Psyche, Nature, and Mystery: Some Psychological Perspectives on the Values of Natural Environments

CHAPTER 5

Herbert Schroeder
North Central Forest Experiment Station
USDA Forest Service
Evanston, Illinois

Psychology is a broad and diverse field of study, including many different perspectives and approaches. In a single chapter it is not possible to give a detailed account of how each area within psychology would view the topic of this text. Instead, I first give a general, historical overview of some approaches to psychology and discuss their implications for nature and the human spirit. Then I explore some specific psychological perspectives that may be helpful in understanding the kinds of values and experiences to which this text is devoted.

Historical Overview of Psychological Perspectives

The root of the word *psychology* is the Greek word *psyche*, which can signify soul, spirit, mind, or life. The Latin word *psychologia* (which later entered the English language as "psychology") was first used in the 16th century to refer to the branch of philosophy dealing with doctrines of the human soul. In the late 1800s, however, psychology broke away from philosophy to establish itself as an empirical, scientific discipline. At that time, most psychologists abandoned the concept of soul as irrelevant to a scientific understanding of human beings. Rather than speculating on philosophical concepts such as soul and spirit, the first experimental psychologists sought to study the human mind using the empirical methods of the natural sciences.

In 1879 the German psychologist Wilhelm Wundt established the first psychological laboratory. His goal was to analyze the structure of human consciousness in terms of basic elements of sensation and feeling. To do this, Wundt and his students spent long hours carefully observing their own subjective experiences under highly controlled conditions. At about the same time, the American psychologist William James was seeking to understand various mental phenomena in terms of how they function to enhance human survival. While there were fundamental differences between the approaches of Wundt and James, they both shared the basic assumption that valid knowledge of the mind can be gained through careful observation of subjective mental states.

By the early 1900s, however, many psychologists were becoming doubtful about this assumption. The direct observation of mental states did not seem to be leading to the kinds of decisive advances that had been achieved in physics, chemistry, and biology. As

pp: 81-95 In Driver, B.L., Dustin, D., Baltic, T., Elsner, G., & Peterson, G. (Eds.) Nature and the Human Spirit: Toward an Expanded Land Management Ethic State College, Pennsylvania: Venture Pub. Co.

an object of scientific study, the human mind began to appear nearly as troublesome as the human soul. This led some psychologists to reject the concept of mind entirely, and to refuse to theorize about mental processes that could not be objectively observed. The psychologist John B. Watson proposed that the purpose of psychology should be to identify stimulus-response laws that directly describe observable behavior. This approach, called behaviorism, was the dominant influence in American psychology from the 1920s through the 1960s.

In the 1960s, mental processes again emerged as a respectable topic for academic research. The new field of cognitive psychology proposed that the human nervous system functions by processing information, much like a computer. Even though internal mental processes may not be objectively observable, cognitive psychologists found that they could make inferences about human information processing by observing how the output of the system (behavior) changes as the input (information) is varied systematically in experiments.

Behaviorism and cognitive psychology are the two most important influences that have shaped the current mainstream of American academic psychology. Dictionaries and textbooks typically acknowledge both of these influences, defining psychology as the scientific study of behavior and mental processes.

To establish psychology as a rigorous science, mainstream psychologists have generally pursued a deterministic approach to understanding their subject matter. Determinism views behavior and mental processes as products of causal factors such as physical and social stimuli, personality traits, attitudes, motivations, and cognitive mechanisms. By understanding the causes that underlie psychological phenomena, a deterministic approach seeks to explain, predict, and (at least to some extent) control mental processes and behavior. The popularity of behaviorism in the field of experimental psychology was largely due to the promise it held for establishing psychology as a rigorous, deterministic science. At the same time, a different form of psychological determinism based on Sigmund Freud's theory of unconscious sexual motivations dominated the clinical field of psychiatry for many years.

Not all psychologists have been committed to a deterministic approach, however. William James, the founder of American psychology, rejected determinism as a philosophy and wrote at length about will as a faculty of the human mind. Decades later, in the 1960s, Abraham Maslow (1968) identified an emerging group of approaches or theories that lay outside the deterministic camps of behaviorist psychology and Freudian psychiatry. He named this group humanistic or "Third Force" psychology. The humanistic viewpoint holds that people's perceptions, thoughts, and behavior are not simply mechanical effects of environmental and genetic causes. While behavior may be influenced to some extent by environment and heredity, humanistic psychologists believe that behavior also reflects free, creative choices made by individuals.

Some humanistic psychologists believe there is within human nature an innate, creative potential, toward which people will grow, unless they are blocked by social and environmental factors. Maslow (1968) used the term "self-actualization" to refer to this process of growth. Maslow believed that self-actualizing people develop a capacity for "peak experiences" in which the individual sense of self is transcended or extended to include a feeling of identification with a larger reality. Similar notions of transpersonal experience are also found in other Third Force psychologies. Transpersonal experiences include the mystical and spiritual states reported in many religions, as well as similar experiences that occur outside of a religious context. Maslow (1974) believed that such transcendent or sacred experiences could be understood in naturalistic terms and would fall within the domain of a "suitably enlarged science."

Psychology and the Environment

Throughout most of psychology's history psychologists have had little to say about the relationship of people to natural environments. In order to isolate cause–effect relations in human behavior, behavioral and cognitive psychologists have typically placed people in controlled laboratory situations where a few carefully selected variables can be manipulated while everything else is kept constant. In this way, rigor and precision are gained and specific causal hypotheses can be tested. The results of such research, however, do not provide much insight into how people interact with complex real world environments—including natural environments.

Humanistic psychologists have worked in therapeutic settings more than in laboratories, and have been more directly concerned with the issues and experiences that people encounter in real life. The humanistic focus, however, has been primarily on how individuals relate to other people and to society rather than to the nonhuman environment.

In response to this neglect of human/environment issues in psychology, environmental psychology emerged as a distinct subdiscipline in the 1970s (Ittelson, Proshansky, Rivlin, and Winkel, 1974). Environmental psychologists emphasized the need to conduct research outside the laboratory to learn how people interact with real environments in their daily lives. Over the last 20 years, environmental psychologists have studied artificial environments such as cities and buildings, as well as more natural settings such as parks and forests. The motivation for much of this research has been to improve the design and management of the environments in which people live, work, and recreate.

With respect to natural environments, a major goal of environmental psychology research has been to identify, measure, and enhance the benefits that people obtain from interacting with nature. One such benefit of natural settings is their beauty or aesthetic quality. Using psychological scaling techniques, some researchers have measured people's perceptions of landscape aesthetic quality (Daniel and Boster, 1976) and have derived statistical models for predicting aesthetic preferences for natural landscapes (Brown and Daniel, 1984). Others, following in the tradition of William James, have developed theories to explain the origins of landscape preferences in terms of their contribution to human survival and evolution (Appleton, 1975; Balling and Falk, 1982; Kaplan and Kaplan, 1989).

In addition to aesthetics, many individuals report that the experience of serenity or peacefulness is an important benefit of natural environments for them (e.g., Schroeder, 1991). Consistent with this, physiological measurements of heart rate, blood pressure, and brain waves have shown that relaxation and stress reduction occur when people are viewing natural landscapes (Ulrich, 1981). Hull (1992a) has shown that even short visits to city parks contribute to improved moods. To account for these mood and stress-related benefits, Kaplan (1993) has theorized that natural environments provide restorative experiences in which people are relieved of the need to maintain focused mental attention.

Another benefit of natural environments is the opportunity for people to experience settings that are dramatically different from the artificial environments in which they usually live and work. In some cases, people report that natural areas give them a sense of refuge and an escape from the pressures of urban environments and daily routines (e.g., Schroeder, 1991). In other cases, novelty seems to be an important benefit. For example, in a study of the psychological outcomes of leisure, activities that typically occur in natural areas (hiking, camping, canoeing and lake fishing) were rated highest for satisfying "the person's needs to experience something new, fresh, or unusual; . . . needs not satisfied by their job or daily routine" (Driver, Tinsley, and Manfredo, 1991; Tinsley and Tinsley, 1988).

Qualitative research on people's experiences of natural environments shows that strong emotional ties can exist between people and elements of natural settings such as trees and forests (Dwyer, Schroeder, and Gobster, 1991). Natural features help to create a sense of place; that is, a feeling of identification and belonging that is important to people in cities (Hull, 1992b) as well as in forest recreation environments (Mitchell, Force, Carroll, and McLaughlin, 1993). The deepest and strongest attachments between people and natural environments may give rise to spiritual experiences in which people feel a sense of connection with a larger reality that helps give meaning to their lives (Schroeder, 1990b).

Some environmental psychologists who study benefits of natural environments argue for using a deterministic approach, in which benefits are measured and modeled as a direct product of objective environmental attributes. One advantage of adopting a deterministic approach to benefits of natural environments is that it makes the results of research easier for managers to use. If cause–effect links can be established between environmental attributes and psychological outcomes, it is relatively easy to draw conclusions about how environmental attributes should be managed to enhance benefits for people. This approach to research, with its emphasis on quantitative measurement and predictive modeling, has made important steps toward understanding how the benefits of nature can be enhanced by management.

A deterministic approach to environmental psychology, however, may encounter problems in addressing how natural settings contribute to what Driver, Dustin, Baltic, Elsner, and Peterson in the introduction to this volume call the "deeper psychological essence of human life." Determinism, especially in its more mechanistic forms, leaves little room for anything that can be described as "the human spirit." For example, there may be an inherent contradiction in using a deterministic approach for measuring spiritual values and managing sacred places. Seeking to manipulate and control a natural environment to produce a predictable, measurable stream of benefits may be inconsistent with the experience of awe and humility that characterizes a spiritual view of nature.

In one of the first environmental psychology textbooks, Ittelson, Proshanky, Rivlin, and Winkel (1974) argued against defining the human–nature relationship in terms of simple, stimulus–response determinism. In their view, human beings are not passive products of the environment, but goal directed beings who act on their environment and are, in turn, influenced by it. With respect to the natural environment, they described the problem facing environmental psychology in the following terms:

> *If man is to live in harmony and inspire, as part of the natural order of things, his deeper self, a better balance must be found between the integrity of this environment and its destructive exploitation. . . . The centuries-old equilibrium of the human and the natural environment—the physical and psychological accommodation between man and his outer world which allowed him to swim freely in the universe—is dissolving under the impact of a stepped-up technology.*
>
> Ittelson, Proshanky, Rivlin, and Winkel, 1974, p. 3

Recently, some psychologists who are concerned about the state of the human–nature relationship have reechoed this sentiment. Calling themselves "ecopsychologists," they assert that the isolation of people from the natural world in western technological cultures has created both an ecological and a psychological crisis. Their solution to the crisis is to bring human culture back into an "integrated relationship" with ecological systems (Segal, 1993). This is more than just a matter of making adjustments in economic, social, and legal institutions. It calls for a radical change in how individual people experience themselves in relationship to the natural world.

While a deterministic approach to environmental psychology seeks to manipulate environments for the benefit of people, ecopsychology addresses a deeper concern: healing the split between the human spirit and the natural world. One way in which ecopsychologists have approached this is by taking the practice of psychotherapy out of the consulting room and into nature. Therapeutic activities are being conducted in the context of wilderness experience programs, and practices such as dream interpretation, long used in psychotherapy to enhance self-understanding and awareness, are now being discussed as a means for transforming the human–nature relationship (Bulkeley, 1991; Schroeder, in press).

Transpersonal psychology could provide a model for understanding and speaking about the deeper psychological connections between humans and natural environments. Maslow (1968) seems to have regarded the highest form of transpersonal experience to be a feeling of identification with all of humanity. Deep ecologist Warwick Fox (1990) has proposed extending Maslow's (1968) transpersonal psychology to include the natural as well as the human world, thus providing a psychological foundation for environmentalism. Maslow himself hinted at this possibility in the preface to the second edition of his book *Toward a Psychology of Being*:

> *I should say also that I consider Humanistic, Third Force Psychology to be transitional, a preparation for a still 'higher' Fourth Psychology, transpersonal, transhuman, centered in the cosmos rather than in human needs and interest.*
>
> Maslow, 1968, pp. iii-iv

Understanding Hard-to-Define Values

In the introductory chapter of this text it is pointed out that the phrase "nature and the human spirit" includes values that are hard-to-define, poorly understood, elusive, ethereal, and intangible. At the same time, many people regard these values as contributing to the deeper psychological essence of human life. In my view, the hard-to-define character of these values does not result from inadequacies in

our current data and theories regarding them. Rather, it is a reflection of the inherent nature of the values themselves.

The hard-to-define character of these values is not a problem per se; it is in fact part of their essence and their strength. A problem does arise, however, when researchers attempt to formulate these values in terms of conventional scientific concepts and methods. Because these "deeper" values originate in a preconceptual, nonverbal domain of human experience, there may be no fixed set of conceptual dimensions, categories, or logical relationships that can completely define or describe them. Thus the scientific process with its requirement for clear, precise definitions and logically rigorous analyses may run counter to the very qualities that enable these values to function as they do in human experience.

More than a century ago, William James ([1892] 1961) pointed out that human consciousness does not consist entirely of clear and distinct mental objects. Surrounding our awareness of any image or idea there is always a "fringe"—a vague, indefinite halo of inarticulate meanings and relations. "The significance, the value of the image is all in this halo or penumbra that surrounds and escorts it" (James, [1892] 1961, p. 33). Stressing the importance of this fringe for human consciousness, James [1892] 1961 called for "the reinstatement of the vague and inarticulate to its proper place in our mental life" (p. 32). I think this call is worth heeding today in our attempts to deal with the deeper, hard-to-define values of natural environments. It simply may not be possible to completely understand and respond to these values in terms of precise, abstract definitions and theories. A more open-ended, experiential approach may be required in which the intellect, the feelings, and the imagination are all engaged.

In the remainder of this chapter I discuss three specific areas of psychology that may help in approaching the hard-to-define values of nature. The three areas—Jungian psychology, phenomenological psychology, and experiential psychology—all fall within the grouping that Maslow (1968) calls "Third Force Psychology." I present some ideas from each of these areas, identify some common themes that run through all of them, and point out some of their implications for understanding the values of natural environments. I then suggest some steps toward a land management ethic that respects the importance of this kind of value in the human–nature relationship. Finally, I close with some thoughts regarding a particular hard-to-define value that is often associated with nature: the experience of mystery.

Jungian Psychology

Carl Jung was a Swiss psychologist who began his career as a student and close associate of Sigmund Freud. Like Freud, Jung was interested in the relationship between the unconscious psyche and the conscious ego. Freud believed that the unconscious consists entirely of old memories, wishes, and feelings that have been repressed or pushed out of awareness because they are too painful to deal with consciously. Jung differed from Freud in believing that the unconscious mind can also give rise to new thoughts and images that have never been conscious before (Jung, 1964).

Jung (1964) viewed the conscious mind, with its capacity for focused and rational thought, as a recent development in the evolution of the human species. The unconscious mind comprises the older layers of the psyche and is the substrate or matrix from which consciousness has arisen. Unconscious mental processes, by their very nature, lack rationality and clarity of definition. They are therefore often ignored or rejected by the conscious intellect. Nevertheless, the unconscious is a dimension that permeates all of human life. Even apparently well-defined, rational concepts have unconscious, emotional undertones that can give rise to confusion and miscommunication between individuals (Jung, 1964).

Unconscious thoughts and ideas make their way into conscious awareness in the form of symbols. Jung (1964) defined a symbol as a word, image, or action that points beyond itself towards something that cannot be completely grasped by the conscious intellect. Symbolism allows a concrete object such as an animal or a tree to stand for an idea or experience that is intangible, indefinite, or only vaguely understood. For Jung (1964) the key to understanding the unconscious psyche lay in the interpretation of symbols. Dreaming is the most obvious and accessible source of symbols from the unconscious, but such symbolism occurs in virtually all areas of waking life as well.

Jung (1964) believed that certain symbols in dreams and mythology arise from deep, inherited structures in the human psyche. He called these structures "archetypes." Jung (1964) developed the

notion of archetypes to account for the fact that similar themes and images have arisen in the mythologies of cultures widely separated in space and time, and that the same images also appeared in the dreams of his patients who were unfamiliar with such mythologies. Archetypes are underlying, instinctive patterns of motives and meanings that are characteristic of humanity as a whole. They constitute a collective unconscious that is shared by all people, analogous to the way in which the basic physical form of the human body is shared.

Because they are associated with deep, instinctual motivations, archetypal symbols and images are highly charged with emotion. In earlier cultures, the archetypal level of the unconscious appeared in the form of numinous nature spirits, evoking awe and giving rise to a sense of "mystical participation" in the natural world. Elements of nature such as trees, mountains, and animals have functioned in this way as archetypal symbols in the myths and rituals of virtually all cultures.

Jung (1964) argued that the modern ego, with its emphasis on rationality and logic, has become detached from the archetypal, instinctive energy of the unconscious. This split in the modern psyche leads the unconscious to express itself in destructive symptoms of neurosis, addiction, and fanaticism. It also contributes to environmental problems and abuses by diminishing our ability to feel the psychological value of the natural world. Jung (1964) illustrated this by noting how we understand the word "matter." The origin of this word is the Indo-European root "mater," which means "mother." Our modern understanding of matter, however, is given in inanimate, physical terms.

> *The word 'matter' remains a dry, inhuman, and purely intellectual concept, without any psychic significance for us. How different was the former image of matter—the Great Mother—that could encompass and express the profound emotional meaning of Mother Earth. . . . As scientific understanding has grown, so our world has become dehumanized. Man feels himself isolated in the cosmos, because he is no longer involved in nature and has lost his emotional 'unconscious identity' with natural phenomena. These have slowly lost their symbolic implications. . . . No voices now speak to man from stones, plants, and animals, nor does he speak to them believing they can hear. His contact with nature has gone, and with it has gone the profound emotional energy that this symbolic connection supplied.*
>
> Jung, 1964, p. 85

Jung felt that a healthy relationship between the conscious and unconscious minds could be regained through the process of interpreting and integrating into consciousness the symbols that are spontaneously produced by the unconscious. He did not view interpretation of these symbols as a strictly intellectual process, but stressed the importance of experiencing the emotional charge or numinosity of archetypal symbols. He also emphasized that there is no mechanical formula for interpreting these symbols, and that there is no final, complete, or "correct" interpretation of a symbol. A symbol always implies more than what can be grasped consciously; it always remains open for further interpretation. Thus, the interpretation of symbols is a highly individual and creative process.

Jung (1933) also developed a system of personality types which may be of some help in understanding the different ways in which people approach nature–based values. In this system, individuals are identified as either introverted or extroverted. *Introverts* are oriented towards the inner world of concepts and ideas, while *extroverts* are oriented toward the outer world of people and objects. Within each of these two categories, people are further categorized according to which of four basic psychological functions they prefer to use. The *thinking* function is concerned with impersonal, logical reasoning. *Sensation* deals with observable facts and sensory data. The *feeling* function makes judgments according to personal and social values. *Intuition* involves "hunches" and insights into meanings, relationships, and future possibilities. Everybody uses all four functions, but each individual tends to rely on one function more than the others. By combining the introversion–extroversion distinction with the four functions of thinking, sensation, feeling, and intuition, Jung arrived at eight basic personality types. Personality tests based on these types (e.g., Myers and McCaully, 1985) have been used for career guidance and to improve cooperation and understanding among people having different personality types (Hirsh and Kummerow, 1989).

Jung's theory of personality may help explain differences in how people value natural environments. For example, introverted people often feel a strong need for periods of solitude, and might therefore

value secluded natural places where they can get away from people. Extroverts are more oriented toward social activity, and might therefore value developed recreation areas where there are opportunities to interact with people. Thinking and sensing types would most likely value nature in terms of its tangible, material, and scientific aspects, while intuitive and feeling types may be more attuned to the social and spiritual values of nature.

Phenomenological Psychology

Seamon and Boschetti (1990) describe phenomenology as the:

> . . . *exploration and description of the essential nature of phenomena—i.e, things and experiences as human beings experience those things and experiences. . . . The aim is clear sightings and interpretation of the phenomenon that the phenomenon would be proud of if it could speak.*

In contrast to the natural sciences and mainstream psychology, phenomenology employs a descriptive and interpretive rather than a theoretical and predictive approach to understanding human experience. Its purpose is not to establish causal relations between events but to understand the meanings of events for people in their everyday lives. This requires approaching phenomena on their own terms as they actually appear in lived experience without imposing a priori theoretical categories on them.

Environmental phenomenology employs a variety of sources and methods, including qualitative descriptions from participants in surveys and interviews, interpretation of works of art and imaginative literature, and the investigator's reflections on his or her own experiences. From individual, idiosyncratic descriptions of particular experiences, phenomenological analysis seeks to identify more general patterns and essential characteristics of a phenomenon (Seamon, 1982).

Like the natural sciences, phenomenological psychology has developed systematic and carefully defined procedures, and strives for accuracy and clarity in its conclusions. At the same time, however, phenomenology recognizes that "existence is ambiguous, filled with light and shadow" and that descriptions of psychological phenomena can perhaps only be "imprecisely precise" (Seamon, 1982). Phenomenology does not seek a totally objective, value-free perspective from which to view reality. It recognizes and values the presence of the investigator's unique viewpoint and his or her active involvement in the phenomenon. A description of a phenomenon is therefore not judged in terms of external standards of objectivity but in terms of how well the description harmonizes with the way in which the investigator and others experience the phenomenon (Seamon, 1982; Shapiro, 1986).

> *Through understanding, the student realizes more about his own life or is better able to empathize with the worlds of others. . . . The crux of phenomenological work is a genuine wish to look and see, and there are no external props like statistics or legitimacy requirements to guarantee the accuracy of the process. Such a style of study requires care, dedication and trust.*
>
> Seamon, 1982, p. 122

Phenomenologists have noted that people experience events within a context or backdrop of meanings, memories, and anticipations, some of which may not be fully conscious. Keen (1975) calls this backdrop of implicit meanings a "horizon." By means of various styles of phenomenological reflection and interpretation, the meanings within the horizons of events can be "explicated," that is, unfolded or made explicit. By bringing the implicit horizons of experienced events into conscious, reflective awareness, the phenomenologist comes "to see more deeply and more respectfully the essential nature of human existence and the world in which it unfolds" (Seamon, 1982, p. 123).

The phenomenological concept of horizons is, at least in some sense, similar to both William James' ([1892] 1961) concept of the "fringe" and Jung's concept of the unconscious. All three of these notions indicate that there are aspects of human experience that are not immediately apparent to everyday conscious awareness. Jung (1954) himself claimed to have used a phenomenological approach to arrive at his understanding of the unconscious. Phenomenologists have generally not accepted this claim, however, and have criticized Jung for his frequent reliance on theoretical concepts and language borrowed from the natural sciences. In a sympathetic review of Jung's psychology, Brooke (1991) has argued that Jung's underlying vision was indeed that of a phenomenologist, although he lacked a

conceptual framework that would allow him to express his phenomenological vision in a philosophically consistent way. Brooke (1991) tries to reconcile Jungian and phenomenological psychology by reframing Jung's psychological insights in more rigorous phenomenological terms.

Brooke (1991) uses Jung's (1989) account of his experience of the African landscape to illustrate a central theme of phenomenology: "intentionality"—the inseparability of consciousness and the lived world. Since Descartes, Western culture has viewed the human psyche as being detached or separate from objective reality. Phenomenology challenges this subject–object dichotomy by observing that, in actuality, experience never occurs separately from the experienced world. That is, consciousness is always directed toward something other than consciousness itself.

Based on this principle (and contrary to the conventional view of modern science), phenomenologists such as Brooke (1991) and Romanyshin (1982) argue that human experience takes place not inside people's heads, but in the world itself. As Jung was watching the herds grazing on the plains of Africa, he had a vivid experience of this essential unity of psyche and world. He saw that "the longing for consciousness is a longing of the world itself" and that "the world itself comes into being in that human light called consciousness" (Brooke, 1991, p. 55). This realization was profoundly liberating for Jung.

> *No longer did his psychic life need to be contained within his European head as an embalmed inner world. . . . Jung's psychological life returned to its original place in the world. Thus he experienced a 'divine peace' and a sense of kinship and harmony with all things.*
>
> Brooke, 1991, p. 55

Another emphasis in phenomenology has been on the role of the body and the emotions in human–environment interactions. This is in contrast to mainstream psychology which has focused primarily on cognition as a mode by which humans interact with the world (Seamon, 1982). Within the body, phenomenologists have discerned a preconscious intelligence or capacity that is revealed in outward bodily motions and that enables people to perform everyday, routine tasks without the need for conscious awareness and thought (Seamon, 1982).

In addition to outward movement, the body also responds inwardly to people, things, places, and events. One aspect of this inward response is emotion. Seamon (1984) uses Wordsworth's poetry as a vehicle for exploring the emotional experience of nature. Wordsworth's poetry describes a strong felt connection between people and nature. Nature is a window opening into a deeper, universal experience with spiritual significance. Beyond the material connections that exist between parts of nature, Wordsworth points to a higher, less readily touched connection, which is felt at sudden, unpredictable moments, and cannot be conveyed in words.

> *Wordsworth suggests that if one desires to see and understand more thoroughly and sensitively, one must realize that such awareness will come through emotional rather than intellectual contact with the world.*
>
> Seamon, 1984, p. 768

Experiential Psychology

Experiential psychology, as formulated by Eugene Gendlin (1962), elaborates on phenomenology's interest in the body as a mode of human experience. In addition to emotion, Gendlin (1962, 1990) describes other, more subtle aspects of inwardly felt, bodily experience. He uses the word "experiencing" to refer to the "partly unformed stream of feeling that one has every moment." Experiencing is a broad, diffuse "inward sensitivity of the body" that plays an important function in our thinking, perception, and behavior.

Experiencing itself does not function according to any fixed, logical order or schema. It is a prelogical and preconceptual dimension, which nevertheless plays an essential role in the meaning of concepts.

> *We cannot even know what a concept 'means' or use it meaningfully without the 'feel' of its meaning. . . . If we do not have the felt meaning of the concept, we haven't got the concept at all—only a verbal noise.* (p. 5)

In the creation of meaning, the flow of experiencing interacts with symbols in a dynamic and open-ended way. (Gendlin, 1962, uses the word "symbol" more broadly than Jung, to include anything that functions as a carrier of conceptual meaning.) From one's initial, vague sense of the meaning of a concept or a situation, one can formulate symbols (words, images, etc.) that specify that meaning more and more precisely. As with Jung's symbols, however, there is no final, correct way of specifying a felt meaning.

> *Any aspect of it, no matter how finely specified, can be symbolized and interpreted further and further, so that it can guide us to many, many more symbolizations. . . . We can synthesize endless numbers of meanings in it.* (p. 16)

The meanings within experiencing are implicit and unformed, but they are not arbitrary. Certain symbols may resonate with a particular aspect of experiencing while others clearly will not. In the process of symbolizing, some of the many possible meanings within the experiential dimension are made explicit by symbols. The flow of experiencing itself may then shift and change in response to the particular symbols that have been used to specify it.

Gendlin (1962) sees the ever-present dimension of experiencing as the basis or motivation of everything we do:

> *Within experiencing lie the mysteries of all that we are. For the sake of our experiential sense of what we observe, we react as we do. From out of it we create what we create. And, because of its puzzles, and for the desperation of some of its puzzles, we overthrow good sense, obviousness, and reality, if need be.* (p. 15)

Modern society, however, does not often support or allow pause for an awareness of this experiential dimension. Instead, one is encouraged to pretend that the meanings of one's words consist entirely of logical and objective references. This can lead to a state of psychological distress:

> *If our direct touch with our own personally important experiencing becomes too clouded, narrowed, or lost, we go to any length to regain it. . . . For nothing is as debilitating as a confused or distant functioning of experiencing.*
>
> Gendlin, 1962, p. 15

Gendlin (1981) formulates a method to enhance one's awareness of the experiential dimension and to enable it to function effectively in psychotherapy. He defines a felt sense as:

> *. . . a bodily awareness of a situation or person or event. An internal aura that encompasses everything you feel and know about the given subject at a given time—encompasses it and communicates it to you all at once rather than detail by detail.* (p. 32)

A felt sense forms when one pays attention to a particular aspect of the ongoing flow of experiencing, making it an object of conscious awareness. Through a series of steps, called "focusing," an individual can attend to the felt sense of a situation or problem, find words or images that resonate with it, and bring about shifts in the felt sense that further the progress of therapy.

Gendlin's (1981) descriptions of felt senses are reminiscent of James' ([1892] 1961) earlier descriptions of the "fringe." Gendlin's (1981) ideas also bear similarities to the phenomenological idea of "horizons" and to some aspects of Jung's notion of the unconscious. One unique aspect of Gendlin's (1981) work is his strong emphasis on the body, specifically the "inward sensitivity of the body," as the mode through which this dimension of human experience takes place.

Gendlin (1981) formulated his focusing method in a clinical context. It has also been applied in the creative arts, but so far its relevance to environmental psychology has not been much discussed. It is easy to discover, however, that felt senses can play a powerful role in the experience of environments. In an earlier paper (Schroeder, 1990a), I described how focusing on the felt sense of a particular natural environment led me to a more articulate understanding and a more vivid experience of the value that such environments have for me.

A Synthesis of Themes: The Implicit Dimension

In this section I attempt to distill some common themes that run through Jungian, phenomenological, and experiential psychology. I present these themes as a series of statements regarding what (for lack of a better term) I call the "implicit dimension" of human experience.

1. There is a dimension of human experience that has been described by various psychologists as implicit, prelogical, preconceptual, subliminal, deep, felt, vague, or unconscious. This dimension has profound consequences for human experience and behavior, even though we usually are not aware of it in an explicitly conscious way.
2. The implicit dimension is rooted in the body. It is not identical to emotion, although it seems to be allied with emotional and instinctive processes. It is a continually present backdrop for conceptual thought and understanding.

3. The implicit dimension cannot be explained, reduced to, or completely grasped in terms of any final or fixed logical schema. It is creative and open-ended, always lending itself to further elaboration and interpretation.
4. It is through the implicit dimension that we sense our relationship to the world. Motivations, meanings, and the felt values of things, events, people, and places come to us through this dimension.
5. The conscious, rational intellect may lose touch with and operate at cross-purposes with the implicit dimension. This can be a source of psychological distress and behavioral problems.
6. On the other hand, the conscious intellect can engage in a creative interaction with the implicit dimension by means of symbols, images, and concepts. This interaction can lead to greater awareness, more articulate understanding, and a more integrated personality.
7. To be effective, this process of interaction must involve not only intellectual concepts, but also emotion, feeling, imagination, and intuition.
8. The process proceeds differently for different individuals. There is no mechanical formula that can be followed in every case. Nevertheless, some generalizations about the process can be made, and methods for fostering it can be developed.

The tendency of the modern, rational intellect to lose touch with the implicit dimension parallels the separation of modern culture from the natural world. When the intellect becomes detached from the implicit dimension, it can only recognize values that are defined in precise rational and material terms. The human relationship with the natural world is then deprived of its psychological and experiential depth. Thus, efforts to heal the split between the cognitive intellect and the implicit dimension within the modern psyche go hand in hand with ecopsychology's efforts to heal the split in the human–nature relationship. This is increasingly recognized by people working in the field of ecosystem restoration:

> *We will also be exploring the idea of [ecosystem] restoration as . . . a kind of alchemy, through which the initiate struggles to change dross into gold and in the process brings about deep-seated transformations in himself or herself. . . . In this way we hope not only to increase public awareness of restoration, but to strike at what we believe to be the root of our 'environmental' problems, which we believe is located somewhere back there in the human heart and the human mind.*
>
> Jordan, 1990, p. 70

A Metaphorical Understanding of Values

The values implied by the phrase "nature and the human spirit" are hard to define because they are rooted in the implicit dimension of experience. As Gendlin (1962) makes clear, this dimension cannot be adequately conceptualized in terms of logical and deterministic concepts like those employed in the physical sciences. This does not mean, however, that these values cannot be conceptualized at all. Conceptualization of hard-to-define values can take place using metaphorical (as opposed to objective and literal) concepts.

The linguist George Lakoff (Lakoff and Johnson, 1980) argues that human understanding is structured to a large extent in terms of metaphors. Metaphors enable one to grasp an area of one's experience in terms of its similarities to another area. In particular, areas of experience that do not have an inherent, clearly delineated structure tend to be metaphorized in terms of areas that are more sharply delineated. For example, one often thinks about one's emotions in terms of metaphors drawn from one's experience of physical spaces, objects, and forces. One may say that one feels "up" or "down," that one is "close" to someone one knows, or that one is "attracted" to a person, place, or thing (Lakoff and Johnson, 1980).

Metaphors are more than just figures of speech. They are a fundamental means by which humans understand the world. Large areas of social and cultural reality are created and defined in terms of metaphorical concepts. One thinks, speaks, and acts on one's metaphorical understandings, yet one is often not directly aware of these metaphors and of how one is using them. Part of the difficulty in

communicating across cultures is that different cultures define their worlds in terms of very different metaphors (Lakoff and Johnson, 1980).

Because the deeper values of nature are rooted in an experiential dimension for which there is no clearly delineated, objective structure, a conceptual understanding of these values is most naturally formed in terms of metaphors. It is worth noting that a metaphorical understanding of "value" itself is already implicit in the origins of the words that researchers use to talk about value and related concepts. The word *value* comes from the Indo-European root *wal*, which means "to be strong." The words *emotion* and *motivation* both can be traced to the root *mew*, which means "to push away" or "to move." Metaphorically, then, to say that something has value is to say that it has the strength to move people emotionally and to motivate or push them into action.

The concept of physical motion provides a further metaphorical link between the concept of value and the concept of spirit. In many languages the word for spirit is derived from words meaning wind or breath. Thus, moving air is a common metaphor for spirit. Air is invisible and intangible, yet when it is moving it can be felt and has the power to set visible objects into motion. Based on this metaphor, "spirit" may be understood as an experience in which one is touched or moved by something that can be felt but that cannot be seen or grasped in tangible, concrete terms. I would argue that this kind of metaphorical description gives a more accurate account of the spiritual values of natural environments than do the numerical concepts of value or utility that are employed in economic and cognitive decision theories.

Utility-based models of value and choice are mechanistic, in that they treat value as a quantitative component of a deterministic process. These mechanistic models are useful for dealing with values in a variety of practical decision-making tasks. It is important to recognize, however, that mechanistic models are themselves a form of metaphor (Abram, 1991). As is the case with any metaphor, viewing human values and behavior in mechanistic terms highlights some aspects of reality while concealing other aspects (Lakoff and Johnson, 1980). The growing interest in nature and the human spirit indicates a need to embrace a wider range of metaphors which can represent aspects of our experience that are missed by a mechanistic understanding.

Implications for an Expanded Land Management Ethic

In moving toward an expanded land management ethic, researchers need to recognize the diversity of world-views held by people who are concerned about natural environments. Different world-views conceptualize the natural world and its values in terms of fundamentally different metaphors. Researchers need to respect the validity of metaphors that differ from their own and search for a common ground of understanding between groups holding different world-views. As part of this process, researchers may need to explore new metaphors for understanding their role with respect to nature. For those researchers steeped in the mechanistic Western world-view, this might mean imagining themselves in roles other than as controllers of a mindless, mechanical world.

In an expanded land management ethic, researchers could conceptualize "values" not only as quantities to be measured and maximized, but as felt experiences that move and motivate people. Reflecting on value experiences could give rise to new understandings and more fitting metaphors for humanity's relationship with the natural world. Recognizing the importance of emotion and imagination in the unfolding of these experiences, land managers might explore ways of integrating art, music, philosophy, and poetry along with science in the practice of restoring and sustaining ecosystems.

An expanded land management ethic must include a recognition that there is no such thing as absolutely objective truth in most areas of human knowledge. In recognizing this, managers allow for the return of an attitude of humility and an experience of mystery in their dealings with the natural world. Mystery is an excellent example of a hard-to-define value because it necessarily implies the presence of something unknown or unknowable. In the next section I offer some thoughts on mystery as an aspect of one's experience of nature.

Toward a Psychology of Mystery in the Experience of Nature

Perhaps the best known writing about mystery in the field of environmental psychology has been in the area of visual landscape preference. Kaplan and Kaplan (1989) have defined "mystery" as a cognitive, informational variable. A landscape is said to have mystery if it is partially hidden or obscured in such a way that one could gain more information by walking further into it. Studies by the Kaplans (1989) and their associates have shown that mystery defined and measured in this way is a strong predictor of landscape preference.

The Kaplans' (1989) research shows that a deterministic approach to mystery is both feasible and useful for the purpose of predicting preferences for landscapes. But the experience of mystery in natural environments involves more than visual preference. Consider the following quote from a qualitative survey about landscape experiences at the Morton Arboretum near Chicago (Schroeder, 1991):

> *Awesome, breathtaking, beautiful areas to wander through, experiencing the sight, the terrain, nature controlling the environment. . . . You can never stop admiring the wonder of it all and dwell on the mysteries of nature that can create such a primitive, almost threatening environment. It's beautiful, and scary. Makes one feel totally insignificant—and alone.*

For this person, the "mysteries of nature" evoke a powerful and moving experience, including feelings of admiration, awe, and fear.

The experience of mystery is the feeling that there is something deeper hidden behind, beneath, or within what is immediately visible. What is hidden may simply be part of the physical landscape, but it may also be something more ethereal—a sense of some numinous presence that cannot be defined in objective terms. Some environments are better able to evoke this intuitive sense than others. Forests may be among the best environments for evoking the experience of mystery because of the way they hide what lies within. Perhaps this is why European folk tales and fairy stories often begin with the hero or heroine entering a forest.

Mystery includes the possibility that what is hidden may be at least partially glimpsed or revealed; but there may also be a sense that what is hidden either cannot or should not be completely exposed. Perhaps one reason that both forest fires and clear-cutting are upsetting to many people is that they strip the land of its mystery in a particularly abrupt and harsh way.

Mystery gives rise to fascination and awe and is an essential element in many religions. The word *mystery* itself is derived from a Greek word referring to certain religions in which secret rites were revealed only to initiates. The original meaning of the word was "to close the lips," that is, to keep silent. The best known of the Greek mystery cults was held in honor of the Goddess Demeter who was linked with the earth, vegetation, and the cycle of the seasons.

The Jungian, phenomenological, and experiential perspectives that I outlined earlier in this chapter provide avenues for exploring the psychology of mystery in the experience of nature. They each imply that mystery is an essential aspect of the psyche itself—that there is an unconscious, implicit dimension of human experience that can never be completely known in conscious, rational terms. This dimension of depth and mystery within the human psyche resonates with the mystery of the natural world:

> *I have occasionally encountered places that call forth a particularly strong felt sense. These places have a special magic or enchantment, as if I had momentarily stepped out of my ordinary reality into a very different kind of world. I don't know exactly what it is about these places that gives them this quality. . . . On a recent visit to the Arboretum I tried focusing on this special felt sense in one place where it occurred. For a few moments I seemed to sense a deep, mysterious silence lying behind and beneath the sights, sounds, and movements of nature. The meaning in this felt sense of silence is still unclear to me, but it seems to be the source of the peace and serenity that I often experience in forests.*
>
> Schroeder, 1990a

The ideas and methods of Jungian, phenomenological, and experiential psychology may help us in understanding the significance of this kind of experience, how it is related to particular kinds of places, and why it is so deeply valued by certain people.

This does not mean that deterministic methods and models should be discarded by psychologists who are studying the human–nature relationship. Deterministic methods are powerful and valuable tools for answering certain kinds of questions. When the goal is to make valid statements about causal connections between objectively defined phenomena, rigorous and replicable scientific procedures are indispensable. But such procedures may be less well-suited for understanding an experience such as mystery. At times they may even be antithetical to this kind of experience. When deterministic science seeks to expose all that is unknown and reduce it to literal, materialistic explanations, it is working to remove mystery from our experience of the world. The purpose in doing this is to gain understanding and control of natural processes. When carried to extremes, however, this kind of understanding may be gained at a high price. In the words of Carl Jung (1964):

> *Modern man does not understand how much his 'rationalism' (which has destroyed his capacity to respond to numinous symbols and ideas) has put him at the mercy of the psychic 'underworld.' . . . We have stripped all things of their mystery and numinosity; nothing is holy any longer.* (p. 84)

Of course, many scientists do have a genuine appreciation for the experience of mystery. Loren Eiseley (1978) believed that the greatest advances in biology were not made by strict reductionists but by scientists who still had "a controlled sense of wonder before the universal mystery" (Eiseley, 1978, p. 190). These scientists had "just a touch of the numinous in their eye, a sense of marvel, a glimpse of what was happening behind the visible" (Eiseley, p. 193). The feeling of awe and mystery that inspired the cave paintings of early humans, Eiseley says, also motivated the work of biologists like Darwin. "Thus the *mysterium* arose not by primitive campfires alone. Skins may still prickle in a modern classroom" (Eiseley, pp. 189-190).

Clough (1992) describes just such a skin-prickling experience that he had after a classroom lecture on molecular orbital theory. Leaving the lecture hall, he felt himself "engulfed by the vision behind the mechanics."

> *All around me I saw and felt electrons in motion. . . . They surrounded, entered, and left me. I was a small puddle of molecules in an ocean of molecules, a pool with energy—events flowing in and out. I felt cared for by a Generosity as intimate as my very breath, as close as the oxygen in my blood, as available as the air.*
>
> Clough, 1992, p. 21

Clough (1992) interprets his experience in light of a quote he attributes to Albert Einstein:

> *Einstein wrote: 'The most beautiful and profound sensation we can experience is the sensation of the mystical. It is the source of all true art and science. He to whom this emotion is a stranger, who can no longer stand wrapped in awe is as good as dead. It is that deeply moving experience of a power revealed in the incomprehensible universe that forms my idea of God.'* (p. 22)

This view might be compared to that of the Lakota Indians who tell of an unseen source of power that gives movement to the material world. They call this power *Wakan Tanka*, or the Great Mystery (more often but less accurately translated as "Great Spirit"). Similarly, an Osage tradition tells of a time when certain men gathered to discuss the movements of heavenly bodies.

> *In their meetings they formulated the theory that a silent creative power fills the sky and the earth and keeps the stars, the moon and the sun moving in perfect order. They called it Wakonda (mysterious power) or Eawawonaka (causer of our being).*
>
> Bierhorst, 1985, p. 229

In his exploration of the psyche, Carl Jung seems to have encountered a similar realization of the irreducible *mysterium* of existence. He wrote, "the collective unconscious, it's not for you, or me, it's the invisible world, it's the great spirit. It makes little difference what I call it: God, Tao, the Great Voice, the Great Spirit" (Jung, 1980, p. 375). Thus a numinous mystery confronts us in the inner world of the psyche as well as in the outer world of nature. The outer and the inner worlds are in fact not separate. They are simply two perspectives on the same world, and it is the same mystery—"that fundamental hiddenness out of which everything comes into being" (Brooke, 1991, p. 131)—that we encounter in both.

The effort to understand nature and the human spirit leads toward an encounter with this mystery

in the world and in oneself. This is a matter of first-hand experience that cannot be reduced to logical formulas, precise definitions, and predictive models. Through the encounter with mystery one might regain one's sense of awe at the world and one's place in it. Scientific knowledge, whether gained by psychology or physics, can be a vital part of this encounter, but only if one is willing to accept that science cannot reveal and define everything. In Jung's (1976) words:

> *Science is the art of creating suitable illusions which the fool believes or argues against, but the wise man enjoys their beauty and their ingenuity, without being blind to the fact that they are human veils and curtains concealing the abysmal darkness of the Unknowable.* (p. 57)

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