PSI AND THE PRINCIPLE OF NON-DUAL DUALITY

STEVEN M. ROSEN

Introduction

From the time of its inception a little over a hundred years ago, modern parapsychology has been seeking to establish itself as a legitimate field of scientific inquiry. But despite a few token indications of acceptance (such as the somewhat grudging admission of the Parapsychological Association into the American Association for the Advancement of Science in 1969), not much tangible progress appears to have been made. A negatively skeptical viewpoint has prevailed, with parapsychology remaining on the fringes of organized science. Yet it well may be asked whether parapsychologists realistically can expect to gain a more secure position when they themselves frequently have been as skeptical as their most vocal critics.

The tendency among parapsychologists to deny their own phenomena is well known and widely acknowledged. Parapsychologist D. Scott Rogo (1977) has discussed the "will to disbelieve" or "morning after syndrome" in which findings become clouded by doubt despite a strong conviction of authenticity at the time of observation. The general subject has been treated by White (1985), Eisenbud (1967), LeShan (1984), Rosen (1979) and a number of others. At the 1984 Annual Convention of the Parapsychological Association, a roundtable was devoted to this issue. There, as one of the participants, I emphasized that the problem cannot effectively be addressed in a vacuum, i.e., without a genuine understanding of its basis and origin. I proposed that some "archeology" may be in order, some digging into the source of parapsychology's self-denial.

In today's presentation, I will attempt to begin this "archeological expedition" in earnest. My basic thesis is that psi phenomena are fundamentally incompatible with the general philosophico-religious orientation that has pervaded Western thinking for centuries, an outlook that has had considerable influence even in the East. After examining the paradoxical character of psychic experience when viewed from

within the predominant mind frame, I shall explore an alternative framework that promises to be more harmonious with psi.

But before proceeding, I take note of the fact that the approach I am planning to call into question prescribes the basic method by which all questioning is supposed to be done. In the interest of gaining positive knowledge, achieving the highest possible level of certainty, one must strive for maximum clarity, be explicit, give sharp definitions in advance and, in more formal inquiry, set forth well delineated propositions from which theorems are generated and put to empirical test. Now, I would argue that the striving for this sort of certainty, in large part, is an act of compensation for the sacrifice of a deeper certainty. Underlying the method of questioning, of knowing, sanctioned for the entire enterprise of philosophy, science and technology as practiced in our culture from the earliest times, is the *un*questioned presupposition that the knower essentially is *separate* from that which is known. In this loss of internal relatedness, of intimacy with the known, knowing is relativized, creating the profound sense of insecurity we have been doing our best to overcome by the forging of tight correspondences. Yet however tight these logico-empirical linkages may be, in essence they are *external* linkages.

So to question the traditional approach to knowing at the most fundamental level is to question the assumption that the knower is separate from the known. Perhaps, by identifying this basic presupposition undergirding our tradition in the introductory portion of my presentation, I am getting a little ahead of myself. But I do not wish to be misunderstood by those who might be expecting me to build my entire case on a set of explicit definitions or discursive logic or citations of large numbers of empirical studies. It is this approach to gaining certainty that *I am calling into question* so as to pave the way for exploring the possibility of regaining the more intimate way of knowing. Indeed, I intend to demonstrate that psychic knowing constitutes just such a mode of intimate awareness. Accordingly, the approach that I will take today will have a *non*-discursive aspect. Matters will be left somewhat implicit, as they necessarily would be in more artistic forms of expression. As philosopher/physicist David Bohm (1980) might say, my mode of operation will have an *implicate* quality, for to explicate is, by itself, simply to separate.

I believe we who are interested in psychic functioning understand fairly well that field and laboratory research in psi is a participatory affair. Parapsychologists such as Rhea White (e.g., 1976), in drawing attention to the likelihood that boundaries between and among psi subjects and experimenters are quite arbitrary and artificial, have

pointed to the need for researchers to implicate themselves consciously in psi, attempt to *enter into* psi rather than pretending merely to be studying it from an external perspective. Less clear to us perhaps, is that an implicate approach also may be required in *philosophical* psi research, and this would amount to a style of doing philosophy in which the philosopher cannot be restricted to the axiomatic, discursive, logico-empirical method. For that is the method that imposes beforehand a categorical schism between researcher and researched, knower and known.

The Cartesian Tradition and the Paradox of Psi

While the philosophy of schism long predates the period of the Renaissance in its basic thrust, it was powerfully reinforced by developments occurring at that particular juncture in the history of Western culture. A central figure to emerge within the philosophical tradition of the Renaissance, an individual whose thinking "left its mark on the whole subsequent history of philosophy" (Jones, 1952, p. 686), was the French mathematician, René Descartes. It is the Cartesian manner of formulating our schismatic condition that is most familiar to us today and probably has had the greatest impact. The knower is identified with the inner reality of the self, with psyche or mind, while the known is associated with that which is other, with the external world of the physical, the bodily. And between these domains lies a gulf that cannot be bridged. Philosopher C. T. Jones summarized Descartes' position in the following way: "Minds . . . are completely free and spontaneous. Being unextended, none of the laws of motion apply to them. Minds contemplate eternal truths, and enjoy and cultivate values. Bodies, on the other hand, . . . are machines, and their behavior is completely predictable in accordance with the laws of motion . . . mind and body are absolutely distinct. . . . Body is body and mind is mind, and never the twain shall meet" (Jones, 1952, p. 685).

Descartes' assertion that body operates in accordance with the "laws of motion" while mind does not, may be given a more fundamental interpretation. The deeper meaning also is reflected in his statement that "there is a great difference between mind and body, inasmuch as body is by nature always divisible, and the mind entirely indivisible" (quoted in Jones, 1952, p. 684). To conform to the laws of motion, to be divisible, is to operate within the context and constraints of space and time; body is so constrained whereas mind is "free and spontaneous." Thus, in the bodily experience of extended space, here is here and not elsewhere; with regard to time, now is now, not otherwhen.

But in imaginative thought and more so, fantasy and dream, space-time codes for acceptable behavior are violated with impunity. The experient may find himself or herself at distant locales in the same instant; past, present and future may blend in an indiscriminate now. Space-time principles that are unimpeachable in the domain of extended physis are blithely disregarded in the unextended realm of the psyche. Yet this should not strike the heir to the Cartesian tradition as especially incongruous, not as long as the phenomena of psyche remain in their province.

But let us suppose they do not. Suppose an occasion in which psyche becomes externalized, manifesting itself in the very midst of the physical regime. If validated, such an event indeed *would* be disconcerting to the adherents of categorical schism. In fact, it would be unacceptable. The psi phenomenon appears to be such an event.

In several other forums I have attempted to elucidate the paradoxical, hybrid character of psi which poses such a challenge for the Cartesian mind frame (Rosen, 1982, 1983a, 1985a). Permit me the liberty of quoting from myself in some detail: "In extrasensory perception, a direct and veridical awareness of external reality is claimed. On this score, ESP would be more akin to sensory perception than to the various forms of thought and imagination. However, in sensory perception, known receptors respond reliably and measurably to systematically manipulable physical energy forms. Parapsychologist Rex Stanford (1978) noted by way of contrast that with ESP, 'We have no knowledge . . . of either a specific form of energy which might be involved . . . or of an organ which might be the receptor for this information-carrying energy' (pp. 198–99). Does this imply the upsurgence of . . . psyche in the midst of physis? Not necessarily.

"It is true that no energy channel for psi transmission has thus far been detected, but this does not necessarily mean that a channel does not exist. We might suppose a presently undiscovered medium through which psi information is propagated, much as an electromagnetic signal is beamed through space, passing continuously from one local point to another. Yet if our supposition were correct, the data collected should at least reflect the *functional* presence of spatiotemporal continuity; they should indicate that basic expectations for space-time transmission have been met, such as the attenuation of the signal in proportion to the square of the distance traversed (the inverse square law). But much of the data give no such indication, as parapsychologists point out . . . (Palmer, 1978; Rhine and Pratt, 1957). In reviewing the investigations of psi reported in his book, former astronaut Edgar Mitchell (1976) was led to conclude that 'the consciousness of man . . . enables him

to surpass the ordinary bounds of space and time' " (p. 671). (Rosen, 1982, p. 76.)

In sum, the psi phenomenon is essentially non-Cartesian in nature. On the one hand, if we assume its validity we must admit that it is directly implicated in physical reality and thus cannot be relegated to a domain of pure mentation utterly divorced from space and time. On the other hand, psi is not *contained* by space and time, not completely limited by the constraints of the extensive physical continuum. Its significant deviations from the proscriptions of physis warrant that we ascribe to it a *non*-physical aspect. Evidently then, we are obliged to think of the psi phenomenon as a *hybrid* occurrence owned neither by physis nor psyche alone, engaging both of these domains, bridging them in a manner quite unfathomable to the purely separative Cartesian point of view.

Having described the Cartesian position and indicated its profound influence on our thinking, I must now emphasize that the philosophy of schism is not peculiar to Descartes. Though the dualistic orientation may most readily be recognized in his specific writings, in fact, there is an important sense in which it is implicit in *all* major schools of modern philosophy, doctrines that superficially may seem to compete with the Cartesian. Evidence for this deep lying, far-reaching dualism also can be found in equivalent approaches to *theology*. Moreover, as I have already noted, the philosophy of schism long predates the modern era, being traceable to the very origin of philosophical thought in both the West and the East.

The Pervasiveness of the Dualistic Orientation in Philosophy and Religion

In a recent paper on "Parapsychology and Radical Dualism," parapsychologist John Beloff (1985) attempted to support a Cartesian interpretation of psychic functioning. In replying to Beloff (Rosen, 1985a), I called attention to his unexamined and erroneous presupposition that psi is exclusively a phenomenon of mind, understood as categorically distinct from body. Then, as now, I argued for a *hybrid* interpretation of psi that would require us to overcome the powerful influence of schismatic thought. Of immediate interest at present is Beloff's statement of the philosophical approaches that are possible with regard to psi, a set of alternatives he apparently viewed as exhaustive and mutually exclusive.

The forced choice Beloff gave us is among pure materialism, idealism, physicalism and radical dualism. It is customary to consider the

first two approaches to be forms of monism and the latter two as forms of dualism. The members of the monistic pair are simply and diametrically opposed. The materialist categorically affirms physical reality while denying psyche, whereas the idealist adopts the converse stance. Unlike the materialist, the physicalist does posit a distinct mental domain, but denies autonomy to it, viewing its manifestations as mere epiphenomena of the physical. And, of course, radical dualism is the Cartesian position in which physis and psyche are ontologically equal but utterly separate spheres of operation nevertheless assumed able to interact. Note that the physicalistic type of dualism is less radical than the Cartesian only in the negative sense of depriving the psyche of independence, not in the sense of overcoming the sheer separation of mind and body through a positive insight into their reconciliation.

The fact is that despite their diversity of content, *none* of the four alternatives set forth by Beloff overcomes the *formal* separation of mind and body. In each there is the same tacit understanding of the form in which mind and body are to be construed: They are to be predicated as simple, mutually exclusive categories of existence, though the monistic approaches predicate one category by negation. So the distinction between monism and dualism apparent at the level of content disappears at the deeper level of form. Here post-Renaissance philosophies are uniformly schismatic.

And *pre*-Renaissance philosophy—what of that? Among the most influential thinkers of the 20th century is enigmatic philosopher Martin Heidegger. In the introduction to his magnum opus, *Being and Time* (1962), Heidegger demonstrated that modern philosophy, in an important sense, essentially *continues* the medieval and ancient traditions. A complete "de-struction of ontology" was called for by Heidegger, ontology being equated with philosophy in general. We are to retrace our steps, work our way back through our 2500-year-old tradition in a manner that would loosen the hold of the structure that has ensnared us. By so returning to the primal origin of philosophy, a fresh perspective would be gained on its fundamental problems, the most crucial of which Heidegger viewed to be the problem of Being. According to Heidegger, far from having provided an adequate answer to the question about Being, Western philosophy has never even properly *formulated* it. As a result, this question has been shrouded in obscurity or entirely misunderstood since the time of Plato and Aristotle.

So Heidegger was concerned with the *form* of thinking, over and above its content, and this is closely related to the concern I voiced above in reflecting on the alternatives set forth by Beloff. What is wrong with the form of questioning we have employed from the beginning

of the philosophical enterprise? As I already have proposed, our manner of questioning presupposes a separation of the questioner from that which is questioned, of the knower from the known; it is this that leads to the stark cleavage between psyche and physis. I venture to suggest that what Heidegger was striving to bring to light in his tentative explorations of Being at its source, is the radical *non*-duality of knower and known. It is our deeply engrained dualistic mode of operating that downgrades Being, makes it into a mere being, as Heidegger might say. In approaching the question of Being from within the prevailing structure of language and thought, it is compellingly natural for us to predicate Being, to say that "Being is . . . ," or that "Being is not . . ." But this predicative manner of addressing Being is just what distances it, uproots it and projects it away from its source, breaking its ties to that source. By predication, Being is circumscribed, reduced to an item at hand, an object of study, a thing to be known that is divorced from the knowing process. Of course, Heidegger himself was a product of the philosophical tradition he was reflecting on at this fundamental level, so it was necessary for him to make the attempt to "grope his way out" of said tradition, as interpreter Joan Stambaugh (1972, p. x) has put it. By the same token, the notorious difficulty in comprehending Heidegger reported by many, stems, in part, from the fact that most readers are even more entrenched in the long-held tradition. They struggle to grasp what Heidegger was predicating, when in point of fact, Heidegger—through various unconventional and often poetic styles of expression—was seeking to call to his readers' attention the basic limitation of the predicative mode in confronting the question of Being.

Nowadays, the professional philosopher typically is a specialist working within a narrowly defined disciplinary area such as symbolic logic or linguistic analysis; as such, his or her concerns are likely to be far removed from those of the student of religion. But when philosophy is practiced in the fashion of a Martin Heidegger, its original scope becomes evident. Issues of ultimate meaning are addressed that are intimately linked to the central issues of religion. The answers that evolved in classical philosophy to these ultimate questions have their counterpart in theology. To demonstrate, I present an adaptation of philosopher Alan Anderson's (1981) pictorial summary of basic theological positions.

Considering only the first three columns of Figure 1 for the present, the space-time reality of differentiated physical process is portrayed by arrows pointing in different directions, while psycho-spiritual reality appears in unadulterated form as an unfilled, distinctionless circle. It

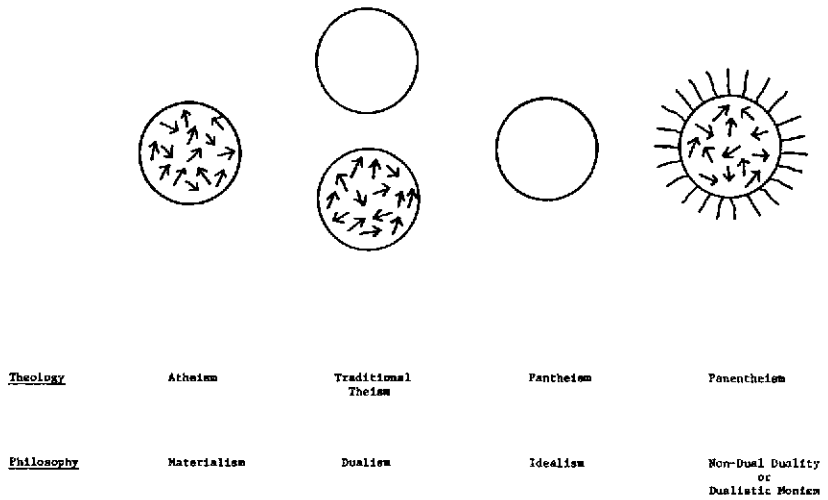

Figure 1.

is clear that Anderson's characterization of atheism, traditional theism and pantheism can be taken as equally representative of materialism, dualism and idealism, respectively (the justification for treating Cartesian and physicalistic varieties of dualism as equivalent has been given above). Therefore, Anderson's original diagram has been expanded to a second row incorporating the philosophical correlates.

In the theological counterparts of materialism and idealism, we again can observe the duality of form that underlies monistic content. In denying a simple spiritual reality, the atheist predicates it by negation; the pantheist does the same with respect to physical reality. To appreciate fully the pervasiveness of this deeper order of dualism in human culture, let us examine the ancient strain of pantheism that arose in Eastern philosophy/religion.

In the Vedantist tradition of Indian religion (at least in some interpretations of it) the distinction is made between the finite world of diversity given to the senses and a pristine reality beyond any kind of sensing or knowing, a seamless, utterly undifferentiated totality. We attach ourselves to myriad things, people and particular ideas and so become enmeshed in *maya,* illusion. Such fixations on the finite are what keep us in bondage. The challenge to be met is that of *dhyana,* to polish the mirror of consciousness, to gradually purify the field of awareness through unrelenting practice of proper meditation. All things must be surrendered—especially the narrow and distorted view of ourselves; every attachment must be allowed to dissolve until not a

single blemish remains to cloud the glass of perception. Then, when this aim has been achieved, we shall see into ourselves with impeccable clarity, see into Self, our true nature, and gain Nirvana.

Evidently, to posit infinite totality in this fashion, to project it as a goal toward which one advances through meditative technique, is to engage in contradiction. For doesn't the positing of a goal and a method for its attainment imply one's current *separation* from that goal? But a state from which we can be separated is one that is bounded and, therefore, by nature *finite*. An authentic infinity would have no boundary whatsoever.

In actuality, *any* predication of the infinite must render it finite, for the act of predicating is an act of circumscribing, fixing a boundary. The problem of symbolizing the infinite lies not in identifying infinity's true characteristics, but in the symbolizing process itself; it is a problem of form rather than content. As long as one adopts the subject/predicate form of expression, the higher-order dualism will be working implicitly to undermine the monism asserted at the level of content. Eastern pantheism affirms spiritual unity as the ultimate while dismissing material diversity as *maya*, but in the very act of doing so, the deeper duality of form tacitly operates.

Paradox and the Principle of Non-dual Duality

Now let us turn to the fourth column of Figure 1 and the approach known as panentheism, a relatively recent development in Western theological thought (see Woods, 1981). While the pantheist would hold that God (or spirit or Self) simply is all, the pan*en*theist's conviction is that God is *in* all. Philosopher Anderson depicted this view by showing psycho-spiritual emanations radiating from the sphere of material process. This representation may be interpreted as portraying a synthesis or fusion of spirit and matter. We may picture the unfilled circle and the one filled with arrows being superimposed on each other in such a way that a thoroughgoing unity is conferred (in contrast to dualism); yet this is not a unity in which one realm merely is subsumed by the other (as is the case in the traditional forms of monism). Nor could it be said that in merging, separate spheres lose their distinguishing characteristics, dissolve in some state of simple neutrality. Indeed, according to theologian Richard Woods (1981, p. 195), unlike conventional theological positions, panentheism is "neither elegant nor simple. It is paradoxical." The fundamental formula for paradox, X = not-X, applies to panentheism. While being entirely distinct, matter and spirit nevertheless interpenetrate completely to share the same identity. In my

own previous writing, such a seemingly incongruous relation is termed "non-dual duality" (Rosen, 1985b, 1985c).

I also have referred to this philosophy of paradox as "dualistic monism" (Rosen, 1983b), following the lead of cosmologist Nahum Stiskin (1972). Using the Shinto religion of Japan as his point of departure, Stiskin explored an aspect of Eastern philosophy suggestive of a subtlety far greater than one-valued pantheism. His most pregnant metaphor is that of the "Divine Sword" which is wielded by the August Master of the Center. The August Master dwells "at the point of the splitting of the unitary energy of life, [and] can be said to wield a divine sword which slices that energy into its two manifestations [i.e. yin and yang] and thereby creates polarity. This deity, however, is the consummate swordsman who, although cutting into two, does so with such speed and precision that the fluid of life continues to flow between the resulting halves. They therefore remain continuous and intertwined. The two energies of the world . . . are always one in their dialectical interaction. Yet they are distinctly *two.* Or we can say that they are *two-in-One*" (Stiskin, 1972, p. 90).

Of course, if this "paradoxical logic of the universe" (Stiskin, 1972, p. 21) is seen to derive from a *single* principle of unity independently embodied in the "August Master," then the Shinto philosophy would reduce to pantheism. The question is whether one allows the implication of a boundary dividing the domain of dualistic monism from a realm of absolute totality to which it would be subordinated. Since Stiskin implied a close relationship between Shinto and Zen (the ancient Chinese law of the Tao being central to both), it should be useful to consider the commentary of D. T. Suzuki (1969), who provided a valuable insight into the distinction between two Zen approaches.

Suzuki identified the Northern School of Chinese Zen with the meditational technique of *dhyana,* the pantheistic process of gradual purification described above. Sitting in a posture of cross-legged devotion, one aims to polish the mirror of consciousness until every vestige of worldly illusion is erased and one ascends to a plane of unadulterated, totalistic bliss. Recognizing the dualism inherent in this orientation, Suzuki was more favorably disposed toward the Southern School. Here the "technique" was to *renounce* preoccupation with technique, repudiate the idea of a circumscribed goal from which one is separated and must methodically strive to attain. But rather than rejecting *dhyana* outright, the proponents of the Southern School contended that for the meditative experience to be spontaneous and authentic, it must be practiced in a form known as *prajna*—the sudden realization that infinite totality and finite diversity, while being as different as they can

be, nevertheless are *one and the same:* "So long as the seeing [into infinite totality] is something to see, it is not the real one; only when the seeing is no-seeing—that is, when the seeing is not a specific act of seeing into a definitely circumscribed state of consciousness—is it the 'seeing into one's self-nature.' Paradoxically stated, when seeing is no-seeing there is real seeing. . . . This is the intuition of the Prajnaparamita (pp. 28–29). . . . It is Prajna which lays its hands on Emptiness, or Suchness, or self-nature. And this laying-hands-on is not what it seems. . . . Inasmuch as self-nature is beyond the realm of relativity, its being grasped by Prajna cannot mean a grasping in the ordinary sense. The grasping must be no-grasping, a paradoxical statement which is inevitable. To use Buddhist terminology, this grasping is accomplished by non-discrimination; that is, by *non-discriminating discrimination*" (Suzuki, 1969, p. 60; emphasis added).

The last phrase of the quotation from Suzuki is underscored to call attention to the expression of non-dual duality or dualistic monism. In the proper practice of Zen, "all the logical and psychological pedestals which have been given to one are now swept from underneath one's feet and one has nowhere to stand" (Suzuki, 1969, p. 26). This means that at every turn one must resist the temptation to fall back on the conventional, dualistic mode of operating. Paradox must be allowed to pervade. To summarize what I am proposing, panentheism in the West and Zen in the East each offers a non-dually dual alternative to the established, dualistic order of religion and philosophy in its respective culture—the alternative of paradox.

But is this *all* that can be said? The dictionary defines the paradoxical as that which is absurd, enigmatic or contradictory. In asserting that "X is not-X," the conventional subject/predicate format *is* being used, but in a manner in which it denies itself, for the content it expresses calls this form into question. The paradoxical statement amounts to a declaration that the boundary condition that would delimit X cannot effectively do so; predicative boundary assignment is confounded so that even though X is being posited as distinct from that which is external to it, at the same time, it is inseparable. To be sure, this does give voice to the principle of non-dual duality. Yet because the traditionally *dualistic* form of expression is being employed, the principle is being stated essentially in a negative fashion. To assert that "X is not-X" is to imply that the format one is using cannot fully convey the meaning intended. A sense of tension is created between the predicative format and a content that flies in the face of simple predication, suggesting its inadequacy. Then must we rest content with the acknowledgment that non-dual duality is merely paradoxical, or can we find a way to give positive voice to it?

Embodying Non-Dual Duality

The question at hand is how form of expression relates to content expressed. This is an issue of central importance in the field of *artistic* expression and one that is crucial enough in the present context to warrant a detailed illustration (see Rosen, 1981). A graphic example is found in the art of M. C. Escher.

"Tower of Babel" (Figure 2) is one of Escher's earliest works. He explained it as follows: "On the assumption that the period of language confusion coincided with the emergence of different races, some of the building workers are white and others black. The work is at a standstill because they are no longer able to understand each other." (Escher, 1971, p. 9)

Commenting generally on his own efforts in this early period, Escher said: "[The prints] display no unity as far as their subject matter is concerned. They are all representations of *observed* [i.e. external] reality" (Escher, 1971, p. 9; emphasis added). And with specific regard to "Tower of Babel," Escher concluded that "it was not until twenty years later that this problem was thoroughly thought out (see . . . 'Another World' . . .)" (Escher, 1971, p. 9).

Upon inspecting "Another World" (Figure 3), we see the content that Escher actually had been trying to express—not racial or linguistic separation, but separation in and of itself—radical disjunction. In this later print both vertical and horizontal perspective are used to create three separate planes of existence. With the theme of disjunction thus *embodied in the very geometry of the work,* it is no longer necessary to symbolize it in a merely external fashion (i.e., indicate the theme by making reference to external reality). And now the observer of the work need not *infer* the subject matter from outside knowledge he may have gained about the referents of the symbol (i.e., that the color disparity of the construction workers signifies racial divergence presumed to be correlated with a linguistic divergence that has made communication impossible, thereby creating the effect of a profound separation). In "Another World," the content that had been latent is made manifest in the form. Therefore the print possesses greater unity of expression than its predecessor. The gap between the intended and the given has been closed in a natural manner, from within, thus obviating the necessity of constructing artificial bridges.

The subject matter presently requiring expression is that of non-dual duality. In the previous section we saw how conventional linguistic representation suppresses this theme, giving voice to it only in the negative, as paradox. What of the *pictorial* representation shown in Figure 1, column 4? I submit that Anderson's diagram has the same

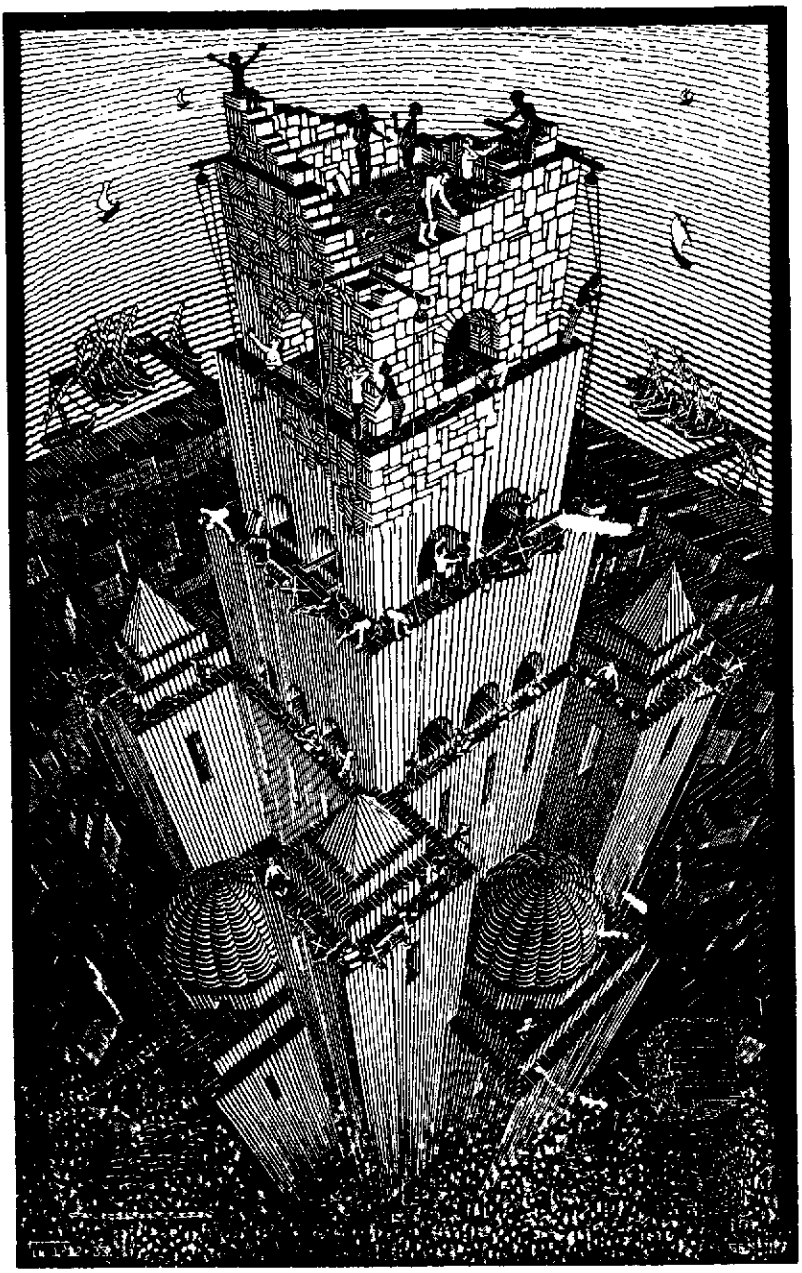

Figure 2. Tower of Babel.

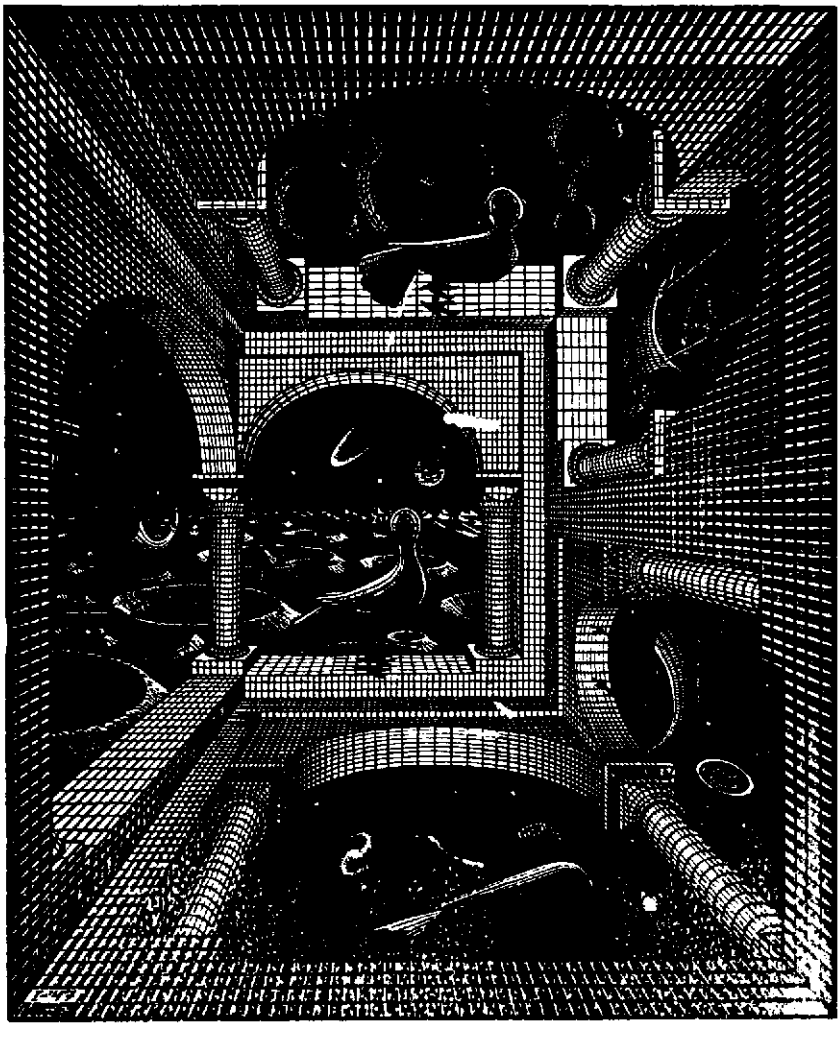

Figure 3. Another World.

status as Escher's "Tower of Babel": It symbolizes its intended subject matter without embodying it. One must *infer* the idea of non-dual duality from externally gained information about the meaning of the emanations issuing from the arrow-filled circle. The principle is not inherent in the structure of the depiction.

My proposal for a proper embodiment of non-dual duality begins with an adaptation of a comparison I employed in several of the references cited above (see also Rosen, 1975a, 1977, 1980).

The divided rectangle shown in Figure 4a can be taken to illustrate the deep and pervasive order of dualism we have been examining from the outset. As in Figure 1, the segment filled with arrows symbolizes the diverseness of the physical domain, the realm of body or matter, while the unfilled portion represents the featureless unity of the psyche, mind or spirit. Domains are portrayed as categorically separate and since, at the level of form, the presupposition of such a simply disjoint relation underlies all the conventional philosophico-religious positions (as discussed above), all readily can be accommodated within the same diagram.

Now let us consider the relationship inherent in Figure 4b. The Necker cube is a well-known figure from Gestalt psychology. Through this depth-creating visual construct, a certain ambiguity of perspective is demonstrated. One may be viewing the form as hovering above one's line of vision when suddenly a spontaneous shift occurs and it is seen as if it lay below. This reversal shows of course, that the figure can be viewed from two distinct perspectives, yet unlike the parts of the divided rectangle, the perspectives of the Necker cube are not related externally. Each uses the very same configuration of lines to express itself and, therefore, perspectives must be regarded as closely enmeshed. Thus, whereas one square of the divided rectangle easily could be erased without affecting the other, no such dissociation of the cube's perspectives is possible. Necker cube perspectives overlap one another, they do not merely abut.

Recently (Rosen, 1985a, 1985b), I suggested that the Necker cube relation can be interpreted to symbolize the outlook of 20th Century process philosopher Alfred North Whitehead (1978). My basic contention was that this process view constitutes a significant advance over traditional dualism and yet does not go far enough; in a subtle sense,

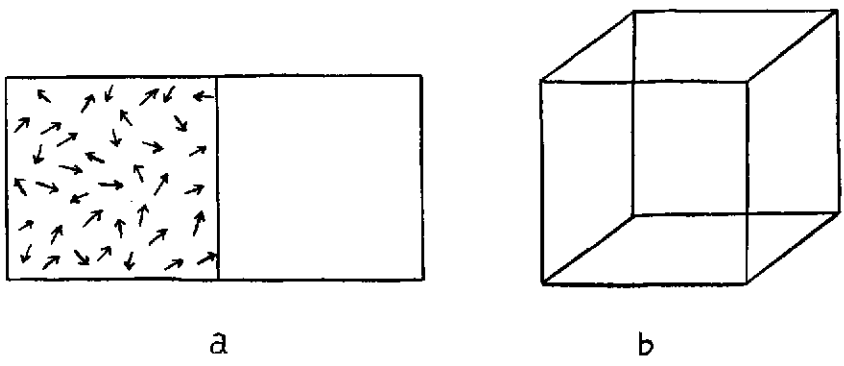

Figure 4. Divided Rectangle (a) and Necker Cube (b).

it remains dualistic. The alternating perspectives of the cube may be seen to represent the "mental" and "physical poles" fundamental to Whiteheadian metaphysics. True, there is no *spatial* separation of poles, as in the more obvious form of dualism depicted by the divided rectangle. Instead the poles are separated by *time,* rendered disjoint by assuming a relation of simple succession to exist between them. Phenomenologically, this limitation is evident in our ordinary way of viewing the cube. We normally *leap* from one perspective to the other, utterly unaware of what happens in between. As a consequence, "mental" and "physical poles" are *completely* polarized.

But we can go a step further in our exercise with the Necker cube. Rather than allowing our experience of the figure to oscillate from one perspective to the other, we can attempt to view *both perspectives at once* (Rosen, 1985a, 1985b, 1985c). This can be accomplished by an act of mere abstraction, in which case the cube simply will flatten into an array of connected lines. On the other hand, it is possible to retain an awareness of depth, and when this is achieved there is an experience of self-penetration—the form appears to go *through* itself. Such a mode of imaging has a revealing effect on the perception of the cube's faces. In the conventional, perspectivally polarized way of viewing the figure, when the jump is made from one pole to another, all the faces of the cube that were seen to lie "inside" presently appear on the "outside" and vice versa. But it is only at polar extremes that faces are perceived as *either* inside *or* outside. With the perspectival integration that discloses what lies *between* the poles, each face presents itself as being inside and outside *at the same time.* Thus, the dualism of inside and out—symbolically, the dualism of mind and body, psyche and physis, knower and known—is surmounted in the creation of a "one-sided" experiential structure. It must be emphasized that this self-intersecting structure does not merely negate the perspectival distinction between sides, leaving sheer flatness. Faces *are* inside and yet *outside* as well. So the feature of duality is not lost; rather, a unity is gained that is deeper than that of the simply di-polar structure. Hence, the "one-sided" entity produced in the visual exercise with the cube may be said to give positive voice to the principle of dualistic monism or non-dual duality, to express it in a way that goes beyond the mere assertion of paradox. While the Whiteheadian relation polarizes psyche and physis, the "hybrid" phenomenological structure portrays the true depth of their interpenetration without compromising their distinctness.

Toward Embodying Psi

The foregoing exploration of an alternative to the philosophico-religious tradition of dualism was occasioned by the need to provide a

viable framework for the psi phenomenon, interpreted at the outset as radically *non*-dualistic in nature. The concept of non-dual duality that has emerged generally seems quite compatible with the hybrid mode of psi functioning seen to bridge the gap between psyche and physis. But, of course, no mere *concept* of psi will suffice, for to conceptualize is to symbolize abstractly, and we have found that, where the non-dually dual is concerned, a *concrete embodiment* is required. Now it certainly is true that the Necker cube relation just considered captures non-dual duality in a more concrete, intrinsically coherent way than the Anderson diagram or the mere predication of paradox. However, the experience with the cube is perceptual; it occurs in the province of physical sensation and does not engage the psyche more deeply or directly. Therefore, it cannot fully embody the non-dual duality of physis and psyche that psi would entail. With respect to psi, the Necker cube phenomenology remains merely symbolic. Evidently, a still deeper embodiment is necessary.

To prepare the way for a full-fledged embodiment of psi, the non-dually dual structure will be tangibly "materialized," as it were. We turn to the field of qualitative mathematics known as topology, for here, a palpable model of one-sidedness can be fashioned. Again let us begin with a comparison (Rosen, 1975a, 1975b, 1977, 1980, 1981).

A cylindrical ring (Figure 5a) is constructed by cutting out a narrow strip of paper and joining the ends. The surface of Moebius (Figure 5b) may be formed simply by giving one end of such a strip a half twist (through an angle of 180 degrees) before linking it with the other. In

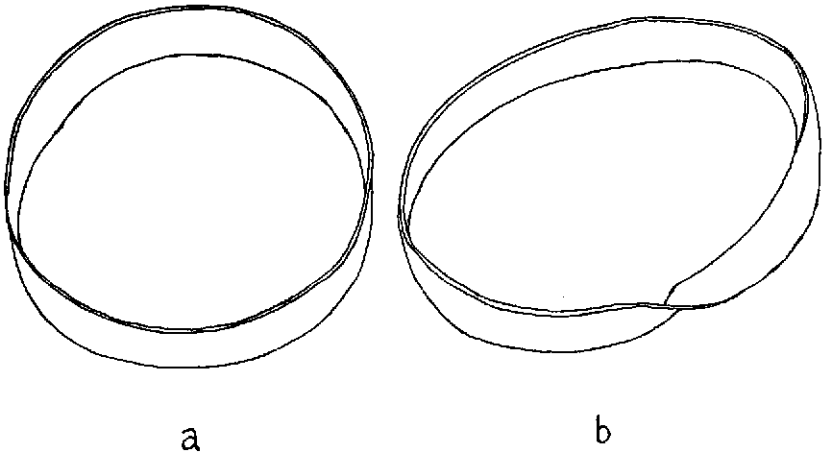

Figure 5. Cylindrical Ring (a) and Surface of Moebius (b).

both the cylindrical and Moebius cases, a point on one side of the surface can be matched with a corresponding point on the other. However, in the former instance, the pairing is superficial in a mathematical sense. *You* must do the matching, for the fusion of points is not inherent in the topology of the ring. Consequently, points may be regarded as insulated from and external to one another. It is true that for the Moebius case, if you place your index finger on any point along the strip, you will be able to put your thumb on a corresponding point on the opposite side. The paper strip does have two sides, like the cylinder. But this only holds for the local cross-section of the strip defined by thumb and forefinger. Taking the full length of the strip into account, we discover that points on opposite sides are intimately connected—they can be thought of as "twisting" or "dissolving" into each other, as being bound up *internally.* Accordingly, topologists define such pairs of points as *single* points, and the two sides of the Moebius strip as but *one* side. Of course, this surface is not one-sided in the merely homogeneous sense of a single side of the cylindrical ring. The local distinction between sides is not simply negated with expansion to the Moebius surface as a whole; rather, the sides come to interpenetrate. Therefore, perhaps the most accurate way to characterize the Moebius relation is to say that it is *both* two-sided and one-sided.

In the surface of Moebius, non-dual duality is embodied even more concretely than in the experience of perspectival integration performed with the Necker cube. Whereas the cube is but a two-dimensional visual representation of three-dimensional reality, the Moebius strip is ponderably three-dimensional. So the one-sidedness that merely is suggested by viewing the cube in the special way is tangibly delivered in the Moebius. And yet the band of Moebius obviously is no more than three-dimensional. As such, it is wholly contained in the realm of the physical sensation, constrained by physis no less than the Necker cube. Since the duality bridged by psi includes the *para*physical, the Moebius cannot embody it; like the cube, it can only *symbolize* the interpenetration of physis and psyche. Another step must be taken.

An interesting feature of the Moebius band is its asymmetry. Unlike the cylindrical ring, a Moebius surface has a definite orientation in space; it will be produced in either a left- or right-handed form. If both a left- and right-facing Moebius were constructed and then "glued together," superimposed on one another point for point, a topological structure called a *Klein bottle* would result (named after its discoverer, German mathematician Felix Klein).

The Klein bottle is the higher-order counterpart of the Moebius strip. It has the same property of asymmetric one-sidedness as the Moe-

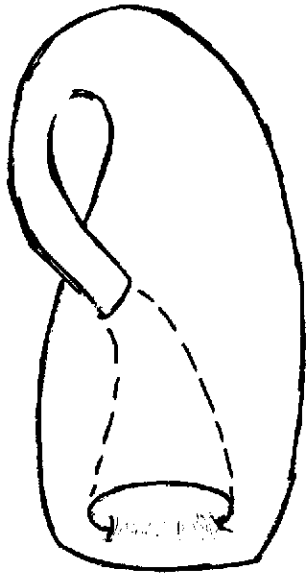

Figure 6. Klein Bottle.

bius, but while the Moebius twist entails a projection into a third spatial dimension, the Klein bottle would project into a *fourth* (Rosen, 1973, 1975a, 1975b, 1977, 1980). For this reason, the production of a proper physical model of the bottle cannot be completed. Left- and right-facing Moebius bands cannot be superimposed on each other in three-dimensional space without tearing the surfaces.

There is a different but topologically equivalent way to describe the making of a Klein bottle that should be quite revealing for our purposes. Once again, a comparison is called for.

Both rows of Figure 7 depict the progressive closing of a tubular surface that initially is open. In row one, the end circles of the tube are joined in the conventional way, brought together through the three-dimensional space outside the body of the tube to produce a doughnut-shaped form technically known as a torus (a higher-order analogue of the cylindrical ring). By contrast, the end circles of row two are superimposed from *inside* the body of the tube, an operation requiring the tube to pass *through* itself. This results in the formation of the inside-out Klein bottle. Indeed, if the structure so produced were bisected, right- and left-oriented Moebius bands would be yielded. But in three-dimensional space, no structure can penetrate itself without cutting a hole in its surface and, topologically, this is impermissible. So

from a second perspective we see that the construction of a Klein bottle cannot effectively be executed when one is limited to physical dimensionality. Mathematicians are aware that a form which penetrates itself in a given number of dimensions can be produced without the prohibited cutting if an *added* dimension is available (for a demonstration of this, see Rucker, 1977). In the case of the Klein bottle, the additional dimension needed for full and proper expression is the paraphysical one.

The fact that the Klein bottle implicates a fourth spatial dimension clearly does not require us to regard it as *wholly* non-physical, as purely a product of psyche. Note the wording I employed above. I did not make the claim that the Klein bottle *is* four dimensional, but only that it *projects* into a fourth dimension. This distinction is critically important and may be appreciated by considering the *tesseract,* a mathematical entity frequently used as an example of a four-dimensional structure. The tesseract is an imaginary extrapolation of a three-dimensional cube (not to be confused with the Necker cube) to four spatial coordinates. Each of the "faces" of this hyper-cube is itself a three-dimensional cube defining the lower limit or boundary condition of the higher dimensional object. Were a "face" to be viewed from the three-dimensional vantage point, *only* a cube would be experienced, since a tesseract "face" is a closed symmetric form, complete in itself and totally indistinguishable from any ordinary physical cube. Not the slightest hint would be

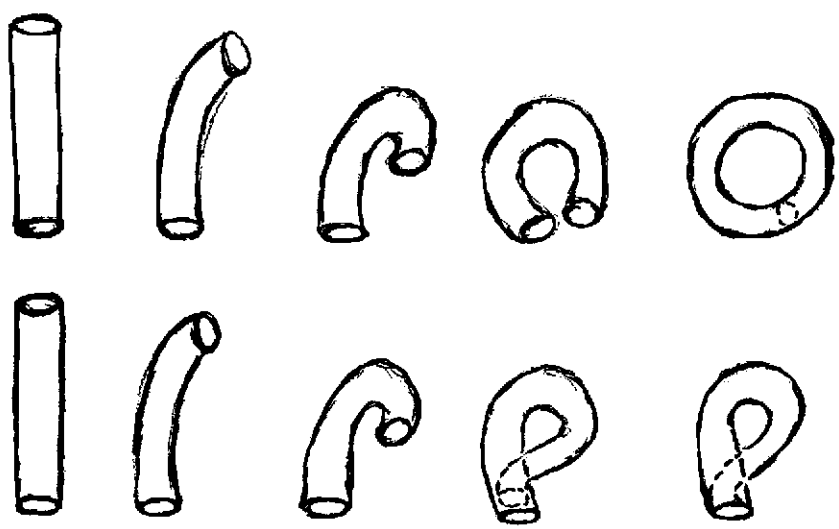

Figure 7. Construction of Torus (upper row) and Klein Bottle (lower row).

given of paraphysical extension. Succinctly put, the tesseract is a simply non-physical entity with a simply physical boundary condition.

In marked contrast, I suggest that the Klein bottle embodies the non-dual duality of psyche and physis we have been seeking to articulate. Here the working of the paraphysical is encountered in the *midst* of the physical, in its very "incompleteness." The objectionable hole that would be necessary to finish construction of the Klein bottle in three dimensions can be said to result from attempting artificially to contain a form that flows unbrokenly into a fourth dimension. In flowing through itself, the inside-out Klein bottle flows *between* dimensions, fluidly bridges the gap between physis and psyche. While the tesseract strictly upholds the categorical separation of the physical (observable) and paraphysical (imaginary), the Klein bottle transcends this dualistic state of boundedness. Its self-penetration reflects the hybrid quality interpreted as fundamental to the nature of psi phenomena, the "paradoxical" relation whose positive expression has been the central aim of this paper.

Naturally, to comprehend the philosophical perspective I have offered is not to experience psi connectedness in a literal manner. Though the Klein bottle representation of psi may be intuitively quite compelling, it does not add up to psi itself. For that, it seems we would need to go beyond thought or intuition alone, and include a concrete *feeling*, a palpable *sensing* of non-dual duality. Just as the Necker cube permits us to experience non-dual duality at a perceptual level when we *enter into* the cube in the appropriate way, we would have to enter into the Klein bottle at *its* level, embody this embodiment with our very own bodies. I propose that only through such an act of embodying would psi itself be lived. Nevertheless, the intuitive grasping of non-dual duality should be a significant step. As I have shown in this exposition, the mere idea of psi has been rejected for centuries because of its "counter-intuitive" quality—i.e., its underlying incompatibility with the prevailing philosophico-religious framework of dualism that has exerted such a powerful influence on us all, parapsychologists not exempted.

I end my presentation with a quote from Zen philosopher D. T. Suzuki (1969, p. 93): "A monk asked Li-Shan: 'All things return to Emptiness, but where does Emptiness return?
Li-Shan: The mouth is unable to locate it.
Monk: Why not?
Li-Shan: Because of the oneness of inside and outside.' "

BIBLIOGRAPHY

Anderson, A. *God in a Nutshell.* Quincy, Mass.: Squantum Press, 1981.
Beloff, J. "Parapsychology and radical dualism." *Journal of Religion and Psychical Research,* 1985, *8,* (1).

Bohm, D. *Wholeness and the Implicate Order.* London: Routledge and Kegan Paul, 1980.
Eisenbud, J. "The problem of resistance to psi." In W. G. Roll (Ed.), *Proceedings of the Parapsychological Association 1966.* Durham, NC: Parapsychological Association, 1967.
Escher, M. C. *The Graphic Work of M. C. Escher.* New York: Ballantine, 1971.
Heidegger, M. *Being and Time.* (J. Macquarrie and E. Robinson, translators). New York: Harper and Row, 1962.
Jones, W. T. *A History of Western Philosophy.* New York: Harcourt, Brace and World, 1952.
LeShan, L. *From Newton to ESP.* New York: Sterling Publishing Co. 1984.
Rogo, D. S. "Parapsychology and the genesis of doubt." *Parapsychology Review,* 1977, *8,* (6).
Rosen, S. M. "A plea for the possibility of visualizing existence." *Scientia,* 1973, *108,* 9–12.
Rosen, S. M. "The unity of changelessness and change." *Main Currents in Modern Thought,* 1975, *31,* (4). (a)
Rosen, S. M. "Synsymmetry." *Scientia,* 1975, *110.* (b)
Rosen, S. M. "Toward a representation of the 'irrepresentable.' " In J. White and S. Krippner (Eds.), *Future Science,* New York: Doubleday/Anchor, 1977.
Rosen, S. M. "Toward legitimizing parapsychology." *Parapsychology Review,* 1979, *10,* (2).
Rosen, S. M. "Creative evolution." *Man/Environment Systems,* 1980, *10,* (5/6).
Rosen, S. M. "Meta-modeling as a strategy for constructive change." *Man/Environment Systems,* 1981, *11,* (4).
Rosen, S. M. "Wholeness and psi." *Theta,* 1982, *10,* (4).
Rosen, S. M. "Psi modeling and the psycho-physical problem." *Parapsychology Review,* 1983, *14,* (1). (a)
Rosen, S. M. "Paraphysical reality and the concept of dimension." *Journal of Religion and Psychical Research,* 1983, *6,* (20). (b)
Rosen, S. M. "Can radical dualism accommodate psi interaction?" *Journal of Religion and Psychical Research,* 1985, *8,* (1). (a)
Rosen, S. M. "Time and higher order wholeness." In D. R. Griffin (Ed.), *Physics and the Ultimate Significance of Time.* Albany, NY: SUNY Press, 1985 (in press). (b)
Rosen, S. M. "Parapsychology's 'four cultures.' " In W. G. Roll, J. Beloff and R. A. White (Eds.), *Research in Parapsychology 1984.* Metuchen, NJ: Scarecrow Press, 1985. (c)
Rucker, R. *Geometry, Relativity and the Fourth Dimension.* New York: Dover, 1977.
Stambaugh, J. In Heidegger, M., *On Time and Being,* (translated by J. Stambaugh). New York: Harper and Row, 1972.
Stiskin, N. *The Looking Glass God.* New York: Weatherhill, 1972.
Suzuki, D. T. *The Zen Doctrine of No Mind.* London: Rider, 1969.
White, R. A. "The limits of experimenter influence of psi test results: Can any be set?" *Journal of the American Society for Psychical Research,* 1976, *70.*
Whitehead, A. N. *Process and Reality* (D. R. Griffin and D. W. Sherburne (Eds.), New York: Free Press, 1978.
Woods, R. *Mystical Spirituality.* Chicago: Thomas More Press, 1981.

DISCUSSION

GROSSO: I want to say that I am in agreement with Dr. Rosen's overall approach, which is a thrust towards integration, towards wholism, towards new ways of understanding psi and the relationship between religion and science. But I am not clear yet on a few problems.

First, a few comments on dualism. I feel that Dr. Rosen projects his "shadow", so to speak, into dualism. I think that you misrepresent dualism when you talk about the notion of mind and body being mutually exclusive. Even in Cartesian dualism—and I am certainly no Cartesian dualist—mind and body are not mutually exclusive because they interact. Interactionism is fundamental to Cartesian dualism. The dualist does not deny that mind and body interact; what he asserts is the autonomy of mind. Now, the empirical data of parapsychology tend to support the autonomy of mind. Making dualism into a bugbear, strikes me as beside the point.

Now, the second point. I am at a loss to understand how the idea of prajna sheds light on the nature of psi.

ROSEN: I think I will take the last part first. The Necker cube and the other illustrations that I gave in the paper provide a model for thinking that is compatible, in my view, with psi experience. I interpret psi as a hybrid mode of experience, neither physical nor nonphysical, but an inter-penetration of these. In the perception of the Necker cube, the Moebius surface, the Klein bottle and the other illustrations, I bring into the paper, this non-dually dual interpretation is precisely what is realized.

Continuing to your other points: the first point that you made had to do with dualism and interactionism. You point out that in Cartesian dualism, Descartes said that mind and body, even though they are absolutely distinct, do interact. Now this is the biggest problem for Descartes and Cartesians, because, as most philosophers will acknowledge—and I have not met one that has not acknowledged this—Descartes never satisfactorily explained how mind and body could interact. So there is an inherent contradiction in Cartesian dualism and in Cartesian positions.

GROSSO: There is no contradiction.

ROSEN: And secondly, in your description, your understanding of what psi is, you said that psi entails (I am paraphrasing you) a transmission and reception of information. In that way of defining psi you not only reveal your Cartesian leanings, but you also are rather out of keeping with theoretical work in modern parapsychology, which is at a loss to find any channels through which this so-called information is transmitted.

GROSSO: You do not have to explain how mind and body interact if you accept the modern conception of causation which is derived from Hume. According to Hume, we understand cause and effect relationships simply by experience. Anything can cause anything to happen, there are no a priori restrictions upon the nature of the causal

relationship. As for my use of the term "transmission," no theoretical implications were implied.

ROSEN: Everything I see in modern philosophy, from Whitehead to Heidegger, to phenomenology (to say nothing of some of the problems posed in modern science, particularly modern physics, modern biology) calls into question this view of causality. The Humean view of causality may be appropriate to 18th and 19th Century philosophy of science. Today, it is rather worn.

GROSSO: It is the empirical view.

HALL: I enjoyed this paper very much. My mind is a little bit boggled with trying to picture Michael's demonic bugbear of dualism, which is a loathsome beast as it comes up in my imagination. And I am also bothered a little bit, Steven, if you are talking of this person dwelling passively in the non-dual duality of a pantheistic Zen viewpoint. Would you use such words as "absolutely," "never" and "infinite" that you seem to be addicted to in this presentation? I have a friend who is a specialist in nagārjunā and he is always talking about the "infinite," the "absolute" and so forth. Words of that sort seem to me incompatible with the kind of non-dual duality that you are trying to describe.

ROSEN: Which is precisely why, having said those words and acknowledged their inadequacy, I go on to propose a non-verbal, visual phenomenology.

HALL: Years ago, when I was a psychiatry resident at Duke, I was a subject in an experiment with psilocybin conducted by Ben Feather, who at that time was J. B. Rhine's son-in-law. We were asked to press buttons to indicate whether we saw the Necker cube looking up or down, both in the control phase and then after having taken the drug. Now, you could still do it quite well after having taken this drug, but the problem was the screen looked like Swiss cheese. And the Necker cube question became uninteresting, although it could still be done. This strange business of the non-dual duality point of view, I think is the same sort of thing that the Koan technique is trying to get at. I have a brief section in a 1977 book on Koan dreams, in which a dream seems to be trying to say the same thing as a Zen Koan. The classic example was a man who dreamed that he was in a train station in Philadelphia desperately trying to find someone who could tell him which train to take to get to Philadelphia. Let me make a short excursion into Jungian theory and then say something about dreams which I think is possibly experimentally relevant. The archetypal self in a Jungian point of view means essentially three things and they must all be kept in mind at once. One is that it is a term for the psyche as an organic whole, as a functional unit. Second, it is the image of that when

it is perceived by the ego, that would be the mandala kind of figure and other images of surpassing order. The third meaning of the archetypal self is that it is the template, the model of the ego itself. Now, in dreams anything that we perceive has to be perceived in a "from → to" structure. In other words, we must passively rely upon something, maybe the nervous system, in waking life, in order to focally know something else. And I think that is absolutely unavoidable as long as there is anything at all to be experienced including non-dual duality that you are pointing toward. In dreams, for example, the dream ego experiences other things in the dream as if they are focally known and yet the dream ego can wake up and experience the memory of the dream ego as part of its waking self. I would suggest that the most common experience that I think you are pointing toward in non-dual duality is that cusp of experience in a dream in which the dream ego begins to realize that it is within a dream at the same time that it is experiencing a dream. If we could translate that dream experience into waking life, I think we would be at what you are describing as the experience of non-dual duality.

ROSEN: I agree with the last part of the comment. As you were speaking, James, I thought back to your initial statement about the use of the terms "infinity" and the "infinite" and I have one more comment to make about that. I don't believe that we can leave Western science or mathematics or Western language itself behind and simply immerse ourselves in nirvana. I think that in order to transcend Western language we have to work our way through it to the bitter end. So I cannot just dismiss words like the "infinite." Do you see what I am driving at?

HALL: Yes, but space-time has a curvature to it. A word like infinite is a conceptual word, perhaps, in mathematics, but to talk in religious terms about something absolute seems to me to go in an inflated way far beyond what anyone can say. One can always say that there is something surpassing itself in a Whiteheadian way to whatever position one has, including one's own ego. That implies a direction, but it doesn't necessarily imply an end point or an absolute.

ROSEN: If one sticks to language then you are right, but if one pushes language to the limits and says that this is not enough, then it becomes possible to enter into non-linguistic phenomenology, dreams and so forth.

ROSSNER: First I would like to say, Steven, that I appreciated your historical and philosophical analysis of the problem in Western civilization, not only in the modern period, but extending back to the origins of philosophy. If we could come up with wholistic or integral models

of the various "levels of reality" as we perceive them, that would allow us to interpret psi phenomena as they occur today, because they defy neat distinctions between "res extensa" and thought. They do defy Cartesian and Humean categories; and we do need new categories, new paradigms to reintegrate such experiences into a meaningful, scientific world view which will no longer be at loggerheads with mankind's spiritual traditions, East and West.

I was reminded while you were talking of certain parallels to pantheism and non-dualism which are available to us in part at least from Byzantine Christian theology, specifically Orthodox theology of the Cappadocian fathers, Gregory of Necea, Gregory of Nazianzus and St. Basil of Cappadocia. I am referring to concepts of the "Divine Energia" or "Divine Energies." This is the idea of God *ex se* rather than God *in se*. The Divine Energia were conceived of as the "ground of all being" or God as immanent *in*, under and through all living things. One of the metaphors used is that of the Burning Bush which, because it was a phenomenon of the Energy as the ground of the being of the physical bush, was able to burst forth through its finite form and manifest itself in "supra-natural fire" manifesting the higher properties of light.

Now this is a concept which has not been understood for the most part by Western theologians whether Catholic or Protestant. Russian Orthodox theologians have tried periodically to remind us of this idea at various conferences. The theology of St. Gregory Palamas, a contemporary of St. Thomas Aquinas, contains an analysis of the conception that as we release the Divine potential or the God *in se* in you and me and in all living things, we then transform them gradually into becoming authentically or truly human vehicles of the Divine Spirit. We already are, but yet we must awaken and become such vehicles, or "Temples of the Spirit." So there is never in this kind of analysis a radically sharp barrier between the mind, the body and the spirit of a person. You have all three elements integrally related. It is a question of awakening our potential, followed by integration of these three levels and then transformation. God is *in man* and *in all creatures,* but man must be awakened to this reality through a transformative process in which the mind and body become outwardly the instrument of the spirit. This process manifests in outward symptoms of reformed physical and social ethical nature as "new beings."

We have the concept also in this same theology that the physical creation is ultimately meant to be transformed into the perfect expression of the heavenly ideal or the spiritual blueprint. Right now we do not see the physical or social world as it should be. But nature must

ultimately reflect Divinity, so the physical earth in the great metaphors and myths of the higher religion of the West must be restored to its primordial condition. Adam Kadmon, or Man before the fall of the Garden of Eden restored, became the ideal. The goal of creation is its illumination, transformation and restoration. There is thus present in the theology of the same Church Fathers who developed the philosophical doctrine of the Trinity for Christianity in the Fifth Century A.D. a paradigm for the transformation of the physical creation by mind and spirit into the "kingdom of God." Yet this paradigm has been ignored both by Protestant and Catholic theologians in the West. Western philosophers and theologians alike would prefer to deal either with dualism or non-dualism in unmodified fashion and sharply distinguish between mind and body, spirit and matter as if the latter were incapable of being objectively affected by the former.

This process began with Aristotle and his disciples. They were attempting for the first time to put into conceptual terms difficult analytical linear concepts. What once had been integral wholistic intuitions perceived through mystic experience through participation in the mythic form of the mysteries, were gradually reduced to flat doctrines and concepts and finite forms. Yogic psychology on the other hand would remind us that "the mind divides." But reality is not in itself divided in mind versus matter. It is our problem of perception. Descartes was not all bad, but no models, no philosophies, no concepts are sacrosanct or capable of being infallible descriptions of infinite process. There are, in nature, many warnings that we cannot really separate mind from matter by a mere conceptual separation of the ideas of mind and matter in our own conceptual processes.

ROSEN: I would go even further and say that not only was Descartes not bad, but that Cartesian thinking was very appropriate for the 17th, 18th and 19th Centuries. The question I am raising is whether it remains appropriate in confronting the problems and crises of the 20th Century.

A. BALSLEV: I appreciate the interesting observations that you have made, but, listening to the position you have taken that psi phenomena are incompatible with the dualistic structure, I came to think about the structure of Yoga philosophy. Here we have a structure that is essentially dualistic, although not quite akin to the Cartesian structure. We are always dealing with two principles, the principle of Purusa, which is the principle of pure consciousness, an idea that is modeled after the Upanisadic conception of Atman and the principle of Prakrti nature or matter or whatever you call it. It is not quite akin to the

Cartesian structure, in the sense that what we call mind, here is classified under the evolutes of Prakrti as nature. Then we have a distinct principle of pure consciousness. These are totally in opposition to one another in the sense that one is consciousness and the other is matter, one is divisible the other is indivisible, but yet both are ontological principles. Both are said to be without beginning and without end. It is to be noted that the third chapter of Patanjali's *Yoga Sutra* is nothing but an entire list of all the supernormal powers that a Yogi can acquire, which I think can be very rightly classified as psi phenomena. So probably we should say that it is not that all sorts of dualism are incompatible with psi phenomena. It depends on what type of philosophy you have in mind.

ROSEN: You remind me of the distinction that D. T. Suzuki made between the southern and northern schools of Zen. In the northern school we do have a dualistic structure. The northern school of Zen may be akin to your characterization of Yogic philosophy. The southern school of Zen in the concept of Prajna as interpreted by Suzuki, also has a dualistic structure; we have matter and we have spirit. Nevertheless, matter and spirit, while being entirely different, are one and the same. It is paradoxical. The word "paradox" comes up time and again in Suzuki's manuscript.

A. BALSLEV: I am not commenting on what Suzuki has said. I was referring to the classical Yoga philosophical structure. This is not any personal characterization; everybody who is acquainted with the field knows that the bibhutis, i.e., the powers to be gained, are all listed in the same structure. The claim is that these phenomena can be understood. The whole thing is worked out in Patanjali's classical Yoga philosophy.

ROSEN: Would you say that this Yoga philosophy is a form of pantheism?

A. BALSLEV: No, no. I would not characterize it as that.

ROSEN: Well, okay, I would just point out that for me Suzuki's interpretation of Zen philosophy is an appealing alternative.

SERVADIO: This will not be a comment, only a few words about a personal experience I had. Many years ago I met Alan Watts in Rome. He was an authority on Zen, he wrote several books about it. Anyhow, it was a time when many people talked of and made experiments with LSD. Alan Watts had made these experiments and so had I. I told him that looking at a Necker cube under LSD I had gone beyond classical canons of perception. Watts said that he had the same experience while he was under LSD, but he added that he had this sort of experience

during meditation while repeating a mantra and he said I should try it. Well, I tried and nothing happened for quite a long time, then all of a sudden, exactly when I was hearing a mantra repeated on a tape recorder, I had the same experience which lasted only a very few instants. But then, I must say that I didn't quite understand the drift of this particular experience I had twice, but now after hearing what Steve Rosen said about non-dual duality I think that I understand this much more and I thank him for that.

ROSEN: Just one final comment. I have not viewed the Necker cube or the Moebius surface or the Klein bottle under the influence of LSD or psilocybin, but perhaps in the future it may be my pleasure to do so.