the attendant problem of error to show that the Theatetus constitutes something of an advance over the Parmenides precisely because it takes some of the conclusions of the Parmenides into account.

Theatetus suggests that knowledge is perception (151e). Socrates reminds Theatetus that this position makes all knowledge infallible, and that this same doctrine fits Heraclitus, Empedocles, and Homer, indeed, fits a whole tradition, with the single exception of Parmenides. According to this tradition, all things are in a perpetual becoming, and therefore we may not say that things are being or something, because they are all in flow and flux (152 6). In perception as well as in matters of the soul, motion, not rest, is the source of health, according to these philosophers.

Socrates then reaches the conclusion that whatever appears can only be while it is appearing. He remarks "Let us follow out our recent statement and lay it down that there is no single thing that is in and by itself" (153 e), as if Socrates were testing the

hypotheses of the Parmenides in the realm of perception. Thus we read "...nothing can become greater or less either in size or in number, so long as it remains equal with itself" (155 a). Again, we find "...a thing to which nothing is added and from which nothing is taken away is neither diminished nor increased, but always remains the same in amount" (155 a). And "...must we not say...that a thing which was not at an earlier instant cannot be at a later instant without becoming, and being in process of becoming" (155 b)? On the basis of these axioms, things both change and do not change and are perceived and are not perceived. "The conclusion from all this, is, as we said at the outset, that nothing is one thing by itself but is always in process of becoming for someone, and being is to be ruled out altogether" (157 b). All is flux, each is flux. Socrates wants to make sure that the point has been firmly made so he asks: "Once more, then, tell me whether you like this notion that nothing is but is always becoming good, or beautiful, or any of the other things we mentioned" (157 d).

The bearing these questions have on the three themes of eternity, image, and time which we are pursuing is, briefly, this; perception deals with appearance and the world of appearance is a fluxion in which all things are becoming. Therefore, the forms cannot be located in a completely separate eternal realm which guarantees knowledge. Yet we seem to know. The question is, are the images which perception furnishes us true because they are neither eternal nor mere appearance? Plato is again posing the problem: how can the visible world participate in the eternal world? In the Theatetus, the question becomes: do the images which perception gives us make possible a knowledge of the eternal?

Socrates reminds us that the "men of flux" constitute only one group, which is opposed by another group, consisting of Parmenides and Melissus, who hold that "all things are a unity which stays still by itself, having no room to move in. How are we to deal with all these combatants? For, little by little, our advance has brought us, without our knowing it, between the two lines..." (180 e). Socrates says that the inquiry will succeed best if the flux

doctrine is examined, and if the re-examination of the forms is postponed (183 a).

But let us not be deceived by the statement that Parmenides' view is to be postponed. For, no sooner has Socrates said it, than he enters into discussion of what is known, and, asks whether all the things that we say we know are perceived by sense. We say, for example, that a flower is white and that the flower is. Surely the faculty that says it is white and no white and the faculty that says it is and is not, surely these cannot be the same faculty.

You mean existence and non-existence, likeness and unlikeness, sameness and difference, and also unity and numbers in general as applied to them; and clearly your question covers even and odd and all that kind of notions. You are asking through what part of the body our mind perceives these? (185 c)

Socrates congratulates Theaetetus on reaching the conclusion that the mind is its own instrument in perceiving, since it saves him a long argument (185 e). Thus, we go beyond the statement that knowledge is perception, for we know the existence of a thing not by perception but by the mind's reflection on something perceived (186 e). And this reflection is temporal, for all those qualities of which we spoke (the Parmenidean pairs of contraries) "seem to me above all to be things whose being is considered, one in comparison with another, by the mind, when it reflects upon the past and present with an eye to the future" (186 a). Such reflections upon perception only come, if they come at all, to those who go through a long and troublesome process of education (186 c). For, if one cannot reach the existence of a thing, he cannot reach the truth (186 c).

Welcome as it seems, this statement only pushes the difficulty further back. If the mind's reflection on itself is like two voices of the mind speaking to each other, why do we assume that the voices always agree. Cannot the voices of the mind disagree; in short, are all judgments necessarily true? We dismissed Protagoras because



he made all perceptions infallible: are we to say we have gone beyond his position only to assert that all judgments are infallible (187 a).

The suggested approach to the problem of false judgment is the famous allegory of the wax tablet (191b ff.). We are asked to imagine that the mind contains a wax tablet and that its quality varies in different people: some have good, clear, firm, wax, others have unclear, muddy, soft, wax, and so the images which perception imprints on the tablet vary. In addition, the strength of the imprint varies. Images are the gifts of Memory, so that, in any act of knowledge, we must now distinguish the memory image, the perception (the present image) and the mind's knowledge (reflection on images with "an eye to the future").

Notice that the basis of this division is temporal, and not a static hierarchy. Images are not discarded merely because they are "low," and knowledge is not better merely because it is "high": we are now asked to see that false judgments can arise out of faulty matching of remembered images, present images, and reflections on images with "an eye to the future." This is a significant advance over the Republic.

The discussion of knowledge is further complicated because we may confuse past images with present images, past perceptions with present perceptions, past knowledge with present knowledge, and each of these may be faulty both by reason of faulty wax, varying strengths of impression, or mismatching. Even Theaetetus complains of the complexity. In addition, we have again only pushed the difficulty further back, because we are assuming that the mind is infallible, and that is just the problem we wanted to investigate. "That was the very ground on which we were led to make out that there could be no such thing as false judgment: it was in order to avoid the conclusion that the same man must at the same time know and not know the same thing" (196 c).

Socrates reminds Theaetetus that the whole conversation assumes both that we know, and that we do not know, what we say. If we do not assume that we can know, conversation is impossible

(197 a); If we do not assume that we may not know, all knowledge is infallible.

Another allegory is introduced to supplement the wax tablet. It is the allegory of the Aviary. Where the allegory of the wax tablet was concerned with images and the possibilities of conflict between images and reflections on images, the allegory of the Aviary is concerned with flying birds, which symbolize reflections i.e., thoughts. Although reflection upon images gives rise to thoughts, these thoughts soar and must be recaptured in recollection if we are really to know. Here again we are shown that there is a temporal emphasis to be placed on the acts of knowledge, for, in a sense, knowing is relearning what we knew before (198 e). Yet, if we ask whether some of these recollections might not also be false, we see that the criterion of true knowledge remains to be found (200 b).

Perhaps there is no way to define knowledge, and we must content ourselves with the statement that perception gives rise to true belief and opinion.

Socrates shows that this conclusion is due to an inaccuracy. For example, he says, the syllable was not, until the letters were combined in just that fashion; it is a one *after* its parts become parts of it (204 a). Here is another recapitulation of the arguments of the Parmenides. It is the same with number: a sum is not a sum *until* its component integers are added, and only thereafter is it one sum (204 e). But this is the distinction to be made (as it was made in the Parmenides): the whole consists of the parts; not just any parts, considered in themselves, as unrelated ones, but parts as related. In other words, the difficulty is only apparent, and it vanishes as soon as we see that the whole and the parts are not two different things in isolation but related aspect of a One (205 b).

To conclude, then; if, on the one hand, the syllable is the same thing as a number of letters and is a whole with the letters as parts, then the letters must be neither more nor less knowable and explicable

than syllables, since we made out that all the parts are the same thing as the whole (205 a).

Therefore, Socrates concludes that those who hold that the elements or the whole are more or less knowable than each other, are playing with us. We can know the elements, as parts, and therefore, an opinion with an account is knowledge.

But what is an account (*logos*)? It cannot be only an enumeration of parts as isolated parts (207 e). The other meaning might be "the image of thought spoken in sound" or language (208 c). This is the problem, not the answer. Perhaps marking off a thing and distinguishing it from all others constitutes a good account (208 d). An account will then mean putting the thing's "difference" into words. (209a) But Socrates quickly shows that we must first *know* the common to distinguish the different, which begs the question of knowledge. (209 e) Therefore it does not seem true to say that knowledge is opinion with an account of difference, unless we already know the common on the basis of which we distinguish the difference. (Although this is what we do, it is not a definition of knowledge since it includes "knowing the common" in its "definition").

The dialogue ends a few lines later with Socrates saying that all the definitions of knowledge so far adduced are mere "wind-eggs" (210 b). Theatetus is told that the mid-wife's art is a heavenly gift which Socrates uses on those in whom beauty resides, and that as a result of this gymnastic they have engaged in, Theatetus will thereafter be better enabled to know what knowledge is. The conclusion, on the surface, is that we know, but cannot define what knowledge is. Actually, we have said several things about what it is not, and therefore Theatetus has made progress along the "long way" which is required for this sort of knowledge. That is why the last words of the dialogue are "But tomorrow morning, Theatetus, let us meet again" (210 d).

### 2.3.7 Summary

What have we learned about eternity, moving images, and time? A great deal, it seems. And what we have learned cannot be separated from the doctrines of the dialogues we have considered so far. We see in the Theatetus that some of the positions of the Republic and of the Parmenides have been reexamined and certain modifications have taken place. We know now that knowledge must include, but is not exhaustively defined by, moving images of thought, (birds); that we cannot refer to parts in isolation but must discuss them as they are related in a One; that the mere enumeration of elements does not comprise an explanation; and, above all, that we know, but do not know how we know. In addition, and perhaps this is the most striking conclusion of all, we have seen that the mind can be viewed as conversing with itself, and that this internal dialogue consists of the attempt to put images and reflection on the past, present, and future in their right order. We have advanced far beyond the naive view that the mind is a static camera whose job it is to escape the transient shadows of perception in a flight to eternal forms. We are now told that it is the task of mind to discern the right temporal order of its ingredients, so to speak. However, even after all these things have been done, we still do not have a definition of knowledge. The important point to notice is that the steps and hypotheses of the Theatetus are no longer regarded as inferior but as necessary preliminaries in the "long way" which the mind must take to true knowledge.

Somehow, we have found, not what knowledge is, but what complete knowledge is not. This insight, namely, that somehow what is not, in some way, must be included in what is, will be examined in the next dialogue, the Sophist, which can, from certain points of view, be regarded as a triumphant breakthrough into another whole way of philosophizing.

### 2.3.8 The Sophist

We enter now into the series of dialogues unanimously regarded as the late group, in which Plato's evolved reflections are to be found. The Sophist begins with a dramatic introduction which includes the participants of the Theatetus, but now we meet an additional person, an Eleatic Stranger. This seems to be the fulfillment of the Theatetus' promise to consider the Parmenidean approach to truth after the Theatetus dealt with the "men of flux." It is further interesting to note that the Stranger begins the whole dialogue by using a method which is unavailable to the men of flux, namely, the method of division, which seemed to the men of flux to presume knowledge, not to seek it. (This point will be expanded in the Statesman). The Stranger does not allude to this hypothetical difficulty, and he employs the method without question. This confirms the hint that we are now to inspect the heritage of the Parmenides, not in the manner of the Theatetus, nor exactly in the manner of the Parmenides, but in some new way to deal with philosophical inquiry. And, as we shall see, we are told new things about eternity, images, and time.

It is agreed that a trial run of this method should be had before the Sophist is defined, and they agree to use an easy example, the angler one familiar to them all. This is important because it assumes the results of the Theatetus; the angler is at once a familiar experience but an undefined reality.

The definition of the Angler is reached, and the method of "halving" is satisfactorily put to the test. What is of special interest to us here is the difference between this kind of division, and the method of elimination which Plato had previously used in the Republic. In the sort of dividing which Plato accomplishes here, it is necessary for the divider to proceed very carefully and to divide the subject into exact halves, so that only what actually pertains to the subject is retained and what is found not to pertain to the subject nevertheless reveals something about the subject (221 b). If the division is not well made, the remainder will contain too much, that is, the definition will remain too vague. Only

by carefully determining what something is not can one reach a precise knowledge of what something is. Thus it is incorrect to equate the method of division which we find in the Sophist to the method of residues which we confronted in the Republic. The latter proceeds by eliminating classes of objects, the former by dividing within a class of objects.

It is necessary to notice, however, that the Stranger provides the divisions, and that Plato passes over the fact that in some way the Stranger knows what divisions are most helpful. It is almost as if the Stranger already has a higher wisdom. In other words, he does not draw his distinctions from appearance, but somehow draws them from a higher kind of knowledge. It is important to emphasize this point because it is in strong contrast to the method advocated by the men of flux in the Theatetus.

Having defined the Angler, Socrates now attempts to define the Sophist. To those he convinces, the Sophist seems to know all things, and to be versed in every art, but such competence is impossible. Now we approach the central concern. For the Sophist cannot truly be what he claims to be, yet he certainly appears to be. Appearance and reality cannot be the same, yet the question is, how do they differ. This question might be called the most important question in all of Plato's dialogues so far. The definition of the Sophist, then, is a case in point: we are to investigate this partisiuen gentleman, as we investigated the Angler, in order to discover how reality is, and what appearance seems to be; in the language of this study, how the eternal forms are related to the temporal world.

The Stranger asserts that the Sophist is an imitator, and that sufficient division of the imitative art will reveal him. Just as imitation may be divided in two kinds, so the images which imitation produces are of two kinds; some images (*eikastike*) are like reality in that they are faithful to the proportions of the original (235 d); others distort the proportions of the reality, and these we shall call fantasies (*phantastike*) (236 b). But now the problem becomes even greater, because to distinguish the image from the reality we

have to say that the image is not the reality. How can a man say what is not true, or assert the existence of what is not. The word which Parmenides forbade Must be uttered—not-being (237 a). No sooner do we distinguish the image from the reality than we distinguish not-being from being. At this point, Plato leaps beyond the level of Parmenides' and of his own earlier philosophy, and reaches out into virgin territory. And at this point, Plato's most crucial discussion of the meaning of the word image is begun.

Surely, the Stranger asserts, we cannot just say that what is, is not. Yet we say "not-being" as if it were a singular; we say "not-beings" in the plural. We agree that not-being is unutterable and inconceivable, and yet we speak the words; in short, in the act of saying we cannot say it, we are saying it (238 c). This is the dark hole into which the Sophist retreats when we try to refute him, for, if we say that an opinion of his is false, we assert that it is-not true, and in so doing, we assert that it is-not, and he thereby chides us on this contradiction (239 a). This is precisely what happens if we ask him what an image is. "How can I describe an image except as *another* made in the likeness of the true" (240 a). But if it is *other* than the true, it is *other* than what is, and hence it is not. The Stranger then begs not to be accused of patricide, for, if they are to catch the Sophist in their dialectical trap, the philosophy of Parmenides must be put to the test (241 d). In a certain sense, we must say that not-being is, and being is-not.

The Stranger then says that the predicament in which they now find themselves is due to the fact that the former philosophers treated their hearers with disdain, as if dealing with children. They followed their arguments wherever they led and left the children to wonder at their meanings, because they spoke in myths, among which he classes the One and the Many (242 e), the myths of strife and peace, the three principles at war in the soul, the moist and the dry, and includes in this group the Ionian and Sicilian explanations in mythical garb (242 d). He says that a discussion of most of these myths may be deferred to a later occasion; at present, the chief of them will be discussed; the myth of the One and the Many.

The Stranger proceeds to recapitulate several of the points made in the Parmenides, citing this as the main difficulty among all those presented by the myth-makers. He shows that both the unity and the existence of a One cannot be the same parts, nor can any of the pairs of predicates be reduced to a simple identity, since, if one of a pair is chosen as being, the other must then be other than being, i.e., not-being (245 d).

The materialists who claim that only the tangible exists are then subjected to a critique. Their opponents are also brought forward, and these are the "friends of the Forms," who dissolve tangible realities in a sea of corruption and generation. None of these schools, Plato tells us, are able to deal intelligently with the question now before them: the question of not-being. Having reached this point, Plato can no longer choose from existing alternatives. The Stranger says "Let us improve them, if we can" (245 e). The doctrine he develops to accomplish this improvement is the doctrine for which this dialogue is noted, the doctrine of not-being. It must be shown how justly this doctrine may be said to constitute an advance, by comparing and contrasting it to earlier philosophies. For example, if, on the one hand, the materialists were to admit that there is a difference between things and thoughts, they would be forced to admit that there are some incorporeal existences, and if this were admitted, they could be asked Whether being is common to both. If on the other hand, the friends of the Forms distinguish between what is and what is generated, both being and generation will have to share in something common, just as the materialists had to admit that something was common to things and thoughts (248 e). Now both the materialists and the friends of the Forms are caught. As soon as the friends of the Forms admit that knowing and being known are different, that one is active and one is passive, they will see that one is powerful, the other is not. Thus the Stranger suggests that Being is Power. If the friends of the Forms deny this, by claiming that knowing is only a motion as in generation, there will be no knowledge at all. So there must be motion in knowing. "and, Oh Heavens, can we ever be made to believe that motion and life and soul and mind are not present with Being. Can we imagine Being to be devoid of life and



mind, and to remain in awful unmeaning and everlasting fixture" (248 e)? Clearly, they cannot. Therefore, "We must include motion under being, and that which is moved" (249 b).

As we shall see, this is an important anticipation of the Timaeus. And yet, if all things are in motion, there can be no sameness or permanence or relation to the same. The philosopher must be equally deaf to those who say all is in motion and to those who say there is no motion. Somehow, we must have both, yet somehow we can have neither alone. Further, if we have only a third, this third will not be either nor will it be both (250 b).

This is not the place for a long discussion of the Stranger's solution to this difficulty. We are interested only in its relevance to the themes of eternity, image, and time. Suffice it to say that, in the following brief summary, I am all too aware of the danger of flatly stating the results of a long philosophical process. However, brevity must be attempted.

We see, then, that being and not-being are equally perplexing. The Stranger suggests that we try to work out the doctrine of not-being, in the realm of predication. Can we say that all of the Forms indicated by names, of which there are thousands of pairs, can be mixed with each other, or only that some forms mix, or must we say that no forms mix (251 d).

These tentative conclusions are tested on the examples of grammar and music, where we see now that only some letters go with certain others, and only certain notes go with certain others. Similarly, he who develops the art which knows which of the forms go with which other forms, is truly the philosopher, and the art of division is his art and his alone.

The philosopher knows that Rest and Motion, Same and Other, are the most general divisions of being, although he is hard to see by excess of light (254 a). (As we saw in the Republic cave). Rest and Motion do not communicate with each other, but being communicates with them both. Same and Other do not communicate with each other, but being communicates with them both. But

Motion and Rest communicate with Same and Other, and therefore, Motion is both Same and Other than being. In other words, Motion is both being and not-being. And Rest is both being and not-being. And Same is both being and not-being. "Every class, than, has plurality of being and infinity of not-being" (256 e). And

Whereas, we have not only shown that things which are not exist, but we have also shown what form of being not-being is; for we have shown that the nature of the other exists and is distributed over all things in their mutual relations, and when each part of the other is contrasted with being, that is precisely what we have ventured to call not-being. (258 e)

There is one last refuge, the realm of images, into which the Sophist will now try to escape. The Sophist will contend that only some images partake of falsity, but the ones that he uses do not. Images are again divided, as before, into two sorts, the images which are like the original in proportion, and the others, which are fantasies and distortions. If the art of philosophical division will be applied to images, the Sophist will be deprived of his last refuge (264 e).

Since images are either divinely produced or humanly produced (265 b), the Stranger himself suggests that they discuss divinely produced images at greater length.

Looking now at the world and all the animals and plants which grow upon the earth from seeds and roots, and at inanimate substances which form within the earth, fusile or non-fusile, shall we say that they come into existence, not having existed previously, in any way but by creation of God, or shall we agree with vulgar opinion about them? (265 c)

Notice that the creation of the world is spoken in a context of a division of *images*, not of *Forms*. Plato will expand on this point at

much greater length when he reaches the Timaeus, but now, since Theatetus agrees with him the Stranger says he will postpone this extended discussion: right now he wants to trap the Sophist, once and for all.

We now confront, yet again, a divided line. But, like the previous discussion of images, it is a more developed doctrine than it was in the Republic. Having divided image-making into human and divine, we now must divide images into genuine images and fantasies (266 e). Thus, there are both human and divine images, and human and divine fantasies. As an example of divine images which are genuine, we have the whole world of things. As an example of fantasies, we have shadows caused by things interrupting firelight, as in the analogy of the cave. Human images can be seen in those genuine imitations which preserve the proportions of the originals, as for example in true speech. The next subdivision, false images, or human fantasies, is found to be the realm of the Sophist.

One further division remains. He who imitates and knows that he imitates genuinely, is not a Sophist, but a philosopher. It is the Sophist who imitates fantasies.

### 2.3.9 Summary

What have we learned from this dialogue, with reference to the themes of eternity, image, and time. Obviously, the most significant doctrinal advances were made with respect to images, where we learn that their production is both a human and a divine art. But more deeply, it has emerged that not-being cannot be divided absolutely from being, and that the entire realm of things is suffused with both being and not-being. One is tempted to assert that the gap between the realms of eternity and time has been closed, but Plato has not explicitly said this and the adoption of this conclusion would be premature. What has been explicitly shown is that the Parmenidean isolation of the One, beyond all predication and therefore beyond all time is unfruitful, and Plato has advanced beyond the Parmenidean position. The realm of the

Forms cannot be a separate realm, as it was described in foregoing dialogues. Just as we have advanced from a faulty conception of being through a notion of not-being, so we have advanced from a faulty notion of the realm of the Forms through notions of what the Forms are not. Of time, we are told little in an explicit way. But one should notice that the Parmenidean "queer instant," what we have called "not-time" has been generalized, for the Sophist shows that not-being is to being what not-time is to time.

### 2.3.10 The Statesman

The participants of this dialogue begin their dialectical search for the definition of the Statesman, utilizing the method of division developed in the Sophist. But, the Eleatic Stranger now cautions the hearers not to divide arbitrarily and too quickly, but to make sure that the divisions they follow in the argument are real divisions into real classes, and not arbitrary divisions for which names are invented.

The general point deserves to be underscored. Plato is reminding us that division which proceeds only in haste to reach a fore-ordained conclusion is sophistic. Such a division ignores the fact, established in the Sophist, that not all classes communicate with each other, and so division must follow the lines which mark off real classes from fantasies. "We must not attempt too general a division of the class..." (263 e). "More haste...(means)...less speed" (264 b). It is especially necessary to draw out the implication that an empirical acquaintance with classes of objects is necessary for the process of right division.

the dialogue proceeds with the method of dividing until it reaches the conclusion that the Statesman is he who uses the predictive art of knowledge, runs herds of living things, which live on land, who are hornless, who do not interbreed with other classes of animals, and who are two-footed. But the Stranger is not satisfied (267a,b,c). For, unlike the shepherd, the Statesman's right to rule is disputed by the herd. A new beginning must be made. 'the Stranger announces that he will approach the subject by em-

ploying a myth. But the Stranger says that his tale is not to be a retelling of the familiar myth of Kronos, but the Stranger's own version, which, he says, is the basis of all such stories. In so saying, Plato undercuts the myths he has told in the preceding dialogues, from the myth of Er in the Republic, through and including the One and Many, which he presents and criticises, respectively, in the Parmenides and the Sophist. We shall see that even the myth of Kronos shall be transcended in the Timaeus.

The Stranger tells us that the universe was once helped in its rotation by the god who framed it in the beginning, but that it completed its circle of rotation and then set itself in rotation in the opposite direction. It did so of its own natural *necessity*, which the Stranger will now explain (269 d).

It is the only prerogative of divine things to be steadfast and abiding, but the universe, since it partakes of the bodily, cannot enjoy this rank. However, as far as possible, it will have uniform rotation (269 e), and rotation in reverse is at least in a uniform direction, which is as close to the divine as it can be. Even the divine god could not change this direction for it would violate eternal decrees. Therefore, there are many things we cannot say of this universe: neither that it revolves entirely by itself, nor that the god revolves it in its entirety, nor that a pair of divinities revolve it in opposite directions (270 a). In one era it is moved by the god and has its own sort of immortality, in another era it revolves by itself of its own momentum.

At the time when the reversal of rotation takes place, human life experiences great changes. The course of life itself reverses, and the old grow younger and younger become children and finally wither away (270 e). On the other hand, the race of earthborn men, long dead, now are reborn out of the earth, as they were in the former rotation (271 c).

Since a reversal of motion takes place at both the restoration of proper motion and at the onset of reversal, the Stranger tells about the time when the universe was helped in its rotation by the god. In that era, all things came about without men's labor. When

this god was shepherd, there were no political constitutions and no personal possession of wives or children, since all men rose up fresh out of the earth with no memories. (This is the analogue of the "waters of forgetfulness" in the myth of Er). Neither did they need clothing or beds but disported themselves in the open. Such was the reign of Kronos (272 b).

"The crucial question is—did the nurselings of Kronos make a right use of their time?" (272 b) They certainly had the opportunity to engage in philosophy, since they had the requisite leisure, and if they did, their happiness would be a thousandfold greater than ours. "Be that as it may, let us leave this question aside until we find someone (Timaeus?) who can inform us accurately whether or not their hearts were set on gaining knowledge and engaging in discussion." (272 d)

When the era of Kronos came to an end, the drastic experiences of reversal of motion again took place. The god released his helping hand and a great shock went through the earth. It tried to follow out the instructions given to it by its father, but gradually the bodily element gained sway, and it approached the primordial chaos out of which it had been fashioned (273 b). At this moment, the god again beholds it, and seeing its time of trouble, again resumes the helm.

But we are not now in the era of Kronos. It has now been ordained that the universe must take sole responsibility for its course, and, following and imitating the change in the universe, all things have to change, and, in particular, a new law of birth and nurture is now binding on all creatures (274 8). Since we do not have this guardianship of the god to follow, but, "imitating the universe and following it through all time, we live and grow at one time in this way and at another time in that" (274 e). As we shall see, the Timaeus advances beyond these doctrines, especially beyond this particular doctrine of necessity.

The relevance of this myth to the definition of the Statesman is now revealed by the Stranger. Since there are, in either era of rotation, men who were sired in the former era, we must be careful

to look for the right models of the Statesman. In the era of the gods' rule, the shepherds experience no strife, since all is in harmony; but in the subsequent era, the shepherd is forced of *necessity* to care for a strife-torn flock. Which of these is the Statesman most like (275 a)?

Before answering this, let us note that there are several features of the myth of Kronos, as the Stranger composes it, which pertain to our tracing the themes of time, image, and eternity. We are told that the universe is framed by inserting order into chaos, that time is governed by the motion of the revolving universe, and that the bodily element is the cause of the corruption and decay of an era. This would seem to reverse the claim of the mature character of the Statesman, since it resembles the doctrine of bodily imperfection, an early doctrine. However, it is a children's tale, and, as we shall see, Plato will not allow it to pass without criticism. The most important feature, for our purposes, is the intimacy with which the notion of right rule is connected with the right time and the right revolution of the spheres. We have come far from the bland assertion that there is a single pattern laid up in heaven which he who is willing can easily discern. Now we are charged with the need to see how right order in the state is dependent on the order of the heavens because they are linked by time. We should further note the Statesman's anticipation of the Timaeus in its description of the demiurge and the world soul in the universe described as a living creature.

It emerges that the whole reason for the recounting of the Kronos myth was to show that the first image of the Statesman was incorrect, because it really represented a Statesman from the wrong cosmic cycle, inappropriate to the cycle we are now following (275). The shepherd of the other cycle is much more like a divine shepherd, whereas our cycle seems to produce tyrants. Even so, the myth of Kronos is insufficient, and it is said to be too long. It was assumed that a grand myth was necessary, as fitting kingly responsibility, but, as usual, we went too fast in our haste to arrive at a definition (277 b).

The Stranger admits that it is difficult to explain anything without the use of examples, and he is now in the strange predicament of using examples to explain his doctrine of examples (277 d)! The familiar pedagogical device of the alphabet is again resuscitated, and the use of known syllables next to unknown syllables is put forward as an instance in which similarities and differences can be distinguished (278 b). Our own mind reacts the same way to the letters with which the universe is spelled out. (Again, the cosmological concern) The Stranger admits however, that notwithstanding his familiarity with the letters in one combination it is difficult to recognize them in another setting (278 d).

Another analogy is introduced, and this time it is the weaver's art. A long semi-technical discussion of weaving arrives at the fact that the weaver is a uniter, but he needs the carder, who separates fibers, so that the weaver's art consists of both separating and combining (283b) In other words, the proper art of dialectic consists in the skillful handling of both the warp and the woof of being, or, as we saw in the *Sophist*, the correct analysis of being and not-being. It is noteworthy that the Stranger here, as he did in the *Sophist*, agrees to supply the divisions, or else the argument would have become interminable. Here is another hint that he who uses the method of division must know in advance where he is going, a point which the men of flux advanced. But, instead of confronting this objection head-on, the Stranger attacks it from another direction; through the question of relative measure, of excess and of defect.

It is quickly ascertained that if the greater is greater only by relation to the smaller, and the smaller is smaller only by relation to the greater, there is no way to say what is right in itself (283 e). Therefore, there must be a standard of *wieaeuse* to which they both approximate in some way. (And so the Forms are reasserted.) In the same manner, if there were no standard, there would be no way of dividing the unjust from the just man, nor, for that matter, would it be possible to discern the right practice of any art. "Must we not do now what we had to do when we discussed the *Sophist*. We felt constrained there to admit that what is not-x



nevertheless exists..." (284 b) So there must be two standards of measure, one having to do with measures relative to each other, and the second those which "comprise arts concerned with due measure, due occasion, due time, due performance, and all such standards as have removed their abode from the extremes and are now settled about the mean" (284 e). This seems to refer to the Pythagoreans, who assert that measure has to do with all things brought into being, but who fail to see that there are two sorts of measure, and who therefore are prohibited from seeing that there are real classes of things with affinities for one another, just as there are real differences between some things which therefore have no affinity for one another (285 a–c). It is necessary to divide according to real classes, not merely to divide every item from every other. This is another recapitulation of the Sophist: only some forms communicate with each other.

This view is asserted in another way when the Stranger says,

Some of the things that have true existence and are easy to understand have images in nature which are accesible to the senses, so that when someone asks for an account of any one of them, one has no trouble at alleone can simply point to the sensible image and dispense with any account in words. But to the highest and most important class of existents (being) there are no corresponding images, no work of nature clear for all to look upon. (285 e)

In short, the classes of being have images, but being itself does not. The important political corollary of this becomes evident in the Stranger's description of the unlikelihood of the many ever achieving the art of statecraft, since the true science of statecraft is like the true science of being: it has no images, and it would be quite out of the question to look for fifty kings at any one time. (292 e)

It is important here to comment on what has been said about the lack of images of being, for, at first sight, it seems to contradict

the trend we have been tracing through the late dialogues. Plato has told us (in the Sophist) that only some of the classes of being communicate with each other, and he reminds us of it here. When he says that there are no images of being, he seems to mean, that there are no sensory images for the sort of pure unmixed being which Parmenides described. But we have already seen another sort of being in the Sophist. The lack of images, then, pertains to the classes of being, not to being as such nor to beings as such.

I do not wish to enter into a lengthy exegesis of the Statesman concerning law and political philosophy. Let it suffice here to write that the Statesman should possess the true art of law-making, that this art depends on his real knowledge, of which the laws will be images, and that he shall have to weave the special knowledge of the special departments of life together as best he can, for he can best do so. Those who follow those laws, and who know them to be images, live in Justice. Those who follow the laws and do not know they are images, at least follow a just life unknowingly. (291–300)

The final task of the dialogue is to describe how the life of the state is woven by the Statesman. We are confronted with the daring statement that the virtues which comprise the state are, in contradistinction to those described in the Republic, *not* at harmony with each other, which means that the several parts of goodness are actually not in accord (306 c). What is the Statesman to do about this? He is to establish a training program to bring out the best qualities of future citizens, some of whom will have opposite virtues. He weaves both sorts into the fabric of the state, some forming the warp and some forming the woof. This training program "first unites that element in their soul which is eternal, by a divine bond, since it is akin to the divine. After this divine bond, it will in turn unite their animal nature by human bonds" (309 b). In short, the Statesman will implant in every citizen in the state what we would call a sense of values, whether they understand them to be of eternal origin or not, and he will accomplish the insertion of this warp by a clever weaving of the woof, the human element. In this way, citizens will at least imitate,

albeit unknowingly, their right measure and true standard. More specifically, the Statesman will require those who give evidence of divine wisdom to intermarry with those who seem without it, and so interweave the divine and the human. Thus for example, instead of inbreeding a race of warriors who will eventually get out of hand by sheer power of zeal, or, on the other hand, inbreeding a race of perennial moderates who never dare to invent, the Statesman will see to it that there are cross fertilizations of these two breeds. In this way the best weave is had, which marries the gentle to the brave. Socrates ends the dialogue by saying "You have drawn to perfection, sir, the image of the true king and statesman" (311 c).

### 2.3.11 Summary

After a rather comical beginning, the Statesman quickly discards the first definition of the Statesman. The Myth of Kronos is put between it and the next attempt, and its results are that the Statesman must have a real knowledge of the rotation of the universe in order to ascertain the right time for the right kind of image of the ruler. There are certain necessities of cosmic motion which must be imitated in the ruler's art. The Pythagoreans are chided for their remorseless division without regard for real classes and true dialectic.

But perhaps the clearest indication of Plato's development of the themes of eternity, image, and time in this dialogue is to be found in the view that the true Statesman is he who weaves the being and not-being of opposing virtues into the fabric of the state, an eternal warp and a temporal woof, which are to be interbred via marriage across real classes.

Two themes stand out as clear anticipations of the Timaeus: the concern for cosmological time, in the myth of Kronos, and the introduction of the sexual allegory, which, as we shall see, in the Timaeus, is generalized.

However, before we reach the Timaeus, we must see how the Philebus treats these themes.

### 2.3.12 The Philebus

If one approaches the Philebus with the expectation that it will deal with some of the topics of the Statesman in a more developed manner, its opening passages seem to be anachronistic, for the dialogue begins with a discussion of the relative merits of pleasure and wisdom (11 a), subjects discussed in great detail in the Republic. But it soon becomes apparent that the discussion will be anything but a simple repetition. For example, when Socrates asks whether there might not be a third state even better than pleasure or wisdom, or whether some mixture of the two is preferable, we see that the theme of mixture, as introduced in the Sophist and evolved in the Statesman, is actually to be reexamined in the context of an ethical inquiry.

It is agreed that there are many pleasures, each of which differ from the others. This simple observation serves to reintroduce the problem of the One and the Many on an ethical level, and with this reintroduction, we will be confronted with the modifications and developments which the subjects of pleasure and wisdom must receive in the light of Plato's later reflections. Thus, it is agreed that unity and diversity of pleasures is "the same old argument" (13 c). Somehow, the unity and diversity of pleasure must be understood, not in the old way, but in a new way. The key to the new way is the principle of Difference.

It is said that this principle of Difference is a marvel of nature because it asks us to affirm that "one would be many or many one" (13 e). No one any longer argues that it is marvelous to assert that Socrates is many and one because he has many limbs but is only one Socrates: everyone has agreed to dismiss this as childish (14 d).

Here the initial impression of anachronism fades completely, for the passage clearly asserts that it is childish to continue to play on the words "one" and "many" now that the Parmenides and the Sophist and the Statesman have advanced so far beyond this verbal naivete. He who asserts that the One or the Beautiful

or the Good have a real existence which in some way is beyond generation or destruction, introduces a problem of far greater import than the problem of matching names and things (15 a). For, if these Forms are real, and if they are always the same, or if they are said to have a permanent individuality, he who asserts these propositions is dealing with matters of greater depth than seems at first apparent. In the same way, if one asserts that these Forms can be dispersed and multiplied in the world of generation and the endless number of things which compose this world, he involves himself in a difficulty, for he seems to assert that the Forms are at once what they are in themselves and *at the same time* in the world of many things (15 c). In short, he who asserts that there are many pleasures and who says at the same time that Pleasure is a One, involves himself in the difficulties of "the old argument" and since the old argument has not been resolved, one cannot pretend that it is a simple assertion when he says that there are many pleasures, all of which are Pleasure.

To put the matter in our own way, we should say that the statement "there are many pleasures, each of which shares in the idea of Pleasure" involves all of the difficulties which Plato has been examining in the Parmenides, the Sophist, and the Statesman. In short, we are confronted with nothing less than a philosophical summary of the problems and doctrines which Plato confronted in the late dialogues.

Notice that it is openly admitted that the verbal assertion of both the unity and the diversity of Socrates is "childish," and no longer a cause for wonder. The whole world is said to know this now. Plato seems to be saying here that there are deeper issues at stake than the linguistic gymnastics these issues first created. True, these questions will be discussed, but their resolution will take place on a higher plane than it had heretofore. As usual, Plato begins a difficult investigation by focusing on the practical face of the deeper problem. Notice too that these questions about pleasure and wisdom are not mere allegories or childrens' stories; they are the points of departure. Plato intends, as we shall see, to apply the method of division, which he has been perfecting in the Sophist

and the Statesman, to the questions of ethical import involved in a discussion of pleasure and wisdom and their relative merits. But in addition to applying the method, he will perfect it further, and greater insight into the method as well as its applicability will be reached. It is no longer possible to begin with the simple separation of the One and the Many, because the method of division has gone beyond this level of simplicity.

The One and the Many, therefore are said to "run about everywhere together, in and out of every word" (15 a) Therefore, we must not divide too quickly between the One and the Many, or run too quickly from the Many to the One. The endless number of the Many is a kind of infinity, that is, a lack of determined specificity, or, in another sense, a vague and indefinite formlessness.

The infinite must not be allowed to approach the many until the entire number of species intermediate between unity and infinity has been found out-then and not until then may we rest from division. (16 e)

The familiar analogy of the alphabet is offered, and it is agreed that every sound we utter is both one and infinite, that is, a sound is at once just *this* sound, but in another sense it is only *a* sound, which by itself has no meaning, just as letters by themselves have no meaning until they are related to each other in words. But the precise knowledge of the number and nature of each sound is the special province of the grammarian (17 b), just as the precise knowledge of tones and their intervals is the province of the musician. (17 c)

In this way, Plato seems to say quite clearly that the way to knowledge is neither the addition of elements to each other without regard to the kinds of relations these elements must have to be intelligible, nor the simple recitation of the name we give to them to create the appearance of their simple unity.

Since these themes were treated in the Statesman it seems reasonable to place the Philebus after it. It was necessary to insert

this point here because the degree of unanimity with which the scholars agree that the Statesman succeeds the Sophist is not had in the placement of the Philebus after the Statesman. It seems now that the Philebus can be read more intelligently by placing it after the Statesman but before the Timaeus, but we shall have to see whether this is true after reading the Timaeus.

The method of division, as developed in the Statesman, is summoned here in the Philebus to do service in the quest for the nature of pleasure and the nature of wisdom. We have seen that Plato regards Unity as the dialectical opposite of infinity, which, for him, means the indeterminate vagueness or an unspecific description of an element, without some account of its manner of relation to its fellows. In this respect, it is striking to note a brief allegory of the god Theuth, whom the Egyptians describe as the author and divider and enumerator of sounds in music and grammar (18 ad). As we shall see, the Timaeus will test the method of division on a cosmic scale in a tale similarly attributed to an Egyptian priest.

In any event, the problem now is not merely to assert the unity and the infinity of number, or pleasure, or wisdom, but to ascertain the kinds of each, and, by implication, the Unity, Likeness, Sameness *and* the opposites in everything (19 b). Whereas Socrates once preferred to discuss the Forms and to avoid the realm of things, he does not fear to enter into this latter problem now, because, just at this instant, some god appears to have given him a new memory (20 b).

Socrates quickly convinces Philebus that he would not even have full pleasure if he did not also have mind and aenry and knowledge, because, without them, he would not know whether he was experiencing pleasure. Similarly if he had no memory he would not remember pleasure, which 4s also pleasant, nor, without "true opinion" would he be able to perceive present pleasures. In the same way, had he no knowledge, he would be unable to calculate future pleasures (21 b). Similarly, a life of mind without pleasure or pain would be unfeeling. Therefore, somehow we must have both in a union, which is a kind of third (22 a). But, on

this account, neither pleasure nor wisdom can be the good, which was decided (at 19) to be the most perfect. Socrates exempts divine mind from this refutation, admitting only that human minds are excluded from exclusive possession of the Good (22 c). For, the divine mind may turn out to be the cause of the three, and, in that case, it will be a fourth. There may even be a fifth, but that will be discussed later.

When we say something is hotter or colder, we make a comparison, and such comparisons are always relative, admitting of degrees, and this is an endless business because such measures suggest no way to establish a stable measure. Thus, the class of all such comparatives includes an infinite, i.e., an unlimited number. However, the *class* of unnumbered things itself *is* the unity of such comparatives (25 a). On the other hand, its opposite, the class of all numbered things, admits quantity and is therefore finite, or limited, and here too, the class itself is the unity of these (25 b).

Now, let them be mixed and let the offspring of these two classes be inspected. For out of their union comes a third class which has been generated by their mixture, and it includes all things so generated by the limitation of the unlimited (26 d). Further, the cause of this union is not the same as any of the three classes so achieved, and it therefore must be a fourth class (27 b). The problem is to ascertain which class pertains to mind, for, obviously, pleasure is of the first class since it always admits of degree. In this regard, the question is raised:

...Whether all of this which they call the universe is left to the guidance of an irrational and random chance, or, on the contrary, as our fathers have declared, ordered and governed by a marvelous intelligence and wisdom...Wide asunder are the two assertions, Socrates, for that which you are now saying is blasphemy; but the other assertion, that mind orders all things, is worthy of the respect of the world, and of the sun, and of the moon, and of the whole circle of the heavens;...(28 d)



Here, quite obviously, is a clear anticipation of the Timaeus. In addition, we are next presented with an analysis of the elements of bodies, which are said to be the traditional fire, air, water and earth, and, just as before, the mere enumeration of their discreteness does not explain their unity, for they are united in a body (29 ad). The further point is that the universe too consists of these elements but it too is a unity. And of course, it would be folly to assert that the unity of the universe depends on our bodies; rather, we depend on its unity. The analogy is carried further, because we know that we have souls, and, in the same way, we must assert that our souls depend on the soul of the universe. Further, as bodies consist of four elements, so the four classes previously discovered may be considered as these elements; that is, the unlimited, the limited, their offspring, mixture, and the cause of their union, are in fact the true meanings of fire, air, earth and water. The universal fire which is the cause of our fire is the hidden meaning of mind as the cause of the universe (30 d). So we must conclude that the universe consists of four elements and that we are similarly constructed, and our construction depends on its.

Fire, earth, water, and land correspond to the unlimited, limited, mixture and cause. It is not said which elements correspond to which elements, but it is clear that mind corresponds to fire, both in us and in the universe, It goes without too much comment that this doctrine goes beyond a simple Heracliteanism or Pythagoreanism or Anaxagoreanism, or Anaximandersanism. It is, in my view, the seed of the more exact and detailed view which we shall find in the Timaeus.

In the remainder of the dialogue, there is a delineation and cross comparison of the types of pleasure and pain, including the cognate emotions, and desires. It would be tempting to enter into a detailed commentary on this section of Plato's philosophy to show some of its origins or that certain doctrines of the modern giants of depth psychology are deeply in Plato's debt. However, our purpose here is to trace three themes insofar as Plato treats them explicitly. Perhaps a short summary will not be too deficient.

Just as there are four classes of elements which enter into the composition of the body and of the universe, so there are four classes to be discerned in the discussion of pleasure. However, it is more complicated here, since there are four classes of pleasures, four of pains, four of emotions, four of desires, and the intermixture of each of these with every other gives rise to innumerable variety. Plato himself does not even attempt an exhaustive treatment. What is significant for our purposes is the treatment of memory and perception. We saw in the Sophist and the Statesman that certain images could be false while others could be true. In the realm of feeling, the feelings attendant upon true or false images will be correspondingly true or false. Thus Plato develops the significant ethical dictum that pleasures (or pains or emotions) though felt, may be false. We meet again the artist in the soul (imagination) which sometimes correctly and sometimes incorrectly inscribes the memory-images of past, present, and future experiences (39 a). Thus, the question of images, irrevocably linked to the tenses of imagination, is, in the Philebus, introduced into the discussion of pleasure, pain, and emotion. Again, since the number of combinations of pleasures, whether unlimited, or limited or mixed or causative, is innumerable, the multiplication of this innumerable number by the three tenses adds an exponential innumerable. Had he wanted, Plato could have trebled and then quadrupled the exponent by the introduction of the intermediary tenses of becoming, and then quintupled the whole by using the middle voice of his native grammar. However, he assures us that he has not forgotten his own former dialogues, when he says "...for any class to be alone and in perfect solitude is not good nor altogether possible" (63 b).

The end of the dialogue, interpreted in the light of the gradual growth of Plato's thought through the late group, is striking, for it asserts unequivocally that . neither mind and wisdom nor pleasure and pain are simply superior to one another: there must be mixture. Formerly, mind and knowledge of the forms would have been indubitably best; now, mixture is necessary. However, this is not to be interpreted as a simple linear progression, because, as we shall see in the Timaeus, what is necessary and what is good are

not due to comparable causes and are not therefore subject to the same criterion for choosing which is better. It may well be that what is better is unfortunately not what is necessary.

### 2.3.13 Summary

There are unmistakable hints in the Philebus that the dialogue which succeeds it will take up certain strands of Pythagorean logic and develop them further, as for example the whole question of the manner in which the cause of mixture accomplishes its business, or, as another example, the application of the method of division to the universe, which was only briefly and partially done in this dialogue.

This much, however is certain. The Philebus begins with the extension of the method of division to the realm of pleasure and knowledge of pleasure. The purist position that either pleasure or mind must be affirmed as the best is abandoned as "childish" and as an "old argument," which, it is agreed, no longer captures philosophic interest. The isolated eternity of the forms, modified by the Sophist and the Statesman, is further modified by the assertion that pleasures or any Form or class cannot be both good and alone.

Lastly, the familiar doctrine of the aviary of images is maintained, and developed insofar as it is now employed to explain the basis of false pleasures, feelings, and emotions. A beginning is made into the physiology of reminiscence and an intimate connection is drawn between such a physiology and the first outlines of a concrete cosmology. For this intimate connection and a fuller description of the relations between a psychogeny and a cosmogeny, we must look to the Timaeus.

#### Summary of the Chapter

Tracing the hypothesized modification and development of the tripartite theme of eternity-image-time through the Republic, Parmenides, Theatetus, Sophist, Statesman, and Philebus, it

emerges that Plato's treatment of these topics is not a simple linear progression. I think I have shown that these themes are, in fact, treated together wherever discussion of any one of them is broached, and that to speak of one involves the need to speak of the others.

From the eternal realm of the Forms and the shadow-like copies of them in the Republic's cave, we saw the initial doctrine of the Forms of the middle dialogues subjected to the criticism of the Parmenides. There we are told that the naive view of the Forms as separated from what appears to us leads to logically untenable positions, from a series of unreal instants to hypostasizing none existence. A hint of the doctrine of not-time emerges. The Theatetus informs us that we must examine the reality of moving images, as if the results of perception were flying birds in an aviary-like memory. The Sophist examines not being and concludes with the extraordinary assertion that not-being in some way is, so that the artificial separation of the world into what is either eternal or temporal, agreed to be inadequate in the Parmenides, is now shown, not only to be inadequate, but to be impossible. Things are not isolated absolutes sharing in isolated absolute Forms, for images have their own sort of reality. The Statesman acknowledges that this reality of images must be generalized beyond a psychological doctrine, and implies that there might well be cosmic images, which are better and more intelligible than the myths and fables of the historical story-tellers. The Philebus shows that there are far-reaching ethical implications of this doctrine, and especially, leads to a discussion of the cause (s) of mixed classes and mixed realities.

In short, from an initial position which asserted the realm of Forms to be eternally separated from the world of moving images, Plato comes to assert that moving images have a reality which is in no way to be despised or neglected in favor of a naively-viewed eternity. The world of time and the moving images in it cannot be intelligently separated from the eternal.

This is not to say that the eternal and the temporal are the same world, or that a simple blending or a denial of existence to one or the other is Plato's conclusion. On the contrary, only by the careful dialectical investigation of the differences between eternity and time can their relations be spelled out with any philosophical accuracy.

However, it remains to spell out this relationship of Forms, images, and times. To qualify as a genuine evolution, such a treatment will have to synthesize all that has gone before, in a way which will not excise any real progress made before it. This means that there will have to be a discussion of the psychology of knowledge as well as a cosmology of being, and that these two preponderant interests will have to be united in a way which spells out their intimate relation. This is exactly what the Timaeus will do. If the Timaeus accomplishes this task, it follows that the Timaeus should be regarded as a later dialogue and that we should find in it a new synthesis of the doctrines of eternity, image, and time.

## 2.4 The Timaeus

### 2.4.1 The Introductory Conversation (17a–27b)

We have seen in the foregoing two chapters that the Timaeus-Critias-Laws is the last group of writings to which Plato devoted his attention. The argument was divided into two logically interrelated parts: first, tradition, stylistic researches, biography, and autobiography led to the conclusion of the second chapter that the Timaeus was actually written late; second, the gradual modification and development of the doctrine of the middle period, as exemplified by the Republic, was traced through the Parmenides, Theatetus, Sophist, Statesman, and Philebus in the third chapter. We shall now investigate how the Timaeus synthesizes the themes of eternity, image, and time in a new and more unified way.

Because of the sheer bulk of commentary we shall make on the doctrines of the Timaeus, the reader will find two chapters

devoted to this last Aiatoeue: The present chapter deals with the introductory remarks to the dialogue and to the introductory remarks which Timaeus delivers as a prelude to his rather extended monologue. The next chapter examines the relations of eternity, image, and time in the light of the purposes which the introductory portions of the dialogue reveal. The introductory remarks found in the Timaeus set the foundations, not only for Plato's later philosophy of time but also for the functional significance this philosophy has in relation to Plato's view of the best possible society.

The first hint that the Timaeus will interest itself in temporal questions comes in the list of persons who are scheduled to hold the dialectical conversation. We know that Critias was the name shared by Plato's grandfather and his greatgrandfather. His grandfather was a poet in his own right and a collector of constitutions, and his greatgrandfather was associated with Solon.<sup>69</sup> We note that Hermocrates, a general famous for his defense of Athens and for his attempt to establish a just regime in Syracuse, is also scheduled to speak.<sup>70</sup> We note the presence of Socrates, who has spoken relatively little in the late group of dialogues, but who reappeared in the Philebus. And finally, we note Timaeus of Locri, an Italian city well-governed by Pythagoreans.

Here is a strange assembly; Critias is a very old man of considerable political experience in Athens; Timaeus is a Pythagorean Stranger who is in Athens for the festival of Athena; Hermocrates is an Athenian general distinguished in the Peloponnesian War; and we note that Socrates is now described as a very old man. One might almost conclude from this cast alone that questions about the morality of ancient Athenian politics will be discussed.

Socrates opens the dialogue. His discussion of "yesterday" is a "recapitulation"<sup>71</sup> of some of the doctrines of the Republic, (books II–VI) namely, the description of the farmers, craftsmen,

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<sup>69</sup> A.E. Taylor, Plato: The Man and His Work, p. 2.

<sup>70</sup> Cornford, Plato's Cosmology, p. 2.

<sup>71</sup> Gauss, Philosophischer Handkommentar zu den Dialogen Platons, p. 157

and guardians who make up the "best form of society" (17c). The occupational specialization which allotted one and only one role to each individual citizen because he was best fitted for one and only one role, is restated as a reminder of "yesterday's conversation." The statement is made that this brief recapitulation leaves nothing out and is an exact description of the contents of yesterday's conversation. Thus, one should not conclude that this recapitulation includes the entire contents of the Republic, for this would create a manifest contradiction. The Republic comprises ten books, much of which are not recapitulated here. Quite obviously, something *has* been left out, and Socrates implies clearly that he intends to discuss only those doctrines which he has summarized above. One might add, however, that the recapitulation does deal with those doctrines of the Republic which are central to the whole dialogue, namely, the occupational specialization of three classes of citizens, who do not mix the functions of the others into their own allotted lives, just as the Forms on which their respective perfections are based do not mix or combine.

Socrates says that the description of these citizens (of the Republic) makes him feel like "a man who has been looking at some noble creatures in a painting, or perhaps at real animals, alive but motionless, and conceives a desire to watch them in motion and actively exercising the powers promised by their form" (19 b,c).

Two features of this statement are particularly remarkable. First, we notice Socrates' apparent indecision as to whether he is looking at a painting (a mere copy) or at real animals who are motionless (a genuine image but motionless). Second, it is unusual to see Socrates admit his inability to extract the doctrine he seeks through his accustomed midwifery. These aspects of the introductory conversation hint that the Timaeus will attempt to go beyond earlier Socratic positions.

Socrates goes on at some length to spell out his precise inability, and he connects it explicitly with the firmness of his aged opinions about the poets (19d), although he stated in the Theatetus that

he had no opinions of his own. He says that he does not mean to imply that he has a lowly opinion of the poets in general (which he had in the Republic) but he feels now that the good imitator (there are none such in the Republic) should be familiar with the surroundings which he is going to imitate (19e). On the surface, this statement pertains to the history of ancient Athens; allegorically, it says that Socrates' viewpoint is not the one to be followed in this dialogue. Socrates does not usually speak of genuine imitation, for this sort of imitation is introduced by the Stranger in the Sophist. Just as the Sophists move about from city to city too often, and do not remain in any one city long enough to: become familiar with it, so Socrates is said to be unfamiliar with the matters about to be discussed. Plato seems to say here in the gentlest way that he has great respect for his old teacher but that Socrates' viewpoint is not the most fruitful one for his present concern.

Timaeus, however, is a well-born citizen of Locri, which is a well-governed state, so he is better qualified to discuss the constitution of the society which Socrates would like to see in motion. Timaeus is better suited by reason of his philosophical training, and, in addition, he has the necessary qualifications for statesmanship which were described in the Statesman.

Hermocrates sets the foundation for the discourse by telling us that Critias remembers a story which bears directly on the trend of their discussion. It is a story of ancient Athens and the way she conducted herself in ancient times. It is said to be true on no less authority than Solon's own words, since Solon himself is said to have told the story to Critias' grandfather. The story had been forgotten through lapse of time and the destruction of human lives by a catastrophe (20e).

Socrates inquires why the tale was not recorded, and Critias tells him that Solon had been forced to lay it aside because, after he had returned from Egypt, there were too many troubles in the city (21c). (If it is true that Plato himself traveled in Egypt, this statement might be interpreted as Plato's own excuse for not writing the Timaeus sooner because of the difficulties he himself



experienced on his own return to Athens. The awe with which the origins of Athens would be regarded by its citizens would confront a writer of new legends about Athens with the need for a great deal of caution, and the reservation that there were too many political difficulties would serve as an excellent excuse, should Plato have felt the need for one).

Thus, the story of ancient Athens was not lost only because Solon did not have time to write it but also because of the intervention of a catastrophe which destroyed the actors in the drama. Solon says, however, that when he himself was travelling in Egypt, he was received with great respect, because the Egyptian priests who knew the ancient history of Athens claimed that there is a kinship between Athenians and Egyptians, and they even said that the name of their own city-god is the Egyptian word for Athena (21e). Solon was of course interested to hear about Athenian antiquity, and recounted for the Egyptians the venerable legends with which he was familiar.

But the Egyptian priest sighs with benign patience, and says, "Ah Solon, Solon, you Greeks are always children; in Greece there is no such thing as an old man" (22b).

This would be an interesting remark no matter what the chronology of the Timaeus, but, since the Timaeus is so late in the series of late dialogues, the remark becomes crucial. Several times in the preceding dialogues, the childishness of certain opinions is mentioned, and the rigours of dialectical discipline are extolled as the only remedy. In the Parmenides, Socrates' youth is blamed for the naivete of the early form-doctrine (130) and in the Theatetus (175) Socrates himself chides Theatetus for his youthful impatience. Plato used this form of criticism increasingly in the late dialogues, during which he came to realize that a certain maturity is prerequisite for right philosophy. Now we are told that no amount of individual or personal maturity is of consequence for the Greeks, for collectively they are all children. Here is a very definite indication that the sort of knowledge which Timaeus will put forward is not reachable by that heretofore

most favored of philosophical paths, the doctrine of individual, personal reminiscence. In short, reflection is only the source of some knowledge, not of all. Taken in conjunction with the stated purpose of the dialogue, that is, the conditions of the best society, it delivers a fatal blow to the Socratic procedure of questioning contemporaries. There are some things about which contemporaries have no knowledge, and it is necessary to know these things in order to describe the best society. One needs to know the origins of a society, and it is probable that one's contemporaries do not know this. This is precisely the difference between memory and history, and it constitutes a significant expansion of doctrine beyond the earlier dialogues. In earlier dialogues, myths were presented to perform the function of carrying the individual memory beyond its contemporary confines, but we saw in the Sophist that these myths (not all myths) were "childish."

In short, more than the maturity of the individual person is required for true knowledge of the best society; the best society requires its citizens to have a knowledge of its origins; allegorically, this translates into the need for a society to know its ultimate origins, and it is this interpretation which makes the Timaeus' relation of cosmology and sociology intelligible. In the process of tracing the historical antiquity of Athens, the Timaeus will discern the origins of the whole cosmos. As history includes memory, so cosmology includes sociology: this is the import of Timaeus' tale. And in both aspects of the proportion, the cardinal issue is the "amount" of time involved.

Solon, however, does not understand the appellation "children," and inquires what the priest means when he says that he, Solon, an old man, is a "child." The priest explains that there are periodic catastrophes due to temporary deviations of the celestial bodies from their regular orbits, and that, at these times, the deviations bring about floods. These floods wreak havoc on most people but the Egyptians are saved by their irrigation system.<sup>72</sup> For this reason, the Egyptians have been able to maintain a continuous record which covers a period of 8,000 years, but the Athenians

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<sup>72</sup> Cornford, *op. cit.*, appendix, p. 365.

were destroyed in one of these periodic catastrophes, and therefore have no continuous records. Thus they had to begin afresh, like children, to trace their origins (22b–23d).

Solon is astonished, and asks for a more complete account of ancient Athens. The Egyptian priest responds willingly, saying that it is good for the city for him to tell the story. He says that Athens was founded by the goddess a thousand years before Egypt was founded, which means 9,000 years ago. Thus, according to the priest Solon's stories are nothing more than nursery tales since they recount only one deluge, when in fact there have been several. Furthermore, the priest says that the Athenians were once counted among the bravest of people in the era just before the last catastrophe, and that present Athenians are descended from their seed. (24)

The priest describes the Egyptian caste system of priests, craftsmen, and soldiers, in which system each class performs one and only one function, and he adds that these contemporary Egyptian institutions are continuous with those olden days when the goddess instructed both Athens and Egypt in these ways. Furthermore, the laws of Egypt are said to reflect the "order of the world, deriving from those divine things the discovery of all arts applied to human affairs..." (24b). As we shall see, this is almost how Timaeus will describe the origin of all human arts.

There are other records which pertain to Athens, and the priest decides to inform Solon about one exploit in particular, the greatest which Athens ever performed; it is the fable of Atlantis (24e). The story recounts how Athens once vanquished foes who invaded her even after her allies had been defeated, and suggests that the invaders came from an island which has now vanished beneath the sea. Frutiger is not alone in the opinion that no such island ever existed, and concludes that it must be credited to Plato's imagination.<sup>73</sup> It is nevertheless fascinating to follow Cornford

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<sup>73</sup> P. Frutiger, Les Myths de Platon, (Paris: 1930), pp. 244 ff.

into the opinion that the island of Atlantis was the staging area for invaders who crossed the Atlantic, perhaps from America.<sup>74</sup>

It is interesting to forecast the almost exact thematic parallel of the tale of the Egyptian priest and the tale which Timaeus will deliver. In both, the cosmological origins of the art of healing are described. Plato of course viewed the proper function of statecraft to be the healing of society, as, for example, in his repeated comparisons of the statesman to the physician.

Critias himself tells Socrates that he is surprised to notice how Socrates' story (the recapitulation of Republic doctrines) and the tale of Atlantis resemble each other in so many details (25e). Critias had expected that it would be difficult to find a basis for their conversation of today, and so he carefully rehearsed the story of Atlantis before he spoke it (26). He assures us that the tale is exactly as he heard it because he says,

How true is the saying that what we learn in childhood has a wonderful hold on the memory. I doubt if I could recall everything I heard yesterday, but I should be surprised if I have lost any detail of this story told me so long ago. (26b)

In addition to guaranteeing the accuracy of the tale, this remark of Critias tells us something else of equal importance, for it reminds us that his tale is introduced only as a basis of today's conversation, and as the raw material for the discourse of Timaeus. Critias himself says he has only approached the main points when he says:

We will transfer the state you (Socrates) described yesterday and its citizens from the region of theory to concrete fact; we will take the city of Athens and say that your imaginary citizens are those actual ancestors of ours of whom the priest spoke. They will fit perfectly and there will be no inconsistency

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<sup>74</sup> Cornford, *op. cit.*, p. 14.

in declaring them to be the real men of ancient times. (26d)

Thus it seems to be Plato's purpose to see beyond the recapitulation of Republic doctrines which Socrates made in the beginning of the Timaeus, and this is confirmed by the statement that Critias' story will serve only as material for today's discourse. For, if Critias' story were not only the basis but was in fact the perfect match between Socrates imaginary realm and the ancient city of Athens, the dialogue could end here, with the conclusion that the Republic once existed. The doctrine of the Timaeus, however, concerns not only what the best society ought to be and what it was, but what is the origin of the best society and what is its basis.

Socrates agrees that fitting the Republic citizens into ancient Athenian society is a proper basis for today's discourse, and goes so far as to say that if this is not the basis, there can be no other (26e).

The plan of the projected trilogy is now revealed; Timaeus, who knows more of astronomy than anyone else present, will begin with the birth of the world and carry the account forward until he reaches the birth of man. Critias will start from the origin of man and carry the account to the birth of Athens. In this way, the actual origins of society will be discovered. Interestingly, no mention is made of the proposed content of the Hermocrates. Once before, Plato hinted at a projected trilogy, and seems not to have completed the third dialogue. Perhaps, as before, we shall learn so much in the two dialogues that the third seems unnecessary.<sup>75</sup> Or perhaps Plato wrote the Laws instead.<sup>76</sup> In any case, the point at issue is whether the fitting of the Republic's citizens into the ancient Athenian *polis* suffices to describe the origins and bases of the best society. It is agreed that Timaeus will account for the origin of man from his astronomical beginnings, and that this is necessary

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<sup>75</sup> Q. Lauer, S.J., "The Being of Non-Being in Plato's *Sophist*" (unpublished manuscript; New York: Fordham University).

<sup>76</sup> Cornford, op. cit., p. 8.

as a preliminary for the investigations into the actual origins of society.

One cannot therefore follow Taylor into the opinion that this introductory conversation is actually only an introduction to the Critias.<sup>77</sup> By extending this logic, the Parmenides and Theatetus are only introductions to the Sophist, and the Sophist only an introduction to the Statesman, etc. Such a linearization of Plato's philosophy leaves everything behind in which case we should read only the Laws and dismiss all else as preliminary introduction.

In the next section, we shall confront Timaeus' own introduction, and as we shall see, he connects his remarks to the general introductory remarks we have just discussed.

## 2.4.2 The Role of Image (27c–29d)

Timaeus invokes the blessings of the gods, as custom requires, but says that the other members of the conversation must also call upon their own powers, so that they can understand Timaeus' thoughts on the proposed theme (27c).

The first distinction to be made is that between what is always real and has no becoming and what it is which is always becoming and is never real. That which is apprehensible by thought with a rational account is the thing which is always unchangeably real; whereas that which is the object of belief together with unreasoning sensation is the thing that becomes and passes away, but never has real being. (28a)

At first, this seems to be the familiar dichotomy between the eternal and the temporal, but it is not. In dividing the line of knowledge here, Plato deliberately accentuates the "top" and the "bottom," but leaves out the other intermediary divisions which

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<sup>77</sup> A.E. Taylor, Plato: The Man and His Work, p. 440.

he has established. In the *Cave*, opinion and false images were placed in between the Forms and mere sensation; in the *Theatetus*, right opinion was established; in the *Sophist*, genuine images; and in the *Philebus*, the need to mix the Forms and the four levels of knowledge. Thus the meaning of the sentences which open this section of discourse are illuminated by a summary of the doctrines of some of the preceding dialogues.

This is confirmed by Timaeus' next sentence. He says,

Again all that becomes must needs become by the agency of some cause, for without a cause nothing can come to be. Now whenever the maker of anything looks to that which is always unchanging and uses a model of that description in fashioning the form and quality of his work, all that he thus accomplishes must be good. If he looks to something that has come to be and uses a generated model, it will not be good. (28b)

Here is a recapitulation of the preliminary doctrine of the good painter of the *Sophist*, where those imitations which faithfully represent the proportions of the original are good images, but those which distort the original are mere fantasies (234, 235). The main point here is that in the early dialogues, an imitation would necessarily falsify; in the late dialogues, an imitation must be carefully made in order to preserve the proportions of its model, and if it does so, it may properly be called good. This is especially true in the *Philebus*, where the cause of the mixture of elements is responsible for the quality of the mixture (27a). Here, Timaeus says that if the maker is to use a generated model (a copy of the original) he will be copying a copy, whereas he should copy the original, and by preserving its proportion, imitate genuinely.

This much could have been said in the *Philebus*, and was in fact said in other words. But now this doctrine must be generalized and tested on a cosmological scale. Therefore, Timaeus uses the phrase, "concerning the *whole* 'heaven' or 'world' (not heaven *and* world)..." (27b), parenthetically adding that the name can be

chosen to suit heaven itself. It is interesting to observe that the term heaven (*ouranos*) is now taken to be synonymous with the whole cosmos, whereas formerly, a strict division was made between heaven and the visible world. This foreshadows the entire theme of the dialogue, in which the former gap between heaven and earth is now to be supplanted by a richer and more meaningful relation.

Has this heaven, or universe, always been, or did it begin from some beginning? Timaeus answers his own rhetorical question by saying that it must have begun because it has a body and is apprehensible by sensation together with right opinion, and it was formerly established that those things which are so apprehensible are things which become and are generated. This refers to the Theatetus where it was established that sensation and true opinion do have a measure of the truth but are not the sources of that truth, and to the Sophist, where it was established that images, if genuine, have a measure of truth because they are not absolutely not-being but have a reality of their own. The doctrine of the Philebus is brought into the account in the next line where we read "But again that which becomes, we Say, must necessarily become by the agency of some cause" (28c).

Next comes the often quoted statement "The maker and father of this universe it is a hard task to find, and having found him it would be impossible to declare him to all mankind" (28c). This statement is absolutely central to the exposition of the remainder of the dialogue. It asserts that the gap between the eternal and the temporal realms is not only a cosmological but a sociological one. It is *not* an impossible task to find the father of the universe; it is *hard*. But it is impossible to declare him to all mankind. For this reason, as it was said in the Statesman, some authors make myths and childish stories when they confront this impossibility of declaration, and even the One and the Many is said to be such a myth, made for minds incapable of genuine dialectic.

Now the problem is not that there is a gap in the structure of the universe, but that some kinds of communication are impossible. On the one hand, some truths are ineffable, on the other hand



some people cannot be told the glaring truth because it would momentarily blind them as it did the prisoner of the Cave when he was released to see the Sun. But the Sun is there, and those few who can and do see it, ought to lead others to it.

There is a further difficulty. The insight into the ultimate origins of being is not only the subject of myths and stories which the people feed themselves on; they hold on to these myths with rigid conviction, and the innovator in this area must beware lest he invite the hemlock with which Socrates was sentenced to death. Plato has already said several times that these myths are for children, but, evidently, he has underestimated his own age. This relates directly to the whole purpose of the dialogue, which is to replace what Plato regards as dangerous fantasies about the ultimate origins of the universe, with a more rational account. Notice he does not intend to make an absolutely rational account, which the learned elite of Pythagoreans, Eleatics, and Academicians, might demand. The account of Timaeus cannot be written in the arcane language of the intellectualist; some way must be found to declare the father of the universe to all mankind. This need springs from Plato's conviction that the best state is composed of the best citizens, and, those citizens are best who know their traditions (Atlantis) and their ultimate origins. In short, the experience so familiar to the teacher of a difficult doctrine was also Plato's experience-how to tell the student by example without distorting the truth of the original meaning.

This difficulty is exacerbated by the fact that the myths of the origin of the universe were probably held with the fervor of blind conviction by Plato's contemporaries, much as they sometimes are by our own contemporaries, so that the attempt to redefine them would be regarded as blasphemy by those who hold on to these myths with the unshakable grasp of an inflexible conservatism. This seems to be his meaning when Timaeus says that the maker of the universe clearly looked to the eternal for his model, and that the contrary supposition "...cannot be spoken without blasphemy..." (29).

Plato is caught between two extreme difficulties: on the one hand the childish myths must be corrected, but 'this might be regarded by the people as blasphemy; on the other hand, the people to whom Plato wishes to speak the correction cannot understand the deeper truths behind the myths, so that he has to put them in examples which are not perfectly appropriate; but this involves the danger of blasphemy in his own mind. The difficulty of finding the father is compounded by the impossibility of revealing him adequately. It is extremely important that this dual difficulty be born in mind in what follows, because it bears directly on the use of genuine images and Plato's repeated insistence that the dialogue is a probable myth (eikota mython). One makes a mistake in expecting Plato to speak out boldly in a purely rational language about the maker of the universe for two reasons; first, as we noted, some truths seem ineffable; second, one would miss Plato's concern for the prisoners of the cave who would be blinded by the pure truth but left in the dark by anything less. The efficacy of the act of communication involves taking the audience's view into account, and Plato was far from ignorant on this point.<sup>78</sup>

This accounts for the strangely popular grounds on which the argument (whether the model of the universe is eternal or generated) is settled. Timaeus says "Everyone, then, must see that (the father) looked to the eternal..." (29a).

The next portion of the paragraph adds a peculiar reaffirmation for the eternity of the model of the universe. It states "...for the world is the best of things that have Hadoiie: and he (the father) is the best of causes." There is no preparation for this statement in all of Plato, as far as I know. One could expect that the father of the universe would be described as the best of causes on the extension of the theme of avoiding blasphemy which runs through the whole dialogue. But there seems to be no preparation for Plato's statement that the world is the best of things that have become, unless it is Plato's knowledge that he is going to describe the world as the result of the best of causes, and therefore knows it must be

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<sup>78</sup> Cf., V.J. Gioscia, "A Perspective for Role Theory," *The American Catholic Sociological Review*, XXII, 2 (Milwaukee: Marquette University Press, 1961), pp. 143 ff.

the best of "effects." But this creates the very difficulty which this dialogue is trying to avoid, and that is the description of the best cause as one whose action can only bring about the best results. For, in one sense, the world is the best result of the best cause, but in another sense, it is only the best of things that have become, and becoming is not the best sort of being. In short, there has already been a slight movement from the strictly univocal causality of the best cause, toward some kind of intermediary causation. In this way, Plato continues to pose the whole problem of some sort of mid-ground between eternity and the realm of becoming. This is confirmed in what follows next.

Timaeus says, Again, these things being so, our world must necessarily be a likeness (*eikona*) of something. Now in every matter it is of great moment to start at the right point in accordance with the nature of the subject (*kata physin archen*). Concerning a likeness (*eikonos*) then, and its model (*paradeigmatos*) we must make this distinction; an account (*logos*) is of the same order (*suggenes*) as the thing it sets forth an account of that which is abiding and stable and discoverable by the aid of reason will itself be abiding and unchangeable (so far as it is possible and it lies in the nature of the account to be incontrovertible and irrefutable, there must be no falling short of that); while an account of what is made in the image (*eikonos*) of that other, but is only a likeness (*eikona*) will itself be but likely (*eikotas*) standing to accounts of the former in a proportion: as reality is to becoming so is truth to belief. (29b-c, Cornford)

Since this passage is absolutely central to the whole exposition of Plato's philosophy of time, image, and eternity, it may be well to compare other translations of this paragraph.

Archer-Hind has it: Granting this, it must needs be that this universe is a likeness of some-

thing. Now it is all important to make our beginning according to nature: and this affirmation must be laid down with regard to a likeness and its model, that the words must be akin to the subjects of which they are the interpreters: therefore of that which is abiding and sure and discoverable by the aid of reason the words too Must be abiding and unchanging and so far as it lies in words to be incontrovertible and immovable they must in no wise fall short of this; but those which deal with that which is made in the image of the former and which is a likeness, must be likely and duly corresponding with their subject: as being is to becoming, so is truth to belief. (29b-c, Archer-Hind)

Jowett has:

And being of such a nature the world has been framed by him with a view to that which is apprehended by reason and mind and is unchangeable, and if this be admitted must of necessity be a copy of something. Now that the beginning of everything should be according to nature is a great matter. Let us then assume about the copy and original that the words are akin to the matter which they describe, and that when they relate to the lasting and the permanent and intelligible, they ought to be lasting and unfailing, and as far as is in the nature of words irrefutable and immovable, and nothing less than this. But the words which are the expression of the imitation of the eternal things, which is an image only, need only be likely and analogous to the former words. What essence is to generation, that truth is to belief. (29b-c, Jowett)

T.T. Taylor has:

And from hence it is perfectly necessary that this world should be the resemblance of something. But to describe its origin according to nature is the greatest of all undertakings. In this manner, then, we must distinguish concerning the image and its exemplar. As words are allied to the things of which they are the interpreters, hence it is necessary, when we speak of that which is stable and firm and intellectually apparent, that our reasons should be in like manner stable and immutable, and as much as possible irreprehensible, with every perfection of a similar kind. But that, when we speak concerning the image of that which is immutable, we should employ only probable arguments, which have the same analogue to the former as a resemblance to its exemplar. And, indeed, as essence is to generation, so is truth to faith. (29b–c, T.T. Taylor)

R.G. Bury has:

Again if these premises be granted, it is wholly necessary that this Cosmos should be a Copy of something. Now in regard to every matter it is most important to begin at the natural beginning. Accordingly, in dealing with a copy and its model, we must affirm that the accounts given will themselves be akin to the diverse objects which they serve to explain; those which deal with what is abiding and firm and discernible by the aid of thought will be abiding and unshakable; and in so far as it is possible and fitting for statements to be irrefutable and invincible, they must in no wise fall short thereof; whereas the accounts of that which is copied after the likeness of that Model, and is itself a likeness, will be analogous thereto and possess likelihood; for as Being is to Becoming, so is Truth to Belief. (29b–c, Bury)

These five translations and the commentaries on the passage will be reviewed in order. First, Cornford holds that the chief point established in this prelude is that the visible world, of which an account is to be given, is a changing image or likeness (*eikon*) of an eternal model, and reasons that it is not a realm of being but of becoming. He says, therefore, that we must not expect anything more than a "likely" account, because only that which is stable can produce a stable account, and becoming is not stable. "There can never be a final statement of exact truth about this changing object."<sup>79</sup> Having taken this view, Cornford goes on to comment on the distinction of being and becoming. It is to be noticed that he delivers his comment as a derivative of his view that the account of becoming is *only* likely because it is unstable.

Cornford comments that the opening sentence of the preceding passage divides the world into two realms: the one of Forms which intelligence grasps, and the other of sensation, which is always imprecise and in flux. We have seen however that this two-fold division is not a dichotomy, but rather an emphasis on the extremes of a four-fold division. We differ, therefore, with Cornford's conclusion that the use of the word "becoming" (*genesis*) by Plato is "ambiguous" by which he indicates that it has only two meanings, one which means that a thing comes into existence, and the other which means that a thing is in the process of change. There are many more senses in which the word "becoming" can be understood, as Plato showed in the Parmenides (151e–152e). For example, one may say "is becoming," "was becoming," "becoming older," "becoming younger," "will be becoming," etc. On the basis of his simple division into two meanings, Cornford adopts the conclusion that the second meaning cannot be what Plato means and that therefore the world must have begun in time. He then differs with A.E. Taylor, who attributes the Christian theory of creation to Plato via Whitehead's theory of time. The point here is the fact that Cornford has assumed Plato to have spoken a simple dichotomy, the familiar dichotomy between the realm of Forms and the realm of becoming. Thus, for example, he says that the Sophist similarly divided the kinds of production in two (265b) whereas it is clear

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<sup>79</sup> Cornford, *op. cit.*, p. 24.

that there are several kinds of production stated there's human and divine, fantasy and image, proportional and non-proportional. This is especially important, because the Sophist divides genuine production into human production and divine production, but omits speaking of false divine production whereas it does speak of false human production. It is precisely this problem, i.e., how can a divine product be lacking in any divine perfection, which Plato is now examining. But it is not a mere repetition; it is now the starting point for Plato's expanded doctrine. Just as the Sophist investigated the relation between not-being and divine production in the realm of things, so now the Timaeus is investigating the relation between not-being and the divine production of the entire cosmos. One need not suppose that the familiar doctrine of the split between the realm of Forms and the realm of things has remained unmodified between the Republic and the Timaeus. One need not assume that there is no difference between the Sophist doctrine and the Republic doctrine with respect to the reality of not-being. Yet Cornford introduces the Sophist's division (which he sees as a dichotomy) into the Timaeus, which he similarly dichotomizes.

Cornford notes that the distinction to be made is not simply between being and becoming, but between eternal being and that which is *always* becoming. It seems better to state that Plato is here distinguishing that which is *only becoming and always becoming*, from another sort of becoming, which it is the business of this dialogue to discuss. Therefore, while it is perfectly true to Plato to say that, clearly, the world has become, it does not follow to say that the world is *only becoming*, for, on that supposition, how could it be the best of things that have become?

Consistently, then, Cornford concludes that the maker of the universe is *merely* mythical and that therefore there was no "moment of creation." This follows from Cornford's division of the passage into *only* two realms, which he concludes must therefore be *either true or mythical*. But the whole division in two is not the only interpretation possible, for it does not follow Plato through his development.

Thus, Cornford is led to take literally the dictum of the Seventh Letter that there neither was nor is nor shall be a doctrine of Plato's on the subject, and that Plato is *only* revealing a mythical figure of the maker of universe, but not the real exact truth. Cornford's view makes it impossible to conclude that the difficulty of revealing the maker to all mankind is not a sociological difficulty inherent in the crass and hollow mentality of most men, nor the impossibility of an ineffable truth, but Plato's refusal to speak out what he knows perfectly well. This seems to be only one interpretation of the passage which states clearly that the maker can be found, admittedly with difficulty, but cannot be revealed. Cornford precludes the interpretation that the difficulties of communication necessitate the mythical figure or that it might be true to say that the maker is ineffably inscrutable and should not be spoken for fear of blasphemy, both of which interpretations seem more plausible in the light of the doctrinal development of the late dialogues. Thus Cornford says that a similar "device" was employed in the Republic, referring probably to the Myth of Er. But in the late dialogues, Plato repeatedly criticises these myths as childish. Yet Cornford's interpretation of myth is responsible for his dichotomy here, where, it seems possible to offer these other interpretations.

It will be the business of our concluding chapter to show why Cornford's interpretation narrowly construes Timaeus' mythical language. Suffice it at this point to indicate what that conclusion will be. Plato does not stop at a *merely* mythical account in the Timaeus. True, there is another myth of "creation" in the Timaeus, but it is not all that is to be found there. In addition to the mythical, Plato is, as usual, revealing what he feels to be the truth, so that he who sees what the myth *means* has seen more than the myth. In this way, the Timaeus can be read either as myth and myth alone, or it can also be interpreted as a new doctrine in which Plato points clearly beyond *mere* myth. This view is clearest in the ending of the passage cited, where Plato says that we must see, not mere myth, but a likely myth, just as in the Theatetus we must have, not only opinion, but right opinion, or in the Sophist and opening passages of the Timaeus, we must see, not mere images, but moving images, which faithfully reproduce the proportions of the original model.



Thus, Cornford can say,

In the application here it is argued that, since the world is in fact good, its maker must have copied a model that is eternal. The world then is a copy, an image, of the real. It is not, indeed, like an artist's painting, at a third remove from reality but on the other hand it is not wholly real. <sup>80</sup>

Notice that Cornford does not distinguish, as the Sophist does (at 266d) between a good painter's faithful copy, and a poor painter's unfaithful distortion. Cornford implies that images are separated from the ultimate reality. Cornford seems to ignore the distinction between a genuine image and a mere copy in this case. He says, "The cosmology of the Timaeus is poetry, an image that *may* come nearer the truth than some other cosmologies." <sup>81</sup> He seems to mean *mere* poetry, as opposed to genuine poetry. This does not help us to understand Timaeus' statement that he will give the best possible account, which seems to mean genuine poetry.

But what does the statement that the Timaeus is poetry mean for Cornford, It means that ...inexactness and inconsistency are inherent in the nature of the subject; they cannot be removed by a stripping off the veil of allegory. An allegory, like a cypher, has a key; the Pilgrim's Progress can be retranslated into the terms of Bunyan's theology. But there is no key to poetry or myth. <sup>82</sup>

Certainly there is poetry, and myth, and imagery. But these must not be seen in the youthful light of the myths which Plato himself calls childish; they must be seen as the best possible account to reveal this doctrine to all mankind. Cornford's interpretation would lead one always to insert "only" when ever he refers to

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<sup>80</sup> Ibid., p. 28.

<sup>81</sup> Ibid., p. 30.

<sup>82</sup> Ibid., pp. 31-32.

images, since, in such a view, things are either perfectly true or they are only images. But for Plato, this simple dichotomy has long outlived its utility, and the doctrine of not-being, and the mixture of being and not-being is, in the *Timaeus*, a further effort on Plato's part to clarify his thought on these matters.

Archer-Hind comments that the eternal model of the universe and its creation in time represents Plato's use of allegory, and that there can be

no question whatsoever of the beginning of the universe in time. The creation in time is simply part of the figurative representation; in Plato's highly poetical and allegorical exposition, a logical analysis is represented as taking place in time, and to reach his true meaning we must strip off the veil of allegory.<sup>83</sup>

Here is the source of Cornford's statement that it is impossible to "strip off the veil of allegory." Later in his commentary, Archer-Hind writes that although Plato is talking about "absolute thought thinking itself" Plato has put this idea into the figure of a gradually unfolding process. My view is that it is *not* necessary to strip off the veil of allegory to see Plato's meaning, for the allegory does not conceal but enhances the doctrine. For those who see *only* the allegory, it affords a pretty image of the truth. But for those who see the doctrine, the image adds an added richness, which does not cloud the doctrine, but actually helps it to radiate of itself, and to shine more radiantly. However, one notices that Archer-Hind does not translate the final portion of the passage in question by the phrase "only an image"; he says, simply, that an image is "likely" and "duly corresponding" with its subject. Thus Archer-Hind is able to conclude that words stand in the same relation to the Forms, which they represent as the images do, and that this proportion is a special case of the more general formula at the end of the passage, which has it that becoming is to being as probability is

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<sup>83</sup> R.D. Archer-Hind, *Commentary on the Timaeus*, (London: The Macmillan Company, 1888), p. 86, n, 14.

to truth, This is not *mere* imagery, for words themselves, in this setting, become images. Later, when the whole cosmos is termed an image, Cornford's diminution of imagery will suffer because he has not allowed anything less than pure being to be called being, and so, whatever is less than pure must be somehow less than real. Thus Archer-Hind has escaped the claws of this argument by interpreting Plato's text to mean that words and images must correspond to that which they represent, so that a moving *cosmos* described without the use of a moving image would violate the canons Plato sets down for faithful representation.

However, Archer-Hind seems not to follow his own conviction that the later dialogues show a constant progression, because he adds that this analogy is precisely what one finds at Republic 511e. But there we find, not a division into two parts which are proportional, but 4 fourfold division of the powers of the soul where images are the lowest level of intelligence, and not the proportional representation of truths of reason.

Jowett too holds that the images which are *only* imitations of eternal things must be *only* images. Jowett's well-known Kantian bias is clearly evident here, since those kinds of knowledge which give anything less than the inscrutable nature of the Forms cannot be satisfactorily called true knowledge, but *only* images and copies. The fact that Jowett places the Timaeus next after the Republic is in part based on his claim that there is little difference between the doctrine of the two dialogues. This is a function of two factors; first, Jowett wrote his translations before the stylometrists ushered in the new era of Platonic criticism, and second, if one reads the Timaeus with the expectation that its doctrine will not differ materially from the doctrine of the middle period, and then translates the text with that view in mind, it is not only consistent but logically necessary to write "only an image." But if one follows the majority of scholars who placed the Timaeus in the late period, then one may see in the Timaeus certain doctrinal reformulations, so that it is not necessary to expect Plato to speak in the same epistemological voice which the later dialogues clearly modulate.

But a point worth making is partially confirmed by Jowett, in that he agrees with Archer-Hind that Plato makes words proportional to their referents, just as images are proportional to their paradigms. Although Cornford's translation of "accounts" is somewhat cumbersome, Jowett, however, agrees with Cornford in translating the second half of the proportion "what essence is to generation, so truth is to belief," although Cornford prefers being to essence.

The little-consulted work of T.T. Taylor is also instructive with regard to the passage in question. T.T. Taylor translates *paradeigmatos* not as paradigm, nor as model, but as exemplar. This translation could lead to the same difficulty into which Cornford was led, since the word exemplar has inescapably transcendental connotations, creating the impression that there is a spatial separation between the world of exemplars and the world of images, and this in turn would lead to the diminution of the role of images and the arguments based upon them. And so, T.T. Taylor says that in the discussion of images, "we should employ *only* probable arguments," thereby separating what Plato is trying to put together in a new way. However, T.T. Taylor says, The faith which Plato now assumes appears to be different from that of which he speaks in the sixth book of the Republic, in the section of alene; for that is irrational knowledge, whence also it is divided from conjecture, but is arranged according to sense. But the present faith is rational, although it is mingled with irrational knowledges, employing sense and conjecture; and hence is filled with much that is unstable. <sup>84</sup>

He goes on to say that for Plato there are four kinds of truth, and that some must be conjoined with sensibles. This opinion is

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<sup>84</sup> T.T. Taylor, The Timaeus and Critias of Plato, (Washington: Pantheon Books Inc., 1952), p. 112.

noteworthy since it was written in 1804, a full half-century before the scholars decided to resort to language tables to sort the dialogues into their chronological context. Here is a scholar who sees that Plato's reference is to the *four* truths, not of the Republic, but of the Philebus, where the Good is said to impart purity to the mixture.<sup>85</sup>

Bury does not relate the four truths of the Timaeus to the four divisions of the Philebus, but, instead, dichotomizes being and becoming.<sup>86</sup> Thus in the last few lines of his translation, he says that, on the one hand, . . . statements which copy the eternal must be, in so far as it is possible and fitting for statements to be, irrefutable and invincible, they must in no wise fall short thereof, whereas the accounts of that which is copied after the likeness of that model, and is itself a likeness, will be analogous thereto and possess likelihood;

Although Bury does not insert an "only" in this passage, the feeling tone is indicated in his translation by his use of "whereas," which makes it seem that he has shifted the field and is now speaking of the opposite side of the dichotomy. His translation makes it seem that the universe is only a copy of a copy, and therefore probably less than true. This seems to go against the aim of the passage, which is to account for the use of imagery, which, in earlier dialogues (Republic, Phaedo) were unworthy vehicles of the truth, but in later dialogues (Sophist, Statesman) are not only worthy but somehow necessary to describe the not-being integral to every real thing.

It is A.E. Taylor's view that the Platonic theory of creation in the Timaeus is a perfectly Christian vision, and that, furthermore, Plato's view is best understood by applying to it the fundamentals of Whitehead's theory of time, as set out in the "*Concept of Nature*." There are here actually two "heresies," as Cornford says. The

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<sup>85</sup> Ibid., p. 17.

<sup>86</sup> Bury, Plato and History,<sup>87</sup> p. 5.

first is the assertion that Plato's theory of creation is assimilable to the Christian notion: the second is that Whitehead's theory is both Christian and Platonic. It might seem that these theological disputes are not to the point, but, unfortunately, Taylor has introduced them in explanation of the passage which is under discussion.

Taylor first determines that Plato has said that the world clearly must have had an eternal model but that the world itself is mutable. Then he says, "This is virtually what Whitehead means when he says in his own terminology that objects are 'ingredient'" <sup>88</sup> in events. From this he draws the inference that Plato insists on a provisional character of representation because the senses only perceive roughly, and because it takes a long time for the coarseness of sensory perception to cross-check itself and finally arrive at precise and exact perceptions. Cornford seems right here when he says that A.E. Taylor's speculations derive from A.E. Taylor and hardly at all from Plato. It might be true to assert that Plato held the senses not to be "infinitely acute" but this is a long way from the claim that Plato offers a provisional account *because* the senses are so dull and because they can only report what they perceive at a given time <sup>89</sup>

A.E. Taylor nevertheless does not insert the "only" which others want. His translation reads: We must lay it down that discourses are akin in character to that which they expound, discourses about the permanent and stable and apprehensible by thought themselves permanent and unchanging (so far as it is possible and proper for discourses to be irrefutable and final, there must be no falling short of that—), discourses about that which is itself a likeness likely and corresponding to their objects. <sup>90</sup>

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<sup>88</sup> A.E. Taylor, *Commentary*, p. 73.

<sup>89</sup> *Ibid.*

<sup>90</sup> *Ibid.*, p. 74.

However, he adds the comment that Timaeus' discourse and Timaeus' "warning" about proportionality pertain to the whole cosmology. It is not given as a finally true account of anything but simply (only?) as the account which, so far as Timaeus can see, best "saves," i.e., does full justice to all the "appearances" so far as they are known to him. <sup>91</sup>

So, although A.E. Taylor does not insert "only" in his translation, he asks that the passage be interpreted as a warning that the account is simply the best one which Timaeus can devise to save the appearances. This follows upon Taylor's assumption that the Timaeus is a dialogue in which we should expect to find "nothing more" than the doctrine of a fifth-century Pythagorean, a "provisional tale," the "best approximation" Timaeus could manage. This interpretation makes it impossible for Taylor to accept the Timaeus as a dialogue which contains anything of the "later Platonic theory." <sup>92</sup>

Rather than enter into a detailed discussion of this Taylorian "heresy," as Cornford calls it, and rather than give the details of a long and involved series of quotations from the Ancients, it seems more appropriate to state Cornford's view of A.E. Taylor's unique and solitary opinion that the Timaeus is *only* Plato's eclectic and rather artificial combination of Empedoclean biology on to the stock of Pythagorean mathematics and astronomy. Cornford says, in summary,

It is hard to understand how anyone acquainted with the literature and art of the classical period can imagine that the greatest philosopher of that period, at the height of his powers, could have wasted his time on so frivolous and futile an exercise in pastiche. <sup>93</sup>

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<sup>91</sup> Ibid.

<sup>92</sup> Ibid., p. 19.

<sup>93</sup> Cornford, op. cit., p. x.

In addition, Cornford feels that "There is more of Plato in The Adventures of Ideas than there is of Whitehead in the Timaeus." 94

Except for Bury's, the most recent translation of the passages under discussion (29b–c) is Cornford's, which has the additional merit of supplying a detailed commentary, familiar at once with the sources and the conclusions of Platonic scholars. Yet Cornford's translation contains the assumption that the doctrine of the Timaeus cannot go beyond the dialogues of the late period which precede it. Yet Cornford himself places the Timaeus after the Philebus on doctrinal grounds; he feels that the Timaeus generalizes the divisions of the Philebus into the far more general topic of cosmology. But he fails to see that the Timaeus does not merely *apply* the Philebus' doctrine to cosmology; the Timaeus seeks a broader generalization of insight, proportional to the broader range of inquiry. Thus, in the passage in question, one should not conclude with Cornford that Timaeus is apologizing for the use of image because of Plato's repudiation of images in the middle period. There is an explanation which is much more simple; the Timaeus says quite simply that the image by which the universe is to be described is proportional to its model. The simplest view is that Plato now introduces an image into his most mature doctrine, and one can plausibly draw the inference that Plato's mature doctrine contains a reevaluation of the value of an image. To force Plato to hold fast to his earlier repudiation of the value of images is to preclude the need for the whole Timaeus, which, nevertheless, Plato wrote in his last years.

Thus, the simplest interpretation of 29b–c seems best. We must accept Plato's statement that the Universe *is* an image, and we ought not inflict our interpretations of the earlier Platonic Philosophy on the philosophy Plato writes in the Timaeus. This interpretation saves us the trouble of inserting cumbersome deviations from Plato's simple language. It seems too circuitous to assert that, although Plato says the Universe *is* an image, what he really means is that the Universe is *not* an image but *only* allegorically described

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<sup>94</sup> *Ibid.*, pp. 11–12.



as if it were an image. It seems simpler and more correct to say, with Plato, that our Universe *is* an image.

Now the problem becomes more philosophical, for we must inquire of the succeeding passages about the reality of an image, what an image is and why an image is, and, with Plato and the whole *Timaeus*, when an image is. This inquiry, as we shall see, is not to be separated from the main theme of the trilogy of which the *Timaeus* is the first dialogue; what are the conditions of the best form of society.

It would seem then, that the sense of 29b–c is as follows:

Granting these premises, we must see now that our Universe is an image of something. Now in all things it is most important to start at the natural beginning. Concerning an image, then, and its paradigm, we must state the following: as a word is proportional to the reality it describes, a description of that which is stable and abiding and discoverable by the aid of reason being itself stable and abiding (so far as it is possible for descriptions to be so—there must be no falling short of that) so, a description which describes an image will be proportional to the image it describes; as reality is to becoming, so is truth to rational faith.

This reading, it seems, restores the whole proportional tone of the passage, which is a carefully balanced set of proportional propositions, culminating in the statement that reality is to becoming what truth is to a rational faith.

Thus, when *Timaeus* tells Socrates that the participants of the dialogue should accept the account he is about to give as a "probable myth" (*eikota mython*) (29d) 4t need not be understood as "only" a myth but, in contradistinction to the childish myths which are for those who can see no further, the myth which *Timaeus* is about to tell is a likely or probable myth. This follows out the theme established in the former passage. Just as the image which

our world is, is not *merely* an image, so the myth of Timaeus is not merely a *myth*. As the image is proportional to its model, so the myth will be proportional to its model. The myth is a description of the Universe, and the Universe *is* an image. And since the image is faithful to the proportions of the original, as the Sophist stated it must be to have its measure of truth, so the myth will be proportional to the image, so that it can have its measure of truth. For some images are fantasies, and some myths are childish. But the universe is a genuine image and the myth which describes it is faithful to the proportions of the image, its model. As reality is to becoming, so image is to myth. It cannot be stressed too strongly that the reality and hence the reliability of images and myths depends on the account given to images in the Sophist which goes beyond the sterile purity of the isolated Forms of the Parmenides, which were there described as due to the naivete of the youthful Socrates. In this connection, it must equally be stressed that Plato is not vindicating any and all myths. He explicitly says only *faithful* images (in the Sophist) and only probable myths (in the Timaeus). But this is new. For Plato had written myths in each of the dialogues in the late period, and the famous myth of Er of the Republic is easily remembered. In the Sophist even some views of the One and the Many are called childish myths. And in the Seventh Letter, Plato tells us that there neither was nor is nor shall there ever be a doctrine of Plato's on the subject of the ultimate Forms. In view of 29b–c this paradoxical statement becomes intelligible. It means that there cannot be a doctrine of the ultimate Forms in *isolation*. Since the Universe is an image, the account of its ultimate Forms must be proportional to its reality. thus the account of the origins of the Universe, which is a locus of the Forms and the powers which they promise, must be mythical; not *merely* mythical, but *genuinely* mythical. It is Plato's sense of the ineffable and his poetic genius to see beyond every exact and fixed statement. The need not to blaspheme and yet the need to communicate can only be united in a properly proportional account of the subject. One must, and yet one dares not, speak the Name of the Ultimate Form. One may find the father of this universe but it is impossible to reveal him to all mankind. This speaks the double necessity not to lie and not to distort, and this

double necessity is met by the true myth, which functions to reveal yet hide, to speak yet remain silent. Thus, while the myth speaks Plato's doctrine, in a sense, it does not constitute a doctrine. It is precisely this notespeaking which constitutes the connecting theme between the Timaeus and the Sophist, but, at the same time, it is the generalization of this theme to a cosmic level, united to the investigation of time and eternity insofar as they relate to the best society, which constitutes the Timaeus as a culmination of the themes of eternity, image, and time, as they were gradually developed in the later dialogues. Granted that the Timaeus is poetry, it is not *only* poetry; it is, above all, Plato's philosophical poetry.

So far, then, we have been told about the role which an image is to play in Plato's description of the origin of the Universe. We have been told that the Universe is an image and that one properly makes use of a myth to describe an image as accurately as it can be described. It remains for Plato to tell us what an image is, how the Universe is an image, and, most especially, how the description of the Universe as an image explains the relation of time and eternity to the best society.

## 2.5 Time and the Universe

### 2.5.1 The Motive of Creation (29d–30b)

So far, we have been told that the World is a becoming image of an eternal realm. But this is precisely the problem. How can like be unlike, or how can the maker generate less perfectly than the perfect model. We recall the Sophist (265b) distinguishes divine and human production and that the Philebus has told us that the cause is the maker. But these distinctions only seem to introduce new problems. How can there be eternal becoming; would the cause of such an eternal becoming have to be a perpetually sustaining cause; or does eternal becoming mean that what becomes never began, or that what began shall perpetually become and continue. These questions must now be confronted, for the general issue

which underlies them is "what is the relation of a becoming image to reality."

Cornford states that "Plato denied reality to what is commonly called matter."<sup>95</sup> The materiality of this universe, however, is not unconnected with the motive for the generation of the Universe by its maker. We shall investigate the two issues simultaneously. Timaeus informs us of this motive when he tells us that the father of this Universe is good, and hence, not jealous of his perfection, so that "he desired that all things should come as near as possible to being like himself" (29e).<sup>96</sup> The father therefore:

took over all that was visible-not at rest-but in discordant and unordered motion and brought it from disorder into order, since he judged that order was in every way better. (30a)

But the most striking is:

That this is the supremely valid principle of becoming and of the order of the world, we shall be most surely right to accept from men of understanding. (29a)

Here the first part of the problem of an eternal becoming is stated. Plato has established that the model of the Universe must clearly be the eternal, and that the maker of the Universe introduced order, and that this order is the *most* valid basis of becoming. Yet, the following statement creates the problem, for it asserts; "Now it was not nor can it ever be permitted that the work of the supremely good should be anything but that which is the *best*" (30b). Here is the antithesis clearly stated: The Universe resembles an eternal model, yet it is a becoming Universe, and becoming, heretofore, could not be described in superlatives.

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<sup>95</sup> Cornford, *Plato's Cosmology*, p. 31.

<sup>96</sup> One is tempted to restore the hiatus which Cornford habitually tries to remove as "intolerable." Then the passage would read, "he desired that all things should come as near as possible to being, like himself."

Becoming is as perfect as it can be after it is ordered and endowed with intelligence.

Plato leaves the problem unresolved at this juncture. He says only that the Universe was framed as perfectly as possible. It is thus a living being with reason and soul. Yet soul is presumably eternal. It is important to realize that this problem, namely the reconciliation of eternity and becoming, is kept alive during the succeeding passages, and has not yet been resolved. This is no oversight: Plato means to hold this question in readiness until the doctrine he is developing can supply the answer.

Thus it is important to notice that the demiurge fashions the Universe *to the end* and *by nature toward* perfection, which seems to mean that its present state is incomplete, and yet the Universe is ordered and given intelligence so that it might be as perfect as possible. Later (in 48a and 52d) we shall have occasion to point out the *relative* omnipotence of the demiurge. At this point, we have not yet been told how it is possible to place the eternal and the realm of becoming in a harmony without flaws. The relation of the eternal model and the becoming Universe remains problematic.

Cornford states that it "...is not easy for us to understand" the relative and not absolute omnipotence of the demiurge. For it is clear that the demiurge has not created *ex nihilo*, but has ordered the discordant motions only in so far as it was possible. Cornford concludes that the set of discordant motions, the chaos, the material which the demiurge orders, is an eternally present material, and so the demiurge cannot be simply equated with the God of the Christians.<sup>97</sup> Cornford wants to help Plato avoid the "impossibly absolute divinity" who, being absolute, could not involve himself in earthly affairs. But this seems unnecessary, since the demiurge is in no danger of being impossibly absolute; rather is he in danger of being so completely relativized in Cornford's description that he becomes, not only not the God of the Christians, but not even the demiurgic divinity which Plato describes.

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<sup>97</sup> A.E. Taylor, *Commentary*, p. 37.

## 2.5.2 The Model of the Universe (30c–31b)

In the next paragraph Timaeus speaks of the model after which the demiurge fashioned this Universe. He says that we must not suppose that the model was any specific Form, for then the Universe would lack the perfections of the other Forms after which the Universe was not copied. The Universe is most like that Living Being of which all the other things are parts, and it contains them all. In this, the Universe is very much like the model because there are no specific perfections lacking to it.

What can this Living Being be to whom no perfection is lacking and who serves as the model for each specific perfection. It cannot be any one Form, for on this supposition there might be others (31a). Nor can it be a Form of all Forms, for this position involved the difficulties mentioned in the Parmenides. Is it The Form of The Good, or perhaps the Demiurge Himself? None of these answers satiafy. If it were the Good, Plato could easily have said so, as he did in the Republic. Nor does the demiurge regard his own perfection as a model; he is said to regard a model, but he is not described as looking to himself. It is hard to see the grounds for Taylor's assertion that the demiurge fashions by "an overflow of his goodness." <sup>98</sup>

Plato himself "recapitulates" the third man argument of the Parmenides to the effect that the model which embraces all the intelligible things there are cannot be one of a pair (the simplest number),

for then there would have to be yet another Living Creature embracing those two, and they would be parts of it; and thus our world would be more truly described as likeness, not of them, but of that other which would embrace them. (31a)

The Universe must be one, like its model. Here again the Timaeus marches out boldly beyond the doctrines of its predeces-

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<sup>98</sup> Ibid., p. 78.

sors, for that One after which the Universe is modelled is not the sort of One which is put into the mouth of Parmenides in the dialogue which hears his name, but a new sort of One which is now to be described. Or rather, Timaeus will now present a mythical account of that One of which the Universe is the image.

### 2.5.3 The Body of the Universe (31b–32c)

But Plato does not launch immediately into a description of the One. Instead, he takes the lesson of the *Philebus* to heart and proceeds to reveal how the Universe is composed of four primary elements, first the traditional fire and earth, and then the third which unites them, "for two cannot be satisfactorily united without a third." (31b)

Here Taliaferro's brilliant analysis of Plato's Pythagoreanism is apropos. He shows how the necessity of proportion *between* lines, planes, and spheres, is a generalization of the proportions *within* lines, planes, and spheres. That is, just as the extremities which make up a line are proportional to each other, so the plane and the sphere have proportional elements; but further, the proportion between the line and the plane is proportionally the same as the proportion between the plane and the sphere. In the same way, the realms of physics and geometry are proportional to each other, as the realm of matter is proportional to the realm of soul, and the realm of soul with the realm of being. Plato seems to be suggesting that there is a general proportionality between being and becoming.<sup>99</sup>

Yet this is abstract, and Plato wants to present the tale with all the richness of which a myth is capable. Although a radical unity of realms has been introduced, the structured, leveled unity of these realms must be spelled out, for the Universe shares in the intelligibility of 4ts model, which comprehends all the things within it in a single unity. It is as if Plato were building suspense into his drama of creation. There is a difference between a metaphysical

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<sup>99</sup> T.T. Taylor, *The Timaeus and Critias of Plato*, pp. 29 ff.

dramatist, who writes drama with metaphysical overtones and suggestions, and the dramatic metaphysician, who writes metaphysics with dramatic overtones. Plato seems to be one of the latter sort, since his Timaeus portrays the metaphysical origins of the Universe, in such a fashion that Timaeus' account manages to create dramatic suspense.

Since the Universe is visible, it must be bodily, and that which is bodily must have come to be. But, the Philebus informed us that the visible must have fire to be visible and earth to be tangible, and, since no two can be united without a third, fire and earth cannot be united without a third. Here in the Timaeus, the third must unite fire and earth in the best way possible, which is in the manner of a geometric proportion (31c). This is the best because "in that way all will necessarily come to play the same part toward one another, and by so doing they will all make a unity" (32a). Plato speaks here of the relation of proportional elements to each other; 2 is to 4 as 4 is to 8. By transposition, 4 is to 2 as 8 is to 4, and in this way the mean, 4, comes to be the outside term and therefore it seems to be the outer boundary of the proportion. This is the arithmetical way of allegorizing the doctrine that proportion is what unifies, just as the side of the plane forms the outer boundary of its area, There is no need to dwell on the obvious Pythagorean style of this image. The point is that the elements of fire and earth need to be united in a proportion so that they define each other in the unity which they form. But on the basis of a simple proportion of this type, the Universe would have a plane surface with no depth. Yet we see that the World is a solid, "and solids are always conjoined, not by one mean, but by two" (32b). Therefore the god set water and air between fire and earth, and made then proportional to one another. In this way the unity of the Universe was achieved, and the proportionality of its four elements to each other is their boundary. Further, only he who set the elements in proportion could dissolve it (32c). All of the elements were used up in the construction of the Universe, and in this way the Universe resembles its model's perfect unity, for none of the materials were left over and it is therefore, in its way, complete. It is also, on that basis, simple, that is, one Universe, and hence resembles the unity



of its model. Since only he who made the Universe can disrupt its unity, and since there are no materials left over which could attack the Universe, it is free from old age and sickness, which come about by the introduction of materials from without. This at first seems to mean that the Universe resembles the eternity of its model in that those elements which might bring about age and sickness to the eternal would have to be outside its definition, and so, the Universe, in its fashion, similarly cannot age or succumb to sickness for this would require elements outside it, of which there are none (33).

But the shape of the body of the Universe is "that which is fitting to its nature" (33b); it is spherical. This is an extremely important phrase, since some regard Plato's image of time as circular and therefore interpret the Platonic Universe as closed, and subject only to eternal recurrence, without novelty or growth or process.<sup>100</sup> Therefore it is necessary to dwell on this phrase, for it says precisely and unambiguously that the spherical shape of the body of the Universe is proper to its nature. The foregoing passage clearly tells us that the Universe resembles its model in its own way, and that the perfection of the Universe is the aspect of the model from which the spherical shape derives. It is one thing to say that the Platonic Universe is spherical and therefore closed; it is quite another thing to say that the Platonic Universe, which is a becoming image, is as perfect as it can be, and therefore allegorically spherical. This latter view cannot be stressed too strongly, because it is common to regard the Platonic Universe as nonetemporal, or as imperfect because it is only spherically temporal. Plato, on the contrary, tells us clearly that the perfection of the model is the paradigm for the perfection of the Universe, which is a becoming image, so that it is appropriate to its style of perfection for it to be spherical. It is necessary to state simply that the question of the temporal character of this Universe has yet to be broached and will not be introduced by Plato until the discussion of the soul of the Universe has been undertaken. It follows that descriptions of the temporal character of the Universe

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<sup>100</sup> e.g., Alexandre Koyre, *From the Closed World to the Infinite Universe*, (New York: Harper & Brothers, 1958).

based on its spherical shape do not follow the logical order of the dialogue, for they extract elements of the dialogue out of their context, in order to put them together in an order which was foreign to Plato's stated order. The spherical shape of the body of the Universe as Plato describes it, is the way in which the body of the Universe resembles the perfection of its model, insofar as that model is a self-comprehending figure, that is, a figure which is a proportional unity. It is not the — function of the spherical shape to resemble the eternity of the model; on the contrary; it is the function of the revolution of the sphere, governed by the world-soul, to resemble the eternity of the model. In so far as the body of the Universe is spherical, to that extent does it resemble the unity of the model. One must call to mind here the impossibility of describing each and every characteristic of the Universe at the same time and by the same set of words. Plato, like every other writer, cannot speak simultaneously of every aspect of his vision; it takes *time* to describe every feature of what one describes. The function of an image in this context becomes somewhat more evident, and the truism that a picture is worth a thousand words is not irrelevant to this characteristic of written description. For an image, a picture, can put forward thousands of details in a simple *simultaneous* unity, whereas the description of the picture in written words must focus on one aspect *at a time*. Thus Plato describes his Universe as a becoming image, to indicate that the unity of its elements is complete and harmonious: but to reason immediately from its spherical shape to its temporal character is an instance of cart-before-the-horsemanship. We must wait until the discussion of the body of the Universe has been completed, and then for the discussion of the soul of the Universe. Then, and only then, does Plato introduce his doctrine of time and the relation of time to the eternal model.

Thus Plato states that the spherical body of the Universe is without organs or limbs, because the Universe which embraces all living things within itself ought to have that shape which comprehends all shapes within itself. The sphere is the most perfect shape because it "comprehends in itself all the figures there are" (33b). The shape of the Universe is proportional to its model:

as the model is the most perfect model, the sphere is the most perfect shape. To accomplish his stated purpose, Plato describes how the Universe, as an image, is proportional to its model. In so doing, Plato continues to follow his own injunction; as reality is to becoming, so is truth to faith.

But again, it is important to notice that the precise description of the relation between an eternal becoming and an eternal being has not yet been made clear. It is still held out for later comment. In short, during his description of the shape of the Universe, Plato has not yet said how it can be that the Universe can be an eternal becoming. The spherical shape of the Universe is basic but not sufficient for an insight into Plato's philosophy of time.

Similarly, one cannot pass immediately from Plato's aphantical Universe to Plato's philosophy of time. The motion of the sphere, which he is about to reveal, is basic, but even this will *not* be sufficient for the explication of Plato's time-doctrine. The spherical Universe has no organs for sight or food, and is therefore not dependent on anything else. It has the sort of motion which, above all, belongs to reason and intelligence, namely, uniform rotation. It does not go from up to down, nor from down to up; nor from left to right, nor right to left; nor does it go from forward to backward, nor from backward to forward; the maker took these six motions away from it in the process of ordering its discordant wanderings. It revolves uniformly within its own limits (34a).

In his description of the body of the Universe, it is important to see that the divisions of the Philebus and the arrangement of the elements in their proportions are recapitulated here in the Timaeus. Otherwise, one fails to notice that the relation of fire, air, earth, and water, in the Timaeus is a subtle transfiguration of the Pythagorean number four, and also a substitution of proportion for the Amity which the elements had when ordered by the *Nous* of Anaxagoras, which, as Socrates complained in the Phaedo, Anaxagoras introduces early in his work but soon proceeds to ignore. Here Plato carries the theme of proportional unity into the relation of the elements themselves, It is doubly important to take

note of this proportionality as constituent of the Universe, because Plato has described the relation of proportionality as the best sort of unity for the Universe, and the Universe must be the best possible because it is an image of its model. As we shall see, the world soul is similarly the best possible, for, not only is it too a resemblance of the model but it is the deeper source of the proportional perfection of the Universe.

## 2.5.4 The Soul of the Universe

The plan of the god who makes the Universe into the best image of the best model could not exclude soul from his activity, so that the excellent body of the Universe, which is spherical, and therefore not dependent on anything outside of itself, must in some way be related to a soul. The Soul of the Universe was set in the center, but further "wrapped its body round with soul on the outside" (340). Here the transposability of the elements of a proportion comes into the account. For, at first, it seems that the center of the Universe cannot at the same time be the periphery. But, just as the mean term of a proportion can become the extremes by transposition, so the Soul, which is first described as the center (the mean) now becomes the outer boundary. This use of mathematical image seems to be Plato's way to indicate allegorically that the very heart of the Universe is also its limit, and that its center is not to be taken as a strictly spatial point but as the inner principle of the Cosmos, which therefore also animates its sphere of functioning and the limits of that functioning. Because the Soul of the Universe is both its center and its limiting boundary, it is described as a "blessed god" (34b).

One might easily wonder why the body of the Universe is discussed before the Soul, which is said to be the most excellent source of perfection. Plato explains in the next paragraph why this was done. He says that we should not suppose, merely because the Soul came later in the account of the Universe, that it is therefore younger, for that would be an insufferable perversion of right order. Already, "There is in us too much of the casual and the

random which shows itself in our speech..." (34c). The priority of Soul in perfection is not absolute and total; there are still too many obvious wanderings and deviations from the orderly to assert that the Soul is prior in every way.<sup>101</sup> Plato is all too aware that the Universe cannot be empirically described as exhibiting the perfections of Soul. It seems likely that Plato described the body of the Universe before describing the Soul in order to follow out his initial premise that the Timaeus will reveal the plan of the Universe in an image, so that, by first establishing the visible shape of the Universe, he will then be able to make use of the shape he attributed to it to fashion images of the Soul. This was the procedure of the Republic, for there, it was explicitly agreed that the best plan for the investigation of the Soul would be to see it writ large in the State. So here, it seems that Plato is saying that we shall come to understand the Soul of the Universe writ large in its body. Throughout the Timaeus the details of the image are described before the image itself, but this is only an apparent reversal of the order in which the Universe was fashioned. It does not seem wise to interpret this, (as Cornford and A.E. Taylor do) as "inconsistent." If one understands from the outset that the best description of the Universe must be proportional "to its reality, then the details of the allegorical level of explanation are not inconsistent with the details of the reality of the Universe. Only on the supposition that Plato is following a linear plan of description would it follow that details are out of place. But if one accepts Plato's approach through image, then one remembers that the exigencies of written description create the appearance of a linear account, whereas, in fact, Plato concentrates on one aspect and then another of the entire image, which, in its unity, does not serialize or linearize the elements of the account. Plato's Universe does not consist of a series of elements which must therefore be described one at a time. One could more easily attempt to fashion a length of rope from grains of sand.<sup>102</sup> Thus, if one starts from an expectation that the description of the Universe must be a linear account, one should conclude that Plato's description of

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<sup>101</sup> E.R. Dodds, The Greeks and the Irrational (Boston: Beacon Press, 1957).

<sup>102</sup> George S. Claghorn, Aristotle's Criticism of Plato's 'Timaeus' (The Hague: Martinus Nijhoff, 1954), p. 87.

the World-Soul should have preceded his account of the Body of the Universe. But, if one starts from the awareness that Plato is describing those aspects of the Universe which will lead to an insight into the whole Universe in a simple image, which is the best kind of account of the Universe because it is proportional to its kind of being, one is not disappointed that Plato describes the Soul of the Universe after the body. One ought to recall in this regard Plato's deep concern that it is, after all, impossible to reveal the maker of the Universe to all mankind. He attempts, by means of his imagery, to communicate to as Many as possible. In this way, the recipient of his account has been presented with the shape of the body of the Universe, and he can now elevate this image by perceiving how it has Soul at the center and all around it.

However, the World-Soul is not so simple that its description can rest on the characteristics of centrality and periphery. The description of the "parts" of the World-Soul follows next, in a passage which Cornford has described as "one of the most obscure of the whole dialogue."<sup>103</sup> Further, he says that the passage "would be simply unintelligible to anyone who had not read and understood the Sophist."<sup>104</sup> In a note he adds that A.E. Taylor has precluded this basis for understanding the World-Soul because A.E. Taylor denies a knowledge of the Sophist to Timaeus.<sup>105</sup>

By his reference to the Sophist, Cornford points out that the "ingredients" of the Soul will be the Forms which Plato there said communicated with each other, namely, Unity, Sameness, and Difference. Particularly, Difference has the character of not-being, yet these Forms communicate with each other. In the following passage from the Timaeus, Plato describes how the World-Soul comes to be formed, and how the communication of these Forms is accomplished in the World-Soul.

The things of which he composed soul and the manner of its composition were as follows: Between

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<sup>103</sup> Cornford, *op. cit.*, p. 59.

<sup>104</sup> *Ibid.*, p. 61.

<sup>105</sup> A.E. Taylor, Commentary, p. 128.

the indivisible existence that is ever in the same state, and the divisible existence that becomes in bodies, he compounded a third form of existence composed of both. Again, in the case of Sameness and that of Difference, he also on the same principle made a compound intermediate between that kind of them which is indivisible and the kind that is divisible in bodies. Then, taking the three, he blended them all into a unity, forcing the nature of difference, hard as it was to mingle, into union with sameness, and mixing them together with existence. (35a–b)

This passage bears extensive comment, for several of its points are crucial to Plato's development of his philosophy of time.

First, it is clear that the Forms have not been repudiated by the Timaeus, since the passage begins with a description of the Forms which recapitulates their treatment in the Sophist. The kind of existence which is always the same is proper to the Forms, and was proper to the Forms as early as the Phaedo and the Republic. But in the Sophist, the Different was introduced, based on Plato's recognition that it is necessary to say what is-not in order to say what is. In short, the entire doctrine of not-being of the Sophist has reappeared in the Timaeus. But, just as the initial recapitulation of the Republic at the beginning of the Timaeus (28a) does not rest with a simple repetition but proceeds further, so here the recapitulation of the Sophist doctrine of not-being, on the level of the Forms, i.e., Difference, will not end Plato's discussion. He means to go beyond this point. Or, to put the matter differently, Plato will now investigate the relevance of the doctrine of not-being insofar as it helps to explain the constitution of the World-Soul.

The second point to be noticed is the recognition that there are, as Cornford translates it, "kinds" of existences: there is the "kind" of existence proper to the Forms, there is the "kind" of existence proper to divisible bodies, and in addition, there is a third "kind" of existence, between them, an intermediate existence,

proper to the Soul of the Universe. Further, these three "kinds" are further divided and then further recombined, so that there is a whole hierarchy of "kinds" of existence. Cornford's diagram is instructive on this point. <sup>106</sup>

First Mixture	Final Mixture
Indivisible existence Divisible existence	Intermediate existence
Indivisible sameness Divisible sameness	Intermediate sameness Soul
Indivisible difference Divisible difference	Intermediate difference

Note that it is no longer possible to assert that there is only one "kind" of existence which deserves the name, the sort reserved for the Forms in the Republic, where all else is mere shadows. In this connection, it should be recalled that the Sophist distinguished sharply between the kinds of images (*eidola*), and reached the conclusion that some images are false (*phantasiai*) but some are genuine. Of those that are genuine one must further distinguish those that are of human origin and those that are of divine origin (240a). The Sophist therefore credits images with some sort of existence. But the Timaeus does not simply describe the Universe as an *eidolon*, a little Form, so to speak. The Universe is an *eikon*, which now comes to mean that it is like the perfection of the most perfect. But even this is not the high point of Plato's analysis, as we shall see. Nevertheless it is central to the exposition of this passage to notice that the doctrine of the Sophist, which makes it necessary to somehow include not-being in the realm of Forms, is now recapitulated, but, in addition, it is not only the reality of the Forms but the reality of the whole Universe which must now be explained. And in this connection, Plato has shifted from a description which accords some sort of being to images, to a description of the whole Universe *as* an image, and that the transition from *eidolon* to *eikon* is intrinsic to this development of doctrine.

Thus, between the two orders of existence with which we were formerly acquainted in the Sophist, namely, the eternal and

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<sup>106</sup> Cornford, loc. cit., "Kinds" is a peculiar expression which is repeated here only to assure an accurate representation of Cornford's view.



the becoming, Plato has now inserted a third. This is a further development of his doctrine of proportion, of which we saw the first usage in this dialogue in the composition of the body of the Universe. The sort of mixture which the Philebus prefigures is now developed in Plato's attempt to construct the entire Cosmos on this basis. But, in the Philebus, the precise details of the manner in which this mixture was to be accomplished were left somewhat less clear than they are now painted, for the Philebus insisted that the cause of the mixture was in fact the god, but the god was not described as the maker of the whole Universe; he was there only the mixer of the Forms in some things.

This passage, like the passage at 29, is a radical innovation on Plato's part, which takes the doctrine of the Timaeus far beyond the doctrines of its predecessor dialogues. It is a recapitulation, but the recapitulation serves as a basis for an advance. Where once only the Forms were ultimately real, now there are "kinds" or "sorts" or "levels" of reality; but these are not to be distinguished from each other as merely Different; they are also the Same, and, further, they are in a proportional Unity. The significance of this proportional unity is the basis of the succeeding passages, where we notice that the basis of knowledge itself has undergone a radical growth. And, in addition, the basis of the former division of the world into the eternal and the becoming has similarly undergone a radical growth, wherein it will no longer be possible for Plato to distinguish simply between the eternal and the becoming as separated realms, but the relation of the eternal to the becoming will have to be described in a new way. Somehow, the eternal and the becoming will be related in a way which will explain how it is possible to have an eternal becoming.

This pertains to the statement that the Universe is an image. For, as we saw, the Universe is an image which in some way is like its eternal model and yet is a becoming image; yet it was not explained how there could be any reality to such an intermediary thing. The basis for the reality of the Universe as an image has now been laid. For the World-Soul itself is neither simply eternal

nor simply becoming; it is a proportional unity of the Same and the Different.

But, from basis to doctrine is not an immediate step. The lesson of the Philebus and the Statesman, which was the caution not to divide too quickly, but to proceed by following the right divisions according to the way things are, is not foreign to the author of these lessons. Before he gives the details of the reconciliation between eternal being and mere becoming, Plato follows out the division of the World-Soul into its precise portions.

Of course, we should not expect that Plato's passages on the motions of the planets will be adequate from the point of view of contemporary astronomy, so that a detailed commentary on the exact motions of the planets will be of interest only to those whose taste runs to collecting the opinions of the ancients and constructing a history of opinions with no care about their relevance or utility to contemporary experience. Plato had no Galileo to instruct him, nor a Newton. Furthermore, the invention of the telescope and the mass spectrometer have outmoded most of Plato's astronomy. But it is interesting to note that Plato looked to astronomy as a case in point. For, if the World-Soul united the Same and the Different within itself, and if the World-Soul, by reason of its superior dignity, is actually responsible for the motions of the planets, it should follow that the revolutions of the planets will occur in what Plato will describe as the revolution of the Same, the Different, and their Unity in the revolution of the uniform.

This is precisely the description which we confront in Plato's astronomy. It emerges that the seven divisions of the Soul are intermediate between the seven basic Forms, on the one hand, and the seven planetary distances, on the other, which in turn are proportional to the seven basic string lengths. Plato tells us that the harmony of the musical scale is only one level (or sort, or kind) of harmony, and that the Soul of the World is itself an intermediate between the ultimate Forms and the body of the Universe. The fundamental truth is the assertion of proportionality

and the harmony of the elements of the proportions. <sup>107</sup> Plato goes on to construct an intricate allegory of the circles of the Same and of the Different; he describes how these circles have been joined in the center of the Soul, and how the revolution of the Same circumscribes the revolution of the Different (the allegorical indication that the Same is the "outer" limit of the Different). The seven circles of the Soul represent the proportional share which the Soul has in the seven Forms, <sup>108</sup> just as the seven tones reflect the seven planetary distances. The point is not merely the number of circles, but the motion of the circles, since planets and music certainly move.

Plato tries very hard to make his allegory exact in every detail. He indicates that motions are shared proportionately by the seven planets, which means, (as A.E. Taylor has seen <sup>109</sup>) that Plato anticipated our own contemporary relativity theory of motion. (Heisenberg makes the same point <sup>110</sup>), It is anticlimactic to note that Plato knew the solar system to be heliocentric, although this is not universally agreed upon.

Plato next relates the seven motions of the Soul to the seven dimensions of the body, which is fashioned later than Soul, although it was described earlier. He says in summary;

...the soul, being everywhere interwoven from the center to the outermost heaven, enveloping heaven all around on the outside, revolving within its own limits, made a divine beginning of ceaseless and intelligent life for all time. (36e)

It is unnecessary to point out in this age of possible thermonuclear holocaust that Plato's optimism is derived from the perfection of the Universe which is the image of the perfection of the

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<sup>107</sup> T.T. Taylor, op. cit., "Introduction."

<sup>108</sup> According to T.T. Taylor, loc. cit.

<sup>109</sup> A.E. Taylor, Commentary, Appendix.

<sup>110</sup> Heisenberg, Physics and Philosophy, ch. 4. See also MacKinnon, Time in Contemporary Physics, pp. 428-457.

model, and not from the sort of empirical observation which has created pessimism in many quarters. However, one should note that Plato's Sicilian adventures did result in a sadness which Plato describes in his Seventh Letter. The difference between Plato's sadness over the outcome of Sicilian politics and the contemporary pessimism lies in the world-wide scale on which contemporary destruction can be accomplished. One might wish to derive a sense of optimism from the possibility that the Universe will go on even if the planet earth does not harbor any human life. For Plato refers to the life of the World-Soul as it inspires the body of the Universe, and not to the life of man, which, Plato was aware, is all too short. In the Myth of Er, the Republic describes the life of man as a span of one hundred years, and the cycle of good life as a span of ten thousand years. Here in the Timaeus intelligent life is "ceaseless."

But the discourse concerning the World-Soul was not written only to illustrate that Plato was master of the Pythagorean system of numbers. Where Pythagoras would derive the proportions of any body from the numbers 1, 2, 3, and 4, Plato establishes harmonic intervals which do not sum to the perfect number 10; instead, he leaves the end of the proportions open, so that the scale of tones or the planetary differences might be further calculated, if one wished.<sup>111</sup> Here one could agree with A.E. Taylor that Plato has given a "provisional" tone to his dialogue,<sup>112</sup> but, at the same time, one would have to disagree that Timaeus does nothing more than recite fifth-century Pythagoreanism, for Plato's Universe is not strictly Pythagorean. There seem to be several reasons for this, not the least of which is Plato's *use* of Pythagorean numerology in a description of a Universe which has far more complexity, and, at the same time, far more simplicity than the Universe of Pythagoras. This is most evident in the Pythagorean insistence that the Forms (numbers) are the ultimately real, and the World of appearance is less real. In what follows, Plato will reveal that there is a kind of knowledge proper to the World-Soul

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<sup>111</sup> Dodds, *op. cit.*

<sup>112</sup> A.E. Taylor, Commentary, p. 113.

which transcends a knowledge of number, by including it in a more comprehensive knowledge.

Thus, the body of the Universe is visible, but the Soul of the Universe is invisible, and is the "best of things brought into being by the most excellent of things intelligible and eternal" (37a). Because the Soul has been blended out of the Same, the Different, and the Existent, she is "in contact with anything that has dispersed existence or with anything whose existence is indivisible" (37a). In this way the Soul is like anything that is, and it can therefore know anything that is, "either in the sphere of things that become or with regard to things that are always changeless" (37b).

Thus, even though the World-Soul is the intermediate form of existence between what is eternal and what becomes, Plato can still say that there are two "levels" of existence, one eternal and one becoming. But he no longer says that there are only two forms of existence, nor that these two "levels" or spheres are exhaustive of all existence. Since the Soul is intermediate, it is a third "level" of existence. Yet, one courts danger by the simple enumeration of the number of forms of existence for one misses the whole emphasis which Plato has put on proportionality throughout the Timaeus. The Soul could not know either realm if it were simply in between the eternal and the becoming; the point is that the Soul is in a proportional unity with the eternal and the becoming, and so, it is part of each and each is part of it. Plato tells us in the following passage that both the circle of the same and the circle of the different transport their respective judgments into the Soul:

Now whenever discourse that is alike true, whether it takes place concerning that which is different or that which is the same, being carried on without speech or sound within the thing that is self-moved, is about that which is sensible, and the circle of the different, moving aright, carries its message through all its soul—then there arise judgments and beliefs that are sure and true. But whenever discourse is concerned only with the rational, and

the circle of the same, running smoothly, declares it, the result must be rational understanding and knowledge. (37b, c)

Several features of this passage bear comment. First, it states that belief arises from the circle of the Different, (which includes the realm of the many, the dispersed, and the sensible objects of perception) and that beliefs must be sure and true if they arise from the *proper* revolution of the circle of the Different. Second, it describes this sort of judgment as intrinsic to the World-Soul, and not an inferior sort of knowledge. For the Same and the Different constitute Soul; no longer is Soul only the superior portion of the divided line. Third, the knowledge of the Same and the knowledge of the Different both comprise Soul, and are both proper functions of Soul, having allegorically, the relation to each other of proportionality. This is not to say that rational knowledge alone is not better; rather, it asserts that belief and opinion are not bad or impossible. Both judgments are necessary to what Soul is, and both sorts of knowledge arise when Soul does what Soul does; namely, generate the motions of the Universe. Lastly, the judgment by the Soul is called an *aesthesis*, which, unlike the English word "judgment," extends to feeling and to the appreciation of beauty as well as of truth. This capacity to Know aesthetically is of the utmost significance in Plato's Universe, and it is especially necessary for a consideration of the next topic to which Plato addresses himself, namely, time. For if time is a Form then reason alone will comprehend it. But if time is an image, then its beauty is as important as its truth.

## 2.5.5 Time as Image (to 39e)

Up to this point in his development of the construction of the Universe, Plato has insisted that the Universe embodies in its proportional way the perfection of its model, and yet the model is consistently described as eternal, while the Universe is said to be an eternal becoming. The Universe is described throughout the foregoing passages as a reality which is as perfect as it can be, and

yet Plato nowhere says how a visible and tangible body can be like its eternal indivisible model. Even the existence of the World-Soul and its participation in the whole of the Universe, in its divisible as well as its indivisible aspects that is, in its sameness and in its difference, is not sufficient to confer on the Universe the closest approximation to the perfection of the eternal model, even though Plato usually attributes the highest perfections to Soul. In the following passage, Plato finally makes explicit the way in which the Universe of becoming most resembles the eternity of its model. To all the perfection which he has attributed to the Universe, including intelligence, judgment, and uniform revolution, he now adds the perfection which enables the Universe to resemble its eternal model to the fullest extent possible, the ultimate perfection of which the Universe is capable. Plato writes:

When the father who had begotten it saw it set in motion and alive, a shrine brought into being for the everlasting gods, he rejoiced and being well pleased he took thought to make it yet more like its pattern. (37c)

When the Universe was set "in motion and made alive," the requirements which Socrates had laid down in the beginning of the dialogue were met. However, Plato does not end his sentence on this condition; he adds that the Universe was alive and in motion, and, in addition, it was a shrine (*agalma*). This peculiar word has caused the commentators no small difficulty. Its meaning is not fixed and precise, since it may mean a statue or it may mean a thing of joy. But the connotation of the word suggests that either the statue or the thing of joy are made by the lover who beholds in the statue an image of his loved one, which makes the *agalma* both a statue and a thing of joy. One recalls that the dialogues of the late period, especially the *Sophist*, have consistently lent themselves to an exposition of the difference between a mere statue, which may or may not be faithful to the proportions of the original model, and a genuine image, which is faithful to the proportions of the original model. The *agalma* is not only faithful to its original model but the model is a loved one whose very visage brings joy to the

heart of the beholder. Heretofore, the Universe was described as an image, (*eikon*) but in this passage it is described as *agalma*, an image which brings joy to the heart of the beholder.

But the Sophist distinguished between human and divine images. One can understand that a human craftsman might take delight in an image of his loved one, but when the maker of the Universe takes delight in the image of the perfection of the eternal model, it is another matter. For this image is said to be a shrine for the everlasting gods, and the plural is unmistakable. For the plural gods have not made the Universe; this was the work of the demiurge; yet the Universe is not described as a shrine for the demiurge but for the everlasting gods. It is tempting to conclude from what first seems to be a glaring inconsistency that Plato had made the Universe to be a place in which the gods may worship the Living Being who is the model of the Universe. Or, going beyond the surface of the allegory, one might conclude that the One Living Being who is the maker of the Universe takes delight in Himself in the image of Himself which is called the Universe, since Plato clearly says that the maker rejoiced when he beheld it. But it is first necessary to state that Plato does not offer these interpretations himself, and we are forced once again to remind ourselves that the finding of the maker of the Universe is a hard task and the revelation of the maker to all mankind is impossible. It seems best to interpret the passage in the light of Plato's own statement that the exact and specific description of the maker is impossible. Nor does it seem wise to expect that Plato is trying to bring us to the point where we ourselves experience the reality behind the veil of allegory, in the hope that we will experience what he means, even though he does not say it explicitly. Although this might very well be Plato's intention, we have no way of knowing whether he has designed this passage, indeed, this entire dialogue, to create the basis of such an experience, Although it is impossible to pretend that we do not project our own views on to the structure of Plato's philosophy, since we are moderns and our minds are attuned, as it were, to our own era, nevertheless we ought to attempt to plumb Plato's meaning, so far as we can. To assert that this is impossible is to abandon all historical scholarship; to assert that this poses no



difficulty at all is *naivete* in the extreme. Thus, despite the agreement which Augustine and many other philosophers felt when confronting this passage, we ought not to conclude that Plato has "anticipated," as the saying goes, the doctrines of Christianity. One could as well say that the ineffability which characterizes Plato's maker of the Universe is due to his acquaintance with Buddhist or Mosaic doctrines of the ineffability of the Divine.

One must rest at Plato's statement that the Universe is an *agalma*, and that the maker rejoiced when he saw that it was alive and in motion. In the Phaedrus (at 252d) there is a similar usage of *agalma*, in which the lover chooses his love (*eros*) as if the love were a shrine (*agalma*). There is another use in the Laws (931a) where parents who receive proper veneration from their children are regarded as instances of *agalma*.

However, one must recall that Plato has said all through the Timaeus that the Universe was fashioned by the demiurge, who in turn looks to the perfection of the eternal model, and not to himself as the locus of the eternal model, so that the simple equation of the eternal model with the demiurge runs counter to the stated details of the allegory. Again, it would seem to be a modern projection to interpret this division of the model from the demiurge as a justification for the claim that Plato distinguished the Father from the Creator. From such an interpretation one could reach out to the conclusion that, for Plato, *Summun Bonum est diffusivum Sui*, but this stretches interpretation far beyond Plato's stated words.

The attempt on the part of some commentators to assert or to deny these implications of Plato's words, then, seems to represent an attempt to fit Plato's meaning into more contemporary doctrines. One cannot quarrel with those who find inspiration in Plato's text, but this is not the question. The question is, what did Plato mean? And in this context, it seems beside the point to fit Platonism into more recent doctrines of creation, and rather more to the point to relate the details of Plato's intricate allegory to what is clearly demonstrable and attributable to Plato as a fourth-century genius, and not a twentieth-century commentator on

twentieth-century investigations. The great controversy which Plato's demiurge has created will not be settled in these pages. The point under discussion is the distinction between the Universe as a shrine and the Universe as an image, and the fact that Plato described the Universe as an image (*eikon*) throughout the preceding passages, but now refers to it as a shrine (*agalma*).

But a relatively full view of this shift of emphasis must include stylistic as well as theological considerations. For, Plato will put forward in the next few passages, a doctrine of time as a special sort of image, and, in order to avoid calling both the Universe and time by the same name, Plato has elevated the Universe to the status of a shrine-image so that he can refer to time as another sort of image. Recall that the beginning of the *Timaeus* confronts the reader with the need to avoid blasphemy, and yet the equally insistent need not to demean the Universe or to rob it of any due measure of perfection. Thus the Universe as a shrine becomes the locus of divine function, and as we shall see, the Universe as temporal becomes the *manner* of divine function: respectively the place where the demiurge acts and the way in which he acts. There is a further note which should be added. For a shrine may be occasionally empty of the presence of the god to whom it is dedicated, or it may be filled with his presence. And it is precisely this distinction which bears on the following passage. For the Universe has so far been endowed with body and Soul, but the maker sought to make it *yet more* like its eternal model, not only a shrine in space but in some way an eternal shrine, as much like its model as it can be.

(Just) <sup>113</sup> as that pattern is the Living Being that is forever existent, so he sought to make this Universe also like it, so far as it might be, in that respect. Now the nature of the Living Being was eternal, and this character it was impossible to confer in full completeness on the generated thing. (37d)

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113 Cornford has "So."

Here Plato speaks the paradox which has run through the previous discussion of the Universe as an eternal becoming. He states openly that the model is the Living Being who is eternal but the Universe is a generated thing which therefore cannot be eternal in the same way. It is this difference between the model and the Universe which must be reconciled in order to describe the Universe as a thing which is as much like its model as possible. And to accomplish this, Plato says:

But he took thought to make, as it were, a moving likeness (*eikona*) of eternity; and at the same time that he ordered heaven, he made, of eternity that abides in unity, an everlasting likeness moving according to number—that to which we have given the name Time. (37d)

In this passage, the themes of eternity, image, and time culminate in a synthesis, of which there are several aspects. First, notice that the act of the demiurge which brought order to the original chaos, which Plato has already described, is said in this passage to be the same act as the act of making time. Second, notice that time as an image is made, not of chaos but of eternity. Third, note that Time is a moving image *and* an everlasting image. Fourth, note that Time is said to move according to number, Fifth, note that we have given it the name of Time. I shall discuss each of these aspects in turn.

1. *The activity of the demiurge*—The Universe has been described throughout the Timaeus as made by an act of the demiurge, whose activity brings order out of the discordant motions which confront him. This feature of the allegory has elicited much comment, and some of the commentators would like to conclude that the demiurge does not create *ex nihilo* because Plato clearly says that the demiurge was confronted by a chaos of discordant motions.<sup>114</sup> Others would like to conclude that it is merely a detail of the allegory which does not jibe with the details of literal experience, so that one can dismiss the chaos

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<sup>114</sup> Cornford, *op. cit.*

as only a mythical element but not a real thing. Both views seem unnecessary, for Plato was neither writing *mere* allegory nor Christian Theology. It seems more to the point to show that Plato once before introduced a prior consideration into his account after he has introduced a later consideration, as we saw, for example, when he described the World-Soul after the World-body. There, it was to give the reader the necessary materials out of which he could fashion the image through which Plato put forward his account of the process. Plato of course attributes to Soul a superior sort of perfection than that which he attributes to body, but not because these parts of the Universe stand in an external hierarchy of items which are spatially and existentially discrete; rather, the proportional unity of the entire Universe is his primary desideratum, and he says repeatedly that the Universe is an image, and that we must see it as we see images, in their unity. But one cannot simply call off a list of parts if one wishes the reader to appreciate and know the unity of the image, since the list would create the impression of a linear, serial juxtaposition of parts, whereas the Universe is the most excellent unity of things that have become.

So here, the doctrine of Time, the aspect of the Universe by which it most resembles its eternal model, has been introduced last in the account of the perfected Universe, and we are told that the making of Time is accomplished by the demiurge *in the same act* as the ordering of the original chaos. Plato has again introduced the most difficult aspect of the doctrine he is fashioning, after the materials have been provided for the reader to see the doctrine in its unity. Logically, since the act of ordering the Universe is the same as the act of making Time, one might expect that these two aspects of the act of constructing the Universe should have been discussed together. But this runs into a severe difficulty, which is the simple fact that Plato did not do so, which leads to the contradiction that what we should expect Plato to say is not what we should expect Plato to say; in other words, if we are being faithful to the development of Plato's logic, we ought not to expect him

to put the making of Time and the making of order into the same paragraph since he did not do so. It is only necessary to perceive that these aspects are united better in an image than by serial logic, to follow Plato's meaning as exactly as he states it. Thus the function of image as an explanation of the relation between time and eternity is not less than logical; on the contrary, the image provides the basis to transcend the linear *appearance* of philosophical logic and to reach into the heart of Plato's doctrine of the Unity of the Universe.

2. *Time is said to be made as an image of eternity*—At first, this seems to mean that the demiurge fashioned the Universe out of the material of an original chaos, but fashioned Time out of the material of eternity. This is not only a philosophical difficulty but also a function of translation. For, in English (American?) we say that something is an image of something, which does not mean, for example, that the image of Freud, is made out of the material of his flesh. An image of Freud can be made of photosensitive paper, of clay, or bronze, or the graphite scratchings of a pencil, or colored pigments, etc. However, when one discusses the Universe as an image, a Universe which has been described as exhausting all of the four elements out of which it is made, what can the image be made of. But the answer stares us in the face. Plato has said that the Universe is a Unity of the four elements of fire, earth, air, and water, which has Soul indivisibly in each and every one of its parts. One cannot then expect the image, which the Universe is, to be *made of* any one of these so-called ingredients; the Universe is an image precisely because it is a *Unity*. Just as the Universe is a Unity, so is it an image, and one can as reasonably ask of what is unity made as one can ask of what is an image made. The Universe, as image, is like the Soul of the Universe; it is indivisible from its existence. Thus, insofar as Time is an image, it is not compounded out of the elements of chaos or out of the perfection of eternity. Time as image is Plato's way of describing, "as it were," the temporal unity of the Universe. The phrase "made of" seems ambiguous only because in English, the preposition "of" is sometimes used to

indicate apposition, sometimes to indicate the genitive, as in derivation. The "of" here is appositive.

3. *Time is said to be a moving image, and an everlasting one*—We have already been given the ingredients of this aspect of the Universe from which we may construct an image. For the motions of the circles of the planets have been described as due to the ordering perfection of the Soul of the Universe, and we are aware that the several motions of the circles within the Universe take place within that sort of motion which is best suited to the perfection of the Universe, namely, uniform rotation. Because Uniform rotation is the best sort of motion, which best suits the sort of perfection the Universe has, we know that the Universe is a sphere which revolves and comprehends all the other motions of the circles within itself. Just as the Soul comprehends all that can be comprehended because it is indivisible from every area of the Universe, so uniform rotation includes the several motions of the circles which revolve within the sphere of the Universe. The question now arises whether the motion which characterizes Time is the uniform motion of the entire sphere itself, considered apart from the subsidiary motion of the interior circles, or whether it is one of the lesser motions of one or some of these circles, or whether it is all of these motions in some sort of unity. But we have been given the material from which to reach this conclusion, for we have been told that the making of Time is the same act as the making of order. Thus, Time is the proportional unity of all the motions of all the circles, including the motion of the outer sphere, insofar as these are a unity. For, as order unifies chaos, Time unifies motion. Once order has brought the elements of chaos into a unity, they are no longer elements of chaos, but of unity. So, once Time has brought unity into the several motions of the circles, they are no longer only several circles, but are now the elements of the proportional Unity of Time. It would be wrong to suppose that order is the principle according to which the many elements of the spatial universe have been united into a One and that Time is the principle according to which the many elements of the temporal Universe

have been united into a One, because that would lead to the conclusion that there are two Ones. Two Ones would create the third man problem which has been adduced already in the Timaeus to show that the Universe is One and only One, or one One. The Universe is a radical Unity, not simply of spaces and Times, but, one ought to say, of Time-space. At the same time, however, one must assert that the Unity of the Universe is not a simply homogeneity without parts, for that would be the destruction and not the construction of a Universe. Plato's Universe is neither atomistic nor pantheistic; it is a unity of proportional realities, a moving image.

The second aspect of the moving image is the everlasting character of its motion. Again, we have been furnished with the material to construct an understanding of this characteristic. We have already called attention to Plato's optimism in his use of the word "ceaseless," by which he seems to indicate that the Universe must resemble eternity by being indestructible. This feature of the Universe might well be called its alleged immortality, and it is therefore appropriate to recall again that the Universe exhausted all the elements out of which it was fashioned. It was said, on this basis, that there were no forces outside of it which might attack it and that it was therefore impervious to age and sickness. There is nothing outside the Universe which might attack it and so it must be immortal, ceaseless, indestrutable, everlasting. Can Plato have concluded naively that there are no dangers to which the Universe is subject? To answer this, it is necessary to recall the reservation with which the whole character of Time has been prefaced. Plato says clearly that the perfection of Time was given to the Universe as far as it was possible to do so. but why should it not be fully possible? For two reasons. First, if the Universe were as eternal as its model it would be identical with its model and there would then be no difference between the model and the reality. But this cannot be, for the Universe, being visible, must have been generated, and must therefore have been fashioned on a model. Secondly, throughout his philosophy, Plato repeatedly uses the phrase "as far as possible" without giving

a doctrine of possibility which would explain the meaning of the phrase. Both the need for a model and the limit of possibility are related to the doctrine of not-being. The meaning of this doctrine of not-being for the realm of the Forms, was first revealed in the *Sophist*, where it becomes the Different. The Universe is both the same as and different from its model, so that it is like its model and yet it is-not like its model. Having said that the Universe is a Unity of the Same and the Different, and having said that Time gives the closest approximation to perfection that the generated Universe can attain, one should expect that Plato will now develop his doctrine of not-being on a cosmological scale, as he has developed his doctrines of eternity and image and Time on a cosmological scale. This new doctrine of cosmic note being is found in the second half of the dialogue, where the relation of necessity and the receptacle of becoming is discussed. One can conclude at this point only that the perfection of Time is as perfect as it is possible for the demiurge to make it, but, since the demiurge is not absolutely omnipotent, the full character of eternity could not be conferred on the Universe. The demiurge must persuade necessity, not force it.

Or, to put the matter in another way, insofar as the perfection of the Universe depends on the activity of the rational demiurge, it is perfect; but insofar as the Universe depends on the reluctance of necessity to be persuaded by the demiurge, it lacks perfection. Thus the everlasting image, which we call Time, is subject to the recalcitrance of necessity. In recognising this, we rescue Plato from the charge of naive optimism, for the perfection of the Universe is its everlasting character, but this is not the same as asserting that the Universe is absolutely perfect; even Time must confront necessity.

4. *Time is said to move according to number.*—Again, we have been furnished with the material to understand this assertion. We know already that the Universe considered as a whole is a sphere, but considered as the proportional unity of the many circles and living beings which inhabit it, it is a populated



sphere. Thus Time is neither the revolution only of the outer periphery nor only the sum of the rotations of the many circles which inhabit the interior of the sphere. Time is the order which the One Universe enjoys; (correlatively, the order of the Universe is the Time it enjoys). Time encompasses both the Unity and the multiplicity of the Universe insofar as it is the perfection of the Universe which makes it most like its eternal model. It would be a serious misreading of this phrase to assert that Plato's Universe is simply a Pythagorean Universe because Time moves in it according to number. Such a view focuses on the plurality of motions within the Universe but ignores the proportional Unity which these motions have in the Universe. This is not to say that Plato's Universe is non-Pythagorean. On the contrary, there is a great deal of Pythagorean wisdom in this dialogue, and one should not forget that Timaeus, the principle speaker of the dialogue, is represented as a Pythagorean. But it is a long way from the assertion that there are Pythagorean elements and themes in Plato's *Timaeus* to the assertion that the whole dialogue is only a Pythagorean tale. Time moves, no doubt. Time orders the Universe. And the many motions which the Universe includes are not excluded from the ordering perfection which Time brings to the Universe. But it seems more reasonable to say that Time moves the many, and that Time brings order to the many by moving them in accordance with the perfection of which Time is the image. To derive the reality of Time from the number of motions in the Universe would be tantamount to the assertion that Time is a subsidiary perfection of multiplicity, whereas the passage clearly states that Time brings the Universe into a closer and more perfect relation to its eternal model.

5. *We have given it the name Time*—Once before, Plato expressed a desire to use the right name for the Universe, and he said there that we ought to give the name to it which is most appropriate and acceptable to it (24b). It is instructive to recall that the difficulty of finding the right name would remind Plato of Cratylus, his first teacher, as it calls up for us the dialogue

which bears his name. But one should also recall that the difficulty of finding the right name for the Universe, and for Time, are related to Plato's concern to avoid blasphemy. For we must remember that the majority of simple Athenians had deities and names for those aspects of the Universe which they regarded as mysterious. Thus the name of Time could very well have precipitated controversial discussions in Plato's Athens which could swell to the dimensions which they had reached with Socrates. The Phaedo would convince anyone that Plato was not afraid of death, and so it does not follow that Plato is cautious out of fear. It is better to think that Plato regarded thinking through the doctrine of the Timaeus as a more important work than entering into a polemic with those who could not understand it, especially if we are correct in asserting that the Timaeus is not only a synthesis of doctrine but a preparation for the Critias and the Laws, which were intended to have direct political influence.

These five aspects of Plato's doctrine of Time, then, show that Plato has come to relate eternity, image, and Time in a new synthesis, which passes far beyond the way in which these doctrines were treated separately in prior dialogues. But we shall not conclude that the passage just discussed is sufficient to establish our hypothesis, for Plato has not completed his discussion of Time. Before we can conclude that Plato's image of Time is the high synthesis we claim it to be, we ought to have the entirety of Plato's doctrine of Time before us.

Before adding the final details, perhaps a small summing up is in order. Plato has said that the Universe is a shrine, and that its deepest perfection is its temporality, which is the way it is ordered. Time is a moving image, because the Universe resembles its eternal model as closely as possible.

Plato now speaks of the parts of Time, having already spoken of the Unity of Time. He says that there were no days and nights, or months and years, before the Universe came to be, and that all of these came into being simultaneously. However, he says

All these are parts of Time, and 'was' and 'shall be' are forms of Time that have come to be; we are wrong to transfer them unthinkingly to eternal being. We say that it was and is and shall be but 'is' alone really belongs to it and describes it truly; 'was' and 'shall be' are properly used of becoming which proceeds in Time, for they are motions. (37e)

There is much that is important in this passage, but the central point which concerns our exposition of Time is the phrase "becoming which proceeds in Time." By this small phrase, Plato indicates that there is a distinction to be made between becoming and Time, and that these two words do not indicate the same reality. It is important to notice that the familiar antithesis between eternity and time is not identical with the antithesis of eternity and becoming. For it is clearly said that becoming proceeds in Time. We must attempt to see how Plato relates Time, Becoming, and eternity in a meaningful way. Plato does not put them in a simple juxtaposition, for there are clearly three of them, and their relation to each other is not a simple opposition. We have seen that Time introduces the perfect order which characterizes the Universe, and we have been told that the Universe is a becoming image. How are these statements to be reconciled so that the Universe may continue to have the perfection which it has been said to have. The key to this problem is given in the following:

But that which is forever in the same state immovably cannot be becoming older or younger by lapse of time nor can it ever become so; neither can it now have been nor will it be in the future; and in general nothing belongs to it of all that Becoming attaches to the moving things of sense; but these have come into being as forms of Time, which images eternity and revolves according to number. (38a)

The important consideration here is the phrase "moving things of sense," for it specifies the realm of becoming, as the realm of the moving things of sense. Here is Plato's familiar doctrine that the

things of sense keep moving and therefore give rise to difficulties for the intelligence which would like them to be still so that the things of sense would be as stable as the names we give to them. But the context of the doctrine has been changed. Formerly, intelligence had to go beyond the merely visible because the constant changes in the visible realm made knowledge impossible. This early conviction of Plato led to the theory of Forms, which are eternal and therefore sufficiently stable for intellectual comprehension. But now, the greatest perfection of which the Universe is capable is the perfection which Time brings as the principle of order. We are now informed that becoming proceeds *in* Time. Thus it is inexact to say "...that what is past *is* past, what happens now *is* happening, and again what will happen *is* what will happen, and that the non-existent *is* the non-existent" (38b). Plato has affirmed that the ordering of the Universe has been made even more like its model by Time, the moving image of eternity. The theory of the Forms, up to this point, has told us that things share in Forms and therefore achieve a certain resemblance to being. But Plato tells us now that resem- = blance is not enough, for it leaves too wide a gap between being and becoming. Thus the Forms by which things resemble being are further perfected by Time, by which, things share in the eternity of being, as much as possible. Time, then, even perfects the Forms because Time helps things share in the intimacy of eternity's own nature. By Time, things share in the divine ordering of the Universe.

Time came into being together with the Heaven in order that, as they were brought together, so they might be dissolved together, if ever their dissolution should come to pass: and it is made after the pattern of the everenduring nature, in order that it may be as like that pattern as possible: for the pattern is a thing that has being for all eternity, whereas the Heaven has been and is and shall be perpetually throughout all time. (38b-c)

Thus Time embraces all. By it, becoming most "becomes" Being. It has been generated like the forms of Time but it transcends

them, because it has been made to increase the great intimacy which becoming has been brought to have with Being.

This could be paraphrased in several ways. One could speak of the relation between becoming and being as that of Time, such that they are constituted by that relation with respect to each other. One could say that Time is the consummation of the contact which becoming and being have with each other. One could speak in Hegelian language and say that Time is the Mediation of Becoming, by which becoming "becomes" being. But out of profound admiration for Plato's greatness as a stylist, Plato's imagery should be retained. But the truth must be understood as well as seen. "Time, the moving image of eternity," is spoken in the language of philosophical poetry, a language largely of Plato's invention. The phrase is beautiful as well as truthful, for it not only relates the realms of eternity and becoming truthfully but it also relates them beautifully, in the kind of elegant simplicity we expect of great truths. Time has so perfected the Universe that what merely becomes incessantly is now enabled to share in the perfection of eternal being. Time transfigures what merely becomes into what really is, without destroying its becoming.

Thus it is not illegitimate to ask "where is time," and Plato answers that, since the World-Soul is responsible both for the order and the motion of the numbered Universe, Time lives in the Soul of the Universe. Time accomplishes the ceaseless transcendence of becoming, for, by Time, things which only became, now "become" being.

It is important to state that Time does not so completely accomplish its transfiguration of mere becoming that nothing any longer becomes; the unification which Time introduces into the manifold realm of becoming is a proportional Unity, so that becoming no longer needs to be excluded from the perfection of the Universe, but can now enter into it on its own terms. Things which become, become intelligible by Time, because Time introduces order into their motions, whereas ceaseless becoming as such, unordered by Time, has no order at all, and hence no intelligibility. Thus, where

once Plato insisted that only the eternal is intelligible, now he asserts that Time brings becoming into the realm of the intelligible by introducing order into the realm of the incessantly becoming.

The basis for the often-asserted statement that Plato's image of Time is circular, derives in part from his description of the Universe as a sphere which revolves uniformly, and in part from the following passage:

In virtue then of this plan and intent of the god for the birth of Time, in order that Time might be brought into being, Sun, Moon, and five other stars-wanderers as they are called <sup>115</sup> were made to define and preserve the numbers of Time. Having made a body for each of them, the god set them in orbits <sup>116</sup> in which the revolution of the Different was moving in seven orbits seven bodies. (38c)

It is not necessary to follow Plato into the detailed descriptions which he gives for the motions of each of the planets and for each of the spheres, since as we noted previously, his observations were limited as much by the lack of such modern instruments as the telescope, the mass spectrometer, radio telescopes and 200-inch lenses as by the absence of Kepler, Copernicus, and Newton. The general point is this; Time is the perfection of the Universe and is coterminous with the ordering activity of the demiurge; the numbers of Time, corresponding to the many of bodies, are made visible by the bodies we call Planets, which revolve both in their various orbits within the circle of the Different and the circle of the Same. Time gives rise to the orderly motions of the bodies called the planets and the stars. "Thus for these reasons day and night came into being, the period of the single and most intelligent revolution" (39c). And again:

In this way then, and for these ends were brought into being all those stars that have turnings on their

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<sup>115</sup> They do not really wander; see Laws 822a.

<sup>116</sup> Cornford has "circuits."

journey through the Heaven: in order that this world may be as like as possible to the perfect and intelligible Living Being in respect of imitating its ever-enduring nature. (39e)

The planets, then, are living beings who follow out prescribed courses according to number, But the perfection of the Universe which Time introduces is not merely the month or the year or the day or the night; these are the numbers of Time, just as was and shall be are the forms of Time. Time, the reality, is the order of the Universe in motion. Time is neither motion nor the result of motion (indeed, quite the reverse is true; motion is the result of the order which the demiurge elicits from chaos). Nor is Time becoming, for becoming proceeds in Time. In short, Time is the Life of the Universe, which was foreshadowed in the Sophist, where the Stranger Says:

And, Oh Heavens, can we ever be made to believe that motion and life and soul and mind are not present with sNeing. Can we imagine Being to be devoid of life and mind, and to remain in awful unmeaning and everlasting fixture? (249a)

## 2.6 Time and Society

While it has not escaped the attention of the scholars whose interest leads them to the Timaeus that its doctrine of Time is inseparable from the doctrine of the eternal model, the purpose or role of Plato's Time image is frequently overlooked. Similarly, while it is true that Plato fashions his image of Time with great care and is conscious throughout his formulation of a desire not to distort the ineffable while yet speaking of it, it seems that insufficient attention has been paid to the relevance of the introductory remarks in the opening section of the Gialogue to this image, and the relation of these remarks to Plato's doctrine of Time.

To rectify this oversight, it is only necessary to recall the opening passages of the Timaeus where Socrates had agreed to the plans which Timaeus and Critias had made for their talk: Timaeus intends to describe the origin of the Universe and to carry on his account *until* it had reached the *time* when man made his appearance; *thereafter*, Critias intends to take up the account and to describe ancient Athens; both of these accounts are to be given so that Socrates may fulfill his wish to hear an account of a real city, not an imaginary one; not a tale of "some noble creatures in a painting, or perhaps of real animals, alive but motionless" but an account of real creatures, "in motion, and actively exercising the powers promised by their form" (19c). In this way, Plato gently suggests that the power to describe the actual origins of the best society are beyond Socrates, and it must be the task of others to supply it. This is the meaning of the obviously inadequate recapitulation of the doctrines of the Republic, which are mUch too briefly summarized in the opening passages of the Timaeus. There is no need to look for deeper or more arcane meanings in Socrates' confession of inability to construct such an account; it is not the absence of opinion on Socrates part, as it was in the Theatetus. In the Timaeus, Socrates does not say that he is "only" an opinionless midwife who must deliver the philosophical offspring of those pregnant with the truth; on the contrary, he says quite openly that he is not up to the task, and that the power to tell such a story is beyond him. It has been generally agreed among the scholars that the opening passages of the Timaeus "recapitulate" the Republic, and most of those who do not agree on the order of the dialogues as they have been described in chapter II agree that the Timaeus must be later than the Republic for this interpretative reason. And it has long been agreed that the Republic is the work in which Plato reveals a political philosophy, or, as we call it, a philosophy of society. But if we take separate conclusions, on which the scholars agree, and, if we attempt to see them in relation to each other, we shall arrive at a simple and yet, to the best of my knowledge, an uncommon conclusion. If (1) It is true that the Republic is a dialogue in which Plato has attempted to see the powers of the soul "writ large," that is, if the Republic is a dialogue in which the state is seen as a magnification of the soul; and, together with this,



if (2) we see that the Timaeus is a dialogue in which the "alive but motionless," society of the Republic is recapitulated, and, if we add to this (3) the fact that the Timaeus first develops a doctrine of Time before setting out the details of the best form of society, we may draw a startling conclusion; Plato has made the doctrine of Time the basis of a new Platonic sociology. Where the Republic describes a State based on the view that only the eternal is real and all else is mere becoming, the Timaeus describes a society based on the perfection which Time confers on the discordant motions of a primordial chaos. Plato has shifted the basis of his sociology from the eternal to the temporal; no longer is it his view that the realms of eternity and becoming are separated by an unbridgeable chasm; now, in the Timaeus, through the gradual process we described in Chapter II, Plato has arrived at the formulation of a doctrine in which Time is, so to speak, the bridge between these two realms.

But this image of Time as a bridge falls short of Plato's meaning. It would be better to say that the Universe which the Timaeus reveals is a proportional unity of many levels, and that Time is the proportion between eternal being and incessant becoming. But further, it is necessary to recall that Plato does not use this sort of intellectually precise language; he prefers to say that Time is the moving image of eternity, because the richness and allegorical suggestiveness of the phrase "moving image" captures two very different levels of meaning, i.e., both the ineffable truth of the eternal model of the Universe, and the magnificent beauty of the concrete relations within the visible Universe.

To the best of my knowledge, Bury is the only writer who has seen that the Republic is Plato's *first* Philosophy of History, and that in the Timaeus Plato modifies this view. But Bury nevertheless concludes that there has been no growth of Plato's doctrine, and that the conclusions of the Timaeus are implicit in the views stated in the Republic. This seems to stretch the meaning of the term "implicit" beyond reasonable bounds, for, on this basis, we should have to conclude that Plato's movement from an eternal basis to a temporal basis is no development, but merely an explication of former views. It is difficult to see how one can say that the basis

of society in one dialogue is eternity and the basis of society in another dialogue is Time, and that the one view is "4mplicit" in the other.

Similarly, it is hard to see the grounds for A.E. Taylor's assertion that the Timaeus is only an introduction to the Critias, since, as we said above, such a view would so linearize Plato's philosophy that we should have to view the Laws as the only source of Plato's mature philosophy. One should not ignore the early works of a genius such as Plato when one reads his later works, since this procedure deprives one of the measure of the man and the gradual maturity which he was able to reveal in his late writings.

It seems to us more reasonable to follow Cornford into the opinion that the Timaeus was the first of a projected trilogy of dialogues, which were to have revealed Plato's reflections concerning the basis of the best possible form of society, after a life-long concern for this subject. If it is true that Plato's Sicilian adventures were of such a nature as to discourage and disillusion the great man from his life-long hopes to bring about good government, we should expect to see bitterness and pessimism in the works written after these experiences. But we find no shallow despair in the Seventh Letter or in the Timaeus; rather we confront a dialogue which is written in a style especially designed to appeal to those whose philosophical training was not so arduous nor so disciplined as Plato's own. Plato does not become a disdainful elitist, nor is the Timaeus a children's allegory, written by a sour old grandfather, for there is a great deal in it which requires strenuous philosophical reflection and painstaking attention. Yet, even those without philosophical training and exacting logical skill can be moved by the poetry which Plato has made in the Timaeus. It is both a mature philosophy and a beautiful myth which seems to be designed as well for the elite philosopher as for the untutored statesman.

Thus it seems pointless to criticise the Timaeus as an uneven dialogue which skips about from the level of thought to the level of myth, and, on the basis of such a criticism, to prefer to look

to other dialogues for more philosophical meanings because the style of earlier dialogues is more even and their philosophy more exactly stated. This is not unlike preferring to look in the pantry for the broom only because there is a light in the pantry, when, in fact, the broom is in a darker but more spacious room in the attic.

If it is true that the Timaeus was written after Plato's later and more mature reflections on the requisites for the best possible society, as we tried to establish in the third chapter, one should not look to the Republic for Plato's most mature doctrines of society. And yet those writers who wish to discuss Plato's philosophy of society as a philosophy of history or as a political philosophy seem more drawn to the Republic, and few of them go to the Timaeus as the source of Plato's teaching on this subject.

This is not to complain that scholarly inattention plagues the Timaeus, for the Timaeus has not gone without a great deal of comment by writers in almost every century in the West. Yet it has not been viewed as the dialogue in which Plato makes his most explicit statements on the *basis* for the best possible form of society, and no writer in the modern era has seen in it the culmination of Plato's gradual development beyond the doctrine of eternity in the Republic. And yet this seems to be precisely what Plato has done.

This is not the place to examine and comment in detail on the elements which, according to Plato, would characterize the best form of society, since these specifications are to be found in part in the Critias and in great detail in the Laws. It is not our purpose here to describe exhaustively Plato's later sociology. The issue here is the role of Plato's image of Time as a basis for his later sociology, insofar as this can be ascertained by a careful reading of the Timaeus in its chronological and doctrinal context. The Timaeus seems to be unequivocally clear on this issue, for Plato shows repeatedly in this dialogue that the basis for a sound understanding of his sociology is the role of Time in the nature of the Universe. Thus, before Critias can accomplish his promise to furnish Socrates with an account of ancient Athens in her prime of

social life, Timaeus speaks a monologue which comprises almost the entire work which bears his name. In the first half of the dialogue, which discusses the Universe insofar as it is due to the Work of Reason, Plato leads gradually and ineluctably to the basis of the rational perfections which are brought to the Universe by time. In the Republic the perfections of society derive from a participation of the state in eternal justice; in the Timaeus, society is perfected by Time, which brings order to chaos.

The most serious objection to our conclusion is the claim that Plato only speaks of the gradual construction of the Universe *as if* it were gradually brought into existence, when his actual meaning remains hidden between the lines. A.E. Taylor adopts this view, when he says that Plato believes the Universe is eternal, and therefore it does not actually have a temporal character (Archer-Hind also holds this view). In short, Taylor claims that Plato described the Universe *as if* it were gradually brought into being because it would be easier for Plato's readers to comprehend his meaning in this way.

Happily, Plato himself seems to upset this view in the Timaeus, when he distinguishes quite carefully between the eternal and the becoming, between a false image and a genuine image, between a mere myth and a genuine myth. If the Timaeus were only a myth designed to create the appearance of the truth but not to reveal the actual truth, it would follow that Plato has cast his whole account of the origin of the Universe into the deceptively simple mold of orderly succession. But the discrepancy between the deliberately temporal image which Plato has created and the calm stillness of the eternal, which he recurrently describes, seems too wide to support the interpretation that Plato remained an eternalist in the midst of a temporalist account.

It seems better to view Plato's statements about the temporality of the Universe as the basis of its perfection, and to reject the assertion that Plato's Universe is actually eternal even though he says it is temporal. But there is a deeper point, and it is this; to continue to distinguish so sharply between eternity and Time after

reading the Timaeus is to miss a major doctrine of the Timaeus, which describes philosophically-mythologically the proportional relation between the realms of eternity and becoming, and to view the role of Time as the mediator between these realms, such that they are no longer as separate as they were described to be in the Republic, but are aspects of a proportionally united Universe. The assertion that Plato separates eternity and Time ignores Plato's description of their relation in the Timaeus, where Time is said to be the proportional unification of becoming and eternity. By viewing Plato's doctrine of Time as the "mediation" of becoming, one can reach the basis of Plato's late sociology, since Plato repeatedly has Timaeus say that the gradual origin of man must be sought in the gradual origin of the Universe, and it is precisely Timaeus' function to reveal Plato's doctrine of Time so that Critias can take up the account of man. To assert that Plato held a static view of the Universe but spoke of it as a gradual process, because he was unable to discuss the whole Universe at once, seems to misinterpret the crucial significance of Plato's definition of Time as an image. For the Image is the whole Universe, and, furthermore, it is deliberately described as a moving image. As we have said repeatedly above, Plato was not unable to describe the whole Universe at once; he did so in an image, and while it is true that he gradually reveals the elements and aspects of the image in a serialized description, he nevertheless insists that the Universe is one image. In short, Plato no longer impales himself on the horns of a dilemma by separating eternity and Time; he has transcended such an impasse by describing a Universe which is both hierarchical and processual, yet neither in isolation. One may continue to dissect logically Plato's Universe into one part hierarchy and one part process, but it seems to see that it is the dissector and not Plato who so bifurcates the Platonic Universe. That is, one may analyze the Platonic Universe into logically discrete categories, and focus now on the hierarchic aspect and now on the processual aspect, but one can also say that Plato's Universe is a proportional unity in which the temporal hierarchy (or the hierarchical temporality) are concretely related. Thus one could reject A.E. Taylor's view that Plato believed the Universe to be eternal but described it as

if it were temporal, so that Plato could communicate better to the philosophically ill-equipped.

However, it should be borne in mind that the Timaeus does not itself *contain* a new sociology, but presents the *basis* for one, for we must look to the Critias and the Laws for the details of Plato's later view of society. It is our contention here that this later view is unintelligible without a sound interpretation of Plato's moving image of eternity.

It follows that the entire basis of society and the communal life of man is not to be found completely within those aspects of the Universe which are due to the orderly perfections which derive from Time. For our analysis has stopped midway in the monologue of Timaeus; we have described, up to this point, only the works of reason, and have not presented any discussion of those aspects of the Universe which derive from necessity. Plato has not described the demiurge as absolutely omnipotent, for even the demiurge must attempt to persuade necessity, not force it, to yield to the urgings of Time and order.

The admission that Time itself is not all powerful, but must confront, so to speak, the cosmological inertia of necessity, serves to strengthen, not weaken, the conclusion that Time brings perfection. Whereas it was once possible to say that Plato viewed the eternal as the only source of perfection and viewed the temporal realm of becoming as the source of imperfection, it now emerges that Plato has made a sharp distinction between incessant becoming, which is indeed less than perfect, and 'time, which brings perfection even to becoming. When becoming is ordered by Time it is no longer merely incessant, nor only a ceaseless and perpetual fluxion of chaotic changes, but an ordered motion which is perfected by Time, the source of orderly motion. Necessity belongs to mere becoming; Time belongs to reason and eternity.

It follows that a society will be perfect insofar as it regards Time as the paradigm of its style of life, and that society will be imperfect insofar as it regards mere becoming as the model for its political flux. And these are exactly the doctrines which

Plato develops in the Critias and the Laws. The Critias, as much as we have of it, describes the "mythical" kingdom of Atlantis, and we have a brief foretaste of this description in the opening passages of the Timaeus. In the third book of the Laws, we have what the moderns would call a philosophy of history, or, in other terms, what could well be described as an incipient philosophical anthropology. The third book of the Laws dwells at aveat length on the questions which we are now examining; it is concerned with "immense periods of Time" and "thousands of cities" which came to be and have now disappeared from memory, and puts the question to itself whether there may not be a discernible pattern in the rise and fall of these cities. Or, to see the matter from another point of view, one could point to the tenth book of the Laws where questions about what we might call divine providence are raised and discussed, in a context which is explicitly temporal. Or again, one could cite quotation after quotation from almost any book of the Laws which would show that Plato was much interested in the relative durations of various things, from constitutions to kingdoms and from mountains to men.

But these investigations must be left to another time when they can be treated with the exhaustive documentation they deserve. It has been our purpose to spell out in detail the reasons for adopting the view that there is a Platonic philosophy of time and that this philosophy is inseparable from Plato's concern for the best possible society.

Before the final words are written, however, it seems appropriate to state a few opinions which have emerged during the course of this study. While it would be impossible to draw final conclusions about the relevance of Plato's philosophy of time to the intellectual pursuits of the modern world without at the same time presenting a history of Platonic scholarship for all of the intervening years between Plato's era and our own, it is possible to state a few opinions which have been reached on this subject, providing caution is advised about the extent to which we may derive philosophical satisfaction from a careful reading of Plato's works.

Perhaps the most persistent opinion which comes to mind concerning Plato's philosophy of time is the frequently stated view that the Greeks viewed the world as closed and that their view of history was in sharp contrast to our modern view of the open Universe. While it is not possible to state that this view of the Greek world as closed is without any foundation, it is not only possible but necessary to confront the closed view with the import of the doctrine of time which we find in the Timaeus. It is simply incorrect and therefore, unscholarly to repeat the naive eternalism of the Republic, if the Timaeus is as late a work as it seems to be. One should not continue to separate the eternal from the temporal after one has studied the Timaeus, and one could say with some accuracy that the whole import of the Timaeus has been to remove this intolerable dichotomy by revealing the manner of relation of these two aspects of the Universe.

This is not to assert that Plato came in the end to a simple monism in which all things are merely becoming. As we have said repeatedly, time perfects becoming. But there is an ineluctable gradualism in the Universe the Timaeus describes which cannot be ignored, and, while it is true to say that our modern notion of process is richer by far and more concrete than ever a Greek could imagine, it is also true to say that there was some degree of openness in the Greek Universe and that it would be false to state simply that it was a closed world.

The political implications of this openness deserve some attention although it is only possible to suggest some more obvious points here. If the Universe is closed and is in some way a completed whole, it becomes the business of the statesman to discern those Laws by which the Universe attains its style of perfection and to fashion human laws in such a way that human perfection is sought in copying the perfection of the Universe. In this way the constitution of the state should be only a copy and an imitation of the Universe.

If, on the other hand, the Universe is open and is in some way incomplete and unfinished, it becomes the business of the



statesman to model his constitution as far as possible on the perfection of the Universe and thereafter to improvise and invent those measures which seem best under the circumstances. If such a statesman can be found, he will understand that the sources of imperfection are not solely derived from the failure of the citizens to model themselves on the eternal forms, but might result from the very incompleteness of the statesman's actions. In other words, it follows from a completed world that its citizens must adjust themselves to its patterns; it follows from an incomplete world that its citizens play a part in its completion. It does not follow that the citizens of an incomplete world must live in a totalitarian regime where all law emanates from an elite few who claim to have discovered the basis of all law. To put the matter differently, it can be said that a closed Universe has no room for human innovation, whether it be political, scientific, or philosophical; the converse statement would read that only in an open Universe can the citizenry aspire to creative participation in the processes of the state.

Unfortunately, this simple division of worlds into those that are closed and those that are open is not applicable to Plato's Universe, since it is a world in which there are eternal models as well as incomplete republics. Something of a similar view obtains in current anthropology in which one may read many statements to the effect that there are some basic exigencies of human nature which must be met in any culture, but that there are a number of ways in which cultures can set about handling these exigencies in their own respective styles. Plato's Universe is neither simply open or simply closed; nor does it suffice to say that it is both. The Platonic philosophy handles this question in a different way, for it describes a world in which there are stages of completion and degrees of openness. Thus for Plato it is possible to claim the best of both possible worlds, for he can assert that there are eternal models for human political action and that there are necessary innovations and inventions which the statesman must create. To the extent that the human invention resembles the temporal order which the Universe achieves, to that extent is it good. In other language, one can say that the Platonic conception of perfection

which appears in the Timaeus is a gradualist notion, such that a thing is perfect if it is as good as it can be at a given time. Perfection then is a stage concept which refers itself inevitably to a basic pace at which perfection is achievable.

In this way, one can see that the Platonic Universe is neither simply open nor simply closed, and that he who uses the paradigm "open or closed" really uses a spatial idea, not a temporal one, and is therefore guilty of a species of philosophical reductionism. The question is not whether the Universe is closed or open but whether there is in the Universe sufficient ground for the gradual attainment of perfection. Even this last statement seems to put perfection at the end of the process, whereas in fact it is possible to say in the Platonic idiom that a thing is as perfect as it can be *while* it is proceeding at its proper pace of attainment. In this way, one does not need to assert that perfection is attainable only in some otherworldly realm, or that only those things which have achieved release from the quagmire of time have entered into eternity. On the contrary, those things which have nothing of time in them but share only in the incessant flux of becoming have no measure of eternity in them precisely because eternity can be brought to becoming only by time.

To use another perspective, the same point can be made in another way. In a Universe in which the eternal is removed from the temporal by a radical division, only those things which have transcended the Aaviaton may properly be called eternal. Thus, no individuality can be claimed for any person who has not transcended time and achieved eternity. But in Plato's Universe, each person who finds his proper pace of achievement may be said to be as eternal as he can be at the moment, or that his perfection consists of the entire process of attainment. It is therefore necessary for the citizens of the Republic to model themselves entirely upon the eternal forms or be called failures, where the citizens of the realm founded on the philosophy of the Timaeus may be said to possess individuality insofar as they attain perfection to the extent that it is possible to attain it at the time. In this way, another of the frequently asserted opinions about the world of

the Greeks is found wanting. In conversation with philosophers, one frequently hears that there were no genuine individuals in the Greek world, since genuine individuality would scandalize the Greek notion of an ordered and predictable world. We must clarify the statement that there is individuality in the Greek world; a more accurate statement would read that there is a genuine basis of individuality in the philosophy which Plato reveals in the Timaeus, but this statement must be quickly followed by the statement that there were few Greek individuals. While it is true on the one hand to state that most Greeks felt the Universe to be closed, it is nonetheless true that Plato's Timaeus does not reveal such a Universe.

This creates something of a problem for the historian who would like to see one ethos in the age which produced both Plato and Aristotle. If the Timaeus reveals the philosophy herein described, we must separate Plato from his pupil even more widely than is sometimes the practice, for it does seem to be true that Aristotle's Universe is closed, since it is a world in which time is described as an accident. Surely this is far from Plato's view of time as the source of the perfections which make it possible for him to regard the Universe as a shrine. It is necessary to state that the gap between the moving image of eternity and the measure of motion is even wider than it has usually been described, if the viewpoint herein adopted is credible.

Again, this is not the place to discourse upon a philosophical prejudice, nor is it claimed that the philosophy of Plato is superior to the philosophy of Aristotle. Such statements do violence to the historical view which regards philosophies as different because they were written by different men in different times with different needs. Aristotle was not confronted with the same political realities that confronted Plato, and to that extent, at least, we should, expect their political philosophies to differ. However, it remains true that Plato placed time at the very heart of his doctrine and that Aristotle placed time at the accidental periphery of his. To that extent, Plato's philosophy of time is more congenial to the

modern mind which occupies itself with questions of historical process and temporal being.

Viewed in this light, it becomes possible to see the basis of Whitehead's remark that Plato has spawned almost the entire philosophical heritage of the West. Furthermore, it becomes possible to compare Science in the Modern World to the Timaeus, since the authors of both works attempted not only to write a history of contemporary science but also to show in their discussions of the scientific theories prevalent in their respective eras that beyond the reach of the sciences there were insights upon which the sciences unknowingly depended.

In that same spirit, I have attempted to write of Plato's image of time, since it is my conviction that every age, and not only Plato's or even Whitehead's, depends unknowingly on a view of time and derives its basic cognitive orientation from its time-view.

If it is true that Plato matured until the last, and that he sought in the end to plumb the awesome mystery of time and eternity, I felt that his search could only enlighten the attempts of a working sociologist to make some sense out of his own era by viewing it, in the last analysis, as a moving image of eternity.

There is one aspect of the temporal perfection of the Universe which deserves special attention in the light of modern interests, and that is the special perfection which develops in the individual man in time. We pointed out in chapter three that Plato made frequent use of the age of the speaker in several dialogues, sometimes accusing the speaker of naivete because of his youth and sometimes praising the venerable age of the speaker and the wisdom which came to him because of his age. For example, in the Parmenides, Socrates is very young and Parmenides is very old, and Plato implies clearly that the very young do not yet have the requisite insight for profound subjects. This is again true in the Theatetus wherein Socrates is now the old and wise man, as opposed to the young and malleable Theatetus. In view of the fact that the Timaeus casts the whole middle doctrine of individual reminiscence into a more generalized sociological frame of refer-

ence, it should be pointed out that Plato has not abandoned his reminiscence theory in the later dialogues: actually, he has fortified it by showing that there is a cosmological basis for the sort of memory which a society must have in order to be as fully societal as it is possible to be.

Thus, just as the society develops in time, so the individual citizen develops in time, and in time, the citizen not only ages, but he matures and grows wise. It is this very maturity of insight which Plato himself experienced with his own advancing years, and it is therefore unsurprising that we find in the later dialogues a doctrine in to which the perfection of reason is attained by those individuals who have participated more fully in time than those younger philosophers whose maturity is yet unreachd.

To put the matter somewhat more technically, Plato has so closely related cosmogenesis and anthropogenesis by reason of their mutual participation in time that it is also possible to relate the ontogenesis of the individual citizen to the same basis in time. While it was always possible to say with Plato that the older man is probably the wiser man, it is possible, after a careful reading of the later dialogues, to assert that the older man ought to be the wiser because of his fuller participation in time. Or to put the matter in more modern language, the gradual development of the individual person takes place not only according to psychological processes, but also according to sociological and cosmological processes, since all of these processes may be seen as particular manifestations of the perfections which Time brings to the Universe.

Therefore, I assert that a careful reading of the Timaeus in its doctrinal and chronological context leads to the following conclusions.

Plato's final formulation of a doctrine of Time was revealed in his Timaeus. In that work, he tells us that Time is the basis of society, from which the society derives the perfections of life and mind in motion. Thus it is false to divide eternity and time from each other since Time delivers perfections and perfects mere

becoming so that it most resembles the source of perfections. It is good to regard Time as a moving image of eternity since this phrase indicates the mediatory role of time. The simple division of eternity *versus* time is false, since eternity differs most from mere becoming. Time perfects becoming by relating it concretely to eternity. In this way, the things of the Universe may achieve individuality since they need not be either completely eternal nor merely becoming but may be best what they are by being as fully as possible what they are when they are. Thus, from the early form doctrine of the middle dialogues, Plato has advanced to a new position. It is neither a renunciation of the Form-doctrine nor a simple extension or reapplication of it. In the Timaeus, the Forms are paradigms and have reality only to the extent to which the things modelled upon them derive their perfections from them. The earlier Form-doctrine described a number of perfect Forms from which things differed by reason of their imperfection; the later form-doctrine describes a set of Forms which are originaive, such that they give of their perfection in a process called Time.

In such a world, society is not a realm removed from a penultimate world of silent and unspeaking self possession, but becomes the way in which eternal perfection discloses itself, which Plato calls the moving image of eternity.

## 2.7 Appendix A

Ross gives a tabular presentation of the order of the dialogues according to "five leading students" of the subject. Since the order of the early works is not in question here, the table is abbreviated to show the order of the dialogues starting with the Republic, on which there is wide agreement. However it should be noted that Ross does not distinguish between stylistic criteria and stylometric criteria and uses the two interchangeably in his chapter on the order of the dialogues. With the exception of the Phaedrus, the scholars cited by Ross give substantially the order I have adopted as the most probable.

Arnim	Lutoslawski	Raeder	Ritter	Wilamowitz
Rep. 2–10	Rep. 2–10	Rep.	Rep.	Rep.
Theaet.	Phaedr.	Phaedr.	Phaedr.	Phaedr.
Parm.	Theaet.	Theaet.	Theaet.	Parm.
Phaedr.	Parm.	Parm.	Parm.	Theaet.
Soph.	Soph.	Soph.	Soph.	Soph.
Pol.	Pol.	Pol.	Pol.	Pol.
Phil.	Phil.	Phil.	Tim.	Tim.
	Tim.	Tim.	Critias	Critias
	Critias	Critias	Phil.	Phil.
Laws	Laws	Laws	Laws	Laws
		Epin.		

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## 2.9 ABSTRACT

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Plato's Image of Time

Dissertation directed by J. Quentin Lauer, Ph.D.

The most explicit formulation which Plato made of his philosophy of Time is found in his Timaeus. In this dialogue, he reexamines some of the doctrines he had formulated in the Republic.

By reference to a wide consensus of scholarly opinion, it is established that the Timaeus is very probably the last dialogue Plato completed and edited, that it is followed only by the incomplete Critias and the unedited Laws. These facts, taken together with the fact that the Timaeus recapitulates some doctrines of the Republic, Give the Timaeus a central importance in Plato's reflections on society.

This means that the Timaeus contains a "later" doctrine than the Republic and that in the Timaeus we find a reflective advance over the doctrines of the "early" and "middle" dialogues of Plato.

The study traces the evolution of the three themes of eternity, image, and time and shows that Plato discussed them in an increasingly generalized fashion as he grew older. It traces the development of these themes from the Republic through the Parmenides, Theatetus, Sophist, Statesman, and Philebus.

The study espouses the view that the Timaeus contains Plato's most mature reflections on the themes of eternity, image, and time, and that the formulation in the Timaeus reformulates some of the doctrines of the Republic, and therefore one ought *not* to regard the Republic as the final formulation of Plato's philosophy of eternity, image, and time.

Further, the themes of eternity, image, and time are treated in the Timaeus in an explicitly sociological framework, and are said to be part and parcel of the inquiry into the best society and its basis in time.

Plato included cosmology and sociology within a larger perspective, in which the origin of the Universe and the origin of society were seen as stages in a temporal process. His account of these matters in the Timaeus is preceded by statements to the effect that it is only on the broad canvass of the entire Universe that the best account of society's origins can be painted.

The use of such metaphorical phraseology is not arbitrary, and one must frequently deal in metaphor to explain Plato's meaning because Plato makes extensive use of metaphor throughout his Timaeus, indeed, throughout most of his philosophy. Plato's discussion of temporal processes contains a definition whose central term is the word image (*eikon* not *eidolon*). Since Plato defines time as an image, it becomes the problem of the commentator to reveal as clearly as possible the significance of this definition and the use of image as one of its principal terms.

The study concludes that Plato viewed the entire Universe as an Image and sees Time as the Life of Society.

## 2.10 Vita

Victor Joseph Gioscia, son of Joseph and Anne D'Onofrio Gioscia, was born June 13, 1930, in New York, New York. He attended Xavier High School, New York City, and was graduated in June 1948.

He entered Springhill College in September 1948, transferred to Fordham College in September 1950, and received the degree of Bachelor of Science in June 1952. He received the Hughes Award in Philosophy and an Assistantship in Philosophy. He was accepted as a graduate student and was given a Research Assistantship in the Graduate School of Arts and Sciences of Fordham University in September of 1956. He majored in Theoretical Sociology under the mentorship of Professor N.S. Timasheff and received the degree of Master of Arts in February 1957.

He was employed as a Lecturer in Sociology at Fordham College in 1958, as an Instructor in Sociology at Fordham University School of Education in 1959, and as a Lecturer in Anthropology-Sociology at Queens College of the City University of New York in 1961 and 1962.

He was accepted as a graduate student in the Graduate School of Arts and Sciences of Fordham University in February 1957, where he majored in the Philosophy of Society under the mentorship of Professor J. Quentin Laver, S.J.

PHILIP SLATER, author of In Pursuit of Loneliness, says that "TimeForms is...

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