

AT PLAY IN THE FIELDS OF THE MIND: PERSONAL MYTHS AS FIELDS OF INFORMATION

Reprinted from the *Journal of Humanistic Psychology*
(Summer 1998, V. 38, #3, pp. 71 - 109)

Summary

The concept that personal myths shape individual behavior in a manner analogous to the way cultural myths influence social behavior has been gaining increasing attention over the past two decades. A personal mythology is an *internalized model of reality* comprised of postulates about oneself, one's world, and the relationship between the two. These postulates, which address immediate as well as eternal concerns, are both descriptive, furnishing explanations, and instructive, generating motivation. A comprehensive theory of human development based on the individual's evolving mythology integrates the biological, psychodynamic, cultural, and spiritual dimensions of experience. This paper expands the personal mythology construct, suggesting that personal myths function not only as biochemically-coded models of reality, but also as *fields of information*—natural though non-visible elements of the physical universe—that impact consciousness and behavior. Just as some neurologists have proposed that “mental fields” complement brain activity in unifying experience and some biologists have proposed that “morphic fields” complement the action of the gene in giving form to an organism, the current work proposes that mythic fields complement the physiological bases of consciousness in storing symbolic content and maintaining psychological habits. Implications of this formulation for personal and social change are considered.

Myth is grounded in the quintessential human ability to address the large questions of existence using symbolism, metaphor, and narrative. While a myth—to be plausible for contemporary individuals—must be aligned with our capacity for rational thought, myth-making is as much with us today as it was thousands of years ago. The symbolism of an individual's guiding mythology can, in fact, be discerned using established psychological techniques for uncovering unconscious processes, including interviews, dream analysis, free association, structured fantasy, and projective instruments (Feinstein & Krippner, 1997; McAdams, 1993).

Personal myths are organizing models that shape perception, understanding, and behavior (Feinstein, 1979; Larsen, 1976, 1990; Lukoff, 1977; McAdams, 1993). They emerge from four sources: biology, personal history, culture, and transcendent experiences (Feinstein, Krippner, & Granger, 1988). Comprised of postulates about oneself, one's world, and the relationship between the two, personal myths explain the external world, guide individual development, provide social direction, and address spiritual questions in a manner that is analogous to the way cultural myths carry out those functions for entire societies.

As organizing models, personal myths are continually being compared with experience. When a mismatch is detected between an inner model and an experience, perceptions may be changed to match the model (Piaget's [1977] assimilation) or the model may be changed to match the experience (Piaget's accommodation). The evolution of internal models, a process that occurs largely outside the individual's awareness, is a primary focus of psychotherapeutic intervention. By framing internal models as *personal myths*, the dynamic, “storied nature” (Sarbin, 1986) of human cognition comes to the foreground. *Paradigmatic* and *narrative* modes of thought (Bruner, 1990) are integrated in a manner that corresponds with the territory of human experience. In addition, recognizing the essential mythological nature of the psyche extends the boundaries of scientific language, allowing it to more readily incorporate the larger cultural and spiritual dimensions of human conduct (Feinstein, 1997).

Like beliefs and attitudes, personal myths are rooted in the individual's biochemistry. They are biochemically-coded models of reality. This paper considers evidence that biochemical theories of information storage and retrieval are not sufficient in themselves for explaining the way personal myths function, and it develops the hypothesis that personal myths, in addition to their biochemical infrastructure, are also embedded in *fields* that store information and maintain habits.

FIELDS OF INFORMATION

A field is a *domain of influence*, presumed to exist in physical reality, that cannot be observed directly, but which is inferred through its effects. Although they elude direct inspection, the four established fields of physics—gravitational fields, electromagnetic fields, and the strong and weak quantum matter fields—are known to exist because of phenomena that *can* be observed. They are understood as natural if non-visible forces in the physical universe.

Findings from several areas of science are converging to cause some investigators to postulate a variety of fields, different in nature from the four established fields of physics, but similar to one another in that each is conceived of as carrying information that influences consciousness and behavior. Neurologists, for instance, are proposing that previously undetected fields may be involved in brain function. The ability of neurons to broadcast signals to one another has been identified by Schuman and Madison (1994) at Stanford Medical School. Their “neural broadcasting” theory suggests that information can be transmitted from a single neuron to neighboring neurons that are not electrochemically connected via axon and dendrite: “The formation of synaptic changes previously thought to be restricted to synapses onto a single cell can also result in synaptic changes at nearby synapses” (p. 535). The investigators speculate that “the presence of synaptic activity may work in concert with other factors” (p. 535), and it is too early to rule out the possibility of neural *fields* as one of those factors. Another prominent neurologist, Libet (1994), has, in fact, proposed a “testable field theory of mind-brain interaction,” hypothesizing a *mental field* “which is produced by, but is biologically distinct from, brain activity” (p. 119). Libet’s mental fields “cannot be observed directly by external physical means” (p. 121), and their properties differ significantly from those of any currently known physical field in such dimensions as their ability to alter neuron function and to unify subjective experience.

Physicists, meanwhile, have been discussing correspondences between consciousness and quantum fields for well over half a century (Bohm, 1951; Edington, 1929). Penrose (1994), for instance, holds that many of the brain’s capacities can best be explained by postulating that consciousness operates according to the principles of quantum mechanics. While quantum theories of consciousness might place many difficult questions about the brain and the mind into a compelling new context (e.g., Friedman, 1994; Wolf, 1994; Zohar & Marshall, 1994), the question remained unanswered whether parts of the brain small enough to be governed by the laws of quantum mechanics could be complex enough to exert a discrete influence on consciousness.

Hameroff (1994), an anesthesiologist, has recently suggested that microtubules could be the presumed brain mechanism that operates at the quantum level while affecting consciousness. A microtubule is composed of long, thin hollow tubes of protein about a ten-millionth of an inch in diameter that form meshlike networks throughout each cell. A single electron sliding back and forth along the microtubule’s length determines the microtubule’s configuration and function. Significantly, the action of anesthetics such as ether and halothane is that they temporarily incapacitate the microtubules, turning off consciousness with minimal disruption to other brain functions. Since microtubules are small enough to operate according to quantum principles and are directly involved with consciousness, Hameroff believes they are the link between consciousness and quantum mechanics. He notes that if this is so (for a rebuttal that highlights existing controversies, see Grush & Churchland, 1995), “free will” may correspond with *quantum indeterminacy*; “pre-, sub-, and non-conscious processes” may correspond with *collapse of the wave function*; and the “binding problem” and the “unitary sense of self” may correspond with the quantum property of *non-locality*, “which implies that all objects that have once interacted are in some sense still connected . . . the non-local connection (quantum coherence) is not only instantaneous and independent of distance but impervious to shielding” (Hameroff, 1994, p. 101).

According to Hameroff (1994), “quantum field theory describes the underlying reality of everything in the universe (including consciousness) as consisting of three components: the *vacuum*, space and time. A ‘field of fields’ which contains no particles, the vacuum gives rise to quantum wave/particles as excitations or energy fluctuations within it” (p. 103). Tiller (1993), a physicist in the Department Materials Science and Engineering at Stanford University, after surveying a set of anomalous phenomena such as remote viewing experiments and the feats of remarkable strength sometimes exhibited by hypnosis subjects, also postulates a domain of subtle energy emerging from the quantum vacuum state. The quantum vacuum is likewise the basis of a fifth physical field as formulated by Laszlo (1995), a systems theorist, to account for the transmission of information beyond the limits of space and time as understood in electromagnetic and gravitational fields and beyond the microprocesses governed by strong and weak quantum matter fields. Laszlo argues that the quantum vacuum functions as an “information-rich” (p. 28) holographic field that would allow a thought to be simultaneously available at distant locations.

In addition to these complementary theories emerging from neurology, physics, anesthesiology, and systems theory, engineers (Jahn & Dunne, 1987), biologists (Sheldrake, 1988; Weiss, 1939), physiologists (Hunt, 1995),

neuroanatomists (Burr, 1972), physicians (Gerber, 1996), psychologists (Callahan & Callahan, 1996; Larson, 1987), and non-traditional healers (Eden, in press), have postulated the existence of information fields that might influence consciousness and behavior, based on findings from within their respective disciplines. Beyond such scientific speculation, a number of time-honored traditions in both the East and the West refer to a more subtle counterpart to the material body, referred to variously as the “aura,” “subtle body,” “pranic body,” or “etheric body.” We turn here to consider the empirical evidence that has bearing on the question of whether these ancient, as well as the more contemporary terms and concepts might refer to fields of information that influence consciousness and behavior.

SIX ANOMALIES IN SEARCH OF A THEORY

Since fields cannot be *directly* measured via existing physical instrumentation, they are inferred by their apparent effects on what can be observed. The inference that a field is operating must meet the basic criterion that there is no more parsimonious, non-reductionistic explanation for a set of empirically observed phenomena

A range of anomalies about consciousness and behavior would be parsimoniously and non-reductionistically explained if a field of information is inferred. For instance, it is now documented, under experimental conditions, that focused visualization by one person about a second person, any distance away and unaware of the first person, may measurably influence the second person’s electrodermal (GSR) activity (Braud, 1992). Anomalies are the points in the natural world where observations do not match conventional scientific understanding, where empirical data contradict the culture’s dominating mythology. Following is a survey of anomalies that have a substantial empirical basis and which would no longer be considered anomalies if previously undetected fields that affect consciousness were shown to carry information over distance.

Effects of Human Activity on Distant Mechanical Devices. An enduring enigma in quantum mechanics is that if two paired photons are separated, regardless of the distance that may come between them, a change in one appears to create a simultaneous change in the other (quantum coherence). These distant effects at the nuclear level are difficult to explain, but they are no more mysterious than the accumulation of evidence that human thought and activity can, from a distance, influence mechanical devices.

Numerous anecdotes describing how an old clock stopped at the moment its owner died, for instance, have been documented (Cano, 1996). Several meticulously designed studies have demonstrated that by focusing their attention, certain individuals can reliably influence mechanical systems, such as random number generators (Jahn & Dunne, 1987). Researchers at the School of Engineering at Princeton University found that the output of random-event generators was also affected when the devices were simply placed in the presence of organized groups of people. The effect was strongest during periods when the group’s attention was focused, when the group’s cohesion was high, or when the group’s members were sharing a common emotional experience. In experiments at ten separate gatherings, ranging from business meetings to scientific research conferences to ritual religious events, the effect of a group’s collective behavior, while slight, was so consistent that the probability against its having occurred by chance was about 5,000 to 1. The researchers conclude: “If sustained over more extensive experiments, such effects could add credence to the concept of a consciousness ‘field’ as an agency for creating order in random physical processes” (Nelson, Bradish, Dobyns, Dunne, & Jahn, 1996, p. 111). At least a dozen other studies of interactions between fields and consciousness lend support to these findings (cited in Radin, 1997).

Distant Effects of Visualization, Prayer, and Meditation. Numerous laboratory experiments have demonstrated that some people can mentally influence the growth of plants, fungi, and bacteria (Benor, 1993). Experimental subjects, after being instructed in how to use visualization to inhibit the breakdown of red blood cells in a test tube located in a different room, achieved statistically significant results in their efforts to slow the rate of cell deterioration (Braud, 1990). Well-controlled studies have also demonstrated at an extraordinarily high significance level (2.6×10^{-14}) that some people can, through the use of calming or activating imagery, influence the relaxation or anxiety level of targeted individuals, unawares, in other locations, as gauged by spontaneous changes in their electrodermal activity (Braud, 1992).

In a frequently cited double-blind study with 393 coronary care patients at San Francisco General Hospital, 192 patients were randomly assigned to a “prayed-for” group and the others to a control group (Byrd, 1988). Between five and seven people in home prayer groups prayed on the behalf of each person in the “prayed-for” group without the person’s knowledge. The prayed-for patients were five times less likely to require antibiotics (three patients compared to sixteen in the control group); three times less likely to develop pulmonary edema (six patients compared to eighteen); and no one in the prayed-for group, compared to twelve in the control group, required mechanical ventilatory support. Fewer patients in the prayed-for group died, although that difference did not reach statistical significance. While various explanations have been offered to account for these rather startling findings, such as the religious biases of the investigator, the lack of uniformity in the way people prayed, and the fact that

there was no way of controlling for whether people in the control group were also being prayed for by themselves or their loved ones (Dossey, 1993), a variety of related investigations support the efficacy of prayer in physical recovery. Of 131 studies that calculated probability values of the effects of prayer on healing published up to 1993, 77 reported statistical significance — 56 at the .01 level, another 21 at the .05 level (Benor, 1993).

In several empirical investigations, groups of people meditating together appear to have positively affected nearby non-meditators with whom they have no physical contact. For instance, a series of well-designed and replicated, though still controversial, large scale studies showed that crime rates decreased significantly in cities where Transcendental Meditation was being practiced by an infusion of meditators, as compared with matched control cities (Dillbeck, Cavanaugh, Glenn, Orme-Johson, & Mittlefehldt, 1987), and that other quality of life indicators improved as well (Assimakis & Dillbeck, 1995).

Prodigies and Savants. Prodigies such as Mozart, who composed elegant symphonies while a child, and instances of the idiot-savant, as portrayed by Dustin Hoffman in “The Rain Man,” are also among the psychological anomalies that could be explained by the existence of information fields. At least 100 savants with prodigious mental abilities have been documented in the past century (Treffert, 1989). A boy diagnosed as illiterate, ineducable, and with a conversational vocabulary of some 58 words could accurately answer inquiries as to the population of every major city and town in the United States; its distance from the largest city in its state; the names, number of rooms, and locations of its leading hotels; and statistics on thousands of mountains and rivers (Treffert, 1989). A well-known blind musical savant could “repeat, on the piano, a complex piece heard only once, in a perfect mirroring, including every emotional nuance of expression” (Pearce, 1992, p. 4). During World War II, the British government employed two mathematical savants to serve, essentially, as computers (Pearce, 1992, p. 4).

While attempts exist to explain the special abilities of the prodigy and the savant within conventional frameworks have been offered—such as favorable genetic quirks, highly specialized neurological pathways, and unusually efficient information processing strategies—these explanations raise more questions than they answer (Treffert, 1989). Some investigators have speculated that prodigies, savants, and others with exceptional abilities are tuning into existing fields of information (e.g., Laszlo, 1995; Moss, 1974; Pearce, 1993). Pearce (1993) tells a story about his son at a time that Pearce, in his early thirties, was reading extensively about theological questions, his mind occupied “to the point of obsession”:

One morning as I prepared for an early class, my five-year-old son came into my room, sat on the edge of the bed, and launched into a twenty-minute discourse on the nature of God and man. He spoke in perfect, publishable sentences, without pause or haste, and in a flat monotone. He used complex theological terminology and told me, it seemed, everything there was to know. As I listened, astonished, the hair rose on the back of my neck, I felt goose-bumps, and, finally, tears streamed down my face. I was in the midst of the uncanny, the inexplicable . . .

Here a bright, normal child underwent a kind of “savant experience” as he responded to a field of information he could not have acquired. Terms such as telepathy are misleading; he wasn’t picking up his materials from me. I hadn’t acquired anything like what he described and would, in fact, be in my mid-fifties and involved in meditation before I did. (pp. 8 - 9)

Inspiration that seems to be derived from beyond oneself is well recognized in the study of creativity. Writers are notorious for devising the most eccentric and varied of rituals for the purpose of evoking the “muses.” The German word *Einfal* refers to a sudden and spontaneous intuition leading to a conceptual or aesthetic breakthrough (Laszlo, 1995, p. 130). Individuals such as Mozart, Michelangelo, and Shakespeare were distinguished for remarkable creative perceptions apparently “falling” into their awareness. Laszlo reflects that in addition to such giants, “sometimes otherwise entirely unremarkable individuals display astonishing, seemingly inborn, capacities in specific fields, especially in music and in mathematics. To call such individuals ‘gifted’ and their achievements ‘works of genius’ is not to explain their abilities, but only to label them. An explanation involves answering questions regarding the origins of their unusual accomplishments. Are they possessors of a specially fortunate combination of genes? Or did they receive their gifts from a higher source?” (p. 130).

Systematic Investigations of Telepathy. Many stories exist that purport spontaneous telepathic communication between people with emotional or genetic ties, particularly under conditions of crisis or trauma. How can a twin know her sister is in danger a thousand miles away? Why would a woman wake up with a shock in the middle of the night at the moment her husband has just died in a plane crash? What causes a father to dream about his daughter’s terror while at that very moment she is fending off an attacker? While an abundance of anecdotal reports, observations by anthropologists studying indigenous cultures, and sophisticated laboratory studies

provide substantial evidence for the existence of telepathy (Laszlo, 1995, pp. 88 - 90), a physical basis for it has not been established. Still the evidence is compelling.

Here is a single, dramatic example. In 1970, Jerry Garcia asked Stanley Krippner, a personal friend and a leading parapsychology researcher, if Krippner thought the Grateful Dead's music could boost the transmission of telepathic messages. At 11:30 p.m. on February 19, 1971, some two thousand concert fans, in various music and otherwise-induced nonordinary states of consciousness, at the Capitol Theater in Port Chester, New York, participated in a pilot study. They attempted to transmit an image to Malcolm Bessent, a sensitive who was sleeping in a dream research laboratory 45 minutes away. The randomly selected image of Scralian's painting, *The Seven Spinal Chakras*, was projected from a slide onto the theater screen while the band played on. The audience was told they were taking part in an ESP experiment and was instructed to "Try using your ESP to 'send' this picture to Malcolm Bessent" who is now sleeping "at the Maimonides Medical Center in Brooklyn" (where Krippner was the Director of the Dream Research Laboratory). The painting, which was shown for about 15 minutes, depicts a man in a lotus position with all seven chakras—the energy centers along the spine and head—illuminated. The ground the man is sitting upon is not depicted in the painting. Bessent's dream report that night included an image of a man "suspended in mid-air," thoughts about "a spinal column," and an interest in "using natural energy" (Krippner, 1975, pp. 90 - 93).

Although rigorous experimental procedures were observed, most psychologists are not impressed with such stories. Only 34% of the psychologists responding to a survey of 1,100 college professors believed that ESP is an established fact or a likely possibility as contrasted with: 55% of those in the natural sciences, 66% of other social scientists, and 77% of those in the humanities, art, and education. On the other side of the spectrum, an equal proportion of psychologists, 34%, declared ESP an impossibility, as contrasted with 3% of the natural scientists and not one of the 166 professors in the other social sciences (Wanger & Monnet, 1979). An *American Psychologist* article used the Maimonides Medical Center's 10-year research program demonstrating dream telepathy as the case study in tracing the systematic bias, in professional psychological organs, against anomalous observations such as ESP (Child, 1985). Child concludes that, although the Maimonides research is "widely known and greatly respected" among scientists active in parapsychology, the experiments have received no mention in reviews to which they are clearly pertinent or have been condemned based on entirely erroneous assertions. "Insofar as psychologists are guided by these reviews," Child observes, "*they are prevented from gaining accurate information about research*" that might significantly impact their worldview (p. 1219). Although this trend may be changing, discussions of parapsychological research are still being de facto excluded from most mainstream psychological journals and textbooks.

Nonetheless, research in parapsychology, partially because it is so exposed to attack, is often conducted with more meticulous experimental standards than research on less controversial topics, and evidence supporting parapsychological phenomena continues to mount (Bem & Honorton, 1994; Radin, 1997; Targ & Katra, 1998). But findings that do not conform to established paradigms (Kuhn, 1970)—that buck the prevailing mythology—are systematically relegated to the purgatory of scientific investigation. In short, if the evidence supporting the enigmatic "information transfer" produced by the Maimonides research and in other well-designed parapsychology experiments fell within a conventional area of investigation, the burden of proof would be on those wanting to discredit the reality of the phenomenon.

Similarities in Myths and Symbols across Cultures. A debate persists among archaeologists regarding whether curious similarities in sculpture, painting, and architecture (Schuster & Carpenter, 1996) are "transmitted" by travelers or, because of shared genetic coding within the human nervous system, are independently generated by different societies. In addition to the similar figures and symbols found by archaeologists across cultures, parallel myths in societies that had no knowledge of one another are well documented in the works of comparative mythologists such as Campbell, Cassirer, Eliade, Frazer, Graves, and Lévi-Strauss (Bierlein, 1994). Symbols such as the "Great Earth Mother," the "Eternal Child," the "Hero's Journey," the "Mandala," and the "Shadow" frequently appear in classical myths and artwork as well as in contemporary literature, drama, and screen productions. Jung (1934/1968), who spoke of these universal symbols as archetypes, believed they represent structures within the psyche that unfold according to an inborn maturational plan, determining the essential form and developmental path of consciousness.

Although the role of archetypes in human experience has generally been discounted in mainstream scientific circles, the idea has prevailed, in part because researchers in such disciplines as anthropology, archaeology, ethology, and linguistics keep rediscovering the concept and renaming it in their own terms (Stevens, 1993). Most recently, some evolutionary psychologists have been making a credible case for the "evolved deep structure of the psyche" (Slavin & Kreigman, 1992, p. 68). Beyond the well established innate structures underlying linguistic abilities, a "complex, preexisting psychic architecture . . . regulates many of our key interactions with the world and

guides the process of organizing experience” (Slavin & Kreigman, p. 69). The human mind, from this perspective, “consists of a set of evolved information-processing mechanisms instantiated in the human nervous system [that are] functionally specialized to produce behavior that solves particular adaptive problems such as mate selection, language acquisition, family relations, and cooperation” (Tooby & Cosmides, 1992, p. 24). Some anthropologists, in fact, take the position that, *across cultures*, “once one gets behind the surface manifestations, the uniformity of human social arrangements is remarkable” (Fox, 1989, p. 34).

While the expression of *any* innate behavior in humans varies so greatly from one person to the next and one culture to another that the existence of universals is still debatable (Brown, 1991), prototypes of the archetype are common in the animal kingdom and may shed light on underlying mechanisms. When, for instance, a wooden model of a flying hawk is pulled over the head of a newly hatched chick, the chick will crouch down and emit cries of alarm. Even if the next 10 generations are never exposed to a hawk, the moment a real or wooden hawk comes into view, the chick’s descendants will still cringe (Stevens, 1982). When 30 finches were trapped in 1939 by the British ornithologist David Lack on the Galapagos Islands, where there are no large birds of prey, caged, and sent to his colleague, Robert Orr, in California, they all cringed and emitted alarm calls when a predatory bird came into sight. Neither they, nor their ancestors for hundreds of thousands of years, had exhibited that response when a predator flew overhead since they had never seen a predatory bird. Using these observations to illustrate the concept of the archetype, Stevens concludes: “The ‘predator archetype’ had lain dormant in the ‘collective unconscious’ of these birds for something approaching a million years” (p. 48).

The counter-argument to the position that the appearance of similar archetypal symbolism across cultures is inherited from past ages is summarized by Wilber (1995). Archetypes can be seen as “secondary by-products of cognitive structures which themselves are similar wherever they appear and which in interpreting a common physical world, generate common motifs” (p. 220). Thus the commonalties found in disparate cultures, such as the “Hero’s Journey,” “The Great Mother,” and parallel representations of birth, death, and rebirth, can be explained not as inherited imagery but as products of similar neurological structures spontaneously encoding common features of human experience—such as the cycles of the seasons, the infant’s extended dependence on the mother, mating, and food procurement.

While this spontaneous generation of imagery and adaptational strategies no doubt accounts for some of the thematic parallels across cultures, the more *specific* and *complex* the parallel images, the more likely that other influences are involved. The finch’s response to a highly specific shape it has never encountered, or the honeybee’s complex communication dance, clearly invite explanations that presuppose an inherited rather than spontaneously generated response set. For humans, the immense number of variables that must be tracked in trying to settle the controversy obscures the underlying processes, but people who have been observed in clinical settings or while in nonordinary states of consciousness provide a natural laboratory for further considering the question.

Parallel Symbolism found in Psychotherapy and in Nonordinary States of Consciousness. Jung was not the only psychiatrist of his era to speculate about inherited imagery. Freud was also impressed by his observation that individuals in therapy kept reproducing essentially similar themes. “How is it to be explained,” he wondered, “that the same phantasies are always formed with the same content? I have an answer to this which I know will seem to you very daring. I believe that these *primal phantasies* . . . are a phylogenetic possession. In them the individual . . . stretches out to the experiences of the ages” (Freud, 1924/1953, p. 380). Joseph Campbell, who examined the hero’s journey in depth, also notes his “amazement” upon reading of psychiatrist John Weir Perry’s (1976) work with psychosis and discovering that sometimes “the imagery of schizophrenic fantasy perfectly matches that of the mythological hero journey” (Campbell, 1972, p. 208) as Campbell had outlined it over two decades earlier.

Contemporary consciousness research corroborates these impressions. Consider, for instance, the following extraordinary but carefully documented observations by Grof (1992) based on his extensive clinical research using psychedelic substances and breath-oriented psychotherapeutic techniques:

It has been remarkable to find that people raised in one culture, or belonging to a particular race, are not limited to the archetypes of that culture or race. In our research we have seen, for example, that white, urban, middle class Americans can have meaningful encounters while in non-ordinary states of consciousness with such legendary heroes as the Polynesian Maui or Shango, the Bantu god of sex and war. Over the years I have, on many occasions, witnessed European and American women who became the Hindu Goddess Kali, taking on the traditional facial expressions of that figure, with the tongue stretched far out of their mouth, even though they had no previous knowledge about that figure. Conversely, during workshops in Japan and India, we witnessed

several participants, born and raised in those traditions, who had powerful identifications with Christ. . . .

It is particularly interesting to note that in many cases, where people had no previous knowledge of certain mythological figures, they were not only able to *experience* them accurately and with great detail but they were able to draw pictures with details that perfectly matched ancient descriptions of those figures. (p. 161)

Repetitive symbols and themes have also been identified in large-scale (Hall & Norby, 1972) as well as cross-cultural (Griffith, Miyagi, & Tago, 1958) dream studies. Hall and Norby (1972), for instance, in a content analysis of more than 50,000 dreams, identified “typical dreams” that “express the shared concerns, preoccupations, and interests of all dreamers. They may be said to constitute the universal constants of the human psyche” (p. 35). Stevens (1993) concludes from such findings that dreams are “the means by which the entire behavioral repertoire of the species is integrated with the recent experience of the individual, thus promoting its capacity to survive the demands and exigencies of the following day” (p. 24). This hypothesis, he notes, is in close accord with the “ethological view that dreaming sleep is necessary for an animal to update its strategies for survival by integrating the ethogram (the total behavior repertoire of the species encoded in the brain) with the recent experience of the individual” (p. 37).

Are the common images and themes found among cultures widely separated by time and space, as well as in the fantasies and dreams of individuals, precoded genetic proclivities? Evolutionary psychologists believe that “content-specific information-processing mechanisms,” produced by natural selection, “generate some of the particular content of human culture, including certain behaviors, artifacts, and linguistically transmitted representations” (Tooby & Cosmides, 1992, p. 24). However, the manner by which genes might govern such content-specific symbolism is unmapped and unknown. According to some biologists, in fact, attributing to genes the instinctive cooperative behavior of honeybees, no less the parallel symbolism found in human cultures, is still more a matter of faith than fact. Sheldrake (1988), for instance, has argued that “the role of genes is inevitably overrated, and properties are projected onto them that go far beyond their known chemical roles” (p. 158).

The Hypothesis to Which the Six Anomalies Lead. This line of reasoning suggests that genes are supplemented by other mechanisms in organizing certain inherited psychological characteristics and behavioral patterns. The debate distills down to the tension between parsimony and reductionism. Parallel symbolism has been documented across diverse psyches as well as unrelated societies. Some (e.g., Neher, 1996) believe that, to the extent that parallel symbolism is conclusively documented, a parsimonious explanation for it will be found in genetics. Others (e.g., Sheldrake, 1988) believe it is blatantly reductionistic to suggest that DNA can actually encode the immense folio of specific, complex mythological figures and motifs that spontaneously appear in dreams, nonordinary states, and artistic and other cultural expressions. Jung, who initially believed that archetypes are genetically coded, later came to the conclusion that genes alone cannot explain the range of parallel symbolism he had observed in his lifetime (Jung, 1952/1969). But if not genetic coding, what mechanisms might account for such parallels? A number of investigators have proposed a “field of information” explanation for the archetype (Feinstein, in press; Laszlo, 1995; Laughlin, 1996). Could informational fields—repositories of images independent of the central nervous system—influence an individual’s “spontaneously generated” thought and behavior?

Several features are shared by reports of 1) human activity influencing mechanical devices from a distance, 2) distant effects of visualization, prayer, and meditation on consciousness, healing, and even the activity of blood cells in test tubes, 3) the extraordinary mental abilities of prodigies and savants, 4) systematic investigations of telepathy, 5) similarities in myths and symbols across cultures, and 6) the parallel symbolism observed in clinical situations and in nonordinary states of consciousness:

- evidence suggesting the existence of each of these phenomena, while not always unequivocal, has been accumulating;
- each seems to involve the procurement of information in a manner whose mechanisms are difficult to explain in terms of known physiological structures; and
- the effects observed are consistent with a “field of information” hypothesis.

SHELDRAKE'S MORPHIC FIELD HYPOTHESIS

Various field theories and related models have intrigued modern consciousness researchers, from neuropsychologist Karl Pribram's (1971) holographic brain to nuclear physicist David Bohm's (1980) holographic universe. The one that seems formulated in a manner that offers the greatest explanatory power relative to my own observations about a structure/field complementarity in the personal myth is Sheldrake's (1981, 1988) controversial hypothesis of the "morphic field." I will go to some length here to present a synopsis of his theory.

Sheldrake, who holds a doctorate in biochemistry from Cambridge and was a Rosenheim Research Fellow of the Royal Society and a Frank Knox Fellow at Harvard, believes that every natural system—atoms, molecules, crystals, living organisms, societies, customs, habits of mind—is associated with a *field of information*, a "morphic field" that interacts with observable matter. Morphic fields organize the structure of natural systems as well as their patterns of activity. Sheldrake (1988) believes that morphic fields "are physically real, in the sense that gravitational, electro-magnetic, and quantum matter fields are physically real" (pp. 107 - 108). His formulations have earned his work both favorable comparisons with Darwin and the suggestion in an editorial of the prominent journal *Nature* that by being so facile in presenting such a misleading theory, this may be "a book for burning" (Editorial, 1981, p. 245).

For Sheldrake, every living system, every unit of the physical world—from the molecule to the mind—has its own unique field, an inherent vibration that holds information about the system's potential form and behavior, analogous to genetic information. Such fields store and transmit information from one generation to the next. Each field *attracts* the system with which it is associated toward its mature form, and it arouses behavior in that system. The morphic field of the tadpole encodes the physical form and instinctive behavior of the mature frog. Sheldrake argues that it is the *field*, as well as the *gene*, that stores at least some of the information for the complex patterns that comprise a system's form.

The concept of the "morphogenetic field" (from the Latin *morphe*, "form," and *genesis*, "coming into being") was introduced into biology in the early 1920s to describe the notion that the *form* of a living organism is organized by a *field* (Weiss, 1939). While everyone agrees that the chicken emerges from the egg, some biologists speculated that its larger organization into the form of a mature chicken could not be explained by genetic coding alone, and they proposed that the egg carries a form-generating *field*. The hypothesis that "morphogenetic fields" provide form as organisms come into being seemed necessary in the 1920s as a supplement to genetic programming. It was not understood *how* the genetic material in the acorn stores all the information required to transform itself into the towering form of an oak, no less how the genetic material in a honeybee encodes the instinctive behavior and social organization that result in the intricate complexity of its hive. Despite tremendous advances in our understanding of DNA, amino acids, peptides, and proteins, Sheldrake argues, these basic questions of genetics remain unanswered.

Experimental evidence does, in fact, suggest that genes do not completely account for the development of an organism into maturity. For instance, by severing in half the egg of a sea urchin, "the egg regenerated and produced not two pathological or partial sea urchins, as one might expect, but two full-grown animals that differed from a normal sea urchin only in that they were somewhat smaller. Conversely, when two young embryos were fused together they produced not a double sea urchin but a normal single one" (Whitmont, 1994, p. 11). While genes have been shown to code such information as the sequence of the chemical building blocks in RNA and protein molecules, Sheldrake (1988) notes that there is no known mechanism giving genes the ability "to organize the whole organism" (p. 90). If genes hold all the information for transforming the acorn into an oak, the feat is accomplished through agents yet undiscovered.

Sheldrake (1988) uses the term *morphic* field to distinguish the earlier conception of the morphogenetic field from his broader usage, where in addition to governing the form of living systems, morphic fields, with their inherent memory, are also "the organizing fields of animal and human behaviour, of social and cultural systems, and of mental activity" (p. 113). He explains that "morphic resonance takes place on the basis of similarity (p. 108) . . . the most specific morphic resonance acting on a given organism will be that from its *own* past states, because it is more similar to itself in the past, especially in the immediate past, than to any other organism" (p. 132). Information, however, is exchanged not only between a system and its field. Similar fields, by resonance, also influence similar systems. Thus, according to the morphic field hypothesis, living organisms "inherit not only genes but also habits of development from past members of their own species" (p. 71).

Sheldrake describes morphic fields as purposive, goal-directed "attractors" (his use of the term is akin to its use in dynamic systems theory) that guide "the systems under their influence toward characteristic patterns of organization" (p. 101). Sheldrake's hypothesis is also consistent with the view emerging from modern physics (Sheldrake & Bohm, 1982). In quantum theory, every subatomic particle has its own field, and Sheldrake (1988) believes that "morphic fields may indeed be comparable in status to quantum matter fields" (p. 119), while

postulating that morphic fields also influence larger systems than the microsystems governed by quantum fields. Sheldrake's notion of a parallel between morphic fields and quantum fields—which is consistent with Hameroff's (1994), Laszlo's (1995), and Tiller's (1993) hypotheses that nature's "fifth field" emerges from the quantum vacuum—could account for several properties that Sheldrake attributes to the morphic field. For instance, morphic fields appear to be "non-local," the quantum property where an effect is *instantaneous* and *unaffected by distance*. Morphic fields, like quantum fields, also act as "probability structures": of the many possible forms that could occur in the system the morphic field affects, some become more probable because of the order imposed by the field. The morphic field *influences* but does not *determine* the path that will be taken. No two clover plants, even if they share twinned genes, are exactly the same, "nor indeed are any two leaves on the same clover plant" (Sheldrake, 1988, p. 120).

Preliminary attempts to empirically verify the existence of morphic fields have been reported by investigators in different parts of the world (Ertel, 1994; Stokes, 1995). For instance, crossword and hidden figure puzzles have been shown to be more easily solved by experimental subjects after the puzzle has been printed and many people have worked it. The hypothesis in these experiments is that the subjects are tuning into an information field that has been strengthened as more people solved the puzzles. Some attempts to experimentally confirm the morphic field hypothesis have yielded statistically significant results, others have not. The statistically significant findings have been criticized for flaws in experimental design, and the empirical evidence is still inconclusive. Some advocates of the morphic field hypothesis maintain that using available research strategies is tantamount to squeezing morphic fields into a Procrustean bed, force-fitting them into limiting, preconceived concepts. When morphic fields operate in nature, they are believed to serve a purpose associated with the survival or enhancement of a species, a critical feature that is not easily built into laboratory, crossword puzzle, or other contrived experiments.

Recognizing this dilemma, Sheldrake (1994) has identified naturally occurring phenomena that lend themselves to "field of information" explanations. He has suggested, for instance, that the answer to mysteries such as phantom limb pain, pets who roam hundreds of miles to find an owner who has moved, and the ability of a termite colony to build a 30 foot nest may be found in imperceptible fields that carry information and habits.

Morphic fields purportedly provide information that is transmitted through resonance, through attunement rather than an exchange of energy where one entity gains what the other expends. Not only does Sheldrake (1988) believe that morphic fields guide the development of a member of a species toward its mature form, he suggests that morphic fields *themselves* evolve in the process. Since the "laws of nature" operate independently from what they govern, Sheldrake challenges the Platonic notion that nature's laws are fixed and eternal, pointing out that this assumption presumes that the laws governing the formation of sugar crystals, for instance, existed before "the first sugar molecules arose anywhere in the universe. Indeed they existed before there was a universe at all" (p. 11). Sheldrake asserts, instead, that the morphic fields which hold the organizing principles of the physical universe themselves *evolve*: "Not only does the world evolve in space and time, but these immanent organizing principles themselves evolve (p. 313) . . . We find ourselves in an evolving universe whose organizing principles are evolving with it" (p. 316). If, for instance, a species is "prevented from following the usual, habitual path, it may find a more or less novel means of reaching the same goal" (Sheldrake, 1988, p. 319), as when changes in an environmental resource lead to new adaptational strategies.

In the 1930s and 1940s, several bird species, for example, learned to open milk bottles delivered to homes throughout the British Isles, Sweden, Denmark, and Holland (Hinde & Fisher, 1951). Because this behavior constituted a nuisance, the patterns by which it spread were carefully mapped over an 18-year period. Once the behavior occurred in a given location, it spread locally, presumably through imitation. However, because some of these species rarely travel more than a few miles from their place of breeding, the transmission of the behavior to more distant sites, as revealed by the records, simply cannot be explained in terms of established mechanisms of learning, imitation, or communication. While an obvious explanation is that many birds independently discovered how to open the bottles in the various locales, the records show that the spread of the habit *accelerated over time*, suggesting a transmission of learning through mechanisms yet unknown. Again, the morphic field hypothesis offers a plausible explanation. Since the members of a species and the species' morphic field are in resonance with one another, if an adaptation occurs often enough, it will become embedded in the species' field. This process may be the undiscovered mechanism governing a range of anomalies, from complex "instinctive" behaviors in animals to "phylogenetic memories" in humans.

MYTHIC FIELDS

Adults in nonordinary states of consciousness (induced, for instance, by abreaction, hypnosis, or psychedelics) sometimes have the sense of reliving their own birth, or even prenatal events, including details about which they had never been informed (such as an attempted abortion). In some instances, idiosyncratic details have subsequently been verified with a parent or by other means, suggesting that the memories were accurate (Chamberlain, 1986; 1990; Cheek, 1980). When such experiences occur in clinical settings, striking parallels have on occasion been observed between the circumstances of the birth and patterns in the person's life (Grof, 1985). The cerebral cortex of the newborn, however, lacking the needed myelin sheaths on its neurons, is not well enough developed to code such experiences (Grof, 1985). Thus, memories of one's birth or of prenatal events—if their accuracy is confirmed in cases where the details recalled had not previously been available to the person—would be another anomaly that could be explained by the existence of information fields that code experience.

I am suggesting that mythic fields, which are a subset of Sheldrake's morphic fields," become established when new patterns of understanding and motivation are initiated and repeated. Once established, they tend to maintain the psychological habits that typify the individual—the person's characteristic *forms* of emotion, thought, and behavior. The influence is bi-directional: field follows form *and* form follows field. Psychophysiological forms and mythic fields are linked by resonance. Sheldrake (1988) explains that "characteristic rhythmic patterns of activity within the nervous system" (p. 151) may enter into resonance with a morphic field. Interestingly, when a group of neurons becomes linked through mental activity, the neurons themselves behave like a "field" (Pearce, 1992, p. 16), with all the cells vibrating as a single frequency or "phase-coherent oscillation" (Edelman, 1992, p. 95). The individual's mythic field presumably resonates with these neurons in a process of mutual influence.

In my own formulation, I first conceived of the mythic field as a subtle form of energy that exists within the dimensions of Newtonian space-time. More recently, in trying to account for the anomalies described earlier, I have come to believe that mythic fields must sometimes embody properties that are associated with quantum fields, such as nonlocality.

A "Sensitive's" View of the Mythic Field. Even without visual or auditory cues, a sensitive individual can often detect changes in another person's mythic field, experienced as an altered "energy" or "vibration" ("before I even pulled into the driveway, I could feel that he was angry"). People who work in the "new" discipline of energy medicine are particularly attuned to this realm. The following is excerpted from an interview I conducted with my partner, Donna Eden, a mind-body healer known for her ability to see and feel the body's energies and, based upon what she sees and feels, to identify physical problems in a manner that reliably corresponds with medical diagnoses. She described the way she experiences what I refer to as personal myths and personal fields of information:

In shifting from one myth into another, the vibration of the person's field changes and the field's colors change. When a person is under emotional stress, the energy tends to take on the stamp of an old myth that is oriented toward emotional or physical survival, usually some version of fight or flight. When one of these survival-oriented myths is activated, I see its energy originating in the root chakra. The old myth sits like a fountain in the root chakra, with the field that comes out from this fountain surrounding the person's body.

At other times the old myth quiets down. While I can still see its energy, I can also see the energy of other myths come in. When a new myth has become more than an idea and has begun to take a stable physical form, it begins to infiltrate the auric bands, changing some of their colors. Its energy will be less dense and move more quickly than the energy of the old myth. As a new myth begins to take hold, at first it looks faint to me, but with time it becomes more distinct.

What you call the conflict between an old myth and an emerging myth often isn't so much that the two fight *one another* but that the old myth is simply fighting for its survival. When a myth doesn't work anymore, a point is reached where its energy gets very murky. I can see the energy of an old myth doing all it can to hold on, like hot tar. If it gets stuck that way for a long period, physical illness often follows. (personal communication, February 28, 1995)

A small body of evidence suggesting a relationship between subtle vibrational patterns in the body and disease states is, in fact, accumulating (e.g., Hunt, 1995), and the worldview underlying "energy medicine" (Eden, in press; Gerber, 1996) complements the line of reasoning presented here.

The Units of a Mythic Field. In the sense that a *personality* is comprised of a set of interdependent *subpersonalities* (Assagioli, 1985), a *personal mythology* contains numerous complementary as well as

contradictory *personal myths*. A subpersonality may, in fact, be defined as an ego state that is governed by a specific personal myth. A competent and powerful woman, for instance, might suddenly become insecure and accommodating whenever her amiable husband walks into the room. The personal myth governing a subpersonality that is strong and independent—she might call it her “woman who runs with wolves” self—is displaced by a personal myth that evokes a “1950’s housewife” subpersonality. Each subpersonality is characterized by a distinct set of neural pathways, and each subpersonality carries its own mythic field. People who are attuned to their internal states may acutely experience shifts in the field that is dominant at a given moment of time.

Sheldrake (1988) explains that a morphic field “brings about material effects while the system is tuned in to it. But if the tuning is changed, then other fields come into play: the original field ‘disappears.’ It appears again when the body in relation to its environment re-enters a state similar to that in which the field was expressed before; the field once again becomes present by resonance” (p. 199). The woman’s “1950s housewife” mythic field and her “woman who runs with wolves” mythic field may each be evoked in specific contexts, and she may learn to recognize which field is operating at a given moment, how to evoke the other field, and she may also initiate a process of integrating into a single field the more desirable qualities of these seemingly incompatible fields.

While relatively stable, personal myths evolve over time, influenced by interactions with the environment and presumably also with fields of information that exist in the environment, such as those Sheldrake (1988) refers to as family, group, and cultural morphic fields. If a mythic field influences neurological, psychological, and behavioral processes and evolves as the person matures, its operation would be of substantial clinical relevance. Attempting to directly catalyze desirable shifts in a mythic field that maintains dysfunctional patterns of thought or behavior could reveal new avenues for facilitating psychological development.

Sheldrake uses Koestler’s (1967) concept of the holon in describing the “*units*” of a morphic field (Sheldrake, 1988, p. 96). A holon is a unit that is complete within itself while simultaneously being a part of larger wholes. Competing personal myths (e.g., “1950s housewife” vs. “woman who runs with wolves”), each with its own integrity and, from the perspective of its own level of organization, irreconcilable with the other, are also part of the person’s larger mythology. Just as the individual’s mythology is a holon within the larger holon of the culture’s mythology, a given personal myth is a holon within the person’s larger mythology.

The Birth of a New Field. A new holon may be formed by differentiating itself out of a more complex holon or through the integration of two less complex holons. A new personal myth may be formed by differentiating itself out of a more complex personal myth or through the integration of two less comprehensive guiding myths.

The complementary tides of *differentiation* and *integration* are, in fact, recognized as primary mechanisms in diverse models of psychological development (e.g., Epstein, 1994; Kegan, 1982; McAdams, 1993; Wilber, 1995). As the woman is able to recognize and appreciate how each guiding myth operates within her, one pushing for personal autonomy and the other toward relatedness at all costs, each becomes better differentiated, and the possibility opens of integrating the most functional qualities of each within a larger mythology that transcends their limitations. Our approach with an individual’s guiding mythology (Feinstein & Krippner, 1997) involves establishing a dialectic between apparently irreconcilable guiding myths that is based on this “evolutionary motion” (Kegan, 1982, p. 39) of differentiation and reintegration.

Sheldrake (1988) describes this evolutionary motion as involving an “ascending process” (a new field based on the integration of existing fields *into* a higher level of organization) and a “descending process” (a new field differentiating *from* a higher-level field). Reflecting on how new fields promote the transmission of learning within a species, Sheldrake refers to the records, discussed earlier, that tracked the unexplained patterns by which milk-bottle opening behavior spread within several species of birds. He proposes that the transmission of the behavior involved the appearance of a new morphic field. Discussing the ascending and descending processes in the establishment of this morphic field, he notes:

From the “bottom up” point of view, this must have emerged by the synthesis of pre-existing behavioural patterns, such as the tearing of strips of bark from twigs, in a new, higher-level whole [integration]. From the “top down” point of view, this new field arose in the higher-level, more inclusive morphic field that organizes the search for food and all activities involved in feeding. This higher-level field may somehow have formed within itself a new lower-level field, that of milk-bottle opening [differentiation]. (p. 322)

At the level of the individual’s construction of reality—myth-making—both the integration of existing myths *into* a higher-order guiding myth and the differentiation of specific guiding myths *from* a more general, higher-order myth occur. The woman may learn to *integrate* her dependency needs and her desire for autonomy into a mythology that supports a robust interdependence, and she may learn ways of *differentiating* this hard-earned new

mythology into a guiding myth that is more appropriate in her work setting and another that is more appropriate for her personal relationships.

CLINICAL IMPLICATIONS: SHIFT THE FIELD, CHANGE THE MYTH

More than half a century ago, May (1939/1989) observed that “both the counselor and the counselee are taken out of themselves and become merged in a common psychic entity. The emotions and will of each become part of this new psychic entity” (p. 67). One of May’s students, Larson (1987), a psychologist who has studied this “new psychic entity,” describes a striking incident from her own clinical work:

A new client entered my office for the first appointment. I spontaneously began experiencing very subtle, unusual sensations in my own lower torso. Prior to this appointment I had completed a deep relaxation exercise, so I was quite aware when the subtle, tingly sensations began. I first reflected inwardly trying to discover the source of the mysterious sensations. I asked myself if the new client reminded me of someone I had previously known. I searched myself to ascertain if my own personal memories were related to the tingly sensations. Then I bracketed the experience noting it, watching it, and reflecting further upon it. Finally, my curiosity was overpowering. At a seemingly appropriate point, I described my experience to the young woman client, and asked if my experience had some meaning for her. The young woman immediately replied, “Oh yes, I have cancer of the cervix, and I’ve been having chemotherapy there.” (p. 323).

Investigating this phenomenon, which she terms “psychotherapeutic resonance,” Larson found that many therapists report a momentary merging of the boundary between themselves and a client that in its intensity exceeds empathy and rapport (see also Sterling & Bugental, 1993, on the “meld” experience of therapist with client). In psychotherapeutic resonance, the therapist evidences immediate non-verbal understanding of feelings the client has not acknowledged, may directly experience physical sensations the client is experiencing, and the therapist and client become synchronized in even tiny movement patterns. Is the therapist unconsciously tuning into a subtle field of information carried by the client?

Early in my career, I had the good fortune of observing first hand the therapeutic mastery of Milton Erickson, Alexander Lowen, Peg Mayo, Carl Rogers, and Virginia Satir. I was many times present when one of these gifted clinicians would provide a demonstration for trainees. Their skills sometimes seemed uncanny. How did they *know* what this person needed? I would study transcriptions of their clinical work, hoping to discern their secrets. The most interesting pattern I could detect was their ability to offer a creative and unexpected intervention at the moment of therapeutic opportunity, impossible to acquire by studying transcripts, and often quite different from their trademark techniques, yet strikingly attuned, plausibly through resonance, to the client’s unique needs. I have witnessed Carl Rogers being decidedly directive (“Steven, I don’t think you should marry her”); Virginia Satir cut to the core of a psychodynamic conflict with no reference to the person’s family or family of origin; and Alexander Lowen get to the heart of a problem with no mention of the person’s posture or bodily tensions. If their interventions were not based on their established clinical approach, to what, I wondered, were they attuning themselves? I have come to think of this elusive “what” as the client’s mythic field. I believe, in fact, that many effective therapists are high in “psychotherapeutic resonance,” able to spontaneously attune themselves to the client’s “field,” accurately obtaining information that is not transmitted through even the most subtle sensory cues.

Many phenomena that are difficult to account for in psychotherapy, such as the enormous power of projective identification (e.g., a seasoned child psychiatrist observed that she knows she is dealing with a victim of child abuse when she experiences an irrational “impulse to abuse the child”—cited in Gabbard, 1994, p. 71), have been attributed to “subtle sensory cues.” I would reverse the argument—wherever subliminal sensory cues are the explanation of last resort, consider the possibility that a field of information is also involved. I myself have learned, when in a clinical situation and unsure about what I should do next, to quiet my inner chatter, shift my attention to the “field” the client brings into the room, and allow it to inform my responses. This often results in the subjective experience that I am tuning into a normally imperceptible atmosphere carried by the client. After consciously shifting my attention to the client’s hypothetical “field,” new understanding and interventions may come in a flash. Such moments of insight sometimes seem to tap into information about the client to which I do not have any apparent access but that is subsequently confirmed. Whether shifting my attention to the client’s “field” is a way of actually attuning myself to a dimension of the clinical situation that transcends sensory cues or is just a helpful bit of self-deception, I believe the maneuver makes me a better therapist.

By thinking of a personal myth as involving a field, the field can be treated as a focal point for changing the myth. The woman discussed earlier can be shown how to visualize and sense the intrusive field, say, of the “1950s housewife.” I might ask: “Where does the field impact your body the most strongly? Does it have a color? A temperature? A rate of vibration? What is its texture?” She can learn to recognize that sometimes this field is active, that at other times it is not. “How old do you feel when this field is engaged?” She can learn to attune her awareness, and in the process, her nervous system, to influence whether or not the field is active. She can also envision a new field, perhaps one that integrates relatedness and autonomy, “housewife” and “woman who runs.” The same questions apply: “Where does this new field impact your body the most strongly? Does it have a color? A temperature? A rate of vibration? What is its texture? Allow the color and temperature and vibration and texture to flow into an image that symbolizes this new myth.” Because repetition, according to Sheldrake (1988), increases the strength of a field, by frequently evoking in her imagination the sensations and images associated with her new myth, the woman can presumably increase the habit strength of this fledgling myth until it becomes readily accessible.

Focused imagery that brings a person into the past to rework early emotional distress and trauma can be designed to mimic some of the healing functions of dreams and to help transform the psychodynamic bedrock of a dysfunctional myth. A man was able to trace his abusive impulses toward his son back to his own experiences of abuse. He was guided to visualize himself as a child in his primal drama with his own father. In this rendition, however, his adult self was also there. The adult self persuaded the father to shower his son with the love and emotional support that the father at some level—buried beneath his own conflicts—held but did not express (in extreme cases, the person’s fantasy may have to eliminate the parent altogether and have the adult self provide the parenting directly; in any case, coming to a productive scenario is a significant piece of the therapeutic work). In the presence of that imagined emotional support, he could sense a shift, the genesis of the field that might have existed had he actually received the love being fantasized. This is a procedure for deep transformation that I call “Rewriting History through the Emotionally Corrective Daydream.” A daily ritual to strengthen his new personal myth, and the field associated with it, might project him into an imagined future where he is living from a guiding myth that supports constructive responses to his son at the moments of greatest stress.

Based on preliminary clinical observations, therapeutic rituals for directly embedding a new mythology can be designed around the presumed influence on the mythic field of:

- setting an intention
- imagery journeys to the past that psychodynamically rework dysfunctional myths
- imagery journeys that seed the future with a more constructive guiding mythology
- visualizing the qualities of this new myth
- shifting internal speech to support the new myth
- behavioral rehearsal to anchor the new myth

RITUALS THAT SHIFT THE FIELD

Ritual and myth have always gone hand in hand. Myth is carried by ritual; ritual is shaped by myth. At the microscopic level, rituals leave an imprint on the human nervous system; in their most expansive sense, rituals open a conduit between personal awareness and the larger energies that effect human destiny. Rituals are capable of both transforming the personal mythic fields that shape our future and of attuning us to the external fields that surround us—vibrations of nature, echoes of our ancestors, realms of the gods.

Thinking of mythic fields as targets for psychological change, while at the same time being conversant with therapeutic ritual (Achterberg, Dossey, & Kolkmeier, 1994; Imber-Black, Roberts, & Whiting, 1988; van der Hart, 1983), can result in some interesting clinical innovations. Bob was in his mid-forties when he was diagnosed with amyotrophic lateral sclerosis (ALS or Lou Gehrig’s disease). He was two years into the illness when he was referred to me by his physical therapist. The deterioration of his muscles was accelerating, and the adjustments being required of him were immense.

I was struck that Bob had been at the height of success when he received his diagnosis. An attorney who was bitter about his profession, he had been appointed as magistrate in a juvenile court and felt for the first time that his

work was having a significant positive impact. He had suffered through two difficult marriages and, about a year before his diagnosis, had married a third time. He found himself entering new dimensions of love, and he was enjoying a relationship that exceeded his hopes. Where Bob had been highly driven and overly serious, he had begun to study with a Tibetan master, was meditating regularly, and finding much greater peace and joy in his life. Just prior to his diagnosis, he had purchased a sailboat, arranged a year-long sabbatical, and planned to fulfill a lifelong dream by sailing with his wife around the world.

In ALS, the muscles deteriorate over a period of years until the physical structure can no longer support life. All the while, the mind is crystal clear, witnessing the body's slow demise. Bob was a wonderful client with a terrible disease. He was extremely bright, curious, creative, motivated, was asking large questions, and, confined by his illness, he had a great deal of time to think about the challenges facing him. He often brought fascinating questions and inner adventures into the sessions. I'll relate one example. He lived in Oregon in a home that overlooked a wooded area. Towards the end of his life, he had very little control of his muscles. He would sit in his chair, just staring into the woods. He couldn't scratch himself if he itched. He'd just stare. He could still talk, though his speech was labored. One day he said to me, "You know, the strangest thing happened. I was looking at the trees, and all of a sudden I was out there, flying through the trees, like Superman or Peter Pan. I could will myself upward and get the panorama, or come close to the ground and examine any detail that caught my attention. Then, as soon as I would get a little scared or a little self-conscious, I'd be right back in my body." He didn't make a particularly big deal out of these curious experiences; he was just puzzled. The out-of-body journeys happened every few days for about six weeks. Then one day he said to me, "You know, I think I know why I am leaving my body to go out into the trees. It's like I am being shown that it is okay to die, that it is safe to leave my body." After he came to this recognition, his spontaneous "visits" into the trees ceased.

Several months prior to his forest visitations, Bob had developed and—with the aid of a ritual was able to work through—a bonafide neurotic, irrational, self-destructive symptom. He started to hate his wife, who was doing everything for him. This hatred appeared abruptly, at about the time she quit her job so they wouldn't have to bring in outside help to care for him. Suddenly, she could do no right. If she would go to the bank, she had abandoned him. If she stayed home all the time, she was suffocating him. He became vehement in his animosity. It was not mere anger or resentment, it was a fierce, unreasonable hatred toward her and everything about her.

I recommended a couples session. I used a standard conflict resolution model in which he stated his grievances to her and she paraphrased them back, until he was satisfied that he had been understood. Then she would respond to a grievance and he would paraphrase her statements until she felt understood. At some point, fairly early in this process, it seemed that Bob came to a recognition of the irrationality and malevolence in his treatment toward her. He shifted his demeanor, looked at her intensely, with his eyes tearing, and said, "I love you!" It was particularly poignant because his speech was already quite impaired by then, and each word required considerable effort. She sat there looking at him, not knowing whether to believe the data of the past five minutes or the data of the past five weeks. He became poetic, expressing his sorrow, his appreciation, his love. She eventually softened. By the end of the session, she was passionately hugging his receptive body, and the session appeared to have been successful beyond my most optimistic expectations. Two days later, however, it was as if the session had never occurred. Bob was again scornful and vindictive. A second couples session was nearly a duplicate of the first, and its impact dissolved just as quickly. The three of us repeated some version of this scenario six times over six weeks—the routine was rapidly losing its charm. In the sessions, Bob was able to open in deep appreciation to the ways his wife was loving him, and he would recognize that her treatment of him was irreproachable. But, he couldn't hold this awareness outside the sessions.

The psychodynamics seemed fairly straightforward to me. Bob had experienced his mother as not only withholding affection, but as being badly out of tune with his needs. He one-upped her by becoming invulnerable and spiteful toward her. Now that his wife was increasingly having to fulfill maternal duties for him, he was projecting onto her his unresolved feelings toward his mother. While I understand that many therapists consider projecting unresolved parental feelings onto one's spouse to be a fair definition of marriage, this was excessive. And nothing I did in our sessions to urge him to meet this hatred with greater awareness—from cognitive and behavioral to experiential approaches—seemed to have any staying power. I was stumped.

I consulted a colleague, Tiziana De Rovere, a psychodynamically-oriented therapist who also has strong psychic abilities. This gives her an interesting vantage point in a counseling setting. She can often see levels of an issue that are not apparent to me. I asked her if she would tune into my confusion about this case. She said:

You are right that part of the difficulty is that as his wife is having to take on more and more mothering roles, Bob is projecting his unresolved feelings for his mother onto her. But what is feeding the fire, and keeping Bob so impervious to all your interventions, is that as he gets closer

to dying, his body is returning to Mother Earth. So the Great Mother archetype is invoked here in a large way, and Bob, at a basic level, rejected everything about the Great Mother archetype. While dying is in the rhythm of nature and of the Great Mother, he is experiencing his dying as a final betrayal. Rather than to allow the Great Mother to support him as his life is coming into its cycle of closure, he is fighting it with all he's got. The closer he is coming to being pulled back into the Great Mother, the more intense his panic, and the more vehemently he projects his antipathy toward the Great Mother onto his wife. (personal communication, April 7, 1996)

The problem, she felt, was more fundamental than I had recognized, and focusing only on Bob's relationship with his biological mother was not likely to resolve it. This explanation felt plausible to me, but I didn't know how to use it for therapeutic gain. It was as if, in the presence of his wife, Bob's mythic field vibrated with hate, and this hatred was overwhelming and beyond his control. It conceivably tied into his having as a boy rejected so fiercely the set of qualities De Rovere was referring to as the Great Mother archetype. Now that he was being forcefully pulled back to the earth, forced to surrender to *mother* nature, he was fighting furiously, and he unconsciously made his marriage the outward metaphor of his inner struggle.

As we talked about a next step, De Rovere conceived a ritual that was to apparently shift the configuration of Bob's mythic field potently and permanently. Since his field seemed to have a magnetic repulsion to the qualities of the Great Mother archetype, particularly those embodied by his wife's attending to his every physical need, De Rovere designed the ritual to realign his field so it would be able to embrace the qualities from which he was estranged. When the ritual was carried out two weeks later, after preparation on my part with both Bob and his wife, De Rovere brought five plants from the land on which she lived. To each plant, she assigned a quality she associated with the Great Mother archetype. A pink rose symbolized the tender love of the Great Mother archetype; blue forget-me-nots, like the blue sky, symbolized the tranquility and serenity of the Great Mother; violet pansies represented forgiveness toward others, as well as in relation to his own self-blame; a red rose symbolized the passion of the Great Mother archetype; and green moss a safety and surrender into the Great Mother.

One plant at a time, De Rovere visualized the vibrational link between the plant and the quality, and then she moved the plant over her skin, "impregnating" it with the quality it was to symbolize. She took the pink rose, for instance, put it against her own skin, and mindfully infused it with the tender compassion of the Mother. Then she took its petals and moved them all over Bob's body, talking to him about the tender compassion of the Great Mother: "Feel the softness on your body. It represents the soft love of the compassionate Mother." She encouraged him to breathe slowly, deeply accepting this quality. Then, using her psychic abilities, she could see where he was having difficulty embracing the quality—that is, where the energy of his mythic field was opposing the energy of the quality embodied by the plant—and she would talk him through his resistance to the quality until she could see in his field that he had accepted it. At that point, she moved on to the next quality, until Bob had, to her satisfaction, accepted and embraced all five qualities. Then she asked if she could hold him, not as Tiziana De Rovere, but as an embodiment of the Great Mother archetype. He showed his willingness with his eyes. In this embrace, he began to sob and shake, melting into her, experiencing in his body the tender love of the Great Mother, as De Rovere spoke to him of surrendering into this love, tranquility, forgiveness, passion, and safety. Never again did Bob treat his wife unkindly. And, as nearly as I can judge, he died a good death.

The ritual certainly seemed to change Bob's personal mythology in relation to the Great Mother archetype, at least as measured by his ability to accept the enormous amount of physical and emotional care his wife was providing. Is it also necessary to think in terms of a mythic *field* that was maintaining his dysfunctional behavior? There is no question that Bob's distortions about his wife could be described in the language of established psychodynamic processes. I had to notice, however, that this framework did not seem to be helping to solve the problem, while someone whose framework was attuned to Bob's mythic field was able to pull off a one-session "cure."

CONCLUSION

The evidence for telepathy, the distant effects of visualization, and the other "anomalies" summarized in this paper suggests that consciousness is not just an epiphenomenon emerging from biochemical events any more than the evening news originates only in the radio set. The news is produced by both the radio (a "bottom-up" influence) and the radio signal (a "top-down" influence). Personal myths are also produced by "bottom-up" and "top-down" influences. Neurons, like the components of a radio, exert a bottom-up influence, from the brain *up* to the developing story. Fields of information, like the radio signals, exert their influence from the top, *down* to the developing story. Neurons and fields seem to operate in tandem, like the radio tuner and the signal. Personal myths

reflect both the brain and the field, just like the radio program is a reflection of both the radio and the signal. Personal myths, *as biochemically coded organizing models*, exert a “bottom up” influence on consciousness and behavior; personal myths, *as fields of information*, exert a “top down” influence.

The hypothesis that mythic fields influence feelings, thoughts, and behavior, if supported, would hold far-reaching implications. An understanding of the way mythic fields act upon the psyche would make it possible to more proficiently tailor, for desired change, techniques that utilize ritual, visualization, focused intention, and behavioral enactments. More dramatically, the idea that fields of information affect consciousness would augment our understanding of collective myth-making, suggesting in fact a physical infrastructure for the fashionable idea that a “global brain” (Russell, 1995) is now emerging.

Since experimental evidence has linked mental activity with “non-local” fields of information, it is not a huge leap to postulate that—just as two aligned magnets form a shared field—an idea that is held by many people would exist in concert with a *collective* field of information. Such a collective field would presumably intensify if the numbers holding the idea increased, as when an image is multiplied via satellite (Feinstein, Mortifee, & Krippner, in press). With electronic communications media, we are, in fact, able to interact more consciously than ever before with the fields that underlie our collective thoughts, to recognize them as tangible if subtle entities, and to open novel approaches for participating in their evolution.

David Feinstein, Ph.D., co-author of *Personal Mythology*, *The Mythic Path*, and *Rituals for Living and Dying*, is a clinical/community psychologist who brings a mythological perspective to personal, organizational, and community change. He has served on the faculties of The Johns Hopkins University School of Medicine and Antioch College.

AUTHOR’S NOTE: Comments by Stanley Krippner, Donna Eden, and Richard Alexander on earlier drafts of this paper are gratefully acknowledged.

REFERENCES

- Achterberg, J., Dossey, B., & Kolkmeier, L. (1994). *Rituals of healing*. New York: Bantam.
- Assagioli, R. (1985). *Psychosynthesis: A manual of principles and techniques*. New York: Viking.
- Assimakis, P.D., & Dillbeck, M. C. (1995). Time series analysis of improved quality of life in Canada: Social change, collective consciousness, and the TM-Sidhi program,” *Psychological Reports*, 76, 1171 - 1193.
- Bem, D.J., & Honorton, C. (1994). Does psi exist? Replicable evidence for an anomalous process of information transfer. *Psychological Bulletin*, 115, 4-18.
- Benor, D. J. (1993). *Healing research: Holistic energy medicine and spiritual healing*. Munich: Helix Verlag.
- Bierlein, J.F. (1994). *Parallel myths*. New York: Ballantine.
- Bohm, D. (1951). *Quantum theory*. London: Constable.
- Bohm, D. (1980). *Wholeness and the implicate order*. London: Routledge and Kegan Paul.
- Braud, W. G. (1990). Distant mental influence of rate of hemolysis of human red blood cells. *Journal of the American Society for Psychical Research*, 84, 1 - 24.
- Braud, W. G. (1992). Human interconnectedness: Research indications. *ReVision: A Journal of Consciousness and Transformation*, 14, 140 - 149.
- Brown, D. E. (1991). *Human universals*. Philadelphia: Temple University Press.
- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Burr, H.S. (1972). *The fields of life*. New York: Ballantine.
- Byrd, R. C. (1988). Positive therapeutic effects of intercessory prayer in a coronary care unit population. *Southern Medical Journal*, 81, 926 - 929.
- Callahan, R. J., & Callahan, J. (1996). *Thought field therapy and trauma: Treatment and theory*. Indian Wells, CA: Thought Field Therapy Training Center.
- Campbell, J. (1972). *Myths to live by*. New York: Bantam.
- Cano, J.L. (1996, July). The secret life of objects. *Ano Cero*, 84 - 88.
- Chamberlain, D. B. (1986). Reliability of birth memories: Evidence from mother and child pairs in hypnosis. *Journal of the American Academy of Medical Hypnoanalysis*, 1(2), 89 - 98.

- Chamberlain, D. B. (1990). *Babies remember birth*. New York: Ballantine.
- Cheek, D. B. (1980). Ideomotor questioning revealing an apparently valid traumatic experience prior to birth: A clinical note. *Australian Journal of Clinical and Experimental Hypnosis*, 8(2), 65-70.
- Child, I. L. (1985). Psychology and anomalous observations: The question of ESP in dreams. *American Psychologist*, 40, 1219-1230.
- Dillbeck, M. C., Cavanaugh, K. L., Glenn, T., Orme-Johnson, D. W., & Mittlefehldt, V. (1987). Consciousness as a field: The Transcendental Meditation and TM-Sidhi program and changes in social indicators. *Journal of Mind and Behavior*, 8(1), 67 - 104.
- Dossey, L. (1993). *Healing words: The power of prayer and the practice of medicine*. San Francisco: HarperCollins.
- Edelman, G.M. (1992). *Bright air, brilliant fire: On the matter of the mind*. New York: Basic Books.
- Eden, D. (in press). *Energy medicine*. New York: Putnam Penguin.
- Edington, A. (1929). *The nature of the physical world*. London: Dent.
- Editorial. (1981). A book for burning? *Nature*, 293, 245 - 246.
- Epstein, S. (1994). Integration of the cognitive and the psychodynamic unconscious. *American Psychologist*, 49, 709-724.
- Ertel, S. (1994). "Testing Sheldrake's claim of morphogenetic fields" (pp. 169 - 192). In Cook, E. W., & Delanoy, D. L. (Eds.). *Research in parapsychology 1991: Abstracts and papers from the 34th Annual Convention of the Parapsychological Association*. Metuchen, NJ: Scarecrow Press.
- Feinstein, D. (1979). Personal mythology as a paradigm for a holistic public psychology. *American Journal of Orthopsychiatry*, 49, 198 - 217.
- Feinstein, D. (1997). Personal myths and psychotherapy: Myth-making in psychological and spiritual development. *American Journal of Orthopsychiatry*, 67, 508-521.
- Feinstein, D. (in press). Archetypes. In A.E. Kazdin (Ed.). *Encyclopedia of Psychology*. New York: Oxford University Press.
- Feinstein, D., & Krippner, S. (1997). *The mythic path*. New York: Tarcher/Putnam.
- Feinstein, D., Krippner, S., & Granger, D. (1988). Myth-making and human development. *Journal of Humanistic Psychology*, 28(3), 23 - 50.
- Feinstein, D., Mortifee, A., & Krippner, K. (in press). Waking to the rhythm of a new myth. *World Futures*.
- Fox, R. (1989). *The search for society*. New Brunswick, NJ: Rutgers University Press.
- Freud, S. (1953). *A general introduction to psychoanalysis* (J. Riviere, Trans.). New York: PermaBooks. (Original work published 1924)
- Friedman, N. (1994). *Bridging science and spirit*. St. Louis: Living Lake Books.
- Gabbard, G. O. (1994). *Psychodynamic psychiatry in clinical practice*. Washington, DC: American Psychiatric Press.
- Gerber, R. (1996). *Vibrational medicine*. Santa Fe, NM: Bear.
- Griffith, R.M., Miyagi, O., & Tago, A. (1958). The universality of typical dreams: Japanese versus Americans. *American Anthropologist*, 60, 1173 - 1178.
- Grof, S. (1985). *Beyond the brain: Birth, death and transcendence in psychotherapy*. Albany: State University of New York Press.
- Grof, S. (1992). *The holotropic mind: The three levels of human consciousness and how they shape our lives*. San Francisco: HarperCollins.
- Grush, R., & Churchland, P. S. (1995). Gaps in Penrose's toiling. *Journal of Consciousness Studies*, 2(1), 10 - 29).
- Hall, C.S., & Norby, V.J. (1972). *The individual and his dreams*. New York: New American Library.
- Hameroff, S. (1994). Quantum coherence in microtubules: A neural basis for emergent consciousness? *Journal of Consciousness Studies*, 1(1), 91-118.
- Hinde, R.A., & Fisher, J. (1951). Further observations on the opening of milk bottles by birds. *British Birds*, 44, 393-396.
- Hunt, V. (1995). *Infinite mind: The science of human vibrations*. Malibu, CA: Malibu Publishing.
- Imber-Black, E., Roberts, J., & Whiting, R. (Eds., 1988). *Rituals in Families and Family Therapy*. New York: W.W. Norton.
- Jahn, R. G., & Dunne, B. J. (1988). *Margins of reality: The role of consciousness in the physical world*. New York: Harcourt Brace.
- Jung, C.G. (1968). Archetypes of the collective unconscious. (*Collected works*, Vol. 9, Part 1; 2nd ed.; R. Hull, Trans.). Princeton: Princeton University Press. (Original work published 1934)

- Jung, C.G. (1969). Synchronicity: An acausal connecting principle. (*Collected works*, Vol. 8; 2nd ed.; R. Hull, Trans.). Princeton: Princeton University Press. (Original work published 1952)
- Kegan, R. (1982). *The evolving self: Problem and process in human development*. Cambridge, MA: Harvard University Press.
- Koestler, A. (1967). *The ghost in the machine*. London: Hutchinson.
- Krippner, S. (1975). *Song of the siren: A parapsychological odyssey*. New York: Harper & Row.
- Kuhn, T.S. (1970). *The structure of scientific revolutions* (2nd ed). Chicago: Chicago University Press.
- Larsen, S. (1976). *The shaman's doorway: Opening the mythic imagination to contemporary consciousness*. New York: Harper & Row.
- Larsen, S. (1990). *The mythic imagination: Your quest for meaning through personal mythology*. New York: Bantam.
- Larson, V.A. (1987). An exploration of psychotherapeutic resonance. *Psychotherapy*, 24, 321-324.
- Laszlo, E. (1995). *The interconnected universe: Conceptual foundations of transdisciplinary unified theory*. London: World Scientific.
- Laughlin, C. D. (1996). Archetypes, neurognosis and the Quantum Sea. *Journal of Scientific Exploration*, 10, 375-400.
- Libet, B. (1994). A testable field theory of mind-brain interaction. *Journal of Consciousness Studies*, 1(1), 119-126.
- Lukoff, D. (1997). The psychologist as mythologist. *Journal of Humanistic Psychology*, 37(3), 34-58.
- May, R. (1989). *The art of counseling* (rev. ed.). New York: Gardner Press. (Original work published 1939)
- McAdams, D. P. (1993). *Stories we live by: Personal myths and the making of the self*. New York: Morrow.
- Moss, T. (1974). *The probability of the impossible: Scientific discoveries and explorations in the psychic world*. Los Angeles: Jeremy P. Tarcher.
- Neher, A. (1996). Jung's theory of archetypes: A critique. *Journal of Humanistic Psychology*, 36(2), 61 - 91.
- Nelson, R. D., Bradish, G. J., Dobyns, Y. H., Dunne, B. J., & Jahn, R. G. (1996). FieldREG anomalies in group situations. *Journal of Scientific Exploration*, 10, 111 - 141.
- Pearce, J. C. (1992). *Evolution's end: Claiming the potential of our intelligence*. San Francisco: HarperCollins.
- Penrose, R. (1994). *Shadows of the mind: A search for the missing science of consciousness*. New York: Oxford University Press.
- Perry, J. W. (1976). *Roots of renewal in myth and madness: The meaning of psychotic episodes*. San Francisco: Jossey-Bass.
- Piaget, J. (1977). *The development of thought: Equilibrium of cognitive structures* (A. Rosin, Trans.). New York: Viking.
- Pribram, K. H. (1971). *Languages of the brain*. Englewood Cliffs: Prentice Hall.
- Radin, D. *The conscious universe: The scientific truth of psychic phenomena*. San Francisco: HarperCollins.
- Russell, P. (1995). *The global brain awakens: Our next evolutionary leap*. Palo Alto, CA: Global Brain, Inc.
- Sarbin, T.R. (Ed.). (1986). *Narrative psychology: The storied nature of human conduct*. New York: Praeger.
- Schuman, E., & Madison, D. (1994). Locally distributed synaptic potentiation in the hippocampus. *Science*, 263, 532-536.
- Schuster, C., & Carpenter, E. (1996). *Social symbolism in ancient and tribal art*. New York: Harry N. Abrams.
- Sheldrake, R. (1981). *A new science of life: The hypothesis of formative causation*. Los Angeles: Jeremy P. Tarcher.
- Sheldrake, R. (1988). *The presence of the past: morphic Resonance and the habits of nature* New York: Random House.
- Sheldrake, R. (1994). *Seven experiments that could change the world*. London: Fourth Estate.
- Sheldrake, R., & Bohm, D. (1982). Morphogenic fields and the implicate order: A conversation between Rupert Sheldrake and David Bohm. *ReVision*, 5(2), 41 - 48.
- Slavin, M. O., & Kriegman, D. (1992). *The adaptive design of the human psyche: Psychoanalysis, evolutionary biology, and the therapeutic process*. New York: Guilford Press.
- Sterling, M.M., & Bugental, J.F.T., (1993). The meld experience in psychotherapy supervision. *The Journal of Humanistic Psychology*, 33(2), 38 - 48.
- Stevens, A. (1982). *Archetypes: A natural history of the self*. New York: William Morrow.
- Stevens, A. (1993). *The two million-year-old self*. College Station, TX: Texas A&M University Press.

- Stokes, D. M. (1995). [Review of the book Research in parapsychology 1991: Abstracts and papers from the 34th Annual Convention of the Parapsychological Association]. *Journal of Parapsychology*, 59, 1995, 163 - 175.]
- Targ, R., & Katra, J. (1998). *Miracles of mind: Exploring nonlocal consciousness and spiritual healing*. (New York: New World Library, 1998).
- Tiller, W. A. (1993). What are subtle energies?" *Journal of Scientific Exploration*, 7, 293-304.
- Tooby, J., & Cosmides, L. (1992). The psychological foundations of culture (pp. 19 - 136). In J. Barkow, L. Cosmides, & J. Tooby (Eds.). *The adapted mind: Evolutionary psychology and the evolution of culture*. New York: Oxford University Press.
- van der Hart, O. (1983). *Rituals in psychotherapy: Transition and continuity*. New York: Irvington
- Treffert, D. (1989). *Extraordinary people: Redefining the "idiot-savant."* New York: Harper & Row.
- Wagner, M. W., & Monnet, M. (1979). Attitudes of college professors toward extra-sensory perception. *Zetetic Scholar*, 5, 7 - 16.
- Weiss, P. (1939). *Principles of development*. New York: Holt.
- Whitmont, E. C. (1994). Form and information. *Noetic Sciences Review*, 31, 11-18.
- Wilber, K. (1995). *Sex, ecology, spirituality*. Boston: Shambhala.
- Wolf, F.A. (1994). *The dreaming universe: A mind-expanding journey into the realm where psyche and physics meet*. New York: Simon & Schuster.
- Zohar, D., & Marshall, I. (1994). *The quantum society: Mind, physics, and a new social vision*. New York: William Morrow.

Reprint requests: David Feinstein, 777 East Main Street, Ashland, OR 97520 (e-mail: df.net@usa.net).