C. G. JUNG AND J. B. RHINE: TWO COMPLEMENTARY APPROACHES TO THE PHENOMENOLOGY OF THE PARANORMAL

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In 1982 the field of psychical research and the late J. B. Rhine's experimental science of parapsychology celebrated a century of scientific research on paranormal phenomena. The British Society for Psychical Research was founded in 1882 and at one time both C. G. Jung and Sigmund Freud could be counted among its distinguished members. Jung's early interest in formal psychical research dates back to his student days and a full account of Jung's excursions into psychical research has already been well documented by Aniela Jaffe (1971). Jung's famous essay on "The Psychological Foundations of a Belief in Spirits" (Jung, 1920/1948) was originally presented as a lecture given in London to a general meeting of the Society on July 4, 1919. Today, psychical researchers and parapsychologists are still very much concerned with the opulent legacy left to them from the life and work of C. G. Jung. However, it wasn't until the commencement of the historic contact between C. G. Jung and J. B. Rhine that these two congruent expeditions into the dark continents of the psyche began to merge into a single recognizable endeavor.

Under the tutelage of the famous psychologist William McDougall (the chairman of the psychology department at Duke University who had undergone analysis with Jung shortly after World War I), J. B. Rhine's experimental parapsychology was founded at Duke in the early 1930s with the creation of its famous Parapsychology Laboratory. Rhine borrowed the term "parapsychology" from the German word parapsychologie, the equivalent of "psychical research," and, thus, when Jung uses the word "parapsychology" in his writings he means both the older usage as well as the newer experimental science of Rhine. Experimental parapsychology is considered by many to be a specialized field within the broader scope of what has been called psychical research and, as such, it has a narrower view of the types of problems it considers researchable, namely, those lending themselves to quantification and

replication through the use of scientific experimental methods. Psychical research as a whole has historically occupied itself with much broader problems (post-mortem survival, hauntings, mediums, etc.) which do not lend themselves very well to examination under controlled experimental conditions. Despite the fact that it was the early investigations of these types of spontaneous and mediumistic phenomena that initially fascinated Jung, his greater admiration is often expressed about J. B. Rhine and his experimental research at Duke. "I often mention your work to people over here," writes Jung (1972, I, p. 321) on November 5, 1942, "and I think it is of the greatest importance for the understanding of certain peculiar phenomena of the unconscious."

Jung and Rhine met only once, at a luncheon in October, 1937, in the United States arranged by the publisher John Farrar (Sloane, 1975). They almost met once again 13 years later, according to a personal communication from Rhine's wife and lifelong colleague the late Dr. Louisa Rhine (1982). "I remember that we were to meet Jung in Zurich," she writes. "It was on our European trip in 1950. But Jung was ill and we didn't meet him-according to my diary." J. B. Rhine initiated the transatlantic correspondence that forged the intellectual bond between these two men when he sent Jung a copy of his paradigmatic 1934 edition of Extra-Sensory Perception (Rhine, 1934) after having read the 1933 English edition of Jung's Modern Man in Search of a Soul. Rhine also wanted to know about Jung's experience as a young man with an ostensibly psychokinetically "exploded knife," about which Rhine had apparently learned from his mentor McDougall. In his first letter to Jung (dated November 14, 1934), Rhine informs Jung that he has been conducting "some experiments which are designed to test the capacity of the human mind to exteriorize or externalize itself" (see Jung, 1972, I, p. 180). Jung held Rhine and his work in the highest esteem and Rhine in turn was so impressed with kindred spirit Jung that he requested an autographed picture of Jung, which Jung (uncharacteristically) acknowledges sending in a letter to Rhine dated November 5, 1942. Although Rhine died in 1980, this photograph still survives at the Institute for Parapsychology, research arm of the Foundation for Research on the Nature of Man, in Durham, North Carolina, which is the successor to the parapsychology Laboratory at Duke University.

These two creative men were undeniably driven by the need to understand the fuller nature of man—indeed, one might say they were obsessed with the task of understanding man's unconscious nature and its beckoning lair of mysteries. By devoting their lives to the investigation of the anomalies of human experience within a scientific frame-

work, both Jung and Rhine strove to resolve their similar existential preoccupations with religion, death and the possibility of post-mortem survival, and the meaning of man's psychological life—all of this in abhorrence of the reigning materialistic monist philosophy of science. Jung provided a phenomenological taxonomy of human experience for clinical and historical use, while Rhine liberated antiquated psychical research from the lurid days of mediumistic frauds and talking horses by limiting the scope of paranormal phenomena to be studied and applying the statistical tools of the scientific method to the examination of psi. Psi is the generic term used today for the diametric process that is more commonly known as extrasensory perception (ESP) and psychokinesis (PK).

Along with the Gestalt psychologists, the depth psychologists and J. B. Rhine's parapsychology share a unique distinction in the history of academic psychology. The present renascent interest in the study of consciousness in psychology can be attributed to these scientists who bravely kept the issue of consciousness burning bright during the dark era of Behaviorist regency from the 1930s to the 1960s, an era in which any discussion of an inner life or of inner experience, or of man as a willful actor in his environment was consensually anathema.

Jung's influence on Rhine and modern parapsychological thought is considerable, because the questions that Jung raised—especially the principle of synchronicity—continue to be hotly debated in the major experimental journals of parapsychology. Jung's model of the psyche implicitly permeates parapsychological thought. Indeed, the growing implicit influence of Jung's ideas on Rhine can be seen to chronologically progress in Rhine's major works, culminating in Rhine's 1953 book The New World of the Mind (Rhine, 1953), which is abundant in explicit and implicit references to Jung, depth psychology and the dynamics of the unconscious. What is proposed here is that Jung's theoretical and philosophical labors on the nature of the psyche best served Rhine as a "conceptual net" of sorts in which to organize his confusing array of experimental discoveries. When asked specifically about Jung's influence on Rhine, Louisa Rhine (1982) replied to this author that: "I think the relationship between Jung and Rhine was personal. Their approaches-Jung's theoretical, Rhine's experimental-were too different to make anything more possible. . . . JB was not sufficiently interested in theory as such to be in any way dependent upon it. He [believed] that it should follow, not precede, experimental findings. But I know he appreciated Jung's attitude when so many others were critical of the experimental approach."

Postpositivist philosophers of science such as Kuhn (1962) and Fey-

erabend (1975) speak of the "theory-ladenness of facts," the position that all observations ("facts") are presumptive of the theory or paradigm under which they were obtained, meaningless unless perceived within the organization of their larger theoretical Gestalten. The theoretical context out of which the original experimental question arose determines the limited possibilities of observation. While respecting Louisa Rhine's emphasis on the differences between the approaches of Jung and Rhine, it is nonetheless posited here that by 1953 Rhine had implicitly adopted many critical aspects of Jung's phenomenological model of the psyche to conceptualize the psi process. Jung's phenomenological "conceptual net" of the psyche, which contained depth metaphors of "layers of unconsciousness," and the goal-directedness and space-time independence of the psyche were gradually adopted by Rhine to vindicate his anomalous results and justify further experimentation. Although both men started their research with congruent initial implicit assumptions about the paranormal aspects of human nature, it was Jung who eventually forged these ideas into a theoretical and phenomenological framework that could encompass the fruits of their two very divergent methodologies.

The data base for the existence of psi provides some strong empirical support for Jung's phenomenology of the psyche. Shortly following the birth of experimental parapsychology at Duke in the 1930s Rhine and his colleagues soon began to discover in the laboratory (through the interpretation of their quantitative data) the same qualities of the psyche that Jung had noted almost two decades previously. Parapsychological research has continued to vindicate Jung since then. Indeed, from this perspective, parapsychology can now be considered as maintaining a complementary relationship to analytical psychology in this century, restoring the balance of a precarious one-sidedness due to Jung's early abandonment of the use of the experimental method to investigate the unconscious.

The Unconscious

Jung experienced a wide variety of vivid, one might venture to say numinous, spontaneous psi experiences, as his autobiography illustrates (Jung, 1963b). Ironically, Rhine never did. Even more astonishing is the fact that Rhine did not even begin to show a serious interest in psychical research until he was well into his graduate studies in plant physiology following World War I (L. E. Rhine, 1983). Rhine's decision to enter the field of psychical research and his subsequent devotion to parapsychology served as a critical synthesis of his religious beliefs and

the mechanistic outlook of his beloved scientific method. "We all know of the quandary many young persons, and men especially, face when they come to the crossroads of career selection," writes Louisa Rhine (1981). "In J.B.'s case any such uncertainty vanished once he realized that the question of man's total nature could be attacked by the same method used universally in the study of man's physical nature." Jung describes a similar solution to his "identity crisis" of early adulthood, an analogous union of opposites, with his decision to enter psychiatry: "Here was the empirical field common to biological and spiritual facts, which I had everywhere sought and nowhere found. Here at last was the place where the collision of nature and spirit became a reality" (Jung, 1963, p. 109).

Jung and Rhine were fascinated with unconscious processes and their meaning for human existence. "Nobody can say where man ends," relates Jung. "That is the beauty of it. The unconscious of man can reach God knows where. There we are going to make discoveries" (cited in Evans, 1964, p. 62). Rhine was also keenly aware of the importance of his particular method of confronting the unconscious. He writes: "The experimental tools by which to deal quantitatively with unconscious processes have been and are being developed through the psi investigations" (Rhine, 1953, p. 203). Rhine goes on to say that "the operation of psi is *really* unconscious. It is unconscious in a different degree or way from experiences that are merely forgotten or repressed. . . . The operation of psi is, so far as the researchers can indicate to date, irrecoverably unconscious" (Rhine, 1953, p. 203–204).

Rhine's conclusion about the "irrecoverably unconscious" nature of psi mirrors exactly the same gradation of "levels" of unconsciousness that are found in Jung's qualitative distinction between the personal and the collective unconscious. Rhine hints beyond the personal unconscious here and points to a deeper, transpersonal level—the collective unconscious—for the locus of psi processes. By 1953, when the above comments were written, Rhine was already long familiar with Jung's depth analogy of the psyche and had read the German edition of Jung's essay on synchronicity, which he cites in New World of the Mind (Rhine, 1953). Thus, Rhine was well acquainted with Jung's assertion that psi occurred within the deep archetypal layer of the collective unconscious, and was acknowledging that Jung's phenomenological model of the psyche was the best structure through which to conceptualize a process that was irrevocably unconscious.

Jung's abandonment of his personal use of the experimental method to investigate unconscious processes has incorrectly been interpreted as an anti-scientific, anti-experimental bias on his part and, as such,

many Jungians have one-sidedly spoken out strongly against the thralldom of statistical inference in parapsychology and in other sciences. For example, Jung's close colleague Marie-Louise Von Franz (1980, p. 26) refers to Rhine as a "fool" for using the statistical tools of science and asserts that, by doing so, Rhine ended up in "enemy territory," a bias that many Jungians harbor today. Jung certainly never viewed the methodology of scientific experimentation as "enemy territory" and, in fact, used statistics in his early Word Association experiments and in his later synchronicity researches. And Jung certainly did not consider Rhine a "fool" for using statistics. After reading the German edition of Jung's synchronicity essay, Rhine wrote a letter to Jung offering to help him subject his theory "to an adequately crucial experimental test," and Jung responded on February 18, 1953, by saying that, "I am most obliged to you for offering your help, but in the actual state of our research I would not know where the statistical method would come in, although I hope to get to a point where statistics can be applied" (Jung, 1972, II, p. 107).

The Mind-Body Problem

Jung and Rhine both held to the principle of mind-body/psychesoma interactionism (described by C. D. Broad, 1925) and both men felt that the evidence of parapsychology added weight to this position. According to this dualistic view, man is not a physical whole, nor entirely a mental whole, but in some way formed an organized whole of some kind, an organized whole that is qualitatively different than the sum of its constituent parts. Man's nature is duplex—he cannot be described by "either/or" dichotomous assertions, but instead must be regarded as irreducibly "both/and." Mind and body, psyche and soma interact, but the method and medium of interaction can never be fully comprehended in consciousness.

One possible interpretation of parapsychology is that it is the interdisciplinary science that most directly centers its efforts on the mindbody problem. Rhine felt that the experimental results of parapsychology directly challenged the materialistic monism of the scientific worldview and firmly re-established the dualistic nature of man's existence. Yet, for both men, this was a duality within a unity, a unity that pointed to a realm not wholly physical nor wholly mental, but a transcendent reality of some kind. "One cannot even conceive the possibility of two completely different systems interacting and, yet, at the same time, constituting so manifestly unified a whole as the personality of man—without having something fundamental in common," writes Rhine (1953, p. 161), concluding that parapsychology's data imply "a less definable but more basic reality than has been known hitherto in natural science" (Rhine, 1953, p. 164).

For Jung, parapsychology pointed directly to the alchemical unus mundus or "unitary world." "Since psyche and matter are contained in one and the same world, and moreover are in continuous contact with one another and ultimately rest on irrepresentable, transcendental factors, it is not only possible but fairly probable, even, that psyche and matter are two aspects of one and the same thing" (Jung, 1947/1954, p. 215). Ultimately, this may indeed prove to be the primary relevance of the past century of psychical research and parapsychology to our understanding of human nature.

Non-Physicality and Space-Time Independence

Jung's observation that the psyche is not bound by space and time is one derived from his personal spontaneous ESP and PK experiences as well as from those of his patients, in particular their "anticipatory" telepathic or precognitive dreams. Through personal experience Jung knew that the "limiting principle" (Broad, 1953) nihil est in intellectu quod non antea fuerit in sensu was patently untrue. Jung, as a Kantian, espoused the philosophy that consciousness is held in thrall by space and time, but "The unconscious psyche appears to possess qualities which throw a most peculiar light on its relation to time and space.

. . . Under certain conditions it could even break through the barriers of space and time precisely because of, a quality essential to it, that is, its relatively trans-spatial and trans-temporal nature" (Jung, 1934, p. 413).

By far the most dramatic empirical support for Jung's phenomenology of the psyche and resplendent among the proud achievements of Rhine is the experimental demonstration that psi operates independently of space, time and physical causality. Indeed, John Beloff (1981) remarks that, "Undoubtedly, the most central tenet of the Rhinean doctrine is that psi is non-physical." This is parapsychology's "antimatter fantasy" that James Hillman (1975) so insightfully describes. Nevertheless, literally hundreds of parapsychological experiments and countless more reports of spontaneous phenomena have failed to demonstrate that psi declines over time or distance, and therefore does not hold to the inverse square law that accounts for the weakening of physical energies across these variables. Physical barriers such as buildings, mountains or even oceans (see Schlitz and Gruber, 1980) seemingly have no effect on this extrasensory process. Neither do temporal bar-

riers, for precognition has been demonstrated experimentally since the 1930s at Duke and even earlier if one is to consider as scientifically valid some of the earlier attempts of psychical research. Undoubtedly, parapsychological experiments seem to confirm Jung's theory and Rhine's early hypothesis of the "relatively independent agency of mind under certain conditions of the material world" (Rhine, 1934, p. 192).

The Goal-Directedness of the Psyche

Jung's early recognition of the goal-directedness of the psyche (as evidenced in part by the symbolic function) was one of the reasons set forth by the "Zurich school" in its contentious manifesto (Jung, 1916) for initiating its ideological break with the philosophy of Freud and the "Viennese school." Every psychic event, every symbol is marked by its causality and its finality, its origins and exaltation, and thus Jung's approach was a counter-position emphasizing the final or goal-oriented nature of the psyche that did not deny the place of a causal-reductive method of interpretation such as Freud's. "The principle of finality recognizes no cause posited at the beginning, for the final standpoint is not a causal one and therefore has no concept of a cause, just as the causal standpoint has no concept of a goal or an end to be achieved" (Jung, 1928, p. 4). Jung's first musings about such a principle of finality operating in the psyche originated during the seances he attended with a young female cousin acting as a medium during his student years in the 1890s. During her trances an older, more mature female personality would emerge which later closely resembled the girl's subsequent personality at a much later age—almost as if the potential personality was a goal towards which the young girl was evolving. Later, Jung's views were tempered by his own spontaneous psi experiences and the "anticipatory" dreams of his patients which would hint at later personality organizations on the psyche's horizon. Indeed, Jung's explication of the individuation process illustrates how central this principle of finality was to his psychology.

It is now fairly well believed that the experimental data show that psi is independent of causal complexity, i.e., it is essentially finalistic or teleological (Jung distinguishes between the two based on whether the goal is anticipated or not) and, some might add, therefore acausal in nature. No matter how intricate the intermediate steps in an experiment may be, psi (when it is present in an experiment) seemingly operates outside of these obstacles in order to achieve a final successful outcome. Spontaneous psi reports all have this quality of goal-directedness and are generally accompanied by a profound sense of purpose

or meaning, as Louisa Rhine (1951) has found. Both Stanford (1977) and Kennedy (1979) have focused on this aspect of psi in their reviews of the experimental literature. With such a view in mind, a whole parapsychological experiment may be considered as analogous to a single trial in a single experiment in which the subject is either successful (hits) or unsuccessful (misses). This interpretation seems to be true no matter how many subjects or hundreds or thousands of trials were involved in this single experiment—the experiment is considered an independent, unitary whole. Psi appears to demonstrate the same pinpoint accuracy as memory, another goal-directed process that works through time, but is not time bound; yet psi is free of more constraints than the memory process in its zeal to manifest a specific outcome.

Rhine's colleague K. R. Rao (whose works contain many references to Jung and who obviously has been influenced by Jung in his own theorizing about psi) speculates that "volitional and teleological complexities and not causal complexities affect psi" (Rao, 1978). However, it is this singular teleological or finalistic aspect of psi that seriously calls into question the ultimate effectiveness of the scientific method, which is inherently causal and reductive, to study phenomena that inherently are not. This quality of psi also questions the validity of the use of statistical measures which all assume a particular distribution (the distribution of psi is unknown) and assume the independence of trials, which is meaningless if the experiment as a whole is taken as a single unit. Perhaps such discussion of inherent "goal-directedness" is at bottom an admission of the failure of the experimental method and its causal and reductive assumptions to rein in this wild and untamable process. Unfortunately, parapsychologists must continue to define psi by what it is not rather than by what it is. To many, the boundaries of psi still seem limitless.

Jung was pessimistic about the experimental future of parapsychology on these and similar grounds, predicting that one day "the experimental method will not be generally applicable" (Jung, 1963, para. 1216). Whether this prognosis for the science of parapsychology proves to be true or not remains to be seen. It must be remembered that Jung's spontaneous psi experiences were among the most meaningful events of his life and, quite naturally, it would not be unreasonable to assume that, despite his support of experimental parapsychology, the notion that a scientist could discover a recipe that would mechanically evoke repeated numinous phenomena on demand in the laboratory must have seemed quite distasteful, indeed impossible to him.

Parapsychology would cease to exist as a science if it ever abdicated the principle of causality. Indeed, in Francis Bacon's (1960 [1620]) New

Organon of 1620 the sciences are divided up into *Physics*, which deals with efficient causes and Matter, and *Metaphysics*, which is concerned with final causes and Form. According to Bacon, the practical application of Physics was Mechanics and that of Metaphysics, Magic. Without an adherence to this traditional mechanistic and causal methodology, parapsychology would certainly be accused (more than it already is) of trying to promote "magic."

As an aside, it must be mentioned that the ancient occult origins of the experimental method and philosophy are selectively forgotten today by proponents of "scientism." Indeed, in the first pages of the first volume of his magnificent eight-volume History of Magic and Experimental Science Lynn Thorndike (1923, I, p. 2) asserts: "My idea is that magic and experimental science have been connected in their development; that magicians were perhaps the first to experiment; and that the history of both magic and experimental science can be better understood by studying them together." The earliest usage of the term "experiments" (experimenta) was to denote the profane magical practices of the medieval magus or magician in his search for cause and effect relationships in the physical world, the forbidden domain of Satan in the speculative Scholastic philosophy of the Middle Ages. The Scholastic justification for this belief about the essential deadness and evil of matter is based on the New Testament passage in Luke 4:6. Considering the paranormal subject matter of the discipline of experimental parapsychology, it represents the historical continuum of the lineage of ancient traditions devoted to "experiments" with the paranormal aspects of human nature.

In a very real sense, Jung does equate paranormal phenomena with "magic." Rhine was well aware of the problem Jung hit upon and was careful not to succumb to this potential threat to his science. Rhine (1953, p. 82) writes: "Until there is some reason to do otherwise, one will naturally continue to think about psi phenomena in terms of causation (even while we respect Dr. C. G. Jung's suggestion that in psi operations his hypothesis of synchronicity may supplant causation)."

Herein lies the crux of the differences between the approaches of Jung and Rhine to the psychology of the unconscious, for Rhine's "personal equation" is indelibly marked by causality, and Jung's finality. Although Rhine could agree with Jung on the transcendental, non-physical operations of psi in the psychoid ("irrecoverably unconscious") layer of the psyche and, despite the emphasis by others of the Rhinean school on the goal-directedness of psi, if parapsychology is to be a science, an adherence to the principle of causality must remain an inviolable position despite the problems this bias may create in attempting

to remain consistent with the bulk of parapsychological theory and research. It is on this issue that Rhine most widely diverges from Jung's methodology for studying the nature of man.

Consciousness and Volition (Will)

If psi is an autonomous unconscious process, how can ego-consciousness, which should have no control over psi, ever play a part in volitionally producing psi?

This question has remained a central issue of contention in parapsychology and still no definite experimental answer exists. Parapsychology has long since demonstrated the existence of such phenomena and in recent years has placed much more emphasis on teasing out the relevant variables for the controlled enhancement of psi. For parapsychology to remain a science the working assumption must be that causal relationships can be found between certain independent variables and the elicitation of psi, in effect bringing this mysterious process under conscious control. However, psi appears so sporadically and so unpredictably simply because it is *not* under the control of consciousness, whether this be the consciousness of the subject *or* the experimenter. From the perspective of ego-consciousness, psi is perhaps as "volitional" as dreaming.

Although this dilemma is consistent with the phenomenology of the psyche proposed by Jung and is strongly supported by the experimental findings of parapsychology, Rhine and successive generations of parapsychologists have resisted Jung's early assertion that psi cannot be brought under conscious control because it endangers the implicit assumptions of the scientific method. In this sense Rhine "repressed" (Bloom, 1979) aspects of Jung's viewpoint that were inconsistent with the causal and reductive assumptions of experimental science. Rhine felt that high motivation and enthusiasm on the part of the experimenter was absolutely necessary for good performance in a subject who also must maintain this high expectancy (Rhine, 1948). In parapsychological studies an important source of support for the volitional production of psi can be found in the so-called sheep-goat effect which has long tended to support the fact that those who believe in psi (sheep) generally score significantly on psi tests more often than those who do not believe in psi (goats) (Palmer, 1978). However, some recent criticism of this "sacred cow" of parapsychology in a review article by Leonard George (1984) suggests that instead it may be low expectancy, or a lessening of volitional effort, that may be conducive to psi.

Assuming then that the experimenter may have more belief in psi

and more motivation for success than the subject in psi experiments, then where is the "source" of psi in an experiment? Is it the subject (as must be assumed under the experimental method) or is it the experimenter? This is presently the most pervasive problem in parapsychological circles today, for intentional/non-intentional and subject/ experimenter barriers begin to dissolve when experiments are examined in this way. Evidence is beginning to accumulate (Kennedy, 1979; Kennedy and Taddonio, 1976) that hints that parapsychology may not be able to produce repeatable experiments, but instead repeatable experimenters, experimenters who get either consistently significant or consistently insignificant results. No one knows why this is so. Within the parapsychological community there is much private concern over who is or who is not a repeatable experimenter and many confidentially vent their frustration over being held responsible, for better or worse, for something they had absolutely no conscious control over. Psi simply "happens."

Jung anticipated the problem of studying processes such as psi which express acausal arrangements in the psychoid background of the psyche and often expressed his opinion that attempts to directly perceive this transcendental realm will always be inadequate. In Jung's phenomenology, what we term "psi" is a construct fashioned by ego-consciousness within its space-time confines to account for the intrusions of an unconscious and irrepresentable reality. Psi represents a domain of unconscious forces that will always remain threatening, alien to the phenomenal world of ego-consciousness and its a priori space-time context. From the inside of this context looking out, psi as a manifestation of the unconscious will always appear limitless, elusive, all-pervasive. A parapsychological experiment is an attempt to pound out a window in one of the walls of our closed room and glimpse, for the briefest of moments, the world that lies beyond. With consciousness as our inescapable frame of reference it is impossible to set boundaries to the unconscious, the "not-I." Thus questions over "who" is the "source" of psi are ultimately unanswerable from Jung's perspective because these questions are misleading. They are questions shrouded in causal and personal terms to inquire about phenomena that are inherently acausal and transpersonal. Psi is an expression of the eternal "not-I" of human nature and thus must always be defined not by what it isfor this is phenomenologically inconceivable—but by what it is not. The greatest single stumbling block in the continued endeavors of parapsychology shall always be the consciousness of those involved.

In a letter to Rhine dated August 9, 1954, Jung expresses his concern with Rhine's conceptualization of the "source" of psi and presages the

present "experimenter effect" difficulties in parapsychology. "The main difficulty with synchronicity (and also with ESP) is that one thinks of it as being produced by the subject, while I think it is rather in the nature of objective events. Although ESP is a gift of certain individuals and seems to depend upon an emotional perception, the picture it produces is that of an objective fact" (Jung, 1972, II, p. 181).

Jung was careful to point out that, phenomenologically, the experience of "volition" or "will" was solely an attribute of ego-consciousness. The unconscious operates according to its own nature and is experienced (by ego-consciousness) as those powerful alien forces that seem to move in us and through us, but are not moved by us. Jung therefore dissociated the occurrence of psi from the experience of "will" and thereby indicated that psi was more likely to happen in altered states of consciousness and when the source of psi was attributed to an agency working through the individual (e.g., spirits, witches, gods, extraterrestrial beings, etc.). From his study of mediums Jung observed that "These phenomena have nothing to do with the 'will' since they occurred when the medium was in a trance and precisely not in control of his will" (cited in Jaffe, 1971, p. 11). In parapsychology, the most fruitful line of research in recent years has been the induction of altered states of consciousness in subjects to produce a psi-conducive state (Honorton, 1977).

Also supporting Jung is the conclusion by Stanford (1977) that the parapsychological literature indicates that the most dramatic psychokinetic effects occur when the ostensible "source" of psi denies any connection with the willful evocation of these phenomena and instead attributes them to extrapersonal forces such as spirits.

Jung discovered that a principle of complementarity exists between conscious processes and synchronistic phenomena, for the "functional relation of the unconscious processes we may describe as compensatory" (Jung, 1921, 486). Psi processes begin where conscious processes end—at the boundaries of the "phenomenal I." Jung further concludes, therefore, that "a psychic process . . . which is conditioned by unconscious motivation I would not include under the concept of will."

In direct contrast to Jung, Rhine did not distinguish between conscious volition and unconscious motivation. The "will" emanated from a central source—the individual—and was not restricted as merely an attribute of consciousness. Therefore "In a word, psi is an unconscious but by no means a completely involuntary function" (Rhine, 1953, p. 112). Unfortunately, an extreme interpretation of Rhine's view assumes that the intention and feeling-tone of the ego can be extended to assume responsibility for both conscious and unconscious processes—in es-

sence, a confusion of the limited ego with the experience of what Jung refers to as the "Self."

In Mysterium Coniunctionis Jung writes: "I have defined the Self as the totality of the conscious and unconscious psyche, and the ego as the central reference point of consciousness" (Jung, 1955, p. 110). Rhine's view confuses the ego as already having some control over the irrecoverable unconscious, and indeed it places the ego, not Jung's Self, as the organizing locus of centralized "will" for all psychic processes, conscious and unconscious. For Rhine there could be no distinction between the "ego-centrism of consciousness" and the "Self-centrism of the unconscious" (Jung, 1955, p. 462).

The experience of the Self by ego-consciousness is that of a "volition" or "will" that is transpersonal, dwarfing the hubris of the ego. A psi event is always a breakthrough to the unconscious ground of transcendental psychophysical unity, an unus mundus from which spring the pregnant potentialities of human experience. Current parapsychological theories that view psi as evidence of "volition" manifesting itself through human history (Rao, 1977; 1978), or quantum mechanical theories of psi which posit a largely unconscious "will" that rapidly selects physical states out of a large field of potential states (a figure-ground analogy for the continuity of consciousness), are all metaphorical expressions of the phenomenology of what Jung calls the Self that have crept into parapsychology to redress Rhine's inflation of the powers of ego-consciousness.

"Volition" or "motivation" are concepts that are taken for granted in parapsychology since psi is often conceptualized as an ability associated with the conscious control of the individual. It is proposed here, however, that despite Rhine's agreement with Jung on the recognition of the deeper, transcendental implications of parapsychological research, he had to "repress" them in order to foster the continued use of the scientific experimental methodology which was based on assumptions antithetical to the transpersonal evidence of parapsychology. Empirically, the evidence of parapsychology continues to vindicate the "ego-Self axis" of Jung's phenomenology of the psyche even though the science must proceed with confused assumptions about "volition" that are not supported by the research.

Synchronicity

Jung's acausal connecting principle of synchronicity continues to be a dominant focal issue in parapsychological debate. The experimental evidence seems to suggest that psi may be acausal, and acausal models based on Jung's basic postulate have been discussed in the major parapsychological journals. Despite Jaffe's (1971) insistence that synchronicity is an "explanatory" principle, most parapsychologists either reject "meaningful coincidences" outright as being tautological and therefore meaningless or view synchronicity as perhaps simply a descriptive term and not an explanatory one, a phenomenon forever outside the range of experimental validation (Tart, 1981). The issue seems destined to remain unresolved. "I am only too conscious that synchronicity is a highly abstract and 'irrepresentable' quantity," Jung (1952, p. 505) admits, placing it outside the range of direct conscious observation.

Parapsychology and Alchemy

Historians of science Mauskopf and McVaugh (1980, p. xii) have recognized that "at the moment, parapsychology is marginal to the scientific mainstream in much the same way that alchemy already was in the seventeenth century," noting, however, that parapsychology need not always remain a "marginal" science. In an "Afterword" to Mauskopf and McVaugh's book, J. B. and Louisa Rhine argue that the fate of their new science will not mimic that of alchemy because parapsychology's main objective (the eventual prediction and control of psi) is not impossible, unlike alchemy's dream of the transmutation of baser elements into gold.

However, the Rhines did not seem to realize that the parapsychological opus parallels alchemy in another important sense. Psi is as mysterious and unknown an entity to parapsychologists as matter was to the alchemists. A parapsychologist can tell you what "parapsychology" is, but cannot begin to meaningfully tell you what "psi" is or what its limits are. Both parapsychology and alchemy are historical movements involved in far reaching investigations into the very nature of the unconscious psyche itself and, not unexpectedly, both have produced striking similarities in the unconscious contents projected upon their respective unknown quantities. And it is indeed, therefore, not surprising that parapsychology's findings should in turn parallel Jung's conclusions about the nature of the psyche, since Jung's precursors to the study of the psyche were the alchemists.

Parapsychology is the "elusive science" and, according to the Rhines, one that is "still new, exploratory and controversial" (Mauskopf and McVaugh, 1980, p. 307). Psi is habitually referred to by parapsychologists as "elusive," "evasive," "capricious," or "sporadic." Psi strikes without warning and leaves no hint as to where and when it will show its furtive trace again. Attempts to capture it, to hold onto it and look

at it for even a split-second have been largely futile. Psi in these respects shows the frustration of conscious processes in trying to grasp events that are irrevocably unconscious and can only be experienced through projection. What parapsychologists are experiencing as properties of psi are in reality the projected processes of their own unconscious.

All of these sobriquets for psi were once bestowed upon its alchemical counterpart—the spirit Mercurius, the eternal solvent of spirit and matter. In the alchemical tradition Mercurius is the elusive one, "many-sided, changeable and deceitful. [The 17th Century alchemist] Dorn speaks of 'that inconstant Mercurius,' and another calls him versipellis (changing his skin, shifty). He is duplex, and his main characteristic is duplicity" (Jung, 1943/1948, p. 211). Jung goes on to describe Mercurius as "that indefinable, fascinating, irritating and elusive thing which attracts an unconscious projection. . . . The philosophic Mercurius, so dear to the alchemist as the transformative substance, is obviously a projection of the unconscious, such as always takes place when the inquiring mind lacks the necessary self-criticism in investigating an unknown quantity" (Jung, 1943/1948, p. 211).

A parapsychology experiment is an attempt to break through the space-time confines of consciousness and to open what the alchemist Gerhard Dorn has called the spiraculum aeternitatis, the "airhole" or "window into eternity." It is the fantasy of the parapsychologist to discover the proper key (an efficacious independent variable) that will repeatedly unlock this "window into eternity" and allow him or her to open up a raging torrent of psi rather than wait for its intermittent drips and splashes that occasionally grace his laboratory. According to those who knew him, in his later years J. B. Rhine began to show the first stirrings of dissatisfaction with the traditional experimental methodology for finding the key to this window and, apparently, in informal discussions speculated about switching to some sort of design in which "the experimenter was experimenting on himself." As Jung notes, this idea was also a progeny of alchemy, "for it was clear to the more astute alchemists that the prima materia of the art was man himself" (Jung, 1955, p. 364). Perhaps the essence of both alchemy and parapsychology is the goal of reaching through this "window into eternity" and to grasp the experience of the eternal and the transpersonal within each man.

Conclusion

As has been noted, J. B. Rhine was never an explicit theoretician. His failure to construct a consistent theoretical organization capable

of integrating parapsychology's unusual data forced him to adopt a "misprision" (Bloom, 1879) of Jung's phenomenology of the psyche which necessarily "repressed" certain aspects that were inconsistent with the causal and reductive methodology of science. Rhine's initial assumptions of mind-body interactionism and non-physicality and spacetime independence of psi as put forth in his paradigmatic 1934 Extra-Sensory Perception are prime examples of how "theory-laden" his experiments and their subsequent results were from their origin. Through subsequent exposure to Jung's thought, Rhine elaborated his implicit theory of psi processes into a form which began to reveal the organizational schema of Jung's phenomenology of the structure and dynamics of the psyche. Psi was a manifestation of the collective unconscious, the objective psyche or psychoid layer of the psyche which was "irrecoverably unconscious." Psi pointed to an unconscious ground into which mind/body, psyche/soma merge into a transcendent realm. Psi began to appear independent of causal complexity, a goal-directed process which knew no bounds. However, Rhine had to "repress" these transpersonal and causally-independent assumptions that can be found in Jung's model because they clashed with causal and reductive assumptions that place the "source" of psi within the individual and necessitates the belief that a causal mechanism can be found to unlock the secrets of psi. Rhine the implicit theoretician could agree with most aspects of Jung's phenomenological model of the psyche. Rhine the explicit scientist and experimenter could not. Nonetheless, it is perhaps the glorious failure of parapsychology to demonstrate psi as a manifestation of volition or to discover the ultimate "source" of psi within any one individual that most strongly provides Jung's phenomenology of the psyche with empirical support for its transpersonal, space-time independent nature. Indeed, this is the meaning of C. G. Jung and J. B. Rhine.

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DISCUSSION

TART: This is very intriguing, but I would like your response to one idea here. Jung talks about the necessity of unconscious processes at work here and that you cannot get volitional control of psi. Some of our data certainly seem to fit that, but there is another model you could throw in here that has excellent psychological support. That is that the things we believe are likely to become true because we tend to make our own beliefs come true. So if we really get too involved in this model that psi is inherently uncontrollable by conscious volition, I have no doubt we could make that come true. But that does not mean it is true. To throw in one factual observation, I would say that perhaps even more successful than some of the altered states and psi research has been the remote viewing research, where the people involved certainly do not feel as though they are involved in an altered state of consciousness. They go out of the way to get rid of that. It is unusual for me to be de-emphasizing altered states research, but I want to be careful that we do not box ourselves in. I would like your reaction to that.

NOLL: That does bring up an interesting point that really accentuates the differences between Jung and Rhine. Rhine I think had a real belief in the transcendental nature of the paranormal, but he could not, because of his own personal belief system, give up the scientific method and, indeed, I am not suggesting that that would be a good thing to do either. Jung was not interested in doing experiments; indeed, the farthest thing from it. So of course he would be biased in the opposite direction. I see him as sitting back, describing phenomena, giving up

maybe a little bit too soon by saying that from the looks of things you cannot control psi. People do have some sort of emotional perception. These events happen around certain individuals such as gifted subjects, as we would call them. What he sees is a lessening of the barriers of consciousness, an altered state of consciousness, a trance-like state, a lowering of the threshold of consciousness, however you want to put it, and that allows the paranormal to happen. It is almost a passive idea, I think.

TART: We also tend to very much conceptualize consciousness in Western terms. I think as we look more into Eastern meditative techniques and the like we could expand the idea of consciousness. What might be conscious in some Eastern senses would be normally called unconsciousness. The division is not as clear as we often make it.

NOLL: They really do shade off into one another, that is for sure. Look at the lucid dreaming studies. How do you explain that from Jung's perspective?

ISAACS: I just wanted to add to what Charley had said and to what you had said and to agree with you both. I would like to try and take it a little bit further and point out that Jung is very interesting because he had such a broad understanding of a wide range of existence. But I think that at some level he failed to commit himself to taking seriously the reality of some of the Eastern paths towards uniting one's consciousness with the transpersonal realm. Therefore for Jung the "I" has to always be the ego rather than the self so that he cannot possibly accept voluntary control of psychic functioning because he cannot see that there could be configurations of the conscious self which would be compatible with the unconscious. I think what we have got here is just simply an exemplar of the historical position that Jung was in. He was a forerunner in many ways. What is interesting is that his notion of the psychoid level is very like the neutral monism that you refer to as Rhine having. In that way they are very similar. I see parapsychology as having to deal seriously with these issues. I think they are absolutely unavoidable because these realities, if they are such, are located beyond space and time. We are at the moment grasping around without being able to come to grips with this realm. There is a huge amount of anecdotal material that has already been accumulated in people's experiences of moving into the transpersonal realm and I see parapsychology as having to deal with and articulate that material along with addressing the ontological questions raised by transpersonal psychology.

NOLL: Jung was really a product of his time and place. He was suspicious of Eastern religions and in many places in the collected works he warns against Westerners taking up Eastern practices even though

he practiced a little bit of yoga himself. Nevertheless, he did not want people taking up Eastern belief systems because he says Easterners have no ego, which is a rather bizarre thing to read, but, nonetheless, that is what Jung believed. If you are first approaching Jung, a good way to start is to notice as you are reading how he splits things into pairs of opposites: conscious/unconscious, ego/self, etc. That is the way his whole body of thought is set up, pairs of binary oppositions, constant interplay between opposites. When you start thinking in those terms you naturally get caught up in these very stark contrasts between realms of experience.

ARONS: It does raise an interesting question between the goal directedness of the psi phenomena and the ability to consciously make these things occur. Those do not seem completely unreconcilable if you start to move into a transpersonal orientation. You do not even have to go into Eastern psychology; I think you can go to somebody like Henri Bergson, Bergson talks, for example, about things happening that seem to be completely irrational or having nothing to do with anything that he can make a theme out of in his life or in any life. You could say when you start to write, begin to create, ideas start to come that have no connection at all. They just seem to be insights or intuition. At a certain point one begins to recognize these as sub-themes or variations on a theme. One then returns to understand these as necessary or the meaning of these things relative now to the consciousness one has of the whole. Bergson uses the metaphor: once one sees these disparate notes (or sub-themes) one becomes the creator of the symphony. One recognizes the sub-themes now that are creating the major theme. It seems to me that this brings together a lot of what we see in Eastern psychology in terms of why psi experiences are often reported at certain times, but then seem to have to be transcended.

NOLL: I wish Jung was around today to address some of these matters. I think his views would change on quite a number of points. What is interesting though is that Rhine began to take up many of these ideas. You can see it if you start reading any of Rhine's books—Jung is sprinkled throughout. He starts talking about the depth analogy of the unconscious and that sort of thing. I did not know Rhine personally. I know many of you in this room did. I had heard that Rhine, near the end of his life, was tinkering with some idea about an experimenter experimenting on himself. I had heard this from someone who was in the Summer Study Program a number of years ago. There almost seemed to be a spiritual transformational connotation to it.

NEPPE: A peripheral one maybe, but do you have any ideas on the role Freud might have played in all this?

NOLL: At some point in his life, he began to entertain seriously the idea of telepathy. Freud had a variety of what we would consider anomalous ideas. He was a Lamarckian when it came to evolution for one thing, which Ernest Jones blasts in his enormous three volume biography. Jung really split with Freud on the whole issue of the occult. Freud's whole mainstay was his sexuality theory which was to be a great bulwark against the rising tide of occultism. These were the things that fascinated Jung the most. Jung wanted to get into the paranormal and Freud wrote rather chastising letters to Jung, saying "Go off on your journeys in these exotic tropical lands, but do not become too intoxicated, make sure you come back."

PALMER: In your talk, you addressed the problem of conscious control of psi. Perhaps we can separate the words "conscious" and "control" and think for a moment of unconscious or involuntary control. I am not a Jungian by any means, and I doubt this is exactly the way Jung would put it, but I am curious as to whether you would see the following as being inconsistent with a position that he might take, namely the notion that it would be possible, almost in a behaviorist sense, to manipulate unconscious kinds of variables in order to bring psi under control and make it lawful. In other words, you would have control, but you would not have conscious, voluntary control.

NOLL: From what I can gather of what he said in his letters to Rhine he was pretty explicit that he did not think you could do that. Consciousness was characterized by a vector of volition. But there was something called unconscious motivation that he thought was the realm of psi and he did not think it could be tinkered with. He thought if you tried you would end up in trouble.

NEPPE: What kind of trouble?

NOLL: Going crazy.

TART: On the other hand you could look at mediumship or anything like that as a deliberate creation of a personality that is *defined* as separate from consciousness. Then you ask the medium's control personality and it is a vehicle for manipulating the unconscious. It seems to work quite well in some cases.

NOLL: Jung spent a lot of time at seances. It was one of his hobbies from the time he was a young man till well into his older age. He went to seances with Bleuler and Schrenk-Nötzing at one point. He felt that it was almost as if an alternate personality came in and took over the medium. His basic idea of the psychic life of man is that it is based on poly-psychism, that we are a fractured unity in a way and that some sort of disunity of consciousness was not inconsistent with the unity of self. He saw that sort of phenomenon as analogous to what he would

call a "splinter psyche" stepping into the spotlight and taking over. I am going over all this again because I am doing research in multiple personality disorder and it fits some of these people so well, especially if you run across such individuals as I have. I work in a large psychiatric hospital and I seem to run into more and more and they are usually misdiagnosed. They are ending up in state hospitals.

STANFORD: I am glad to see someone who is, perhaps not advocating the Jungian position, but explicating it vis à vis contemporary parapsychology. If I understand you correctly it seemed to me that you are candidly saying that if you follow that position to its ultimate, nth degree, you simply would give up the approach to scientific parapsychology.

NOLL: Right. That is what Jung did, which is why I think his thought is colored in that way. He gave up experimentation as a method for investigating the unconscious.

STANFORD: I hope that those who are looking at the future of parapsychology will step back a little even if they agree with certain of Jung's observations. It is necessary to recognize first off that sometimes when we talk about the unconscious we do not treat it as a hypothetical construct, but as a mysterious reality that sits around out there (and in here as well), but it is, really, a construct that we use up in different ways to try to explain psychological experience. Now, as such we need to recognize in the broader usage of the term "unconscious" that there are many processes that we sometimes think of as unconscious that are certainly monitored or influenced or controlled either by ego efforts or by our conscious desires. I think a close look at non-scientific societies and their practitioners or shamans or witch doctors and their various non-scientific attempts to apply psi will suggest that folks in those contexts believe that there are ways of directing these functions with regard to human needs in a fairly deliberate way. But I have the feeling that because of our Western mind set when we talk about this we are talking about a deliberate manipulation of something in a very operant (in Skinner's sense of the word) kind of way. Now it seems to me that there are ways of perhaps controlling psi relevant factors so as to manipulate things within ourselves. That is the concern of some of these traditions people have been talking about. In my own work I have attempted sometimes to manipulate the consequences of events for individuals and get psi to happen in a way that was not egocentric. All I want to say is that there are ways of dealing with this even if, in some sense, it is unconscious. Many bodily processes that we traditionally believe are unconscious are subject to certain types of strategy controls through consciousness. So I do not think we should be too scared of the notion that this is unconscious. If there is one area where I think some of us would disagree with our dear mentor J. B. Rhine, it is his notion of the unconscious and that that means something fundamental about the nature of the animal. I do not think that we have to let that scare us away from continuing scientific research. I wonder if you have any feelings about those matters.

NOLL: I agree with you there. I think that if you start thinking about psi as being unconscious in that final way you are going to feel overwhelmed. You are going to feel as though there is no way to approach this problem. Jung himself, as I have said, did not really enjoy experimentation. He was not into it and was suspicious of many scientific claims. However, read his letters to Rhine. He admires Rhine for his experiments. He writes about Rhine to others. He wrote to Rhine saying that "I speak about your work here all the time." In going through the research on this I also ran across some things about William James, who was also not fond of experimentation. He founded the first experimental psychology lab back in the 1870s, but subsequently abandoned this method. The technique was brought over from Germany. James says that this is a method that could have only been invented by a race of people who could never be bored! There are many giants in psychology who did not think that taking out the experimental cudgel was the way to go.

KRIPPNER: You are probably thinking of Wilhelm Wundt.

NOLL: It could be Munsterberger who brought it from Germany. He was a student of Wundt's.