

# PHYSICS

RIVAL THEORY

c. 1650.....> CLASSICAL PERIOD: characterized by  
to material concepts; the atomic theory,  
c. 1890 the chemical molecular theory, the  
theory of thermodynamica, inverse  
square laws of electrostatics and  
magnetostatics, statistical mechanics,  
etc.

CLASSICAL PHYSICS was by late 19th  
century, thought to be complete and  
optimistic physicists turned their  
attention to what they considered by  
be minor details in the completion  
of their subject.

# PSYCHOLOGY

.....> Psychology defined as the study or treatise on the nature of the soul. For over two hundred years, psychologists/philosophers dealt with body-mind-soul theories, with "soul" being some undetermined but underlying principle. Hobbes' theories appear early (c. 1640), first as rival theory, to become known as mechanistic psychology.



## >RIVAL THEORY

## MAINLINE PSYCHOLOGY

### Mechanistic psychology

### Body-mind-soul theories

Hobbs argued from a mechanistic view that life is simply the motions of the organism and that man is by nature a selfishly individualistic animal at constant war with all other men:

### Three principle body-mind-soul theories:

Interactionism: Descartes (1595-1650) argued that the physical mechanistic world is entirely divorced from mind, and mind is only a connection to soul and/or God, but expressible through a mathematical interpretation of the Universe.

c. 16

Monism: Spinoza (1632-77) argued that the Universe is a single substance capable of an infinity of attributes, but knowable through only two of them; physical "extension" and "thought." "Adequate ideas" are a coherent logical association of experience, but when contradictory it is not because they are contrary to fact but are incomplete or improperly related to the possible totality of experience. The end goal of Spinoza's system is to escape from desires through understanding them.

The end goal of Hobbes' system is to satisfy as many desires as possible.....>

Parellelism: Leibniz (1646-1716) argued that the Universe forms one context in which each occurrence can be seen in relation to every other. The ultimate constituents of the Universe are "monads" or simple "substances", each of which represents the Universe from a different point of view. Monads are non-material, arranged in an infinitely ascending scale, based on the destructiveness (randomness) with which each represents the Universe. All monads have perception (consciousness) but only rational monads have apperception (self-awareness). The principle has its root in "divine" (non-material) intellect, and its most important expression is the law of causality.

c.175

Intellect as causality denied by Hobbes' system.....>

BODY-MIND-SOUL Theories decline in favour of MECHANISTIC PSYCHOLOGY, and mind-soul (non-material) attributes are DISINCORPORATED from psychology.

1763

MECHANISTIC APPROACHES TO PSYCHOLOGY ACHIEVE DOMINANCE. MAINLINE PSYCHOLOGY.

PSYCHICAL MATERIALS BEGIN TO TAKE ON "DISREPUTABLE" STATUS. AVOIDANCE OF THEM BY PSYCHOLOGISTS BEGINS.....>

1768

1768



# PSYCHICAL RESEARCH

c. 1650..>

Psychical materials and phenomena come increasingly to be rejected relative to the decline of body-mind-soul psychology.

**SUPERNATURAL ELEMENTS:** Normally regarded as extensions of body-mind-soul psychologies or philosophies. These included almost all psychical materials recognizable by subsequent psychical researchers, referred to at different times by different names: eye-less vision (clairvoyance, remote sensing), thought-transference (telepathy), prophecy (precognition), etc.

Psychical phenomena continue to occur and be observed at the social and public levels. Many of these phenomena run over lengthy periods of time and some take on legendary proportions. Instances of prevision, thought-transference, far-vision, poltergeists and medical diagnosis reported. Many of these events attract the interest of otherwise respected individuals who attest to their apparent uniqueness.

c.1750

PRE-GRAND SOCIETY EPOCH

## EARLY FORMS OF PSYCHICAL RESEARCH

1763

Very early efforts to collect examples of some unusual, but recurring "previsions." Forty examples of veracious prevision (seeing events before they happen) collected in Scotland by the Reverend Donald MacLeod.

1768

Goethe's friend, Johan Jung-Stilling collects examples of retrocognition "glimpses of the past that could not be accounted for by natural means."

1768

Kant investigates the psychic visions of Swedenborg, and attests to the authenticity of some of the events.

1801

Wave theory of light received in 1801 from Thomas Young and A.J. Fresnel, etc.

1886

The study of light and that of electricity and magnetism shown to be closely related.

Electric waves verified in 1886 by Heinrich Hertz, confirming Maxwell's theories, and foreshadowing radio, television and other devices.

WAVE THEORY AND ELECTRIC WAVES INCORPORATED

1895

to  
c. 1925

<.....  
Max Planck's quantum theory, 1900  
Questions raised concerning the supposedly indestructible atom and the nature of matter, i.e., x-rays discovered by Roentgen, 1895, radioactivity by Becquerel, 1896, the electron by Thomson, 1897, and new radioactive elements by Pierre and Marie Curie.

INCORPORATED AS THE BIRTH OF MODERN PHYSICS <.....

REJECTED PSYCHOLOGICAL  
LINE (INCLUDES PSYCHICAL  
PHENOMENA)

1680.....>  
to  
c. 1770

Birth of Empirical psychology

Locke (1632-1704) argued that the mind is born blank, and the world world is experiences through the five senses.....>

rejects classical mind-soul rationales.

Berkeley (1685-1753) argued that qualities, not things, are perceived, and that perception of things is related (psychological relativity) to the viewer.

Hume (1711-76) argued there was no more reason for hypothesizing a substantial soul than for accepting a substantial material world, but that mind is nothing more than a bundle of perceptions. Hume defined a "miracle" as a violation of the laws of nature and that there was no proof of them even from men of unquestioned good sense. Natural law was the a priori truth that should lead mankind.....>

Acceptance of Hume's arguments leads to total rejection of all non-material precepts.

1750.....>  
to  
c. 1900

Birth of physiological psychology

Hartly (1705-57) argued that the whole of the mind results from the association of simple sensations, idea reinforced through Mill (1806-73). Bain (1818-1903) emphasized the importance using methods of logic, of solving the problems of psychology, but he is noted, vis a vis psychical research, by his own claim, that he "cleared psychology of metaphysics." .....

Religion becomes "superstition" and psychical aptitudes become "irrational" and henceforth a violation of natural law, which in turn sees the arizing of destructive antagonists. Non-material human attributes, research of them, and subsequent theories, rejected by mainline psychology, now become rival theory upon the establishment of psychical research line.

Birth of scientific (dynamic) psychology

Defined by the introduction of experimental method and by the incorporation of Darwinian theory of evolution. Germany: by Weber, Fechner, von Helmholtz; England: by Tilchener.

.....> Psychical research attacked, and attempts to discredit it mount during times of high interest in the phenomena or progress in the psychical research materials.

1886.....>

Birth of Freudian psychology, leading to the subsequent establishment of:

- Psychoanalysis
- Psychiatry
- Behavioral psychology
- Environmental psycholoby, etc. ....>

All reject psychical materials.

1912.....>

Birth of Jungian psychology, based on psychic totality and psychic energism. Jung postulated two dimensions in the unconscious -- the personal, immediate experience of the individual, who participates in the collective unconscious. ....>

JUNG AS RIVAL THEORY  
Jung's psychic materials avoided by subsequent mainline psychology.

to  
c. 1945

60  
89  
The Lyon School investigates cases of medical diagnosis by eyeless vision and clairvoyant means. Establishes that such diagnosis can occur, lists some environmental situations and notes that some diagnoses are possible under light Mesmeric trance.

84  
The Franklin Commission: set up by royal decree to inquire into phenomena associated with Mesmer. Issues a final report to the French Academy that eyeless vision and certain other phenomena are valid and warrent status as topics of legitimate study.

The Franklin Commission report  
is suppressed by a vote not  
to publish its contents.

PSYCHICAL RESEARCH AS RIVAL THEORY

808  
Publication of Électricité Animale by Pététin, being a record of experiments and case histories of individuals who could "see" or "taste" objects with their fingertips or other body parts. (dermo<optics).

831  
Alexander Bertrand publishes Animal Magnetism in France, trying to account for and explain "eyeless vision".  
The telepathic implications of dreams, visions, "communications" (telepathically) between humans, undertaken and established by Lavater, Kieser, Treviranus, Hegel, Shopenhauer, although Shopenhauer, for example, exposed cases of fraud also.

James Braud tests mersmeritic phenomena, establishes the fact of the existence of eyeless vision, but insists there must be some physical explanation.

1843  
The Zoiet, founded by Elliotson, publishes massive evidence for psychical phenomena.

1849  
William Scoresly, noted explorer, investigates, finds some evidence for eyeless vision and "travelling" clairvoyance and establishes more evidence for some forms of "thought-transference."

1851  
William Gregory, U. of Glasgow, Herbert Mayo, King's College at London identify talent types, environmental and research problems involved with investigating phenomena, establish some facts of psychical materials, but feel it is too early to offer a scientific hypotheses to explain them

1869  
The London Dialectical Society concludes that "the absence of any proof of imposture..it is incumbent..that the subject is worthy of more serious attention that it has received.

1882  
THE GRAND SOCIETY  
EPOCH  
Formation of the Grand Research Societies to systematically investigate all forms of psychical phenomena. Intense organization of topics to be understood and researched, severe constraints imposed upon scientific aspects. Rise of intens& destructive antagonism.

1914  
C.G. Jung, founder of analytical psychology, records personal paranormal experiences that prompted much of his later philosophical/psychological work.

1920  
William McDougall joins Harvard Psychology Dept., and establishes the Hodgson Memorial Fund, enabling psychical research to spread through university levels, ensuring academic standards.

1908

1916

Minkowski provides, 1908, mathematical formulation of theory in which space and time are united in a four-dimensional geometry of space-time.

Einstein's 1905 special theory evolves into his general theory of relativity, 1916, of accelerated frames of reference.

The glaring discrepancy known as the ultraviolet catastrophe was solved by Planck's 1900 theory of energy quanta.

Einstein uses quantum theory to explain the photoelectric effect.

Neils Bohr uses quantum theory to explain (1913) Rutherford's nuclear atom.

The theory of the quantum is developed by de Broglie, Heisenberg, Schrodinger, Dirac, etc.

c. 1920

INCORPORATED AS QUANTUM MECHANICS  
INCORPORATED AS QUANTUM MECHANICS <.....

MAINLINE PHYSICS BRANCHES

c. 1927

Solid state physics  
plasma physics, low  
temperature physics,  
maser, laser, etc.

energy physics  
nuclear physics

Uncertainty principle introduced by Heisenberg, 1927, the importance of statistical probability at the submicroscopic level is of great importance, and the principle of indeterminacy has philosophical importance.

to

present

Contemporary theoreticians not in line with the "commonsense" interpretation of the world (so-called "logical realism") conflicts with both quantum theory and experiment.

NON-MATERIAL PHYSICS TENTATIVELY INCORPORATED INTO MAINLINE PHYSICS <.....

Nobel Laureate Josephson points out that the violation of commonsense views of space, time and causality by both quantum theory and psychology are sufficiently serious that had psychic phenomena not been found experimentally, theoretical physicists might have been led to predict them.

SOME PSYCHICAL PHENOMENA THEORETICALLY IDENTIFIED WITH SOME HYPOTHETICAL NON-MATERIAL INTERACTION.....

1945

Psychology is defined, in the Columbia Encyclopedia, as the study of mind, which, although acknowledging the historical body-mind-soul problem, indicates that "psychology as it appears today (1945) should be given in terms of behavior," since, based upon that approach, "it is possible not become entangled in the mind-body controversy which has for so long a time occupied a place of prominence and resulted in much confusion."

Based upon the principle (Hume) that psychical phenomena violate known natural (materialistic) laws, DESTRUCTIVE ANTAGONISM emanates from various academic, ideological and philosophical circles. This antagonism has particular impact on the internal formation of psychical research, especially from the early 1930's through the 1960's.

1953>

1975

Psychology is redefined as the study of the activities of living things and their interaction with the environment. Psychologists study processes of sense perception, responses to stimuli, thinking, learning, remembering and problem solving, emotions and motivations, personality, mental disorders, and the interaction of the individual and the group.

Psychical materials avoided.....>

Abraham Maslow publishes Toward a Psychology of Being: a new model of consciousness, re-incorporating body-mind relationships, high-stage creativity and psychical inputs (termed by Maslow as "peak experiences").

MASLOW AS REVAL THEORY

As a result, the Humanistic Psychology movement comes into existence. Consciousness/psychical materials tending towards reincorporation. <.....>

Evolving models of consciousness bear both implications to psychical materials and

models of thought-matter interactions of advanced physics.

<.....> The IMPLICATIONS of some psychical materials attract the interest of some physicists, who see correlaries in them to some problems of indeterminacy and quantum mechanics. <.....>

- 1920-40      Dr. J. G. Miller conducts controlled experiments in telepathy, establishing that they are repeatable.
- 1925-26      In France, René Warcollier mounts extremely rewarding telepathy-clairvoyance work from which unique features of psi signals can be described. Work interfered with by the World Wars.
- 1929      G.H. Esterbrooks, under Hodgson Memorial grant, replicates telepathic contacts.
- 1929      Upton Sinclair experiments in telepathic communication, drawing positive commentary from Dr. Albert Einstein.
- 1933      Duke U. accepts doctoral dissertation on psychical research from J.F. Thomas.
- 1933      THE RHINE EPOCH  
(THE GARRETT EPOCH)      Dr. J. Gaither Pratt and Hubert Pearce establish successful demonstrations of clairvoyance at a distance.
- 1934      Dr. J.B. Rhine publishes seminal volume outlining ESP research techniques.
- 1937      Sir Hubert Wilkins conducts remarkably successful long-distance telepathic/tracking experiments in the Arctic with Harold Sherman, New York.
- 1939      American Psychological Association sponsors roundtable on parapsychology, containing up-to-date papers on the field.
- 1942      Dr. Margaret Meade, noted anthropologist, becomes trustee of the American Society for Psychical Research, and later a member of its research committee.
- 1945      Dr. Gertrude Schmeidler, City College, New York, publishes results of research revealing personality characteristics in relation to ESP scoring.
- c.1945-1965      Statistical replications of minor psi-signals and functions established by parapsychologists during the Rhine Epoch, leading to wide-spread work in "flaw-determined" experiments. Statistical approaches for demonstrating psychical materials originated earlier, but by the culmination of the Rhine Epoch had become dominant in the field.
- 1969      THE PARAPSYCHOLOGY  
ASSOCIATION EPOCH      Acceptance by the American Association for the Advancement of Science of the Parapsychology Association as a member organization. Although this event is of highest meaning in the history of psychical research, it refers majorly to academic and scientific standing of member psychical researchers.
- 1972      THE SRI INTER-  
NATIONAL EPOCH      "Remote-viewing" demonstrated under strict controls.
- 1974      THE SOVIET EPOCH      Although probably beginning c. 1935, the Soviet Epoch begins to come into focus mid-.970's. Its meaningful structure has yet to be determined.
- 1981      THE CHINESE EPOCH      Appears suddenly in 1981. Its meaningful structure has yet to be determined.

OVERALL SUCCESS FACTOR OF COMBINED EPOCHS: Psychical attributes variously named as telepathy, long-distance clairvoyance, local clairvoyance and remote viewing established with certainty. These can be observed with predictable certainty, but with minimal visibility, under statistical methodologies; their more likely scope is visible under "need-determined" approaches. Mind-matter interactions established via statistical methods (psychokinesis). The existence of telepathy and mind-matter interactions assumed by advanced thought in physics, leading to possible future linking up of advanced forms of physics and psychical research materials.

### III SOME MAJOR DEFINITIONS

1. Psychical research is replete with acronyms and neologisms the usage of which has long fallen to the public level, but the meanings of which are not exact and sometimes not very useful or counterproductive. These, although accepted in the popular vein and usage, have themselves undergone modifications and transmutations within psychical research itself to a point that must be frustrating to anyone seeking to penetrate beneath the popular levels. I feel it is useful to review some of the major vocabularily used.

2. PSYCHIC: The word "psychic" was first used by the famous French astronomer, Camille Flammarion (1842-1925), noted for his studies of the moon, Mars and for his considerations and hypotheses of double and multiple stars. "Psychic" is a throwback to the body-mind-soul concept of psychology, and in its Greek origin refers to "soul" or attributes of the soul. Accepted into English usage, it referred to studies or treatises dealing with the nature of the soul, and carried philosophical rather than psychological connotations.

3. In psychical research, "psychic" has long been utilized in a number of ways, first as an adjective denoting the supernormal character of certain phenomena and secondly, as a noun, to refer to a person called otherwise a "medium." Three modifications or meanings of the word, in this sense, can be observed:

- (a) A person in the presence of whom psychical phenomena can be observed.
- (b) A person in whom constituent elements--mental, dynamic, and material--are capable of being momentarily decentralized, allowing for various psychical attributes to manifest.

(c) A person who appears or is alleged to be an intermediary for communication between the material and spirit world.

4. The usage of the word "psychic" related to a medium is the usage that has achieved permanent cultural acceptance, since alleged "communication" with spirits constituted a major thrust in psychical research at the turn of the century, and also because such "communication" has long been a popular pastime and a lucrative business at the popular level. In any contemporary scientific sense, the usage of the two words in this guise has long fallen into disuse.

5. The use of the word "psychic" to indicate temporary decentralization from one's own mental configurations allowing for perception of objects or sites beyond the range of immediate physical perceptions is the meaning generally used as the meaning of the word. This use antedates the emergence of the word "psychic" by Flammarion, in that it was preceded by such phrases as "exteriorization" of sensibilities, and can include today's emerging technology surrounding the novel phrase of "remote viewing."

6. "Psychical research," however, denotes much more activity aside from observation of psychic phenomena, and can include a study of the field's history, assessments of past experimental data, criticisms of experimental models and designs, statistical endeavours, and philosophical tracts that pose the problematical situations that surround the field.

7. PARAPSYCHOLOGY: The term "parapsychic" is attributed to the noted French psychic researcher, Emil Boirac ( ), Rector of the Dijon Academy. It referred to the pioneering work on the phenomena earlier called "exteriorization of sensitivity," begun by Paul Joire, professor at the psycho-Physiological Institute of France along with Eugène Rochas who was Administrator of the Ecole Polytechnique of Paris before he was

forced to resign owing to his interest in occult investigations. Boirac authored L'Avenir des Sciences Psychiques, Paris, 1917 (translated as Our Hidden Forces, New York, 1917) that was awarded the Emden Prize by the French Academy of Sciences. According to Boirac, the term psychic was not satisfactory because it was synonymous with mental. The prefix para denotes that it relates to exceptional, abnormal paradoxical phenomena, that is, phenomena produced in living beings or as a result of their action, which do not seem capable of being entirely explained by already known natural laws and forces. The term found general acceptance in Germany, but was not utilized in either English or American psychic research for many decades.

8. The term "PARAPSYCHOLOGY" was coined by the German philosopher Max Dessoir (1867-1947), doctorates from the universities of Berlin (philosophy, 1889) and Wurtzburg (medicine, 1892). Dessoir worked mainly in the area of aesthetics, defining it as a relationship of parts (in nature or in an object) the intensity of which, in the observer, is beyond that of normal experience. His interest with parapsychology therefore is associated to aesthetics, art and creativity, a type of parapsychology that has received scant attention since.

9. The word "parapsychology" was not generally utilized as an overall descriptor of psychic research in the United States until the 1930s, when it was recovered as nomenclature by Dr. Joseph Banks Rhine. But the meaning of the word moved away from referring to the study of abnormal phenomena into becoming a general descriptor of a discipline--that of parapsychology as a new science. Since then it has become the nom de guerre of that science, and refers to the profession, as well as official standing in that profession. For example, a researcher or scholar should not, as a gentleman or lady, refer to themselves as being a parapsychologist unless they have been accepted into standing by the Parapsychological Association.

10. Parapsychology, in its contemporary sense, is normally taken (often rather loosely, to be sure) to include the study of certain specific phenomena and exclude others. Many phenomena investigated by early psychic researchers have been ejected or have become unfashionable, or are beyond the guiding scope set by Rhine. Normally, then parapsychology studies only two given areas; that of extrasensory perception (ESP) and psychokinesis (PK). ESP refers to the statistical accumulation of evidence for mental aptitudes such as telepathy, clairvoyance and precognition, while PK refers to the statistical accumulation of evidence of mental influence over matter.

11. The overall goal of American parapsychology has been to construct itself, and its data, in forms that could become acceptable to science, and in this the non-prejudiced analyst can see that it has to some degree succeeded. Relative to this, however, three points should be made.

- (a) Parapsychology is quite different from the purposes of earlier or other psychical research, which set tasks of investigating the nature of phenomena, whether or not these corresponded to accepted scientific principles.
- (b) Parapsychology has succeeded with its major goal of achieving acceptance only at the cost of greatly reducing its peripheries.
- (c) Parapsychology, although it has influenced researchers in other countries, is distinctly American in its ideation, and differs significantly from English, European or Soviet efforts. The assumption, for example, that American parapsychology and Soviet work correlate would probably be erroneous.

12. PSI: Psi is a recent additive to the nomenclature of parapsychology. Rhine attributes its origin to R. H. Thouless, president of the psychology section of the British Association (1945-1965) and Reader in educational psychology, Cambridge University (1945-1961). Psi is utilized in two meanings:

- (a) Psi is used as a convenient label to gather together all aspects of parapsychology and psychic research.
- (b) Rhine states that in the history of modern parapsychology an important development was the growing tendency (among parapsychologists) to think of the different types of phenomena as only surface effects of a basically unified ability. The term psi was adopted to signify this ability, although whether such a unified ability (or force) exists is still open to question and some argument.

13. Unfortunately for the analyst, the words "psychic," "parapsychology" and "psi" are all too frequently used indiscriminately when actually their base meanings are different, although admittedly these differences are subtle. In addition, there are some three dozen acronyms and neologisms that are used to describe specific psychic traits, some of which are neologisms that have replaced earlier more specific words, and some of which are more handy to experimental design and of less value to human aptitudes being studied. The precise definitions for these are beyond the scope of this document, and when used, the reader may apply the popular definition.

#### IV PSYCHICAL RESEARCH HISTORY

1. Various historians of psychical research divide the history in different ways, and most of these histories are quite excellent, although some can be seen to be somewhat partisan to smaller sectors of the overall history. For the purposes of this document, the history can be divided into epochs, each of which has sufficient characteristics to demark it, but all of which overlap to some degree.

- (a) The Pre-Grand Society Epoch, roughly encompassing the years from 1750 to 1870: This epoch is characterized by sporadic outbursts of "psychical phenomena" in different countries such as Russia, France, Scotland, the United States and especially France, and the emergence of disconnected researchers who endeavored to accumulate veridical samplings of the various phenomena.
- (b) The Grand Society Epoch, beginning around 1870 and lasting to the beginning of World War I. This epoch is characterized by the formation of the Society for Psychical Research (SPR) in England, soon followed by the forming in the United States of its sister society, the American Society for Psychical Research (ASPR). Both these Societies came into existence to try to cope with and investigate the tremendous wave of spiritualism that began in the United States, and soon thereafter swept England and Europe. This epoch sees the emergence into physical research of numerous high-calibre and esteemed scientists aligned simultaneously to other fields. The grand society epoch declined for three reasons: the wave of spiritualism that brought it into existence itself declined, and many "spiritualists" were proved to be frauds; the incidence of destructive antagonistic attacks upon the findings and methods of the Societies was very high; and the outset of World War I brought about the culmination of many efforts other than war efforts.

- (c) The War Epoch, from 1914 to roughly 1945: The two World Wars broke down the forming cohesive unity of the Grand Societies, although during the years of peace between, several important research efforts, especially in France and Holland did emerge, to be cut back or ended by the onslaught of World War II.
- (d) The Rhine Epoch, beginning in the United States circa 1936, culminating in its powerful influence about 1946, when Dr. J. B. Rhine's efforts received national attention, a good part of it being treated destructively in the American press, and his psychical research efforts were forced to be disassociated from Duke University. Rhine continued his work in a building across the street from the University, eventually under the title of the Foundation for the Research on the Nature of Man. Rhine developed an extraordinary following of students, many of whom eventually departed from the "Rhine syndrome" and dispersed throughout the United States.
- (e) The Garrett Epoch, running commensurate with the Rhine Epoch: the world-famous psychic and medium, Eileen Garrett, founding the Parapsychology Foundation, constituted an important epoch, since that Foundation convened and financed many international conferences, inviting to these conferences scientists from various disciplines, and stimulating the interest of these scientists in psychical research matters.
- (f) The Parapsychology Association Epoch, beginning about and continuing into the present. The Parapsychology Association (PA) was formed as a professional collegium with high standards for admittance, but itself conducts no research. It is a reporting society, at whose annual gathering psychical researchers may present their methods, research and findings. Its highest achievement was the acceptance of it into the ranks of the Association for the Advancement of Science (AAAS) in the United States.
- (g) The SRI International Epoch, beginning in 1972 and continuing into the present. The SRI International Epoch is significant, since it constitutes the first instance of an important "think tank" willing to sponsor a group conducting psychical research, under the title of the Psychoenergetics Program. This group has stimulated interest in many universities and independent research groups throughout the world.

- (h) The Soviet Epoch: Although cloaked in secrecy and mystery typical of Soviet sciences, this epoch may be said to have begun in 1932 as a result of the research into "biological radio" by the Soviet scientist, Vaslieve. Although probably dying away during the harshness of World War II in the Soviet Union, it is by now thought to have gained great importance. It is alleged by intelligence sources and Soviet dissidents to involve at least nine major research facilities in the Soviet Union, most of which are allied to the KGB or the Soviet Army.
- (i) The Chinese Epoch: The People's Republic of China has recently begun a world-wide investigation of psychical research, originating correspondence with numerous American and European researchers. While not much yet is understood about this interest, the fact that it must have governmental policy approval can not be without meaning.

2. Although extraordinary and significant research took place before 1880 (in the Pre-Grand Society Epoch) earlier, it is normally accepted that the beginning of psychical research occurred with the founding in 1882 in London of the Psychical Research Society. Indeed, there can be little doubt that this event proved to be a transformation from what was, at the time, a disparate state of affairs, into an organization nourished by the inputs of scientists of high standing.

3. But in assessing for beginnings, it is important to understand which beginning is being sought. If the beginning wanted is that time and those personalities who formulated the concepts upon which subsequent research methodologies descend from, then it is true that the SPR during its first decades codified much of what are accepted today as appropriate psychical research topics.

4. It also began the exclusionary process that has resulted in contemporary parapsychology's extreme weakness concerning the amassing of psychic talent and in the engineering and practical applications of that talent. The SPR, and its early American affiliate, the American

Society for Psychical Research, have often been accused of producing little in the way of the invigorating results normally expected from a scientific discipline that has been in existence for nearly 100 years. This accusation is true by inspection, although the same inspection yields the conclusion that in these sister societies have accumulated convincing arguments supporting the existence of certain forms of psychical materials.

5. The origin of psychical research is, therefore, arguable, and it will be argued, I am sure. The more productive idea of a "psychical beginning" has always lain in the heads and hands of those thinkers who chose to involve themselves with the working problem of psychical research, that is, how do the two worlds of the material and non-material interact. And this can be traced back quite some time. This back tracking, for purposes of elucidating Western concepts of psychical research, seems possibly to begin with Robert Fludd (1574-1637), the English physician and engineer, who it is said invented the barometer; and who seems to have been influenced by the studies of Paracelsus (1493?-1541), the Swiss physician and chemist. Paracelsus was a scientist of no mean order, and as an isolated thinker in his times, his methods appear to have approached the modern conception of scientific research.

6. Depending heavily upon his understanding of certain of Paracelsus' mystical writings, Fludd designed a body-mind-soul philosophical system in which he maintained that physical and spiritual truth are unseperable. While the word "spiritual" is, of course, extremely unfashionable in science today, and while Fludd's concept of it undoubtedly was involved with the special spiritual problems of his day, it is possible to discern in his writings the essence of today's quantum physics basic problem, i.e., non-material-material interrelationships. Fludd's "interacting duality" principle leads--although through by no means simple constructs--eventually to the Uncertainty Principle as enunciated by Werner von Heisenberg in 1927.

7. All throughout the historical course of this "by no means simple constructs," thinkers of "no mean order" have continued to come up against the problems posed, during their separate times, by apparently non-material aspects of existence. For example, the great Scottish physicist, James Clerk Maxwell (1831-1879), whose electromagnetic theory occupies a position in classical physics comparable to Newton's work on mechanics, was noted as saying that "the Universe is beginning to look like one big thought."

8. The estimating of the beginning of psychical research should, perhaps, be pinpointed as to when the physical problem of "interacting duality" proceeded from being solely a problem of mathematics and physics into one that concerned human awareness, that is, researching the phenomenon of a given individual (medium or psychic) seeming to operate beyond the confines of his known physical senses. This phenomenon was usually seen to occur in "mediums," that is people who gathered information by means other than their physical senses.

9. The history of the occurrence of mediums is of vast antiquity, and I have been unable to identify a strategic point where, in the Western sense, that it became a scientific problem carrying appropriate impact. The study of mediums was certainly a major target of the Psychical Research Society, but the origin of the word "psychic" is not attributed to this English group, but to Camille Flammarion.

10. He was, apparently, the first scientist of modern times--in that his standing derives from his other interests--to involve himself in researching mediums. His first book on the subject of psychical research, written in 1865, under the title Unknown Natural Forces, is not so much about mediums as it is about "psychic facts," in which he states that "these forces are as real as the attraction of gravitation and as invisible as that."

11. Flammarion published, in 1906, Mysterious Psychic Forces, an enlarged edition of his earlier work. He felt no hesitation in declaring that "Mediumistic phenomena have for me the stamp of absolute certainty and incontestability, and amply suffice to prove that unknown physical forces exist outside the ordinary and established domain of natural philosophy." Concludes he: "The universe is dynamism. Matter is only a mode of motion. Life itself is a special kind of movement, determined and organized by a directing force ...." And, he surmises, the "vital force" of the medium might "externalise itself." "There are unknown faculties in man ...."

12. Although there must have been other researchers during Flammarion's time (for mediums abounded everywhere), he established the reality incumbent upon the phrase "exteriorization of sensibility." The pursuit of the many phenomena and human traits that group under this phrase has remained major targets of general psychical research.

13. Even though psychical research had many predecessors prior to the mid-1850s, the period that is of interest (and from which psychical research has never totally escaped) to today's analyst are those decades prior to World War I. It is in this period, no matter what the claims as to actual origin are, that the major concepts of psychical research, as well as the major forms of destructive antagonism, were laid down. This means that psychical research was born in another age quite different from our own.

14. Important discoveries were being made in science and engineering that would bring into existence the technological age in which we now live. The objective possibilities of material science and engineering then were dominant and paramount, perhaps rightly so, and this epoch history remembers and values. What has been forgotten is that at that time, spiritualism was front page news, constituting a vast human-interest phenomenon, and the subjective qualities implied by all this brought a