©1995 The Institute of Mind and Behavior, Inc. The Journal of Mind and Behavior Summer 1995, Volume 16, Number 3 Pages 255–280 ISSN 0271-0137

# Postmodernity and Consciousness Studies

Stanley Krippner Saybrook Institute

Michael Winkler University of Denver

Among the scientific disciplines to be impacted by postmodernity will be the study of consciousness, not only in theory but in research and practice. Narratives, key aspects of postmodern approaches, are already replacing abstract generalizations in theoretical formulations about such aspects of consciousness as memory and imagination. Research studies, both quantitative and qualitative, can be looked upon as attempts to tell stories that yield new information. The use of narrative in psychotherapy can be seen as the co-construction of life stories by the therapist and the client. Post-modernity requests that scientists question their own assumptions, and learn from non-Western perspectives, alternative conscious states, and narratives of exceptional human experiences. Twenty propositions are offered for a postmodern project in the study of consciousness that would entail utilizing narratives that are embedded in a time and a place — and the constant evaluation and questioning of the usefulness of these narratives.

We have to abandon the arrogant belief that the world is merely a puzzle to be solved, a machine with instructions for use waiting to be discovered, a body of information to be fed into a computer in the hope that, sooner or later, it will spit out a universal solution.

Vaclav Havel (1992), "The End of the Modern Era"

In recent decades, the study of human consciousness, as well as that of other organisms, has become a popular topic for the general populace as well as for social scientists, behavioral scientists, and neuroscientists. Yet consciousness remains somewhat of an enigma. Psychodynamic conceptions of how human

Requests for reprints should be sent to Stanley Krippner, Saybrook Institute, #300, 450 Pacific Avenue, San Francisco, California 94133.

activity is influenced by unconscious processes persist in psychiatric circles. Most psychological models of consciousness are derived from cognitive science, ranging from computer simulation of intelligence to parallel distributed memory and attentional processing. The neurosciences explain consciousness in terms of brain and central nervous system corollaries, with special attention to the neurotransmitters and their effects.

Each of these perspectives can be thought of as a "story" about what English speaking people call "consciousness" and its components. These "stories" vie for serious consideration, attempting to gain the attention of the powerful institutions that bestow research grants, foundation awards, academic appointments, and book contracts. Applied technologies of consciousness are purchased by consumers eager to reduce their stress levels, improve their sex life, cope with psychological or physical pain, patch up relationships, or obtain job promotions. These therapies, workshops, training sessions, and mechanical devices all reflect explicit or implicit narratives of what Westerners refer to as "consciousness," and illustrate the existence of "many beliefs, multiple realities and an exhilarating but daunting profusion of worldviews to suit every taste" (O'Hara and Anderson, 1991, p. 20).

The pluralism reflected in consciousness studies can also be found in several other aspects of contemporary Western culture (Anderson, 1990; Gergen, 1991). To cite a few examples, one need only look at consumer goods (with their shopping malls, credit cards, and toys that annihilate, transform, or mutate), in religion (with its jazz masses, drive-in churches, televangelists, and cults espousing "absolute truths"), in government (where policy is often announced theatrically, and where there is a conspiracy theory for each calamity), in health (with its genetic engineering, embryo transplants, and cyber-bureaucratic "managed care"), in sex (with its computer dating services and sexual surrogates), in self-help organizations (with their support groups, and their 12-step-programs for every possible type of addict or abuse victim, as well as for the "significant others" of addicts or abuse victims), in arts and entertainment (with televised confessionals, designer drugs, virtual realities, holographic technologies, and occasional Elvis sightings), in information delivery systems (with their superconductors, faxes, and computer viruses), in lifestyles (with a profusion of new family units, serial careers, and self-defined genders), and in architecture (with its playful, eclectic buildings that are replacing the once popular "modern machines for living").1

This potpourri is often referred to as "postmodernity" as opposed to "modernity." The latter term is used to describe the worldview that

<sup>&</sup>lt;sup>1</sup>The 1972 dynamiting of the "unlivable" St. Louis Pruitt–Igoe housing project, only a dozen years old, has been dubbed "the moment of death for modernism" in architecture (Kroker, Kroker, and Cook, 1989, p. 41).

humankind's "progress" depends on the discovery of a single "reality" and a verifiable "truth" through logic, reason, and empiricism. Some writers date the "modern period" in the Western world from 1492 and Columbus' arrival in the Americas. Others claim that the "modern period" was initiated by the 1648 Peace of Westphalia that ended the Thirty Years War and established nations as sovereign states that were able to resist the control of the medieval church. This development marked a shift from sacred to secular authority and control over the citizenry (Kim, 1984). Following the disorder of that war, a quest for certainty emerged that was bolstered by Descartes' use of mathematically structured thought as a foundation for knowledge, a methodology inspired in 1619 by a series of dreams that called for the unification of all natural principles through reason (Davis and Hersh, 1986). Modern science, strongly influenced by Descartes, moved from the oral to the written, from the particular to the universal, from the local to the general, and from the timely to the timeless (Toulmin, 1990). Spiritual matters were left to the churches, representing the Cartesian division of "mind" and "matter."

Modernity went on to produce industrialization, capitalism, socialism, supply-and-demand, central planning, the market system, and other (often contradictory) economic appurtenances of the nation-state. Religion became marginalized in most modern nation-states and its authority was relegated to spiritual issues. Kant firmly secured the course of modernism with his 1784 injunction, "Dare to be wise," which encouraged his readers to become independent from the church and other authorities. Anderson (1990) suggests that Kant may also have provided a preamble for postmodern thought when he suggested the importance of the human mind in evoking reality because it is an active organ that orders and forms the raw data of experience. People do not experience things in themselves, according to Kant, but only representations of them; the actual events take place in an unknowable external world (p. 60). The close links between modernity and postmodernity persuade some (e.g., Smith, 1994) to prefer the term "late modern" to "postmodern." Modern science holds that what is available to perception "out there" is an orderly and systematic universe, potentially the same for everyone. According to the modernity credo, this decontextualized "truth" can be accurately described in objective, cause and effect statements about a structured "reality" that can be measured, predicted, and controlled. According to modernists, humans are on the verge of understanding and mastering the fundamental "laws" of the universe and, with such information and techniques, a just, peaceful, harmonious social order can be obtained. In studying consciousness, it is assumed that such processes as attention, perception, and memory are most likely to reveal themselves "when lured by meaning-free or unfamiliar or novel stimulus items into a context-free environment" such as experimental laboratories (Shweder, 1990, p. 7).

In contrast, postmodernists suspect that what scientists learn from nature depends on their way of representing nature. Humankind's understanding of nature is grasped through its interactions with bodily experience, language, symbol, and metaphor. The postmodern approach to science appreciates the relational nature of this understanding, and that these interactions involve paradox, irony, and narrative. Hence, the postmodern practitioner shifts from being a detached, theory-testing investigator and onlooker to being an involved, interested, interpretive, procedure-testing, critical participant who takes an active role in both finding and making information. The postmodern investigator realizes that human phenomena are changed when they are studied, especially if research participants are given feedback about the investigation. Postmodern scientists understand that science is not value free but both produces and reflects implicit or explicit values, especially when its findings become the basis for applied technology (e.g., atomic bombs, space satellites, electronic media).

If modern science has a publicly-stated value it is its quest for "certainty," a goal that postmodernists regard as futile because of their conviction that knowledge tends to be local rather than universal (Polkinghorne, 1983). Accordingly, the most important human activities can barely be measured, much less predicted and controlled. Therefore, the first proposition we would make regarding our project for consciousness studies is that the postmodern scientist strives to identify, describe, and understand human activities as deeply and as thoroughly as possible.<sup>2</sup> This goal of course, is shared by many of our collegues who are not sympathetic to postmodern perspectives.

Anderson (1990) remarks that "all of postmodernism, in fact, can be summarized as looking at beliefs — including one's own" (p. 256), and Gergen (1994) adds that postmodernism's basic credo is that there can never be a fixed, intrinsic relationship between words and the world they try to represent (p. 412). For postmodernists, "truth" and "beliefs" are matters of perspective, and perspectives are a byproduct of social interchange or "discourse." One's language about the world not only reflects but constructs that world, sometime more the latter than the former. The world is not simply something "out there" but is interactive with what is "in here"; there is a constant dialogue between the "observer" and the "observed." Modernity tries to hold a mirror to nature, not realizing that language rests midway between them. Postmodernity, to the contrary, asks the scientist to take advantage of the unique position of language, engaging in a conversation that will yield new insights and novel interpretations (Anderson, 1990; Newbrough, 1992).

<sup>&</sup>lt;sup>2</sup>This proposition and the others made in this essay reflect our own project and there is no attempt to generalize or to proselytize; it is our hope that other writers influenced by post-modern thought will create their own projects and proposals.

Consciousness studies are an integral part of this discourse because its researchers frequently try to step out of their milieu in order to reflect upon consciousness in action. But this attempt is never completely successful; investigators might do better to search for local, situated phenomena rather than for grand explanatory paradigms. The second proposition we would make to orient our project is that a postmodern approach to consciousness studies, with its emphasis on local narratives, can bring a vigor to the field that may yield results in the understanding of cultural differences, the reformulation of mind/body interactions, the development of new research strategies, and the enhancement of psychotherapeutic discourse.

Postmodernists believe that the lives that human beings lead largely revolve around discourse. As people realize that social utopias are unlikely attainments of scientific investigation, their investigations may begin to focus on specific community projects. For postmodernists, local interactions are the point of departure; community contexts replace global ideologies and can be conceptualized as localized expressions of the individual's relationship to the collective (Newbrough, 1992, p. 12). Sampson (1983) questions Western psychology's assumption that the individual person should be its focus of inquiry, pointing out that individuality is a sociocultural product, mediated by the underlying principles and structures of a particular social system (p. 136). The very notion of an "individual person" varies from culture to culture; some societies impose a standard identity and rebuke any of its members who display spontaneous and idiosyncratic behavior (Geertz, 1979).

In addition, postmodernity emphasizes the telling of personal, family, and group stories (Rabinow, 1984), i.e., the ways in which people explain how their world got to be the way it is and what is likely to happen (Anderson, 1990, p. 243). At the same time, boundaries between cognitive and affective functioning would dissolve rigid disciplinary demarcations (Rosenau, 1992, p. 6). Foucault (1980) was fond of comparing modern science's rigid division between the observer and the observed to prisons which enforced a radical separation between the warden observers and their observed inmates; for Foucault, scientific "disciplines" are far too "disciplinary" in objectifying the lawbreakers, the mentally ill, the poor, the alien, and the laboratory subjects.

A hallmark of postmodernity is "deconstruction" which began as a method of literary criticism that reduces the language of a text to a multiplicity of possible meanings rather than to any single meaning such as that supposedly intended by the author (Derrida, 1974; Sampson, 1983). Deconstruction takes apart a "text" (i.e., a story, a phenomenon, an event, or a concept), revealing its contradictions, disclosing its assumptions, and undoing its constructions. It might be said that Natsoulas (1978, 1983) began to deconstruct the term "consciousness" by citing a variety of definitions appearing in the Oxford English Dictionary, e.g., "consciousness" as the normal waking state; con-

sciousness as internal or shared knowledge; consciousness as direct awareness; consciousness as "the totality of impressions, thoughts and feelings . . . insofar as one is directly aware of them or remembers them" (1978, p. 912). Of course, to completely deconstruct the term, each further description would have to be deconstructed, e.g., "knowledge," "awareness," "thoughts," "feelings," and the historical and etymological origins of the term would need to be described. For example, the English word "consciousness" derives from the Latin conscire, to know with, or to be cognizant of something. Lastly, the postmodernist would "muse" about the contradictions in the established definitions, "reveal" their circularity, and "disclose their tensions," allowing the "text" of consciousness terminology to "deconstruct itself," hence questioning whether the term "consciousness" clarifies discourse or confuses.

Some postmodernists would even challenge Natsoulas' (1978) assumption that there are events to which the language of individual consciousness can be affixed. This notion describes an entity (i.e., the individual person) who is "aware," who "thinks," who "feels," who "judges," and who "acts" to shape events. These postmodernists propose, to the contrary, that there is an essential interpenetration of the individual and society; indeed, society occupies the hub of whatever passes for personhood — a concept that cannot be understood independently of the historical and social conditions that shaped and defined it (Sampson, 1983, pp. 141–142). Therefore, the third proposition we would proffer is that consciousness studies investigate experiences that exist simultaneously as fictional discourses and as empirical events — and it is never quite possible to decide which of these alternative descriptions is more accurate.

The variations of usage of the term "consciousness" in the dictionary are augmented by the differences in the psychological literature. Freud's model separated the "conscious mind" from the "preconscious" and "unconscious." Carl Jung wrote of the "collective unconscious," and Roberto Assogioli added the "superconscious." Farthing (1992) separates the "nonconscious" from "focal awareness" (p. 12), and Nelkin (1993) claims that there are three basic features of the term "consciousness" as it is commonly used: "phenomenality," "intentionality," and "introspectibility." Tart (1975) presents a "systems" model of consciousness with several "subsystems"; for him so-called "baseline" or "ordinary" states of consciousness differ from "altered," "alternative," or "non-ordinary" states. Behaviorism avoided the problem by dropping the term "consciousness," and many cognitive psychologists prefer to use such terms as "imagination" and "cognition." In the meantime, Marxists call the prevailing social order and the worldview that supports it "false consciousness," considering them both tools of capitalist exploitation.

"Consciousness-raising" groups proliferated in the 1960s and 1970s to challenge the predominant Western mores that were said to "oppress" women.

ethnic and sexual minorities, and other "alienated" groups. During the same period of time, "consciousness-expanding" drugs, music, and lifestyles introduced what Roszak (1969) called a "counter culture" and what Anderson (1990) describes as novel ideas about such matters as consciousness and sanity and objective truth, making that period "the true beginning of the postmodern era" (p. 44). Rosenau (1992) includes French and German philosophical movements among the precursors of postmodernity, e.g., critical theory, existentialism, hermeneutics, and phenomenology.

From a postmodern perspective, not only is the term "consciousness" socially constructed, but "conscious experience" is constructed differently in various times and places. "Self-consciousness" in turn is not a straightforward experience but is always mediated by social and historical forces as well as a culture's language and symbol systems. Our fourth proposition, therefore, is that investigators realize that people in each culture construct conscious experience in terms of the categories provided by their own linguistic system, coming to terms with a "reality" that has been filtered through their language. Each culture has a specialized terminology in those aspects of consciousness important for its functioning and survival. From the position of cultural psychology, the processes of consciousness are not uniform across cultures (Shweder, 1990). Goleman (1993) points out that Western culture describes altered experience primarily in psychopathological terms while traditional Eastern cultures have equally intricate vocabularies for describing altered states of consciousness and spiritual experiences.

Western psychology equates reality with the world as perceived in the ordinary waking state, denying credibility to realities perceived in other types of awareness. Eastern perspectives, on the other hand, dismiss the physical world as an illusion and see reality as something that cannot be grasped in ordinary waking awareness. And, commenting on the Mexican Huichol tribe, Tompkins (1990) claims that, "by our standards, all of Huichol life is a kind of well-organized hallucination, for the cosmos they believe and live in bears very little resemblance to the one that Western civilization wakes up to every morning" (p. 38).

Tompkins (1990) points out that Freud's image of the conscious ego as the external boundary of an invisible matrix fed and informed by volatile psychic "energies" resembles the shamanic energetic model of the human body embedded in a community and environmental matrix. However, from the shaman's perspective these "unconscious energies" were not blind but keenly intelligent, originating in the earth itself rather than in the neurons of the brain. The Eastern equivalent of the Western "unconscious" is described by Radha (1994) as the process of "not being fully aware of one's true nature" (p. 4). Indeed, Hindu and Buddhist texts are replete with discussions of consciousness and how to regulate it.

The Tibetan Buddhist tradition contains thousands of volumes on conscious states, most of them pertaining to meditative practices and experiences. The phenomenologies of these experiences are described in sophisticated terms that beginning yogis are required to learn (Brown, 1977, p. 237). By learning these terms, the adepts canalize their subjective reactions into socially approved directions. The technical terminology is precise, and is comparable with Western psychological constructs. But there is a longitudinal emphasis, virtually absent from Western psychology, that illustrates those variables which change as meditators gain more experience. Also differing from Western concepts are such attentional factors as "directing the mind," "holding the mind," and "stopping the mind." One type of Buddhist meditation has five levels that can be obtained, and each of these levels has three subjectively distinct sublevels, reflecting a construction of consciousness more subtle than anything found in Western traditions (Brown, 1977).

In dreams and in waking visions, the Maya asked their deities to appear before them, thus remaining faithful to the shamanic tradition of visionary ecstasy that had bequeathed this vivid universe — a universe so intense it could easily overwhelm them with information and emotion. Living in such a world has been described as "living perennially in the first stages of waking consciousness that return after a particularly vivid dream, when for a moment 'dream' and 'reality' are confused" (Tompkins, 1990, p. 21).

Borrowing heavily from the Maya, the Aztec model of consciousness focused on a person's mental attitude at the instant of death, and the liberation that followed. The fact that the Aztecs and their prisoners were willing to die to achieve the status of a liberated spirit testifies to the urgency with which they sought an authentic experience of the soul's autonomy and power (Tompkins, 1990, p. 76). Australian aborigines, through entering into the primordial "dreamtime" achieved a similar "liberation" but through locating natural "power spots" rather than by courting death. Pai Ely, a Candomble "father of the saints" in Recife, Brazil, has developed a model of consciousness drawn from both African and Brazilian native traditions. In this model, each of ten bodily "energy centers" controls an aspect of consciousness, and embodies a particular deity (Krippner, 1994).

As time went on, modern science paid increasing attention to the brain and central nervous system, but much less attention to mind and consciousness. Addressing this neglect, Sperry (1981) asserts that contemporary concepts of the "mind" involve a "direct break with the long-established materialist and behaviorist doctrine that has dominated neuroscience for many decades . . . . The new interpretation gives full recognition to the primacy of inner conscious awareness as a causal reality (p. 116). Going even further, Harman (1988) posits that consciousness may be the original basis of the universe's matter, not the end-product of material evolution (p. 124).

Sperry (1987) speaks from the standpoint of a cognitive neuroscientist while Harman represents a more transpersonal view.

### Theoretical Discourses

The modern paradigm grants human beings permission to control and even to exploit nature. On the other hand, postmodernists see nature as a participant in the construction of postmodern identity. In a penetrating analysis, Sampson (1983) observes that the modern worldview sees the differences between human beings and other organisms including the environment as nonreciprocal and hierarchical. As a result "there has evolved a domination of group over group, individual over individual, [and] humanity over humanity's environment, including both the natural ecology and its varieties of cultural representatives" (p. 162). Bateson (1972) used the term "ecosystem" to describe the organism and its environment, adding that any organism that destroys its environment inevitably destroys itself.

This call for an "ecological consciousness" implies an ethic in which the sovereignty of the human being is transcended in favor of a confluence of both humanity and the rest of nature, a confluence of both internal and external reality (Michael, 1992, pp. 82–83). The narratives resulting from this shift take account of "the spirit of place," are environmentally grounded, and are played out by map-making, ecological activism, and out of door activities. Thus, our fifth proposition is that consciousness researchers can profitably study nature and other species, as well as the role of ecological awareness in personal and social development.

Just as the modern image of a "coherent self" apart from nature has been challenged by ecological psychologists, this image met an earlier challenge by depth psychology and its exploration of unconscious motives. Freud's free association method, Jung's notion of unconscious archetypes, and Adler's concept of "complexes" implied that logic and reason are not the primary determinants of human behavior that rationalism had assumed, hardly the predominant operating modalities in human behavior. But the "coherent self" had been deconstructed earlier in Ibsen's play *Peer Gynt* and Jarry's play *Ubu Roi*. Young (1992) has demonstrated how Peer's lack of commitments and loyalties is illustrated when he peels off the layers of an onion, identifying each with a social role he has played, finding nothing but an empty core. Peer's self is not reconstructed until he returns to Solveig and opts for deeply rooted relationships with others. May (1985) appreciates the psychological significance of this play, noting that it addresses the issue of self identity, "surely the deepest puzzle of human beings in whatever country" (p. 231).

In 1896, Peer Gynt was performed in Paris; Jarry, one of the actors playing a troll in this production, soon wrote, produced, and performed in Ubu Roi, a

scatological attack on rational worldviews which "was the primal scream of the birth of surrealism and absurdity in the arts of the twentieth century" (Young, 1992, p. 143). Another precursor to the postmodern sensibility was Pirandello's play, Six Characters in Search of an Author, which may be taken as an allegory of modern European society as its individuals wander about in search of meaning (Anderson, 1990, p. 35). Yeats' poem, "The Second Coming," was prescient in describing a center that "cannot hold" and Priestly's plays (e.g., Dangerous Crossing; The Inspector Calls) twisted and shifted time sequences, with their attendant effects on his characters' lives and realities.

Taking its cue from postmodern drama's ability to puncture modernist assumptions about "truth" and "reality," our sixth proposition points out that the concept of "truth" needs to remain arbitrary because all knowledge is language-bound; hence this concept needs to be reconceptualized as personal, local, and community specific. This is an especially critical issue for consciousness studies which attempt through language to describe processes that are marked by complexity and multiplicity. This is particularly apparent when one considers that neither Western materialism nor dualism has produced a consensual solution to the "mind/body problem." Griffin (1988) writes, "conscious experience is not a property of things as they appear to us from without; it is what we are in and for ourselves" (p. 19). He adds that if modernity's premise that the elementary units of nature are insentient is accepted, dualism and materialism are the only options. According to Griffin, mechanistic, reductionistic approaches have been spectacularly successful in certain areas and unsuccessful in others — less successful with rats than with bacteria, less successful with humans than with rats. Griffin does not ask that postmodern science abandon the use of demonstrations open to experiential replication, but recommends that these replications need not be done in a laboratory (pp. 26–27).

What form would postmodern approaches to the mind/body problem take? One possible direction has been described by Levin and Solomon (1990) who have drawn upon advances in psychoneuroimmunology to propose a convergence between the scientific body of medical observations and the phenomenological body of experienced meaning. For Levin and Solomon, mind and body "are really one" (p. 528), and the body is more than a biological organism or a physical substance. In Foucault's (1976) words, it is a "discursive formation," a system of extraordinarily subtle functions and processes. The individual body is also a social body, hence is vulnerable to social, cultural, and historical influences that interact in a communicative field and which are processed by the body as meanings. This view of the body does not limit consciousness to the brain and central nervous system; memories also can be found in the immune system and the endocrine system, both of which

appear to learn "sensitization" as well as "tolerance" from experience. Preventive medicine can capitalize on the body's felt meanings, as well as its ability to defend and heal itself, and to interact with its social and cultural environment. Levin and Solomon contend that this discourse is capable of dissolving the dualisms of mind and body, of body and environment, and of individual and society (p. 533).

A second proposal has been elucidated by Kirsch and Hyland (1987) who describe the relationships between two mental events as "functionally equivalent" to the causal relationships between the corresponding physiological events. For Kirsch and Hyland, there is a "physiological counterpart to any instance of a mental event," and "the relation between a mental event and its physiological substrate is better described as an identity relation than as a relation of cause and effect"; thus "for any causal sequence of mental events, there must be a corresponding sequence of physical events" (pp. 421–422). Examples would be brain states that correspond to "expected arousal" (in the case of a placebo), to "feeling inadequate" (in the case of a psychosomatic illness), and to "perceived danger" (in the case of the presence of a wild animal).

Another direction that postmodern consciousness theory could take is exemplified by the work of Laughlin (1992), who proposes that the principle operating in the consciousness of most people moves toward an "effort after meaning" rather than an "effort after truth." For Laughlin, the brain constantly imposes order on its experiences to enable people to lead purposive lives and pursue meaningful experiences. Ascertaining the "truth" of a belief is less important than the realization that the belief makes sense in relation to one's overall worldview. Laughlin's work focuses on the premise that consciousness and neurophysiology are two stories told about the same reality. This "two hands clapping" approach suggests that "for every event in consciousness there is a corresponding and causally interrelated physiological event" (p. 10). Sensory processes (i.e., "the one hand") and cognitive-intentional processes (i.e., "the other hand") rise to meet in the construction of the world in each moment of consciousness. The resulting "conscious network" is a continuously changing field of intentional neural entrainments that may include any particular neural network one moment and disentangle it the next.

According to Laughlin, these networks comprise the cognized environment and have their developmental origins in structures that are present before, at, or just after birth, the organization of which is largely determined genetically (p. 11). As a result, these bodily structures are "indelibly, but flexibly, engraved upon every moment of consciousness" (p. 15). Laughlin contends that if this position is supported by research data, it would encourage scientists to be less rigid in their claims, to observe anomalies which

they have missed because of their inflexibility, and to acknowledge that their vaunted theories become "truths" only if socially favored and culturally approved.

One supportive research study from the field of psychoneuroimmunology was conducted by Achterberg and Lawlis (1979) whose Imagery of Disease Test has provided dramatic evidence in regard to mind/body interactions. This test asks patients to draw images of their disease, their immune system. and their current treatment. The images are given scores from one to five on 14 dimensions, e.g., activity level, symbolism, vividness, frequency of positive images. The total score on the Imagery of Disease Test was found to predict the degree of speech clarity among patients with laryngectomies as well as rehabilitation qualities in mastectomy patients. This score predicted the status of cancer with 93% accuracy for those in total remission from cancer, and 100% accuracy for those who had died or who had rapid deterioration at a 2month follow-up. Patients who experienced new tumor growth often drew their cancer cells as large, hard, impregnable objects (submarines, crabs, lobsters, scorpions, etc.); on the other hand, snails and slugs were related to a better prognosis. Negative symbols for the immune system's white blood cells (lymphocytes) were snowflakes, clouds, and similar weak and amorphous objects. Positive symbols for white blood cells were white knights, Vikings, and religious figures. These findings may be examples of what are often called "messenger molecules" that mesh the "mind" and the "body," modulating learning, memory, and emotional behavior.

Our seventh proposition follows from Levin and Solomon's, Kirsch and Hyland's, and Laughlin's discussions; we propose that the nervous system, the immune system, and the endocrine system (among others) actively construct meaning that continually impact conscious experience. The speculations of these authors, and such other researchers as Globus (1987) and Hameroff (1994), may be helpful in overturning the Cartesian "mind/body problem," a goal that is not incompatible with that of many consciousness theorists of a modernist persuasion.

Postmodernists also have presented many reasons why theoreticians of consciousness cannot glibly use such terms as "truth," "reality," and "self" without being challenged with such questions as "whose truth?" "what reality?" "which self?" in "what time?" and in "what place?" Our eighth proposition is that postmodernists can bring increased attention to the way philosophers and theoreticians of consciousness use language. Many terms will be deconstructed so completely that they will be found to be virtually useless in reasoned discourse; other terms will remain, but their usage will be marked by increased modesty and clarity, as well as by humor and irony.

### Research Discourses

Tart (1975) has called for the development of a "state-specific science" that is based on the perceptions, logics, and communications obtained when investigators are in altered states. To a degree, some state-specific disciplined inquiries already exist in the form of various shamanic procedures, yogic practices, and meditative disciplines which foster the premise that "specific states" of consciousness will access alternate "realities." Tart's proposal is one of the most ambitious of the envisioned additions to research methodology, and it may demonstrate that the postmodern concept of "other realities" is a viable one. Moreover, this multiplicity of "states" and "realities" and the activities that would occur in them undermines modernism's promise of universal laws of behavior.

The conjecture that there are multiple "realities" is mirrored by the copious "human science" research methods that have emerged, each with its champions, e.g., phenomenology, hermeneutics, participant/observation, psychohistory, systems inquiry. It could be said that modern science has attempted to produce formulae and maps, while postmodern science's focus is narratives and descriptions.

Within the past decade a new form of systems inquiry has emerged which is beginning to demonstrate utility in describing and understanding processes that undergo continuous change, growth, and evolution of a chaotic nature, such as weather patterns, ecological systems, and a whole array of phenomena that operate in a nonlinear fashion. In accordance with postmodern thought, chaotic systems analysis questions the modernists' position that nature can be predicted and controlled. According to Prigogine and Stengers (1984) much of the knowledge produced by modern science has resulted in models, theories, and constructs that have become insipid and pragmatically infertile. Chaotic systems inquiry offers a fresh approach that is process oriented.

Chaotic systems analysis may become an important method of inquiry in both the biological and behavioral sciences (e.g., Abraham, Abraham, and Shaw, 1990; Barton, 1994; Crutchfield, Doyne, Packard, and Shaw, 1986; Loye and Eisler, 1987). Chaos methodology shifts emphasis from relationships of cause and effect to more interactive, multivariant approaches that stress the importance of defining patterns, form, self-organization, and adaptive qualities of complex processes (Harth, 1983). Globus (1995) describes the brain as "fractal-like" with recursive levels, each of which uses "edge of chaos" non-linear dynamic functioning processing with ongoing tuning and detuning.

There exists a rampant debate among postmodernists about the usefulness of any scientific method employing mathematics because it, like other abstractions, distances one from lived phenomenological experience.

However we contend that chaotic systems analysis provides a rich and elegant way of describing various psychological processes, e.g., EEG brain wave patterns (Basar, 1990), memory (Freeman, 1991), and dynamic fluctuations in sleep (Roschke and Aldenhoff, 1992). Our ninth proposition is that if we are to entertain the notion that any disciplined scientific inquiry is yet another narrative that can provide useful information for our understanding of the world, chaotic systems analysis is one of several avenues that can provide new and valuable ways of conceptualizing and studying consciousness.

Most experimental methods and their attendant statistical tests are based on linear assumptions. If the nonlinear mathematics of chaos systems analysis has proven useful for the understanding of complex phenomena in other physical, biological, and social sciences, it is probable that they will provide valuable ways of understanding psychological phenomena that can be viewed in the context of a narrative. Some conjecture concerning chaotic systems analysis asserts that its methodology of data analysis is flawed, and that the derived topological representations (e.g., attractor reconstructions, fractal dimension estimates) do not represent "true" chaos but mathematical artifacts that are not indicative of the system under scrutiny. A subtext to this criticism is the extensive background in mathematics needed to collect the appropriate data and to use chaos inquiry to study it. At this point, the opposition takes on economic and political dimensions, becoming immersed in struggles involving power and territory.

Indeed, our tenth proposition is that from a postmodern perspective, all research methods can be viewed as inherently political, intertwined with issues of power and legitimacy. Widely used research methods are permeated with a powerful group's assumptions about the researcher, what is to be researched, and the relationship between them. Even purportedly "objective" methods are politically charged "because they define, control, evaluate, manipulate and report" (Gouldner, 1990, p. 50). Modern science often legitimizes the preferences of normative, powerful agencies, being used post hoc to support political policies. Heretofore, some postmodernists (e.g., Harré, 1991) advocate abandoning experimental research completely because it is a leftover from discredited positivism. However, such human science methods as oral histories and case studies are gaining new respect among postmodernists although it is deemed essential to identify the setting and context in which the story was told, the relationship between the interviewer and the research participant, the motives of the interviewer, and the belief systems of them both.

Contrary to the claims made by many postmodernists that modern science should be abandoned altogether, if properly reconstructed and contextualized, science too has the ability to provide us with powerful and useful tools containing valuable metaphors for understanding events which we would otherwise have difficulty explaining. It is rather misleading to entertain the notion that modern science is but a simple parable that has little relationship with the outside world. To the contrary, the knowledge derived from modern science has given us approximations of truth. Although these approximations may be imperfect in some ways, they are at least useful approximations. If we are to change the direction of our scientific institutions and how they go about obtaining knowledge and constructing truths, then we must bridge the gap between the modern and the postmodern. Within this framework, theories, laws, and truths can be viewed as metaphors which do not comprise a set body of knowledge but a developing body of ideas that progress and evolve due to the discourse of both researcher and participant. Through this reconstruction, the methodology of the human sciences takes on a socially involved, interactive narration.

Instead of denigrating experimental methods and other rigorous forms of inquiry, we would suggest as our eleventh proposition that the scientific experiment can be reconceptualized as a narrative describing an event that occurred in a specific time and place. We do not take issue with these methods for the investigation of certain human problems, but we do propose that these stories be contextualized if they are to be useful. The Hawthorne effect and interpersonal expectancy effects demonstrate the role that ordering has on experimental results.<sup>3</sup> We share the sentiments of Anderson (1990) who writes, "Testing, experimentation, replication, methodology, and all the apparatus of modern science are just as important in the postmodern world as they ever were. Science is judged, possible explanations compete. Proposed theories are tested for their ability to 'fit' with other theories, with intuitive feelings about reality — and also for their ability to fit with any kind of data that can be generated by observation and measurement" (p. 77). Yet something is different in postmodernity — an increasing recognition that the foundation of scientific truth is ultimately a social foundation that rests on a network composed of theories, opinions, ideas, words, and cultural traditions.

Postmodernists are suspicious of "metanarratives"; Lyotard (1984) points out that these systems of thought "typically suppress differences in order to legitimate their own vision of reality." However, specific narratives are used as "texts" in phenomenological and hermeneutic studies. Postmodern psychologists recognize that personal accounts, including those that describe exceptional human experiences, are to at least some extent, culturally constructed and are loaded with accounts of local significance. The researcher can look for common themes in these narratives both within a culture and

<sup>&</sup>lt;sup>3</sup>A new procedure seems to be associated with more dramatic changes than does that same procedure repeatedly employed with the same group; the expectations of the researcher apparently are perceived in subtle ways by the research participants who may then perform in ways confirming that expectancy.

cross-culturally, often obtaining what Hufford (1982) has termed "core beliefs" (e.g., "humans have souls that leave the body," "there are threatening and frightening spirits") and the "core experiences" associated with them (e.g., "out-of-body" travel, "demonic possession"). McClenon (in press) has described how "wondrous events" (e.g., shared visions) derive, in part, from these core experiences and form local folk traditions. Rather than dismissing these events as irrational superstitions, they can be considered as stories that reflect lived experience, and as reminders of the relational nature of language. Modern psychology infers that it speaks with a "superior voice" (Gergen, 1994, p. 413) but does not realize that this stance can invalidate the experiences of those it labels deviant. Thus, our twelfth proposition is that postmodernists could continue to bring folklorists and their research methods into the field of consciousness studies, as well as similar groups and approaches, e.g., social construction, discourse analysis, cultural psychology, feminist psychology.

Some postmodernists dismiss the distinction between mental states and the outside world as illusory (Rosenau, 1992, p. 110). Gergen (1991) asks, "Can one identify an 'inner state' not already prefigured in the public language? Can an American look inward and identify an emotion for which there is no English word?" (p. 105). Moreover, the seminal work of Whorf (1956) provides a perspective that language is a structure of reality in itself which varies across cultures and provides distinct constructions of time/space and causality. Gergen laments that "for many people film experiences provide the most emotionally wrenching experiences of the average week" (p. 57), pointing out the role of the media in constructing emotional and mental events.

Our thirteenth proposition makes further comparisons between art and consciousness research: Just as art uses one or more types of media to portray as vividly as possible lived activity and experience, consciousness researchers need to use one or more investigative methods to identify, understand, and describe as accurately as possible lived activity and experience. Postmodernists also resemble artists in their use of narrative, their interest in symbol and metaphor, their attempt to incorporate intuition and feeling in their research, their efforts to close the gap between the person and the phenomenal world, and their appreciation that the persons who serve as research participants have identities that are embedded in a social-cultural context. Just as the text of postmodern writers and artists are not, in principle, governed by preestablished rules (Lyotard, 1984, p. 81), postmodern psychologists should take care that they do not force metanarratives on their research participants' texts. Many psychologists have advocated paying a greater attention to context over the years and their suggestions paved the way for the emphasis on embeddedness found in postmodernism.

Postmodernity could contribute in several ways to creativity research. Creativity can be seen as the result of cultural and historical processes —

and as a judgment that is made by observers (such as critics) that may change from one era to the next. Some postmodernists have deconstructed the terms "artists" and "authors"; others hold that these terms can be of value, but only if mutual dialogues establish what is meant by these terms. The word "discovery" is accurate only if it includes a consideration of the cultural preparation and technical development that served as the milieu for the person or persons associated with a novel activity (Schaffer, 1994, p. 32). There are few research studies on group creativity, the cultural context of creativity, and the longevity of creativity judgments. Shweder (1990) reminds us that "nothing in particular exists independent of our involvement with it and interpretation of it" (p. 6). Speaking from the standpoint of cultural psychology, he has called for new ways of seeking knowledge that are more appropriate to the topic being investigated. As regards creativity and talent, Shweder suggests that a focus on gifted performers' "domain-specific knowledge" and "dedicated mastery" of a subject or process will yield a greater understanding than a study of their content-free logical or psychological power (p. 23).

Postmodern approaches also are well-suited to dream research. Our four-teenth proposition is that just as creativity is often totally engrossing to the creator, dream reports enrapture the dreamer; creative production and dream reports can both be utilized as "texts" requiring reasoned discourse for their understanding. For Freud and other modernists, the dream's "meaning" precedes the dream; the dream is the carrier of that meaning. For the postmodernist, the dream is a discourse that expresses a consciousness that differs from waking life, and research could be initiated to discover how meaning is constructed from the dream text (Globus, 1995). Furthermore, the dream can introduce researchers to the way "selves" are deconstructed over time. For example, Miller (1991) has taken a postmodern approach to the dream diary of a third century Christian prisoner whose dreams revealed a questioning of the established patriarchal order and the shattering and reconstruction of her own identity.

In dream research, the dreamer can be thought of as a co-investigator of his or her dream, the text that is being investigated, a paradox in which the dreamer is constantly changing sites (Kugler, 1993). The very production of dreams is unpredictable and, with the exception of disciplined "lucid" dreamers, quite uncontrollable. Hunt (1986) surmises that because dreams have no fixed psychological function, they are open to many different uses, some of them foreign to the modern scientific paradigm. Modernity's fear of the unpredictable and the uncontrollable is probably responsible, in part, for the relative neglect, over the years, of reported "precognitive" dreams. This fear also may have been a major motivating force behind the repression in Western culture of means for inducing altered states (e.g., psychedelic drugs) and the general suspicion of spiritual disciplines involving changes in con-

sciousness (e.g., prayer, meditation). Many native cultures are far more knowledgeable in these intricacies of consciousness, even to the point of training children and adolescents how to enter altered states (Goleman, 1993, p. 19).

Modern psychology typically ignores what postmodernists refer to as "the other," including women and minority groups, members of other cultures (Taussig, 1987), the natural environment (Roszak, 1992), and what White (1991) refers to as "exceptional human experiences." These experiences of "other" genders (e.g., cross-dressing), lifestyles (e.g., gay and lesbian behavior), cultures (e.g., Native American ceremonies), and "realities" (e.g., "leaving the body," recalling a "past life," seeing a "nature spirit") have been dismissed, ignored, ridiculed, and pathologized by modern psychologists. Hence, our fifteenth proposition is that narratives of exceptional human experiences demand attention and respect if the totality of human activity is to be appreciated.

Cassirer (1954) makes the point that names are not designed to refer to substantial things or to independent entities which exist by themselves. They are determined rather by human interests and human purposes, but neither of these are fixed and invariable. Foucault (1980) adds that language rests between nature and its attempted description, and that science needs to shift from paradigm to discourse if its descriptions hope to serve useful purposes. With these injunctions in mind, one recalls the claim that exceptional human experience cannot be verbally communicated. This assertion has not been welcomed by modern psychology, but from a postmodern viewpoint it is reasonable, considering that language is conceptual and can be applied to nonconceptual experience only with great difficulty. Further, information acquired in one state of consciousness may be neither recallable nor comprehensible in another state.

From the standpoint of modernity, an individual observes and reflects on the world, transforming this consciousness experience into words that will express these perceptions and thoughts to others. For the postmodernist, language is a system unto itself, a social format that is shaped by a community of participants (Gergen, 1991, p. 110). However, the cultural agencies with power and authority not only influence how conscious events will be communicated but how they will be experienced. Our sixteenth proposition is that modesty is required when researchers depend upon language to convey the experience of a life-changing vision, a dream that came true, an interpersonal adventure, an encounter in nature, a personal loss, a terminal illness, or any other exceptional human experience that is worth studying, albeit with tools that are not completely adequate.

The value-neutral claim of modernist, positivist psychological research is considered untenable by postmodernists. Gergen (1994) asserts that the consideration of values has all but disappeared from serious debate because of

modernity's "romance with objective, value neutral knowledge" (p. 413). Lather (1992) observes that the claim to value neutrality is an attempt to "obscure and occlude its own particularity and interest" (p. 90). Far from being value neutral, modern psychology has been known to oppress those among its ranks who disagree with its precepts.

In summary, postmodernists' potential contributions to consciousness research can take several directions. Some postmodernists see value in the insights offered by contemplative disciplines regarding people's constructions of realities. Other postmodernists have proposed additional procedures (action research, participant/observation, chaotic systems analysis, the collection of narratives, etc.) that would yield valuable data. Some postmodernists would abandon experimental and quantitative methods, but we would reconceptualize them as attempts to produce life narratives that are contextualized and localized. We agree with Gergen (1994) that "there is nothing about postmodern thought that argues against continuing research" (p. 414). The topics to be studied vary, but postmodernists have stressed the importance of including in disciplined inquiry the investigation of the politics of science itself, which legitimates some human experiences while denying, belittling, or pathologizing others; and postmodernists object to scientific communities that reify the language used in conducting their research. But we would also draw attention to Smith's (1994) cautionary response to Gergen that an excess of deconstruction places selfhood at risk.

## Psychotherapy Discourses

Postmodern consciousness studies will necessarily impact psychotherapeutic procedures. Indeed, Polkinghorne (1992) asserts that clinical practice already contains many postmodern characteristics. According to our seventeenth proposition, the premises of modern psychotherapies do not qualify as a universally acceptable body of psychological knowledge, and those principles that are likely to be most useful need to be adapted or abandoned when dealing with women, people of color, and/or clients from economic and social groups with which the therapist lacks familiarity. Even so, clients need to learn a variety of coping strategies to live in a world of increasingly multiple realities (O'Hara and Anderson, 1991, p. 23). A "narrative psychotherapy" is proposed by Spence (1982) who sees the therapeutic narrative as a co-construction of the therapist and client which might or might not have a historical referent, i.e., the narrative text could be more of a construction than a reconstruction.

So-called pragmatic postmodernists concentrate on therapeutic programs that collect descriptions of actions that have effectively accomplished intended ends. A pragmatic body of knowledge consists of examples of activities that may or may not correspond to some theoretical "reality" but have

worked to bring about desired ends (Polkinghorne, 1992, p. 151). This process was put in different terms by Watts (1963) who described psychotherapists as practitioners "who are dealing with people whose distress arises from what may be termed maya, to use the Hindu–Buddhist word whose exact meaning is not merely 'illusion' but the entire world-conception of a culture . . . . The aim of a way of liberation is not the destruction of maya but seeing it for what it is, or seeing through it" (p. 15). This "way of liberation" resembles the "self-corrective unit" described by Bateson (1972) that "thinks" and "acts" as a "system" whose boundaries do not coincide with those of the "self" or "skin-enclosed body" of an individual person (p. 319).

An example of the modern stance in psychotherapy is psychoanalytic dream interpretation, which holds that the analyst understands the dream's symbols (often assumed to be universally valid, irrespective of time and place) better than the client whose "defenses" are not only responsible for his or her unconscious use of obscure dream symbols but also for the client's resistance to the understanding of the dream's meaning. In contrast, Ullman and Zimmerman's (1985) interpretive process takes the power away from the therapist or facilitator and places it in the hands of the dreamer. After the dreamer presents a dream (which can be conceived as a text) and answers clarifying questions, the other members of the group pretend that they have had the dream, separating the text from its author, and discussing it in a variety of ways that the dreamer may or may not find resonant (a "deconstruction" of the dream text which takes on a life of its own). Then the dreamer communicates as little or as much of what he or she has learned thus far, giving a personal interpretation of the dream (similar to text "reconstruction").

Ullman and Zimmerman next provide for a discussion and conclusion, with the dreamer having the authority to stop the process at any time, and to supply the "last word." Needless to say, the Ullman–Zimmerman process is castigated by those psychoanalysts who see themselves as arbiters of the dream's "truth" and the valiant warriors who must smash through their clients' "defenses" and "resistances" to help them adjust to consensual "reality."

Another process that is consistent with principles of postmodernism is the search for one's "personal myths," defined as those imaginative narratives that address existential issues and impact behavior. Feinstein and Krippner (1988) believe that alterations in consciousness provide the most productive starting points for identifying and exploring personal myths. They encourage therapists to elicit clients' dreams, waking fantasies, and spontaneous art productions. In addition, they encourage clients to create fairy tales based on incidents from their own lives as well as from their dreams and imagination. A fairy tale's "moral" may well be a personal myth — "The young prince and the young princess expected to live happily ever after"; "The child's uncaring mother and father paid more attention to the acquisition of fortune and fame

than they did to the child's needs for love and affection"; "The valiant warrior decided to make the long voyage alone because nobody could be relied upon for support." Other dreams and fantasies are explored for "counter myths" to determine if a "mythic conflict" exists; if so, guided imagery is used to explore whether a synthesis is possible or if one (or both) myths need to be reframed, transformed, or even abandoned (Krippner, 1986). The client is given increasing responsibility in each step of the process, and a workbook is available for those who prefer to work independently or with a group of peers as they develop a more functional and effective personal mythology.

These and similar approaches do not reject the irrational, the metaphorical, and the undomesticated concepts of psyche and behavior. But they do reject the notion of an absolute "truth" that works for everyone, instead preferring to help clients identify and articulate life narratives and find ways in which these stories can be changed to more usefully facilitate clients' goals. As O'Hara and Anderson remind us, "these stories are all we have; in a sense, they are all we are" (p. 25).

The postmodern therapist might have any one of several theoretical orientations, but our seventeenth proposition is that the psychotherapist's intervention should proceed in a way that enhances a client's sense of self-worth, makes no absolute claims about "truth" or "reality," and places no immutable value on "adjustment" as the most desired outcome. Proposition number eighteen is that unusual alterations in consciousness such as "past life," "near-death," "out-of-body," or "born again" experiences should not necessarily be seen as "delusions" or "hallucinations," or as symptoms of "schizophrenia" or some other pathological category, but rather as dramatic — and possibly valuable — episodes in a client's life story. By its inclusion of a so-called "supplemental category" dubbed "religious or spiritual problem" in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (1994), the American Psychiatric Association has lent a modicum of support to those therapists who prefer dealing with these issues on their own merits rather than as symptoms of some broader pathological diagnosis.

When using alterations of consciousness as therapeutic procedures, the postmodern therapist is careful not to reify them, but to adapt hypnosis, imagery, biofeedback, relaxation, and other procedures to the client's needs and expectations. The therapist's skepticism, flexibility, and humor need to be combined with common sense, curiosity, caring, and concern as well as an ethical code which respects human differences, condemns exploitation, and embarks on the quest for a just community — in whatever form he or she envisions that pursuit (Newbrough, 1992, p. 23).

In summary, postmodern psychotherapists bring considerable modesty to their therapeutic interactions admitting that they have no certain "truths" or final "answers." However, they can assist their clients to narrate part or all of their life story, and to identify options as to that story's next chapter. Our nineteenth proposition is that postmodern therapists understand that they are engaged in a process of cooperative construction as their clients attempt to revise or change the meanings and values of their life narratives, and develop an ethical code consistent with this realization. Anderson (1990) observes that postmodern therapists do not operate from a standard dogma but join with their clients in "an exercise in ethics" (p. 138).

#### Discussion

Postmodernity does not speak with a single voice on these topics. "Deconstructive postmodernism" declares that there is nothing but cultural construction in human experience. The "multiple voices" of external stimulation that Gergen (1991) observes to "saturate the self" can occur as people shift from one state of consciousness to the other, giving play to their competing subpersonalities, personal myths, local "truths," and individual "realities." These voices emerge and submerge as the context changes and as social demands vary. The deconstructive postmodernist believes that even the human body image and the objects and organisms found in nature are little more than cultural constructions; hence one's perceptions of them are suspect and unreliable. Ecological postmodernism, on the other hand, sees the human body as a source of wisdom and grounding for a humanity trying to effect a transition beyond the failed aspects of the modern age (Spretnak, 1991).

The constructionist postmodernists believe that the constant reexamining of one's beliefs and learning about one's socially constructed reality are the most important learning tasks needed for survival at this time in history. Yes, there is an objective cosmos that humans can seek to understand, although all such attempts are to some extent subjective (Anderson, 1990, pp. 269–270).

Most postmodernists appreciate the irony and humor involved in their concepts. For example, the belief that there is no absolute "truth" or "certainty" can become an "absolute truth" in its own right. Further, if all "truths," no matter how absurd, are given serious consideration, how can communities attempt to create values (Rosenau, 1992, p. 90)? The principles used to deconstruct uncontextualized narratives tend to become uncontextualized themselves, and postmodern generalizations are used to refute other generalizations (Mcgowan, 1991; Rosenau, 1992, p. 90). Smith (1994, p. 408) is distressed by the tendency of some postmodernists to lump science, which he views as "an enterprise committed to an ideal of truth," with religious and political ideologies which Smith views as dogmatic. Addressing these issues is an important aspect of the postmodern project.

We hope that our propositions have pointed out some of the benefits of postmodernity in the study of consciousness. Despite postmodernism's replacement of certainty with ambiguity, modesty, irony, and humor, we believe that it may well impact consciousness studies by conceptualizing reported alterations in consciousness, exceptional human experiences, and reports from clients to serve as texts, encouraging their study using a multiplicity of research methods. In so doing, theoreticians, investigators, and psychotherapists would do well to acknowledge their interaction with the texts' language, the political power reflected in the texts, and the texts' embeddedness in particular cultural, interpersonal, and ecological times and places. The postmodern researcher will not aim for prediction and control of the phenomena studied, but for descriptions of consciousness that would identify cultural idiosyncracies, reformulate the mind/body dichotomies, and enhance psychotherapeutic discourses.

Our postmodern propositions can add fresh perspectives to consciousness studies. They can encourage psychologists to question their assumptions, their terminology, and their constructions. They can bring questions of power and authority to the forefront, and challenge the use of applied psychology to belittle, manipulate, and abuse people (Krippner, 1988, p. 31). Postmodernists can help prevent psychotherapists from brusquely pigeonholing clients, and from making reductionistic interpretations of people's reports of exceptional experiences. In the increasingly complex, postmodern world there will be an ever increasing number of local and marginal texts, selves, institutions, and societies (Mcgowan, 1991, p. 22), but in the hands of modernists they are likely to be ignored at best and pathologized at worst.

Postmodernity can be criticized for its relativism, skepticism, and cynicism. Sass (1986) describes a "Cartesian anxiety" wherein all assertions are considered equally valid in the absence of definitive foundations for knowledge. A very different criticism of postmodernity is that many of its most felicitous features are present in modernity. Playfulness and eclecticism were present in architecture at the end of the 19th century; change, movement, and impersonal flux were part of the 19th century metropolis; the notion that truth is relative and localized can be found in the writings of many early 20th century anthropologists and philosophers (Callinicos, 1989). Indeed, postmodernity's pluralism, complexity, and ambiguity have characterized consciousness studies from the days of Janet, Myers, James and other pioneers.

From this point of view, many of our propositions may not seem especially novel or radical. This would include our twentieth and final proposition: The long-term effects of postmodern approaches to the study of consciousness may shift Western psychology's perspective from one that recognizes the value of only a single "normal" state of consciousness to one that values multiple states; from one that sees human development as having a ceiling to one that views such limitations as

culturally determined; from the dismissal of exceptional human experiences as pathological or illusory to the appreciation of their potential in illuminating neglected human capacities; from the devaluing of non-Western psychologies as "primitive" or "quaint" to the honoring of their richness and complexity; from ridiculing experiences of "union" with the Earth and the Divine to an awareness that this sensibility may well be critical for the survival of the planet and its inhabitants. Postmodernity is, itseslf, a story. And when other stories about consciousness emerge, let us hope that the postmodernists will listen to them, encourage their voices to be heard, and advocate that their tales be told.

### References

Abraham, F.D., Abraham, R.H., and Shaw. C.D. (1990). A visual introduction to dynamical systems theory for psychology. Santa Cruz, California: Aerial Press.

Achterberg, J., and Lawlis, G.F. (1979). A canonical analysis of blood chemistry variables related to psychological measures of cancer patients. *Multivariate Experimental Clinical Research*, 4, 1–10.

American Psychiatric Association. (1994). The diagnostic and statistical manual of mental disorders (fourth edition, revised). Washington, D.C.: American Psychiatric Association.

Anderson, W.T. (1990). Reality isn't what it used to be. San Francisco: Harper and Row.

Barton, S. (1994). Chaos, self-organization, and psychology. American Psychologist, 49, 5-14.

Basar, E. (1990). Chaotic dynamics and resonance phenomena in brain function: Progress, perspectives, and thoughts. In E. Basar (Ed.), Chaos in brain function (pp. 1–26). New York: Springer-Verlag.

Bateson, G. (1972). Steps to an ecology of mind. New York: Chandler.

Brown, D.P. (1977). A model for the levels of concentrative meditation. *International Journal of Clinical and Experimental Hypnosis*, 25, 236–273.

Cassirer, E. (1954). An essay on man. Garden City, New York: Doubleday. Callinicos, A. (1989). Against postmodernism. Cambridge, England: Polity.

Crutchfield, J., Doyne, F., Packard, N., and Shaw, R. (1986, December). Chaos. Scientific American, pp. 46–57.

Davis, P.J., and Hersh, R. (1986). Descartes' dream. Boston: Houghton Mifflin. Derrida, J. (1974). Of grammatology. Baltimore: Johns Hopkins University Press.

Farthing, G.W. (1992). The psychology of consciousness. Englewood Cliffs, New Jersey: Prentice–Hall.

Feinstein, D., and Krippner, S. (1988). Personal mythology: The psychology of your evolving self. Los Angeles: Jeremy P. Tarcher.

Foucault, M. (1976). The archaeology of knowledge. New York: Harper and Row.

Foucault, M. (1980). Power/knowledge: Selected interviews and other writings [C. Gordon, Ed. and Trans.]. New York: Pantheon.

Freeman, W.J. (1991, February). The physiology of perception. Scientific American, pp. 78–85.

Geertz, C. (1979). From the native's point of view: On the nature of anthropological understanding. In P. Rabinow and W.M. Sullivan (Eds.), *Interpretive social science* (pp. 213–238). Berkeley: University of Calfornia Press.

Gergen, K.J. (1991). The saturated self: Dilemmas of identity in contemporary life. New York: Basic Books.

Gergen, K.J. (1994). Exploring the postmodern: Perils or potentials? American Psychologist,49, 412–416.

Globus, G. (1987). Dream life, wake life: The human condition through dreams. Albany: State University of New York Press.

Globus, G.G. (1992). Toward a noncomputational cognitive neuroscience. Journal of Cognitive Neuroscience, 4, 299–310. Globus, G. (1995). The postmodern brain. Philadelphia: John Benjamins.

Goleman, D. (1993). Psychology, reality, and consciousness. In R.Walsh and F. Vaughan (Eds.), Paths beyond ego: The transpersonal vision (pp. 13–17). Los Angeles: Jeremy P.Tarcher.

Gouldner, A. (1990). The coming age. New York: Basic Books.

Griffin, D.R. (1988). The reenchantment of science. In D.R. Griffin (Ed.), The reenchantment of science: Postmodern proposals (pp. 1–46). Albany: State University of New York Press.

Hameroff, S.R. (1994). Quantum coherence in microtubules: A neural basis for emergent consciousness. Journal of Consciousness Studies, 1, 91–118.

Harman, W.W. (1988). The postmodern heresy: Consciousness as casual. In D.R. Griffin (Ed.), The reenchantment of science: Postmodern proposals (pp. 115–128). Albany: State University of New York Press.

Harré, R. (1991). Physical being: A theory for corporal psychology. New York: Basil Blackwell.

Harth, E. (1983). Order and chaos in neural systems: An approach to the dynamics of higher brain functions. *IEEE Transactions on Systems*, *Man*, and Cybernetics, 13, 782–789.

Havel, V. (1992, March). The end of the modern era. The New York Times, Op-Ed., p. E15.

Hufford, D. (1982). The terror that comes in the night. Philadelphia: University of Pennsylvania Press.

Hunt, H.T. (1986). Some relations between the cognitive psychology of dreams and dream phenomenology. *The Journal of Mind and Behavior*, 7, 213–228.

Kim, S. (1984). The quest for a just world order. Boulder, Colorado: Westview.

Kirsch, I., and Hyland, M.E. (1987). How thoughts affect the body: A metatheoretical framework. The Journal of Mind and Behavior, 8, 417–434.

Krippner, S. (1986). Dreams and the development of a personal mythology. The Journal of Mind and Behavior, 7, 449–461.

Krippner, S. (1988). Parapsychology and postmodern science. In D.R. Griffin (Ed.), The reenchantment of science: Postmodern proposals (pp. 129–140). Albany: State University of New York Press.

Krippner, S. (1994). Visiting a "pai do santo" in Recife, Brazil. In R.-I. Heinze (Ed.), Proceedings of the 11th International Conference on the Study of Shamanism and Alternative Modes of Healing (pp. 234–245). Berkeley, California: Independent Scholars of Asia.

Kroker, A., Kroker, M., and Cook, D. (1989). Panic encyclopedia: The definitive guide to the post-modern scene. New York: St. Martin's Press.

Kugler, P. (1993). The subject of dreams. Dreaming, 3, 123–136.

Lather, P. (1992). Postmodernity and the human sciences. In S. Kvale (Ed.), Psychology and postmodernism (pp. 88–109). Newbury Park, California: Sage.

Laughlin, C.D. (1992). Scientific explanation and the life-world: A biogenetic structural theory of meaning and causation. Sausalito, California: Institute of Noetic Sciences.

Levin, D.M., and Solomon, G.F. (1990). The discursive formation of the body in the history of medicine. *Journal of Medicine and Philosophy*, 15, 515–537.

Loye, D., and Eisler, E. (1987). Chaos and transformation: Implications of nonequilibrium theory for social science and society. *Behavioral Science*, 32, 53–65.

Lyotard, J.F. (1984). The postmodern condition: A report on knowledge [G. Bennington and B. Massumi, Trans.]. Minneapolis: University of Minnesota Press.

McClenon, J. (in press). Wondrous events. Philadelphia: University of Pennsylvania Press.

Mcgowan, J. (1991). Postmodernism and its critics. Ithica, New York: Cornell University Press.

May, R. (1985). My quest for beauty. Dallas, Texas: Saybrook Publishing.

Michael, M. (1992). Postmodern subjects: Toward a transgressive social psychology. In S. Kvale (Ed.), Psychology and postmodernism (pp. 75–87). Newbury Park, California: Sage.

Miller, P.C. (1991). The Devil's gateway: An Eros of difference in the dreams of Perpetua. Dreaming, 2, 45–51.

Natsoulas, T. (1978). Consciousness. American Psychologist, 38, 122–123.

Natsoulas, T. (1983). Concepts of consciousness. Journal of Mind and Behavior, 4, 13-59.

Nelkin, N. (1993). What is consciousness? Philosophy of Science, 60, 419–434.

Newbrough, J.R. (1992). Community psychology in the postmodern world. *Journal of Community Psychology*, 20, 10–25.

O'Hara, M., and Anderson, W.T. (1991, September/October). Welcome to the postmodern world. *Networker*, pp. 19–25.

Polkinghorne, D.E. (1983). Methodology for the human sciences: Systems of inquiry. Albany: State University of New York Press.

Polkinghorne, D.E. (1992). Postmodern epistemology of practice. In S. Kvale (Ed.), Psychology and postmodernism (pp. 146–165). Newbury Park, California: Sage.

Prigogine, I., and Stengers, I. (1984). Order out of chaos: Man's new dialogue. London: Shambhala.

Rabinow, P. (Ed.). (1984). The Foucault reader. New York: Panther Books.

Radha, S.S. (1994). Realities of the dreaming mind. Spokane, Washington: Timeless Books.

Roschke, J., and Aldenhoff, J.B. (1992). A nonlinear approach to brain function: Deterministic chaos and sleep EEG. Sleep, 15, 95–101.

Rosenau, P.M. (1992). Post-modernism and the social sciences. Princeton, New Jersey: Princeton University Press.

Roszak, T. (1969). The making of a counter culture. Garden City, New York: Doubleday.

Roszak, T. (1992). The voice of the earth. New York: Simon and Schuster.

Sampson, E.E. (1983). Deconstructing psychology's subject. Journal of Mind and Behavior, 4, 135–164.

Sass, L.A. (1986, May). Anthropology's native problems: Revisionism in the field. Harper's Magazine, pp. 49–57.

Schaffer, S. (1994). Making up discovery. In M.A. Boden (Ed.), Dimensions of creativity (pp. 13–51). Cambridge, Massachusetts: MIT Press.

Shweder, R.A. (1990). Cultural psychology: What is it? In J.W. Stigler, R.A. Shweder, and G. Herdt (Eds.), Cultural psychology: Essays on comparative human development (pp. 1–43). New York: Cambridge University Press.

Smith, M.B. (1994). Selfhood at risk: Postmodern perils and the perils of postmodernism. American Psychologist, 49, 405–411.

Spence, D. (1982). Narrative truth and historical truth: Meaning and interpretation in psychoanalysis. New York: W.W. Norton.

Sperry, R. (1981). Changing priorities. Annual Review of Neuroscience, 4, 1-10.

Sperry, R. (1987). Structure and significance of the cognitive revolution. The Journal of Mind and Behavior, 8, 37-66.

Spretnak, C. (1991). States of grace. San Francisco: HarperSanFrancisco.

Tart, C.T. (1975). States of consciousness. New York: E.P. Dutton.

Taussig, M. (1987). Shamanism, colonialism, and the wild man: A study in terror and healing. Chicago: University of Chicago Press.

Tompkins, P. (1990). This tree grows out of hell: Mesoamerica and the search for the magical body. San Francisco: HarperSanFrancisco.

Toulmin, S. (1990). Cosmopolis: The hidden agenda of modernity. New York: Free Press.

Ullman, M., and Zimmerman, N. (1985). Working with dreams. Los Angeles: Jeremy P. Tarcher.

Watts, A. (1963). Psychotherapy East and West. New York: Mentor.

White, R.A. (1991). Feminist science, postmodern views, and exceptional human experience. Exceptional Human Experience, 9, 2–10.

Whorf, B. (1956). Language, thought and reality. New York: Wiley.

Young, N. (1992). Postmodern self-psychology mirrored in science and the arts. In S. Kvale (Ed.), *Psychology and postmodernism* (pp. 135–145). Newbury Park, California: Sage.