

Journal
of
Near-Death Studies

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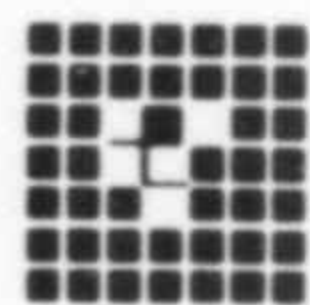
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JOURNAL OF NEAR-DEATH STUDIES (formerly ANABIOSIS) is sponsored by the International Association for Near-Death Studies (IANDS). The Journal publishes articles on near-death experiences and on the empirical effects and theoretical implications of such events, and on such related phenomena as out-of-body experiences, deathbed visions, the experiences of dying persons, comparable experiences occurring under other circumstances, and the implications of such phenomena for our understanding of human consciousness and its relation to the life and death processes. The Journal is committed to an unbiased exploration of these issues, and specifically welcomes a variety of theoretical perspectives and interpretations that are grounded in empirical observation or research.

The **INTERNATIONAL ASSOCIATION FOR NEAR-DEATH STUDIES** (IANDS) is a world-wide organization of scientists, scholars, near-death experiencers, and the general public, dedicated to the exploration of near-death experiences (NDEs) and their implications. Incorporated as a nonprofit educational and research organization in 1981, IANDS' objectives are to encourage and support research into NDEs and related phenomena; to disseminate knowledge concerning NDEs and their implications; to further the utilization of near-death research by health care and counseling professionals; to form local chapters of near-death experiencers and interested others; to sponsor symposia and conferences on NDEs and related phenomena; and to maintain a library and archives of near-death-related material. Friends of IANDS chapters are affiliated support groups in many cities for NDErs and their families and for health care and counseling professionals to network locally. Information about membership in IANDS can be obtained by writing to IANDS, P. O. Box 502, East Windsor Hill, CT 06028.

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Editor's Foreword

It may be an indication of the maturity of the field of near-death studies that most articles being published now build on previous work rather than speculating on virgin territory. This issue of the Journal is almost entirely consumed with empirical studies or commentaries bearing on previously published papers.

We start with a Guest Editorial by respiratory and massage therapist Barbara Harris, stimulated by the linkage of near-death experiences (NDEs) and kundalini to which we devoted our Spring 1994 issue. Harris offers a warning about overvaluing these phenomena, and places them in the context of an emerging complementary paradigm of health care. In another theoretical paper, Chilean neuroscientists Juan Gómez-Jeria and Juan Saavedra-Aguilar, whose provocative neurobiological model of NDEs was reviewed in our Summer 1989 issue, elaborate a corollary model of the biological mechanisms that may underlie NDEs' ability to recall events that occurred while they were ostensibly unconscious.

Next, ICU nurse Linda Hutton Moore replicates her previous study of hospice nurses' knowledge and attitudes toward NDEs, published in our Summer 1991 issue, in a sample of physicians. This is followed by my own study of satisfaction with life among NDEs and control groups, a confirmation and expansion of findings published in 1993 by nurses Melodie Olson and Peggy Dulaney.

Sociologist Allan Kellehear, psychiatrist Ian Stevenson, and parapsychological researchers Satwant Pasricha and Emily Cook then question on anthropological and methodological grounds the absence of tunnels in Indian NDEs, reported by psychologist Susan Blackmore in our Summer 1993 issue. Next, researcher Arvin Gibson provides a comparative analysis of Mormon NDEs, building on the cases presented in his two books (1992, 1993).

Finally, philosopher Carl Becker reviews Sogyal Rinpoche's *The Tibetan Book of Living and Dying*, emphasizing its implications for contemporary society and its historical context; and in Letters to the Editor, scholar V. Krishnan challenges psychologist Kenneth Arnette's formulation of the mind/body problem, presented in our Fall 1992

issue, and Arnette responds. We end this issue with an announcement of the relocation of IANDS' central office.

Bruce Greyson, M.D.

Guest Editorial

Kundalini and Healing in the West

Barbara Harris, RT, CMT
Baltimore, MD

ABSTRACT: Kundalini rising, and associated profound physical, mental, emotional, and spiritual changes, are occurring with increasing frequency to uninitiated and unprepared Westerners, often as a result of near-death experiences. While these phenomena have been encompassed by Oriental medicine for centuries, they are unknown to traditional anatomically-based Western medicine. Without adequate knowledge or guidance, kundalini experiences may lead to ego inflation or "premature transcendence," paradoxically blocking spiritual evolution. A new paradigm in health care, emerging as a complement to traditional Western medical science, incorporates a variety of body-based and psychological therapies that validate the role of the True Self in health and wholeness and work with energetic and experiential phenomena such as kundalini.

Phenomena associated with kundalini rising, linked to near-death experiences (NDEs) in the Spring 1994 issue of the *Journal* (Jourdan, 1994; Kason, 1994; Kieffer, 1994; Wile, 1994), are occurring more and more to Westerners who have never heard of it, and, like near-death experiencers, have done nothing intentionally to arouse it. Felt as vast rushes of energy through the body, kundalini rising can create profound changes in the structure of people's physical, mental, emotional, and spiritual lives.

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For thousands of years Oriental medicine has included the kundalini model and used it in healing modalities such as acupuncture, Shiatsu, and Jin Shin Jyutsu. We in the Western world have observed acupuncture being used for anesthesia during surgery and for relief of pain. We know that it works, but we just don't know *how* it works. Today, many "new paradigm" therapists and health care practitioners in America and Europe are using modalities based on this energy model in their work and getting excellent results. Even though our American schools of medicine, nursing, and physical therapy have not yet understood or accepted this model, the energy does exist, and awakening it and/or working with it on its own subtle level does affect and help heal the physical body. Perhaps Western medicine has never included the awareness of this energy because originally most of what was known of the human body was based on autopsies, and there is obviously no energy in the body after death. But even today with medicine's advances, most physicians are not aware of kundalini or of its potential usefulness in their work.

In my first book, *Full Circle* (Harris and Bascom, 1990), I described kundalini as a natural phenomenon with intense psychological and physical effects, which can catapult the individual into a higher state of consciousness. I would add now that the kundalini system is based on the *experiential* reality that we are each extensive fields of consciousness intimately related to our biological bodies. As fields of consciousness we have an energy/spirit-body. All kinds of experience can manifest in our energy/spirit-body. These experiences can be highly emotional and are usually connected to activities in the autonomic nervous system and the hormonal, nervous, and muscular systems of the biological body. These experiences can be repressed in our memories but are also manifested as stress in our energy/spirit/biological bodies. Felt as "blocks in our energy," they can be released resulting in release of emotional and physical stress and recovery of forgotten memories. Thus, kundalini is fueled by emotion and helps us to release a lifetime of buried stress resulting in a healthier body, physically, emotionally, mentally, and spiritually.

Shiatsu, polarity, acupuncture, acupressure, Reichian body work, bioenergy integration, holotropic integration, tai chi, and other forms of therapeutic massage utilize the concept of underlying energy that can be released. Whether this energy is called chi, ki, prana, kun-

dalini, bioenergy, Holy Spirit, vital force or simply energy, the assumptions about it are similar.

In discussing the energy model, there is a common limitation set up by the tendency to concretize the energy, to view the energy as physical stuff with physical properties. The concept of energy in the human body and any living form should be contemplated as a *verb*, not a noun. There is no such thing as energy in physical form. There is the activity that is described in energetic terms. In this sense, energy moves rather than exists statically, as in an electrical storage battery. So when we speak of life energy, we describe activity, not a measurable physical entity.

According to the Chinese explanation of the energy model, energy is seen to be like the wind, which is invisible, but which has visible effects, such as waves on top of a pond stirred by a breeze. The concept of energy is a useful way of describing the deeper hidden patterns, deeper processes that underlie the visible effects. In the final analysis, the results of the energy, the visible waves on the pond, can be seen in the lives that we lead, the love that we share, and the selfless service that we extend. "By their fruits you will know them" (Matthew 7:20).

I have heard hundreds of stories from people throughout the United States and Canada, and received letters from all over the world, of kundalini arousal. When I worked with Bruce Greyson at the University of Connecticut, experiencers with kundalini signs and symptoms would come to our Friends of IANDS support group, call us, or write voluminous letters. They were usually concerned, often scared, and always wanting to know more and help in the research. Occasionally they claimed to be authorities in this area that has often been clouded and hidden within the occult jargon of the Eastern esoteric schools since the beginning of recorded history. We have even been faced with contemporaries who claim that their kundalini awakening has transformed them into gurus.

One of the biggest problems at this early stage of understanding this transformational process is *ego inflation*. Many read the Eastern literature and may identify strongly with the gurus. But we are Westerners, and it is hard to translate these Eastern metaphors when our cultural roots are so different. Eventually, most of us pass through this stage, realizing that we have not been raised in the East. Many also develop psychic abilities and many believe that this is the "powerful" end result. They fixate on being psychic, resulting again in ego inflation. Our reward for working through ego

inflation is *humility*, which is a solid foundation of an authentically *spiritual, healthy, and whole* human being. Humility is the willingness to continue learning our whole lives. Being humble is that state of being open to experiencing and learning about self, others, and God. In this openness we are free not only to avoid any of the pitfalls of ego inflation, but we are also free to connect with God again, here, in this reality. In this state of humility and "second innocence," we can more easily and consciously experience whatever comes up for us.

Some never experience ego inflation and others may get stuck in it. The secret is to work on ourselves psychologically as well as spiritually. Kundalini rising does not instantly heal us. To believe so is to attempt what Charles Whitfield (1987, 1991), I (1995), and others call a "spiritual bypass." We try to bypass our own shadow/darkness to get to the Light, ignore the lower to get to the higher levels of consciousness. Eventually, however, our shadow will pull us back until we work through our particular unfinished business. Other names for this are "high level denial" and "premature transcendence." This is seen in any number of situations, from being prematurely "born again" to having a spiritual awakening and focusing only on the Light, or focusing on psychic ability as a major part of our identity, to becoming attached to a guru or "way."

Kenneth Ring (1984) referred to deep near-death experiences as "core experiences." In the NDE, we were the core of who we really are, or our *True Self*. Ego inflation prevents us from being our core True Self. If we live from our ego or false self, we feel separated and alienated, empty and with no meaning. In its extreme, our negative ego or false self will even try to convince us that it is God! We can only experientially connect with God, each other, and our selves by developing our core True Self. Ego inflation is more of a cognitive or intellectual experience, a head trip. Being our True Self and connecting spiritually with God is a *heart experience*.

The mechanism of kundalini brings us home to our True Self. Cooperating with it, being patient with ourselves, and getting what we need (including therapy, body-based and psychological) not only brings us to our True Self, but also to our connection with others and especially to God as we feel God in our experiences. Kundalini shows us that we don't have to wait to die again. God and Home are *here and now* if we invite this divine energy to guide us and help us do our homework.

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A Neurobiological Model for Near-Death Experiences. II: The Problem of Recall of Real Events

Juan Sebastian Gómez-Jeria, Lic. Q.
Juan Carlos Saavedra-Aguilar, M.D.
University of Chile

ABSTRACT: In this article we propose a scientific approach to explain the fact that some near-death experiencers (NDErs) are able to recollect and verbalize real events occurring in the environment during the experience. Our model assigns a central place to priming, multiple declarative memory, and verbal modules. These biological mechanisms lead to the assimilation of multiple external cues, the consolidation in memory of matched primed environmental events, and the transformation and creation of logically structured functional engrams. Finally, the after-NDE behavioral and verbal interactions between the experiencer and a community of observers are discussed, together with their results.

Until now, near-death studies have been carried out along several approaches, some of which are incompatible. The emergence of neurobiological models strongly suggests that near-death studies have reached a stage allowing a systematic and rigorous organiza-

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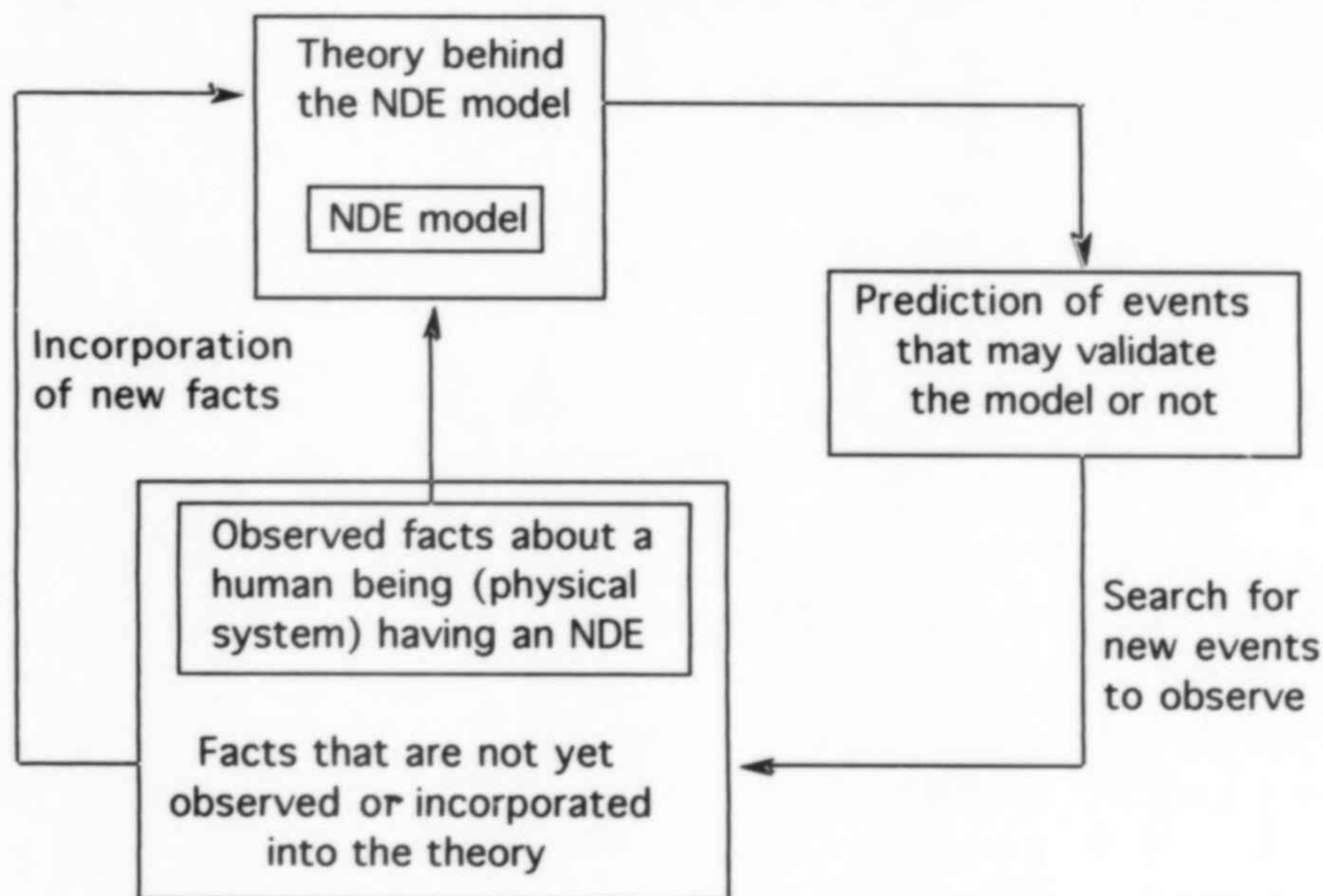
tion. Naturally, the task of squeezing a large body of facts into a model can be a painful one, especially when personal beliefs are involved. The presence of the really arbitrary, such as religious and personal beliefs, and the moderately arbitrary, which are necessary in the first steps in the construction of a scientific model, results in the existence of various basically different "explanations" for the same phenomenon.

In the case of near-death experiences (NDEs), a detailed neurobiological model has been proposed (Saavedra-Aguilar and Gómez-Jeria, 1989a, 1989b). Later, some extensions or variations of it were presented (Appleby, 1989; Jansen, 1989a, 1989b, 1990; Morse, Venecia, and Milstein, 1989; Owens, Cook, and Stevenson, 1990). Some of these authors seemed to be unaware of the near-death research literature. Of course, the proprietary questions are not of much importance, but it is strictly necessary to keep the literature straight. A short time ago, an approach we feel was methodologically erroneous was used to find similarities between some NDEs and multiple personality disorder (MPD) (Serdahely, 1992). Considering that it has been shown that there is a phenomenological overlap between MPD and some cases of obsessive-compulsive disorder (Ross and Anderson, 1988), we might conclude erroneously that perhaps some NDEs have similarities with some obsessive-compulsive disorders. Naturally, this is not the case: the NDE is *not* a clinical disorder.

In addition there have been proposed nonscientific models such as the "transcendental" one, in which personal beliefs are mixed with religious traditions (Basil, 1991). We believe that time will show that scientific models are the only ones accounting for near-death phenomena. In this article, we will center our work in scientific terms. A tentative working strategy for developing this model is shown in Figure 1, with the understanding that scientific models always need to be ameliorated in the light of new knowledge (Nagel, 1991).

The problem that will be explored here is the following: some persons are able to recollect and verbalize, at least partially, real events, such as a nurse's voice or the color of a doctor's clothing, occurring in the environment during an NDE. We shall present and discuss recent evidence about the functional mechanisms by which the nervous system of a person in an abnormal state is able to deal with the environment. This article initiates a scientific approach to the above-mentioned aspect of the NDE.

Figure 1
A Simplified Strategy for a Scientific Approach to NDEs



Neurobiological Evidence and the Model

Anesthesia and Environmental Awareness

During anesthesia, 1 to 75 percent of patients show variable states of awareness of the environment, but with no recollection of it upon awakening. Furthermore, conscious recall of contextual environmental events during a surgical procedure is reported by about 1 percent of patients (Kulli and Koch, 1991; Schultetus, Hill, Dharamraj, Banner, and Berman, 1986). In recall, the patient remembers and communicates intraoperative events during the surgical procedure. More strikingly, priming effects have been reported in anesthetized subjects, although the existence of such effects has been challenged by some reports (Eich, Reeves, and Katz, 1985; Kulli and Koch, 1991; Levinson, 1965; Maintzer, 1979).

The evidence indicates that, despite the anesthetized organism being in a state hindering reaction to the environment, the environment can influence the organism, which may then behave in a more or less appropriate way. It is therefore arguable that, during the NDE, some persons may use the same biological mechanisms underlying

awareness and recall during anesthesia. These mechanisms seem to involve the various processes sustaining learning and the memory of events taking place in the environment. Furthermore, for the subsequent conscious communication of these processes, the verbal functional system seems essential.

Learning and Memory Processes: The Importance of Priming

If an organism is able to adapt to the environment, it has to learn (that is, consolidate in some functional way in its structure) contingent aspects of the environment. This process allows the subsequent reconstruction of this particular configuration with regard to different sets of relational environmental events, generating the memory processes and their behavioral consequences. Memory processes have been classified as unconscious procedural memories and conscious verbal declarative memories (Baddeley, 1987; Squire, 1987). A basic mechanism that seems to underlie procedural and declarative memory appears to correspond to priming.

Priming refers to the implicit facilitation of sensory events and their behavioral results, brought about by widely different unconscious and subliminal environmental stimuli, which nevertheless can be structured as sets of specific functional processes in early neural sensorimotor processing (Squire, 1992; Tulving and Schacter, 1990). In a classic experimental paradigm, different stimuli, such as letters or geometric figures, are tachistoscopically presented to the subject during brief intervals of 1-2 milliseconds. The subject does not report any conscious recall of these stimuli. Later, when a list of related and unrelated stimuli are presented and the subject is instructed to choose some of them, the contingent stimuli are chosen more frequently than the unrelated ones. Priming appears to involve the sensorimotor primary areas; letters and forms appear to be structures in right posterior brain regions, while sequences of words are primed in the left posterior brain regions (Squire, 1992).

Priming is affected by the environmental context and by the affective state of the subject (Bornstein and Pittman, 1992; Niedenthal, 1992). It is a primary mechanism that can be used by long-term declarative memory processes and by short-term memory processes (Squire, 1987), and it is also essential for procedural learning. The affective state of the organism could modulate the priming mechanism through the connections between limbic structures, such as the

amygdala, and the primary sensory areas. Since these regions are important in declarative memory, the content of these memories can affect priming. The procedural memories could act on priming in sensorimotor areas through the connections between the basal ganglia, including thalamic nuclei, and these regions. We suggest here that the effect of declarative and nondeclarative memories on priming seems to provide the fine tuning of this process to more restricted environmental aspects. On the contrary, it is expected that in cases of decreased alertness, such as during anesthesia and near-death situations, this abnormal state results in a priming mechanism functioning in a less restricted way.

The net result of the latter situation would permit priming to be gated by a wider set of environmental events. In this biological condition, declarative memory processes could access a broader set of primed representations of the environment. This would result in the possibility of "knowing," by using declarative memory and its necessary related verbal mechanism, different actual events that occur during, for example, a surgical procedure. In the case of NDEs, the same mechanism could permit the recall of wider aspects of the environmental situation related to this experience. To understand fully the implication of this possibility, it is useful to discuss some aspects of verbal mechanisms and their relevance to this situation.

The Verbal System and Its Relevance in the Unification of Consciousness

Michael Gazzaniga (1985) discussed the experimental evidence regarding the role of the verbal system in making "logical" verbal inferences dealing with different behaviors and affective states of a subject, and its role in the generation of the self. Based on evidence such as split-brain patients, he suggested that different modules of the brain permanently elicit different nonverbal behaviors and affective states. A specialized system, the verbal behavioral system, generates different beliefs related to each situation. This process is essential for making sense of various behavioral repertoires and affective states.

This operation is based on past sociocultural and individual experiences and integrates these different elements into a more or less coherent and socially plausible hypothesis, resulting in a personal belief system (Saavedra-Aguilar and Gómez-Jeria, 1991). This mecha-

nism uses declarative memory processes that, in turn, are modulated recursively by different processes such as priming. As we said above, in abnormal states, such as those associated with anxiety or placidity, the declarative memory processes could gain access to a wider set of environmentally-primed events. In these situations, the verbal system is flooded with declarative neural processes that, in turn, are based on this wide priming structuring occurring in primary areas.

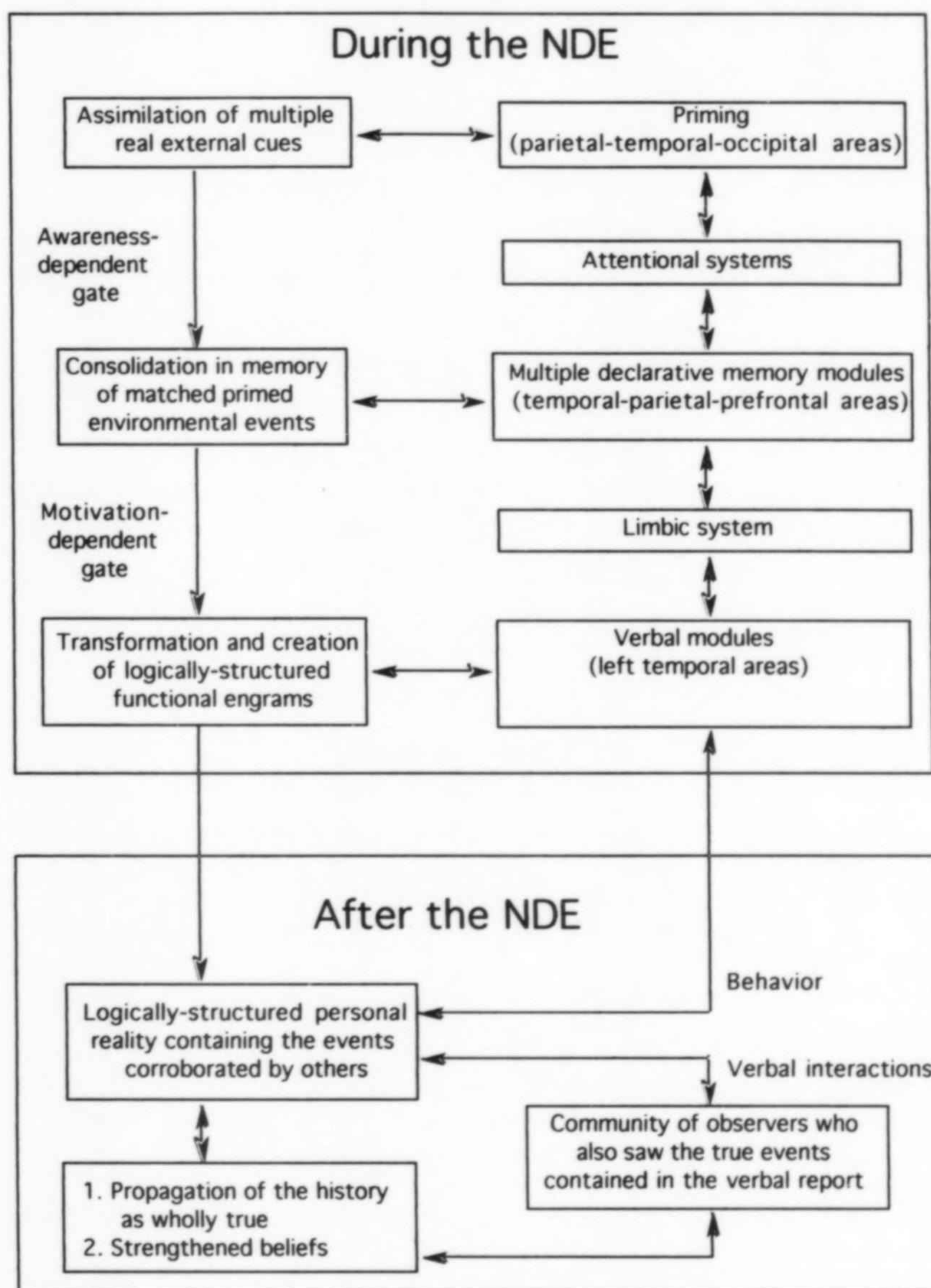
As postulated by Gazzaniga (1985), this jigsaw puzzle of environmental events can be integrated by this system through the generation of a coherent personal hypothesis, or belief. Hence, this belief can be integrated with previous knowledge, resulting in a coherent story. This "story," corresponding to a specific belief about a situation, can be highly accurate, compared to the actual events that gated the priming processes. As the verbal system functions in a logically structured way, the subject knows that he or she was paralyzed, with eyes closed, but nevertheless heard the doctor's voice and the noises of the surgical suite. A good "hypothesis" is to create the belief that he or she was looking at this situation from above, by using and gating the access of previous contextual visuokinesthetic memories, such as the ones that are common in some dreams.

These memory fragments are integrated with the primed related declarative memories, resulting in the belief that the subject was actually observing the situation, that is, having an out-of-body experience (OBE). Since this can generate accurate reports about the actual conditions of the situation, accessed through the facilitated primed mechanisms, the belief is strengthened and consolidated in the subject's personal biography and in the beliefs of the audience. It should be clearly understood that this mechanism does not operate only in verbal terms, but uses recursively different visuokinesthetic memory processes and memories of personal beliefs, such as religious ones. Nevertheless, this specific explanation for *some* OBEs does not exclude other mechanisms to explain this mental experience.

Commentary

The model suggested above integrates the personal history and beliefs of a subject with neural mechanisms representing the actual events that took place during the episode. This model is summarized in Figure 2. Since some data of the experiencer's story can be corroborated by another observer or by a community of observers, this

Figure 2
The Model for Recall of Real Events Occurring During an NDE



leads other people to believe the story — which, by a subsequent feedback mechanism, reinforces the subject's belief. Because most near-death experiencers are not really near death (Gabbard and Twemlow, 1991; Gabbard, Twemlow, and Jones, 1981; Owens, Cook, and Stevenson, 1990), and because in the verbal report of the story there appear

some elements of the subject's own culture (Gómez-Jeria, 1993), we get the propagation of an "acceptable" tale. Given that this tale demands an explanation as a complete truth, the final stage of this process is the production of several sets of nonscientific statements claiming to be "explanations."

We must add that the attempt to redefine the NDE as an experience occurring only during a real near-death situation is a groundless way of trying to keep NDEs from being explained. We hope that this paper will open a serious discussion about the nature of the different stages of the near-death experience and their contents, taken as, for example, elements appearing in the field of consciousness.

Finally, it would be desirable to discuss the advisability of changing the name of the NDE. A change of name will not modify the fascinating nature of this mental experience, but it will change several prejudices about its nature. We strongly feel that the vocabulary actually in use is an obstacle that the theory has to overcome, just as the search for a theory is hindered by the constraints of some habits of thought regarding astral planes and souls.

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An Assessment of Physicians' Knowledge of and Attitudes Toward the Near-Death Experience

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ABSTRACT: The purpose of this study was to investigate physicians' knowledge of and attitudes toward near-death experiences (NDEs). The study population consisted of 143 staff physicians in the Baptist Memorial Hospital System. Participants completed by mail a modified version of Thornburg's (1988) Near-Death Phenomena Knowledge and Attitudes Questionnaire. Less than one-fourth of the physicians had a well-grounded knowledge base regarding NDEs, while two-thirds had a positive attitude toward NDEs. These data suggest the need for inservice programs for medical and nursing staff regarding near-death phenomena. Further studies assessing physicians' knowledge of and attitudes toward NDEs are recommended utilizing a larger population from a wider geographical region.

The near-death experience (NDE), which some refer to as a spiritual event, may occur to a patient who has experienced a close encounter with death (Greyson, 1983b). This experience has significant implications for health care professionals who provide the direct and immediate care to those patients and their families (Moody, 1975; Ring, 1984). As critically ill patients and their families perceive the physician as the lifeline to successful recovery, an exploration of physicians' knowledge of and attitudes toward the NDE is warranted.

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Regardless of the exact nature of the NDE, health care professionals must prepare to provide holistic care to patients who have these experiences.

The term "near-death experience" was initially coined by Raymond Moody (1975). Through his years of research in exploration of this phenomenon, Moody uncovered the components of the NDE through interviews of those having experienced it. Some of the more important elements he identified included (1) indescribable knowledge, or a loss of words to describe the experience; (2) hearing of one's death either from the physician or a significant other; (3) a peaceful feeling felt by the individual experiencing the NDE; (4) unusual sounds heard at the time of death or directly preceding death; (5) out-of-body experiences; (6) the tunnel, which has been described as a dimensional space in which the patient travels toward a brilliant light; (7) beings of light, who may be identified by the experiencer as deceased friends or relatives; (8) meeting a supreme being, which those experiencers with a religious background identify as God; (9) the life review, a panoramic view of one's life; (10) the border or point of no return; and (11) telling others, sometimes reluctantly for fear of being labeled as confused or hallucinating (Moody and Perry, 1988).

According to Moody (1975), the presence of one or more of the above components being reported by a patient may point toward the occurrence of a near-death experience. Bruce Greyson (1983a) also described components of NDEs in 67 individuals who reported at least one experience that consisted of the components described by Moody. Further, Michael Sabom (1982) conducted a study among 107 persons who had a close encounter with death, 70 percent of whom were cardiac arrest patients. His results revealed that about 40 percent of patients interviewed reported NDEs that contained at least ten components of the NDE as identified by Moody.

Advances in medical technology have provided a way for great numbers of critically ill patients to be resuscitated, many of whom experience NDEs (Hammond, 1989). Revived patients are increasingly reporting NDEs following their close encounters with death. It has become apparent that physicians and other health care professionals providing care for such patients need adequate knowledge and evaluation of their attitudes toward the NDE in order to help these patients deal with their close encounter with death and their emotional and spiritual feelings regarding their NDE.

Literature regarding studies that assessed knowledge and attitudes of health care professionals toward the NDE is limited. There have

been three studies that focused on various nursing specialties' attitudes toward NDE (Barnett, 1991; Oakes, 1981; Thornburg, 1988); one study that assessed psychologists' knowledge of and attitudes toward the NDE (Walker and Russell, 1989); and two studies to investigate the knowledge and attitudes of clergy regarding the NDE (Royse, 1985; Bechtel, Chen, Pierce, and Walker, 1992).

There has been no study that assessed physicians' knowledge of and attitudes toward near-death experiences. Thus, as this study was the first to explore this topic, this research investigation was primarily descriptive in nature.

Method

Subjects and Instrument

The study population consisted of all 1,275 staff physicians caring for patients in the Baptist Memorial Hospital System in San Antonio, Texas.

The research instrument was a two-part questionnaire. The first part was developed by myself and identified demographic information about the physician, including (1) gender, (2) age, (3) medical specialty, (4) religious preference, (5) experience working with a patient who reported an NDE, (6) an indication of whether or not the physician had personally undergone an NDE, and (7) whether or not the physician thought medical staff should discuss NDEs with their patients who have had a close brush with death.

The second part of the questionnaire was a modified version of the Near-Death Phenomena Knowledge and Attitudes Questionnaire (Thornburg, 1988), which assesses attitude and knowledge level. Prior to utilizing this questionnaire, permission was obtained from its author, Nina Thornburg, to modify her instrument by shortening it and substituting the word "physician" for "nurse" where appropriate. Thornburg performed a varimax rotation on the individual questionnaire items to set reliable correlational levels. Each item utilized in this study to assess physicians' knowledge of and attitudes toward NDEs had a correlation coefficient of greater than .51 with its respective factor. The knowledge component of this questionnaire consisted of 15 true/false/undecided items, while the attitude component consisted of 25 Likert scale items.

Procedure

Prior to conducting this study, approval was obtained from the Baptist Memorial Hospital System Nursing Research Committee and from its Ethics Committee. Data were collected by mail survey, which consisted of a detailed cover letter explaining the purpose of the survey and a questionnaire. Approximately three weeks after the initial cover letter and questionnaire were mailed out, a follow-up reminder letter was sent to each of the 1,275 physicians.

Results

Demographics

Of the 1,275 questionnaires mailed to staff physicians, 170 were returned, of which 143 were completed in their entirety, for an 11 percent response rate.

The majority of the physicians who completed the questionnaire were male (127 respondents, or 88 percent). The average age of the 143 respondents was 45 years, with a range from 29 to 77 years. Of 20 medical specialties represented on the medical staff, the greatest number of responses came from family practitioners ($n = 23$), surgeons ($n = 20$), internists ($n = 14$), and emergency physicians ($n = 11$). The majority of respondents described their religious preference as Protestant ($n = 74$, or 52 percent); 45 respondents (31 percent) described themselves as Roman Catholic, and the remaining 24 (17 percent) as having some other religious faith or no religious preference.

Over half of physicians responding ($n = 73$, or 51 percent) reported that they had cared for a patient who had had an NDE. Further, of the 143 respondents, 18 (13 percent) reported having had an NDE themselves.

Knowledge

For the 15-item knowledge component, a score of 11 or greater represented a well-grounded knowledge base about NDEs. Using that criterion, 23 of the study participants (16 percent) were found to be

adequately knowledgeable about NDEs. The mean score for all 143 participants was 7.4 (S.D. = 3.2), with a range from 0 to 14.

The majority of physicians responding believed that coded patients can accurately describe their resuscitation, and most respondents believed that NDEs are not triggered by medication. The majority of physicians were undecided as to whether NDEs are a defense mechanism against the threat of dying; but most indicated that people who experience an NDE have a greater appreciation for life and that the NDE affects the patient's belief in an afterlife. Table 1 summarizes knowledge responses for the 143 respondents.

Attitudes

For the 25-item 5-point Likert scale ranging from "strongly agree" to "strongly disagree," a score of 88 or greater (out of 125) indicated a positive attitude toward the NDE (that is, a mean score of 3.5 on each 5-point Likert item). Using this criterion, 93 participants (65 percent) revealed a positive attitude toward NDEs. The mean score for all respondents was 90.99, with a range from 63 to 119. Of the responses on the attitude component, the majority of physicians indicated that patients reporting NDEs actually have these experiences and that accounts of these experiences should be documented. Furthermore, most physicians ($n = 128$, or 90 percent) disagreed with the statement that they would not want to work with a patient who had an NDE. The majority of physicians also reported that NDE courses should be offered for health care professionals and that they would like to attend an inservice about NDEs themselves. Table 2 summarizes the 143 responses on the attitude component of the questionnaire.

Discussion

This study assessed the knowledge and attitudes of physicians toward the near-death experience. Little research has been conducted in the field of assessing health care professionals' thoughts about this phenomenon, and based on the literature review, no studies had previously assessed physicians' knowledge and attitudes.

These data revealed that physicians are aware of the near-death experience, though many may not have a well-grounded knowledge

Table 1
Physicians' Responses on the Knowledge Component of the
Questionnaire (n = 143)

<i>Item (abbreviated wording)</i>	<i>"True"</i> <i>responses</i>	<i>"False"</i> <i>responses</i>	<i>"Undecided"</i> <i>responses</i>
1. NEs occur only near death.	63 (44%)	43 (34%)*	32 (22%)
2. NDErs may describe a choice to return to their body.	77 (54%)*	16 (11%)	50 (35%)
3. NDErs describe their experiences in similar terms.	91 (64%)*	22 (15%)	30 (21%)
4. NDErs are eager to tell others about the experience.	65 (46%)*	29 (20%)	49 (34%)
5. Suicide-induced NDEs are unpleasant.	26 (18%)*	20 (14%)	97 (42%)
6. NDEs are caused by therapeutic drugs.	1 (1%)	82 (57%)*	60 (42%)
7. NDEs are a defense against the anxiety of dying.	18 (13%)	49 (34%)*	76 (53%)
8. Patients are accurately able to describe their resuscitation.	101 (71%)*	8 (6%)	34 (23%)
9. Cross-cultural NDEs show significant differences.	33 (23%)	47 (33%)*	63 (44%)

(continued)

Table 1 (continued)

<i>Item (abbreviated wording)</i>	<i>"True" responses</i>	<i>"False" responses</i>	<i>"Undecided" responses</i>
10. Over 80% of NDErs show greater appreciation of life.	99 (69%)*	4 (3%)	40 (28%)
11. NDErs attend church more often after the NDE.	50 (35%)	7 (5%)*	86 (60%)
12. NDErs have difficulty describing their experiences.	66 (46%)*	40 (28%)	37 (26%)
13. NDEs are described as peaceful, without pain.	111 (78%)*	5 (3%)	27 (19%)
14. The impact of NDEs is to increase the suicide rate.	1 (1%)	106 (74%)*	36 (25%)
15. NDEs affect a patient's belief in an afterlife.	83 (58%)*	7 (5%)	53 (37%)

*Correct response

base. The majority of physicians have a positive attitude toward this phenomenon and would like to learn more about it through inservices. These physicians also believed that nursing staff would benefit from learning more about NDEs as well.

As health care professionals, we must all provide our patients with our openness to accept what they have seen, heard, or felt during their close encounter with death. Diane Corcoran (1988) suggested several ways to accomplish this: first, health care professionals must search their own inner self to discover what their attitude toward the NDE is; second, they must try not to be judgmental toward the NDEr, allowing him or her to verbalize what happened during the encounter with death; and most importantly, they should maintain

Table 2
Physicians' Responses on the Attitude Component of the Questionnaire (n = 143)

<i>Item (abbreviated wording)</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Don't Know</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
1. Student NDE research should be encouraged.	7 (5%)*	44 (31%)	50 (35%)	33 (23%)	9 (6%)
2. NDEs should not be documented in the chart.	5 (3%)	15 (10%)	21 (15%)	84 (59%)*	18 (13%)*
3. NDErs need to share their experiences.	12 (8%)*	79 (55%)	38 (27%)	10 (7%)	4 (3%)
4. Courses on NDEs should be offered	12 (8%)*	79 (55%)	30 (21%)	15 (11%)	7 (5%)
5. Some patients are reluctant to report NDEs.	5 (3%)*	90 (63%)	41 (29%)	6 (4%)	1 (1%)
6. Nurses should chart NDE reports.	12 (8%)*	95 (67%)	27 (19%)	6 (4%)	3 (3%)
7. NDErs have underlying psychological problems.	1 (1%)	4 (3%)	35 (24%)	75 (52%)*	28 (20%)*

8. NDE stories frighten me.	0 (0%)	3 (2%)	14 (10%)	68 (47%)	54 (41%)*
9. Patients who report NDEs actually have them.	22 (15%)*	62 (43%)	47 (33%)	5 (3%)	2 (1%)
10. Medical students should have an NDE course.	16 (11%)*	51 (36%)	47 (33%)	20 (14%)	9 (6%)
11. Nurses should have an NDE course.	15 (10%)*	68 (48%)	38 (27%)	15 (10%)	7 (5%)
12. Most NDErs had read about NDEs previously.	2 (1%)	14 (10%)	73 (51%)	47 (33%)	7 (5%)*
13. An inservice on NDEs is a waste of time.	7 (5%)	13 (9%)	41 (29%)	69 (48%)	13 (9%)*
14. NDErs should be referred to a psychiatrist.	0 (0%)	7 (5%)	18 (12%)	70 (49%)	48 (34%)*
15. NDErs need reassurance that NDEs are normal.	31 (21%)*	94 (66%)	12 (8%)	6 (4%)	0 (0%)
16. I wouldn't want to work with an NDEr.	2 (1%)	5 (3%)	8 (6%)	73 (51%)	55 (39%)*

(continued)

Table 2 (continued)

<i>Item (abbreviated wording)</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Don't Know</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
17. Nurses should tell doctors about patients' NDEs.	25 (18%)*	106 (74%)	8 (6%)	2 (1%)	2 (1%)
18. Doctors should ask patients about the NDE.	13 (9%)*	81 (57%)	34 (24%)	15 (10%)	0 (0%)
19. Patients' physiological status is more important than psychological support in the ICU.	2 (1%)	21 (15%)	18 (12%)	71 (50%)	28 (20%)*
20. Some patients can recall their resuscitation.	10 (7%)*	63 (44%)	48 (34%)	19 (13%)	3 (2%)

21. I should listen to patients' NDE accounts.	35 (24%)*	101 (71%)	6 (4%)	0 (0%)	1 (1%)
22. I'd like to attend an inservice on NDEs.	8 (6%)*	64 (45%)	41 (29%)	19 (13%)	11 (7%)
23. NDErs should report their NDEs.	18 (12%)*	84 (59%)	37 (26%)	3 (2%)	1 (1%)
24. Hearing a patient's NDE makes me less afraid of death.	10 (7%)*	56 (39%)	48 (34%)	20 (14%)	9 (6%)
25. I'd like to work with an NDEr.	6 (4%)*	55 (39%)	63 (44%)	17 (12%)	2 (1%)

*Most positive attitude.

close human touch with their patients, especially during the initial period after resuscitation.

An obvious limitation to this study was the return of only 11 percent of the questionnaires from those physicians surveyed. This low response rate could have been due to a number of factors, including time limitations placed on physicians by their patient load, relative interest in the subject matter, and length of the questionnaire. This study should be replicated utilizing a larger population of physicians from a wider geographical area.

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Near-Death Experiences and Satisfaction with Life

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ABSTRACT: Near-death experiences (NDEs) are reported to produce positive changes in attitudes, beliefs, and values that might be expected to enhance the experiencers' satisfaction with life. Global satisfaction with life was examined among a sample of self-selected near-death experiencers, individuals who had come close to death without an NDE, and individuals who had never been close to death. NDErs' life satisfaction was not different from that of the two control groups, suggesting that problems readjusting to life after an NDE may offset any enhanced life satisfaction that may result from positive personality transformations.

The near-death experience (NDE) is a profound subjective event with transcendental or mystical elements reported by about one-third of people who come close to death (Greyson, 1994). While there is little consensus among researchers as to the causes and ultimate meaning of the NDE, there is considerable evidence of a consistent pattern of change in beliefs, attitudes, and values following the experience.

Commonly described aftereffects of the NDE include a renewed sense of purpose in life, greater appreciation of life, greater self-confidence and self-esteem, a heightened sense of spirituality and of altruism, shift of emotional investment from material goals and competition to interpersonal relationships and helping others, and, most consistently, decreased fear of death (Bauer, 1985; Flynn, 1982; Greyson, 1983a; Noyes, 1980; Ring, 1984; Sabom, 1982). At least

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some of these aftereffects might be expected to enhance the experiencers' satisfaction with life.

Furthermore, most near-death experiencers interpret their experience as an encounter with the divine (Ring, 1984). Divine interaction is thought to enhance well-being in a variety of ways: it provides a resource for resolving problems, reshapes the experiencer's sense of self as empowered by divine support, and expands the experiencer's sense of the coherence, comprehensibility, and meaningfulness of life (Pollner, 1989). Melvin Pollner (1989) proposed that divine relations, such as those reported by many NDErs, foster a positive framing of life events in general and an experience of living in the world as essentially good.

On the other hand, there is a sizable literature attesting to significant interpersonal and intrapsychic problems readjusting to life after an NDE (Atwater, 1988; Furn, 1987; Greyson and Harris, 1987; Insinger, 1991). In addition to whatever disability may result from the causes of their encounters with death, experiencers may be left with considerable distress secondary to the NDE itself or to difficulty integrating it into their lives.

Melodie Olson and Peggy Dulaney (1993) studied the relationship between near-death experiences and life satisfaction in the elderly. They solicited volunteers from senior citizens' groups meeting for social reasons; of their 146 volunteers, 46 reported a close brush with death, 15 of those reported some kind of unusual experience during that near-death event, and 12 of those 15 were available to be interviewed. Of those 12 presumptive near-death experiencers, five were judged to have had a near-death experience by virtue of having scored 7 or greater on the NDE Scale (Greyson, 1983b), and four others reported some characteristics of a near-death experience.

As a measure of life satisfaction, Olson and Dulaney used a revised version of the Life Satisfaction Index-A (LSI-A), an 18-item self-report questionnaire with several items focusing specifically on old age (Neugarten, Havighurst, and Tobin, 1961; Adams, 1969) that explores constructs such as congruence between achieved and desired goals, zest for life, and mood. Comparison of LSI-A scores between those who had had NDEs and those who had not showed no significant differences. However, Olson and Dulaney expressed little confidence in those results because of the small number of NDErs in their sample.

The present study was an exploration of satisfaction with life among a larger sample of near-death experiencers of all ages. I con-

trasted scores on a global life satisfaction scale among NDErs to scores among two control groups: a sample of individuals who had come close to death without experiencing an NDE and a sample of individuals who had never been close to death.

Method

Instruments

Subjects were mailed questionnaires, which they completed and returned identified only by anonymous subject number. All subjects completed the Satisfaction With Life Scale (Diener, Emmons, Larsen, and Griffin, 1985), a 5-item Likert-type questionnaire designed to measure global life satisfaction. Subjects rate each item, such as "So far I have gotten the important things I want in life," from 1 (strongly disagree) to 7 (strongly agree). The Satisfaction With Life Scale has internal consistency and temporal reliability, is suitable for all adult age groups, is positively correlated with other measures of subjective well-being, and is free of social desirability response set.

In addition, those subjects who reported having been close to death at some point in their lives completed the NDE Scale (Greyson, 1983b), a 16-item multiple-choice questionnaire designed to measure the occurrence and depth of a near-death experience and its cognitive, affective, paranormal, and transcendental components. The NDE Scale has documented reliability and validity and significantly differentiates NDEs from other close brushes with death (Greyson, 1990). For research purposes, a score of 7 or more points (out of a possible 32) on the NDE Scale is recommended as the criterion for labeling an experience an NDE (Greyson, 1983b). Subscale scores also permit an NDE to be categorized as predominantly cognitive, affective, paranormal, or transcendental (Greyson, 1985, 1990).

Subjects

Subjects were recruited through advertisements in the newsletter of the International Association for Near-Death Studies, an international organization founded to promote research into NDEs. The study sample included 275 subjects: 126 individuals reported having had NDEs and described experiences that scored 7 or greater on the

NDE Scale, 40 individuals reported having had a close brush with death without NDEs and described experiences that scored less than 7 on the NDE Scale, and 109 individuals denied ever having been close to death.

Results

The mean score of all 275 subjects on the Satisfaction With Life Scale was 22.89 (S.D. = 6.88), and the scores ranged from 5 to 35. The mean score for the 121 males in this sample was 22.35 (S.D. = 6.57), and for the 154 females, 22.91 (S.D. = 7.12). This difference between genders was not significant ($df = 1$, $t = 0.70$).

The mean age of this sample was 49.5 years (S.D. = 13.6). For the 166 subjects who had come close to death, the mean age at the time of that brush with death was 31.9 years (S.D. = 15.6), and the mean time elapsed since that brush with death was 19.1 years (S.D. = 15.2). Scores on the Satisfaction With Life Scale were not significantly associated with age at the time of the study ($r = .07$), with age at the time of the close brush with death ($r = -.07$), or with time elapsed since that brush with death ($r = .11$).

The mean score for the 126 subjects who had had NDEs was 23.16 (S.D. = 7.12); for the 40 subjects who had come close to death without NDEs, 23.13 (S.D. = 6.27); and for the 109 subjects who have never come close to death, 22.48 (S.D. = 6.40). Mean scores did not differ significantly among these three groups.

For the 166 subjects who had come close to death, the mean score on the NDE Scale was 13.02 (S.D. = 8.48). Mean scores for this sample on the subscales were 2.93 (S.D. = 2.29) for the cognitive component, 4.39 (S.D. = 2.97) for the affective component, 2.59 (S.D. = 2.14) for the paranormal component, and 3.12 (S.D. = 2.76) for the transcendental component. Scores on the Satisfaction With Life Scale were not significantly associated with scores on the NDE Scale ($r = .09$), nor with scores on any of the component subscales (cognitive, $r = .11$; affective, $r = .16$; paranormal, $r = .02$; and transcendental, $r = .00$).

Among the 123 subjects whose NDEs could be classified according to type, the mean score on the Satisfaction With Life Scale was 23.94 (S.D. = 7.56) for the 49 subjects reporting cognitive NDEs, 21.42 (S.D. = 5.48) for the 38 subjects reporting affective NDEs, 20.25 (S.D. = 10.08) for the four subjects reporting paranormal NDEs, and 22.19

(S.D. = 6.78) for the 32 subjects reporting transcendental NDEs. Mean scores did not differ significantly among these four groups of near-death experiencers ($df = 3, 119$; $F = 1.24$).

Discussion

These data suggest that, despite consistent evidence of positive personality transformations following NDEs and the sense of interaction with the divine, experiencers do not report greater satisfaction with life than do control populations, nor is satisfaction with life associated with depth or type of NDE. Though these results may be counterintuitive, they support and expand the findings of Olson and Dulaney, who found no enhanced life satisfaction among a small sample of elderly NDErs. Previous studies have documented significant problems readjusting to life following an NDE (Atwater, 1988; Furn, 1987; Greyson and Harris, 1987; Insinger, 1991). It may be that for many near-death experiencers, those adjustment problems are sufficient to offset any influence of positive changes in attitudes, beliefs, and values on enhancing global satisfaction with life.

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The Absence of Tunnel Sensations in Near-Death Experiences from India

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ABSTRACT: This article questions the recent report by Susan Blackmore (1993) of tunnel sensations in near-death experiences in India, and presents anthropological and methodological reasons for doubting the validity of that finding.

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In this paper we comment on several issues raised by Susan Blackmore's (1993) recent research into near-death experiences (NDEs) in India. Blackmore solicited, by advertisement in an Indian newspaper, reports of "people who had come close to death." Of the 19 reports that she received in response to this advertisement, only eight were considered NDEs. Of these eight reports, three respondents reported sensations of darkness. One of these respondents accepted a descriptor ("tunnel") for this darkness that was offered by Blackmore in a follow-up survey. On the basis of these data, Blackmore concluded that the tunnel sensation in NDEs appears independent of cultural influences. In this connection, those findings are also interpreted as support for her neurophysiological theory of tunnel sensations.

Our argument is that the theoretical and methodological problems in Blackmore's work are too serious to warrant the conclusions she drew. We will identify both general problems and specific issues that have equal bearing on Blackmore's research design and conclusions.

First, the conclusion that the tunnel sensation appears independent of a person's culture is not warranted from any single case study. This is an overgeneralized conclusion. No single case study, whether from India or from Japan, can indicate broad cross-cultural patterns of human experience. Quite clearly a broader cross-cultural examination of NDEs involving several distinctly different cultures is needed for any generalization such as this. In this connection, it is also not clear, other than in the most general way, that India has a culture structurally different from European cultures. This brings us to our second point.

Even if some persons in India have the tunnel experience, this would not indicate its universality, since both Indian and European cultures are dominated by historical religions. Historical religions, such as Christianity, Islam, or Hinduism, tend to occur in cultures of long-term settlement, where tunnels are common technological and architectural forms. In societies influenced by primitive religions, such as hunter-gatherer communities, tunnels may not be of common occurrence and hence cultural significance. The evidence of this argument, such as it is, has been discussed by Allan Kellehear (1993).

Third, despite the theoretical possibility that people from India may experience a tunnel sensation in their NDEs, recent work by Satwant Pasricha (1992, 1993) has failed to uncover this so far. Pasricha has been conducting a survey of NDEs in south India. Her reports show that the cases there are closely similar, with some differences, to those of north India previously reported by Pasricha and

Ian Stevenson (1986). Cases investigated in India now number altogether 45, and not a single informant has reported the experience of a tunnel. Moreover, these are cases investigated by interviews with the informants, not with correspondence through the mail.

Fourth, all the above comments notwithstanding, an inductive analysis of the material presented by Blackmore does *not* indicate that tunnels are an important feature of the NDEs in her sample from India. On the contrary, all three respondents in this category merely reported (spontaneously) sensations of darkness. Only by asking a leading question employing the term "tunnel" did Blackmore obtain an assent from one of the respondents to this particular symbol for the darkness. If anything, this might lend support to the idea of the tunnel as one descriptor among others that might be offered and accepted by those attempting to describe great darkness. In this connection, we also note that Blackmore used leading questions in inquiring about the light. Two of her questions assumed that the subjects had experienced lights. Aside from the fact that the data did not suggest a tunnel sensation, the reports, such as they are, did not even support Blackmore's own theory of tunnels.

According to Blackmore, random firing of cortical neurons should "produce a much brighter impression in the center of the field of view, fading out toward the periphery: in other words, a tunnel pattern" (1993, p. 207). However, that prediction was not supported by her data. Of the eight people considered to have undergone NDEs, two had no experiences of light or darkness; three experienced light alone; two experienced only darkness; and one person reported alternating experiences of light and darkness. Of the three people who were considered by Blackmore to have experienced "tunnels specifically or dark places," these individuals did not exhibit the hypothesized features of darkness. In other words, no respondents reported a bright impression in the center of their visual field.

The above points notwithstanding, Blackmore exaggerated the importance of these data by attaching percentage labels to single digit sample sizes. By lumping a single (and questionable) case of "tunnel" sensation with two other cases in which the subjects reported an experience of darkness, she permitted herself the claim that 38 percent of her respondents could be counted as having had the tunnel experience. We direct readers' attention to a percentage figure (38) that is over twelve times the actual sample number (3)! Considering that the effective size of this sample is eight persons, we consider the claim of 38 percent (representing the dubious conflation of three

somewhat different reports) to be an example of torturing data until they give you the answer you need (Mills, 1993).

Fifth, although Blackmore acknowledged that the readers of the *Times of India* are "not at all representative of Indians in general" (1993, p. 215), she discussed her results as if they *were* representative. They most certainly are not. The *Times of India* is read only by a highly educated and English-speaking readership. If Blackmore had wished to sample more widely, and more typically, she might have arranged for her notice to be published in a Hindi-medium newspaper, such as the *Nav Bharat*. The cases investigated by Pasricha and Stevenson (1986) and by Pasricha (1992, 1993) came from the heart of India, not from the Westernized readers of the *Times of India*.

We consider it unfortunate that Blackmore has adopted as paradigmatic the features of the NDE that Raymond Moody (1975) described in his first book. That was a popular book, and Moody has never claimed anything else for it. He told one of us (I.S.) that he deliberately did *not* try to provide figures of the incidence of NDE features, but included a feature in his list even when only a few persons mentioned it to him. In fact, the tunnel experience is far from universal even among Western cases. Kenneth Ring (1980) found that only 23 percent of his subjects had the experience of darkness, and only a minority of these described passage through a tunnel. Bruce Greyson and Stevenson (1980) found the tunnel experience reported by only 31 percent of 78 subjects. These low incidences are insufficient to support a neurophysiological interpretation of NDEs because such a theory leaves unexplained why so many persons even in the West do not have the tunnel experience.

Finally, Blackmore's strategy of developing biological theories for the NDE before examining the cultural prevalence of their phenomenology reflects both a strangely backward set of priorities and an overconfidence in what the cross-cultural material might yield. Such optimism can lead, as it appears to have done in this case, to leading questions and overgeneralization.

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Near-Death Experience Patterns From Research in the Salt Lake City Region

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ABSTRACT: From 1990 to 1993, approximately 100 subjects in the Salt Lake City, Utah, region were interviewed who claimed to have had a near-death experience (NDE) or analogous spiritual event. Of those, 68 case studies were reported in two books (Gibson, 1992, 1993). These cases corroborated patterns previously encountered in other researchers' near-death studies, and divulged some new patterns not previously reported. The most unusual new pattern was reported by those who saw themselves during their NDE in a premortal environment.

In 1990 Carol and Arvin Gibson began interviewing in the Salt Lake City, Utah, region individuals who claimed to have had a near-death experience (NDE) or related spiritual event. The purpose of the research was to determine what patterns, if any, could be ascertained from this group of people.

Subjects

Candidates for interview were found by advertising in local newspapers and publications, by referrals from friends and relatives, and by meeting individuals in the local affiliate of the International Association for Near-Death Studies (IANDS), IANDS of Utah. We made

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no attempt to screen the candidates for religious belief, cultural background, economic circumstance, racial heritage, age, marital situation, or other parameter; candidates needed only to have had some type of near-death or related spiritual event.

From 1990 through the spring of 1993, we interviewed approximately 100 candidates. Of these, 68 were selected for inclusion in two books: *Glimpses of Eternity* (Gibson, 1992) and *Echoes From Eternity* (Gibson, 1993). By reason of the location of the interviews in the greater Salt Lake City region, most of the people interviewed (63%) professed membership in The Church of Jesus Christ of Latter-Day Saints, also known as Mormons. The rest were from a variety of other religious backgrounds and faiths.

Results

In order to examine systematically some of the patterns that became apparent, we tabulated certain repeating characteristics that subjects mentioned in their experiences. A complete tabulation of parameters identified for each subject (including subjects' names) was presented in *Echoes From Eternity* (Gibson, 1993, pp. 313-315). A summary of those data are provided here in two tables: Table 1 presents demographic information about the 68 subjects, who related a total of 83 experiences; and Table 2 presents a tabulation of NDE features reported for these 83 experiences.

Demographic Data

The 68 subjects included 40 women (58.8 percent) and 28 men (41.2 percent). As noted above, the majority professed membership in The Church of Jesus Christ of Latter-Day Saints both at the time of their NDE and at the time of the interview. The 68 subjects described 83 experiences; 53 subjects described only one experience, 13 subjects described 2 experiences, and one subject described three.

Out-of-Body Experience

A large fraction of the experiences described (85.5 percent) were out-of-body, and in 53.0 percent of the experiences the people saw

Table 1
Summary of 68 Near-Death Experiencers from Gibson
(1992, 1993)

<i>Variable</i>	<i>Number of Cases</i>	<i>Percent of 68 Persons</i>
Female	40	58.8%
Mormon at time of NDE	39	57.4%
Mormon at time of interview	43	63.2%
Persons with multiple NDEs	14	20.6%
Number of NDEs	83	

their physical bodies lying beneath them. Most subjects (59.0 percent) felt that their spirit-bodies had form, or they were able to see those forms, sometimes as energy fields, shaped similarly to their physical bodies.

Tunnels, Lights, Landscapes, and Buildings

The near-death literature contains numerous accounts of people who went through a tunnel and saw a light. A relatively modest 21.7 percent of the experiences tabulated here included a tunnel, but 60.2 percent involved some aspect of the bright light. The bright light dominated much of the subjects' discussion concerning what they saw and felt during their NDEs.

Some type of landscape feature was involved in 21.7 percent of the experiences. In most of these cases, the people said that they saw plants, trees, shrubs, flowers, and gardens, with colors that were more vivid and alive than anything they had seen on earth. In a few cases animals were also seen.

Only 7.2 percent of the experiences involved people who saw buildings. In some of these, little detail was seen of the buildings. Others, such as Jean's view of the "Libraries," included detailed descriptions of exterior and interior features.

Table 2
Summary of 83 Near-Death Experiences (NDEs) from
Gibson (1992, 1993)

<i>Features of NDE</i>	<i>Number of NDEs</i>	<i>Percent of 83 Experiences</i>
Out-of-body experience	71	85.5%
Saw own body from a distance	44	53.0%
Felt spirit-body had form	49	59.0%
Tunnel	18	21.7%
Light	50	60.2%
Landscape	18	21.7%
Saw buildings	6	7.2%
Encountered people	46	55.4%
Knew people encountered	33	39.8%
Encountered relatives	23	27.7%
Encountered a voice	53	63.9%
Encountered Deity	22	26.5%
Saw Deity	15	18.1%
Life review	9	10.8%
Received knowledge	28	33.7%
Mentioned "love"	39	47.0%
Mentioned "peace"	38	45.8%
Mentioned "warmth"	17	20.5%
Mentioned "energy"	6	7.2%
Mentioned "purity"	4	4.8%
Felt remorse	5	6.0%
Felt fear	10	12.0%
Heard music	9	10.8%
Returned with sense of mission	52	62.7%
Returned with second healing	10	12.0%
Saw self in premortal environment	3	3.6%

Spirit People

A large fraction of the experiences (55.4 percent) involved other spirit people, and in 39.8 percent of the cases the individuals undergoing the NDE felt they knew the spirit people whom they saw. Often, however, unless the spirit people were relatives, the subjects

could no longer recall who the people they saw were; they just knew that at the time of their NDE, the other people were known to them.

If the spirit people were relatives (27.7 percent of the cases), then the subjects were able to recall many details about the people they saw. In most cases the relatives were delivering a particular message to the subjects involved, sometimes under dramatic circumstances. Julie saw a cousin who had been a soldier in Vietnam, and who communicated with her shortly after he had been killed, before the military had discovered that he was missing or dead. Rocky and Jennifer were two children who saw their grandparents during their NDEs. Bill, whose NDE occurred when he broke his neck and became paralyzed during an accident with an all-terrain vehicle, saw his father in a beautiful garden and was told that he would have peace. Renee had an extensive NDE where she saw hundreds of people, all related to each other, in a strange environment.

Voices and Deity

Some memory of voice communication was included in 63.9 percent of the accounts. In some instances, the subjects said that communication was as it is on earth, by voice in a person-to-person manner; however, these were the minority of the cases. Most felt that the "voice" was transmitted into their minds without the intermediary of vocal cords. Usually, the voice could be recognized as male, female, or from a particular person. In a few instances, the subjects actually heard their own voices delivering a message to themselves. Where Deity was involved, they described the voice as coming from Heavenly Father or from Jesus Christ, and, often with great emotion, they said that it was familiar voice, one that they had known from before.

Deity (God the Father, or His Son, Jesus Christ) was involved in a surprising 26.5 percent of the cases, and in 18.1 percent of the experiences Deity was actually seen. In these instances, the subjects were emphatic in reporting whom and what they saw. For those who reported having seen Christ, the most common descriptions were of seeing a being who transmitted light or energy; seeing brilliantly bright white clothes in the form of a robe that covered Him from His neck to His ankles and wrists, usually with a sash; having a feeling of love, peace, and joy that emanated from Him; noticing His long hair and beard, either sandy-brown or sandy-blond (or, in one case, white); looking into His penetrating blue eyes; receiving intense

knowledge communicated from Him without its being spoken; observing a muscular feeling of strength coming from Him; and having innate knowledge that it was Him.

Concerning the last element, several people were asked how they knew it was Christ. Their responses were engrossing, as in the following conversation with David:

Interviewer: How did you know it was your Saviour?

David: I know Jesus Christ when I see Him.

Interviewer: How did you know?

David: (Chuckled.) Probably it was the sense of goodwill and the sense of comfort that I felt — together with the other events that I witnessed. The fact is, *I just knew. I knew!*

Life Review

A life review occurred in only 10.8 percent of the cases, but when it did it was usually under striking circumstances. Four of the nine cases, for example, happened while the subjects were in space and just after they had been traveling through the stars. Their stellar journeys were interrupted so that they could learn something about themselves through a review of their lives. In these particular cases, they were able, after the reviews, to decide whether or not they wanted to continue with their lives on earth.

Knowledge

One-third of the experiences (33.7 percent) included a claim that the subjects were given unusual knowledge while they were undergoing the NDE. After they NDE they forgot most of what they had known, but they still remembered the remarkable feeling they got when the mere hint of a question resulted in a fountain of information flowing into them. Elane described it this way:

At that point the light spoke to me — not only in language as here on earth. It spoke to me from everything that it was into everything that I was. I not only heard it, but I understood it with every fiber of my being. There was total communication between that being and my being.

DeLynn said of the experience:

It was astonishing, the speed with which I was learning. Knowledge that had somehow slumbered deep in my soul was released, and I was extremely exhilarated by this reawakened knowledge. Light and knowledge were flowing into me from every direction. I could feel it. Every part of my body was reverberating with the light gushing in. Even my fingertips were receptors of light and knowledge. It was as if I were drinking from a fully engaged fire hydrant.

Another person who spoke of his entire being acting as a receptor of knowledge was Roger:

Pure knowledge seemed to pour into me from Him. The knowledge was transmitted by . . . energy. Energy flowed into me and with it was knowledge. It was as if my entire being was a receptor of knowledge. And it was knowledge that I seemed to have known before. Everything that was communicated to me made sense.

Words Commonly Used to Describe Feelings

Several words were repeated often enough in the interviews that they attracted attention. These words that the subjects used in their attempts to describe what they felt included "love," mentioned in 47.0 percent of the experiences; "peace," mentioned in 45.8 percent; "warmth," mentioned in 20.5 percent; "energy," mentioned in 7.2 percent; and "purity," mentioned in 4.8 percent. In many instances, as with the word "love," the individuals said that this was an improper word to describe what they felt. DeLynn put it this way:

We don't have a word that would describe what I felt from Him toward me. The closest word we have is *love*, but it doesn't begin to describe the feeling. There is not an appropriate description in mortal tongue that can explain the feeling — you have to feel it.

Remorse and Fear

Remorse and fear were two emotions suffered by those whose experiences included some distressing features. It was not necessary for the entire experience to be distressing, as with Howard's extensive experience, which included both pleasant and unpleasant as-

pects, or as with Jack's view of Hell. In some cases, as with Dee's bout with an evil spirit, it was terrifying. Remorse played a part in most cases where an individual had a life review. Sometimes remorse was a major factor in helping the individuals decide that they needed to come back for a second try at life, as with Elizabeth Marie.

Music

Music was mentioned as a factor in only 10.8 percent of the cases, but where it was mentioned, it was a major factor. Katrina told how she spent months listening to various classical pieces in an attempt to find what she had heard in the other world. She finally settled on Daniel Kobialka's version of Johann Pachelbel's Canon in D as a poor (too loud) substitute for what she had heard. Elane, who had an extensive NDE, said:

There was a sound in the air that completely defies description. It was as if there were a multitude of voices, and a multitude of instruments, blended and playing soft music. The twittering of birds, and other beautiful sounds, were all melodically instrumented into the music which wafted through the air. The sounds just flowed into me in a soft, soft manner.

Derald said this about the sights and sounds that he witnessed:

I was absorbed in watching the light — the beautiful bright white light. It gave me a feeling like . . . almost like soft music, or something that was one hundred percent pure. It's hard to describe in words. I had never seen nor heard anything like it before. It was not frightening, though. More softening.

Sense of Mission

In an amazingly high 62.7 percent of experiences, subjects returned from the other world with a strong sense of mission. In most of those instances, they were not aware of exactly what they were expected to accomplish, just that it was an important part of their lives from thenceforth forward. Elizabeth Marie, for example, remembered that she was told she would help others who had lost their way to Christ. She forgot the details, however, and said this about it:

Since my experience, though, I haven't known who it was that I was supposed to help. I've wondered if it was one person, or many persons. I understood that it was to help someone, or several people, who had lost their way, to return to His presence, but I still don't know who they are.

David, who was shot in the lower abdomen by a drunken uncle, when asked if he had any sense about why he was allowed to come back, said

That question has plagued me since I was shot. Initially I thought it might be to help my wife and my two sons. Then, after I completed my education and started teaching, I thought it might be because I am able to express myself and to teach others well. Recently, when my daughter was born, I suspected it might be to help nurture and raise her. Maybe it's all of those things.

Dallas, who shot himself in a suicide attempt, said this:

The Lord called me by name and told me that I had done a foolish thing, and it was not my time to be there. He said that there was a lot of work on the earth that I must do for Him. There were certain things I must accomplish with my family before I would be allowed to return to the Lord. If I did what he asked, he said that my life would be great — not great in an earthly sense, but great in a spiritual sense, and I would be richly rewarded on the other side.

When I interviewed him, Dallas was still puzzling over exactly what it was he was supposed to do.

Second Healing

In *Glimpses of Eternity* (Gibson, 1992), I identified a totally unexpected pattern concerning healing. I had expected to find people who had returned to this life after an NDE more or less healed after their bout with death, and indeed that was the case. But with several subjects, in addition to the miracle of the NDE, there was another miraculous healing upon their return to this life.

There were four individuals who went through this particular pattern of experiences as recorded in *Glimpses of Eternity* (Gibson, 1992). Each of the experiences was spectacular in its own right and involved a second, life-threatening event that was miraculously removed. I watched with interest, during the research period for *Echoes*

of *Eternity* (Gibson, 1993), therefore, to see if there were repeats of the pattern. And repeats there were — six more. These unusual healing totaled 12.0 percent of all experiences.

As a result of the original four cases, I suggested a tentative model for this evident pattern. First, the individuals were good people, who, as the result of an illness or an accident, had an out-of-body experience. Second, they came back to this life with an even firmer resolve to live a righteous life. They were more spiritually attuned than they previously had been. They had a sense of purpose in life. Third, an illness or injury developed (or lingered) that threatened their ability to carry out their perceived purpose. And finally, a healing occurred that defied medical knowledge. From the observed experiences I reached the tentative conclusion that *when an individual undergoes an NDE and returns to this life, that return is for a purpose. If the individual, after return, has some illness or injury that threatens to thwart the person's life purpose, then the Lord intervenes and removes the threat.*

I wrote, at the time, that this hypothesis should be tested by further research on NDErs. Additional tests have now been made that tend to confirm my hypothesis, usually in a spectacular manner. Further work should be done to establish the statistical correlations. To be useful, this work should also attempt to identify individuals who do not meet the conditions of the hypothesis. That is, were there those who, after experiencing an NDE and returning *with a sense of mission*, then promptly died? None of the 68 persons I interviewed for the two books, including two follow-up studies on those in the first book, failed to comply with the hypothesis.

This is not to suggest that all persons return to life after an NDE with a strong and healthy body. Just the opposite is often true, and the NDErs understand that they may have to live under difficult circumstances when they return.

Seeing Oneself in a Premortal Environment

One of the more interesting patterns was the experience of three individuals I interviewed who saw themselves during their NDE (or related experience) in a premortal environment. Their experiences were similar to an experience described by Betty Eadie in her book, *Embraced by the Light* (Eadie and Taylor, 1992). These experiences followed a consistent pattern: the subjects were in the midst of an

NDE or unusual spiritual event when they saw themselves in a pre-mortal environment; they recognized and felt the emotions they had previously felt in that environment; and they were making choices concerning their life to come on earth.

On the issue of the choices they were making, DeLynn described a fascinating series of events. He had an extensive NDE as the result of cystic fibrosis. During his life he had undergone enormous pain from the disease, and while he was having the NDE he asked a familiar voice why he had to suffer so. He said of that experience:

Then I received a most startling answer. He said to me: You chose your disease and the amount of pain you would be willing to suffer before this life — when you were in a premortal state. It was your choice.

While I was hearing this voice, I became aware that it was a familiar voice — it was one that I knew. It was a voice that I had not heard during my mortal lifetime. When it was speaking to me, though, there was no question but that I knew who it was. There was enormous love for me in the voice.

DeLynn was then transported to a time and place in a premortal environment where he saw himself making particular choices of his life to come. As a result of that experience, DeLynn said:

That scene changed forever my perspective of the disease that I previously felt was a plague on my life. No longer did I consider myself a victim. Rather, I was a privileged participant, by choice, in an eternal plan. That plan, if I measured up to the potential of my choice, would allow me to advance in mortal life in the fastest way possible. True, I would not be able to control the inevitable slow deterioration of my mortal body, but I could control how I chose to handle my illness emotionally and psychologically. The specific choice of cystic fibrosis was to help me learn dignity in suffering. My understanding in the eternal sense was complete — I knew that I was a powerful, spiritual being that chose to have a short, but marvelous, mortal existence.

Conclusions

These data are sufficient to show the existence of some interesting patterns, but do not convey the full impact one gets from interviewing a person and witnessing the person's attempt to explain a situation with the same stumbling words, and with the same surging

emotions, as another individual who had been through a similar situation. Some of these words, such as the word "peace," appeared so often in their vocabulary that it appeared as if the subjects had been programmed to use them. I asked one 14 year old girl, Tracie, why she used the word "peace" in describing how she felt during her NDE. Her response was: "I don't know. It just seems like the right word."

Most of those using the word "peace" did not think of it in the normal sense of lack of conflict; rather, they thought of it in the Scriptural sense, the sense that Christ used it as reported in the New Testament: "Peace I leave with you, my peace I give unto you: Not as the world giveth, give I unto you. Let not your heart be troubled, neither let it be afraid" (John 14:27). Paul described the Lord's peace in this manner: "And the peace of God, which passeth all understanding, shall keep your hearts and minds through Christ Jesus" (Philippians 4:7).

Many of the patterns that became evident during the interviews were patterns that other near-death researchers had previously discovered. The out-of-body experience, the tunnel, the light, and the life review have all been documented by Raymond Moody (1975), Kenneth Ring (1980), Maurice Rawlings (1978), and others. Some patterns were reinforced by the present work. The sense of mission or purpose, without knowing exactly what the purpose was, had previously been reported by Ring (1980); the current work showed that a surprising 62.7 percent returned with this sense of mission or purpose. Similarly, others have documented NDEs where the subjects claimed to have seen Deity (Ritchie and Sherrill, 1978); the present work documented a strong 18.1 percent of all experiences where detailed descriptions of Deity were given.

Some apparently new patterns were also uncovered by the present work. The second healing phenomenon discussed above was one such finding, and the hypothesis generated as a result of this finding should be tested by further research. Perhaps the most unusual new pattern was the finding of premortal experience. Although this was a small percentage of the total (3.6 percent), the three cases identified were consistent with each other, and with the experience reported by Eadie (Eadie and Taylor, 1992). I will be interested to see further reports of this type in future near-death research.

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BOOK REVIEW

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The Tibetan Book of Living and Dying, by Sogyal Rinpoche.
San Francisco, CA: Harper Collins, 1992, 425 pp, \$22.00.

Being asked to review Sogyal Rinpoche's *The Tibetan Book of Living and Dying* is a bit like being asked to review the *Confessions* of St. Augustine or the *Bhagavad Gita*. This is a book so filled with spiritual insight and so grounded in personal experience that to treat it like an ordinary book would at once betray its unique importance and border on blasphemy, if that term could be used in a Tibetan context. The best I can do is to, first, hint at the great implications of this work for our times, and second, try to place it into its historical context.

A Rare Bridging of East and West

This is a book that for the first time reveals some of the devotional and meditation practices of the Tibetan Buddhists to the average English-speaking reader. Such practices traditionally were confined to oral transmission from master to disciple; in fact, even their discussion or description to "outsiders" was prohibited. While Sogyal Rinpoche (Rinpoche means "Reverend" in Tibetan) continues to stress the importance of having a personal master, he nonetheless breaks new ground in attempting to relate Tibetan spiritual practice to the West.

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Sogyal is himself in many ways the last of an old breed and perhaps the beginning of a new. Born and raised by Tibetan monks in the late 1940s, he left Tibet during the Chinese persecutions of the 1950s to receive an education first in New Delhi and subsequently in Cambridge, in the height of the hippie days. For the past two decades, he has traveled around the world, primarily Western Europe, conveying Tibetan Buddhism to Western practitioners and would-be practitioners. At the same time, he has developed close connections with the hospice and terminal care movements in the West, to which Tibetan Buddhist practice has much to contribute.

Sogyal does incredibly well at bridging the two disparate cultures of the West and traditional Tibet. While logically organized into Western-style chapters and paragraphs, the text contains innumerable anecdotes, illustrations, and traditional stories of the Tibetan raconteur, which help to illuminate more abstract points of Tibetan Buddhist doctrine. Some of the stories, such as of masters dematerializing upon their deaths, of their appearing many miles from their physical bodies, or of other miracle-working, stretch the credulity of Western readers' minds as much as the inhumane and commercialized treatment of the dead and dying in Western society stretches the credulity of sensitive souls from more traditionally civilized cultures.

A Tibetan Critique of Death and NDEs in Western Society

Sogyal's indictment of the Western world is harsh and on the mark: we have become caught up in a glittering materialism, a desert of the spirit, which seduces us further from our spiritual essence and spiritual responsibilities. Echoing the critiques of Ernest Becker, Philippe Aries, and Elisabeth Kübler-Ross, he pleads for a more human treatment of the dying, the dead, and the bereaved, and recognizes the important if not indispensable role that religious ritual can play in elevating death from tragedy to triumph and bringing insight and meaning to the process of grief and bereavement. His chapters on helping the dying particularly are replete with details of compassion and care.

For those of us involved in near-death studies, Sogyal provides a long-awaited analysis from the Tibetan side of the relation between near-death visions and those discussed in the *Tibetan Book of the Dead*. Drawing extensively on the work of Michael Sabom and Mar-

got Grey, with occasional references to Raymond Moody, Kenneth Ring, and Melvin Morse, Sogyal acknowledges many superficial similarities between out-of-body and near-death experiences (NDEs) and aspects of the *Tibetan Book of the Dead*. At the same time, he stresses that from the Tibetan point of view, the people who return to report NDEs have never really died. They are simply "near death," on the threshold of a death experience, which begins in full some time *after* the body is judged dead by Western physicians.

Sogyal emphasizes that insofar as most of these experiences are visionary, including images of bodies and landscapes, they are at best provisional realms, projection-realms, parallel to the illusion-realm in which we currently experience things (the *nirmanaloka*, or in his strained Sanskrit, the *nirmanakaya*). In short, NDEs tend to support the expectations of Tibetans that life continues after death. To the extent that NDEs parallel the *Tibetan Book of the Dead*, there is nothing to be surprised about — except perhaps that an untrained non-Tibetan might achieve such an adept state of consciousness. On the other hand, the extent to which NDEs do *not* parallel the *Tibetan Book of the Dead* is simply an indication of the relatively inferior status of the consciousness of the experiencer, so there is no conflict between rival claims here.

A Marxist Book of the Dead, Too?

Like many contemporary Hindu teachings, Sogyal's pretense throughout is that Tibetan Buddhism is compatible with all other serious religious worldviews, and that even Christians can conduct Tibetan-like meditative practices during their lives and deaths. While on one level this is gratuitously obvious, it raises deeper philosophical questions. For example, Sogyal suggests that where Avalokitesvara and Amitabha Buddha may appear to Buddhists at their deathbeds, figures of Jesus or Mary may appear to Christians. But then whom shall he expect to appear at the deathbeds of Marxists, materialists, and nihilists?

If we admit that the figures appearing may depend on the culture, language, and faith of the individual experiencer, then might it not also be important to have ceremonies and practices suited to non-Tibetan non-Buddhists — say, a *Marxist Book of the Dead* or an *Ashkenazi Book of the Dead*? If images and visions are relative to language, culture, and personality, then how about the stages of the

Bardo itself? Might it be that the very stages of the *Bardo* itself depend on the perceiver? If Tibetan landscapes of the afterworld traditionally contain hail, ice, tornadoes, and carnivorous beasts, what might the Polynesians experience after death, who have never known hail, ice, tornadoes, nor carnivorous beasts in their earthly lives? This is not to argue that the *Bardo* is in fact culturally dependent as much as to recognize that once cultural relativism is admitted into certain levels of our interpretation of religious experience, it can infect the entire body of religious doctrine, to its possible detriment.

The Tibetan answer, of course, is to admit that each person or culture shapes its own experiences on a limited and relative sphere, but that these are all part of a much larger picture. Moreover, Tibetan Buddhism has the clearest understanding of the whole picture of the *Bardo*, of which individual experiences and aberrations are but a part. On the one hand, this answer seems reassuring, both in its tolerant acceptance of everyone's visionary experiences, and its superficial recognition of the value of each religious tradition. On further observation, however, it is obvious that such traditions exalt themselves as the *most* superior, the *most* overweening, the *most* all-embracing, and therefore above all rivalry, much less refutation.

More Unfinished Issues

Similar questions can be raised about the status of historical beings and mythical ones, or historical teachings and proverbial ones. In traditional Tibetan fashion, Sogyal treats historical saints such as Jesus and Francis of Assisi in much the same category as figures who are clearly ahistorical, such as Amitabha and Avalokitesvara. From an Eastern perspective, the fact that both Jesus and Amitabha can appear in our meditations and guide us spiritually is the important point, and in this sense, they seem to have equal spiritual status. From a Western perspective, Jesus and Francis were indisputably real people, who faced real crises in their lives and left identifiable bodies of teachings, whereas Amitabha and Avalokitesvara are no more historical than Bullwinkle the Moose.

A Japanese proverb says that faith is still faith, even if in only a fishhead. But would Sogyal want to concede that meditation on fishheads or Bullwinkle were somehow as acceptable as that on Amitabha? Surely not. Then the question arises: Is it the long cultural tradition of worshipping Amitabha that gives this image such power

in the cultures that recognize him? Or rather, is it that in some sense Amitabha exists independently of human beliefs about him, and independently of human history, in which case his spiritual as well as symbolic value is in some way superior to that of a mere mortal like Francis of Assisi?

There seems to be some ambiguity in Sogyal's writings, as in much of the Mahayana and Vajrayana tradition, about birth and rebirth. He writes variously that holy saints remain permanently in an elevated state of *nirvana*, and alternatively that they are perpetually reborn on earth to enlighten us suffering beings. Surely they might be either deified *or* reborn, but it is not clear how they can be both at once.

Prayers to benefit the dead raise similar issues. Throughout the history of world religions, there have been those religions that believe each person is responsible for his or her own *karma* (actions, mental and physical), and those that believe the merit accumulated by prayers and good deeds can be passed on to others, including the deceased. This is a central difference between various schools of Buddhism, as it was between Catholics and Protestants in the Reformation. It is neither disturbing nor surprising that Sogyal, in the Tibetan tradition, holds that merit can be transferred to the dead by the living, not only in the sense that the deceased can for a short time hear our prayers and follow our instructions after their brain-waves have stopped, but in the deeper sense that even months after their death, our prayers for them will improve their status, for example, elevating them from a cold, dark hell to a not quite so cold and dark one.

However, this teaching of the transference of merit runs into competition with the teaching that one is reborn into another body within 21 to 49 days after death. No matter how much merit I accumulate, if I pray for my grandmother's postmortem well-being after my grandmother is already reborn as a dog, as a different human, or as a god, then the identity of the one for whom I am praying no longer exists in the form I imagine it, and the future of that new being is surely more affected by its own decisions and past *karma* than by the prayers of me still grieving over its long-dead former body.

On a more mundane and less theological level, there also seems to be some dilemma in Sogyal's discussion of medical ethics. On the one hand, he repeatedly urges that the body of the deceased must not be touched, much less punctured, injected, or invasively intruded, for as long as possible (ideally three days) after the death. This Ti-

betan orthodoxy makes sense in terms of the time and place that the soul (*sems*) will ultimately leave the human body. Sogyal suggests that patients should request the disconnection of intravenous lines and monitors and the removal of their own bodies to a private room prior to death. While hard to accomplish in modern medical settings, this is indeed the very least that Tibetan teachings require.

On the other hand, Sogyal also writes that it is morally permissible to donate organs, not only after the body is clinically dead, but even *before*, in order to help other suffering beings. Now if even touching the body is going to affect the course of the soul into the next life, then surely the removal of a beating heart for a transplant will have a major impact on the soul. So the decision of whether to die in traditional style or to donate organs remains a moot one. This is not necessarily a criticism of *The Tibetan Book of Living and Dying*. There is enough deep wisdom and insight in this book that it is worth keeping under one's pillow and reading every day for its compassion and wisdom. It is simply that there remain many ethical dilemmas that Sogyal's cursory treatment does not yet adequately address.

Historical Context

For all his exposure to Cambridge and Western education, Sogyal remains indelibly a Tibetan. He declines to translate the more central terms of Tibetan Buddhism, forcing the reader to guess at their meanings from context and usage. His praise of his personal masters and his teaching that each adherent must follow a particular living Buddhist master surpass the obligatory paeans of respect found in most Buddhist texts. He writes in the first person; his frankness is ingenuous and occasionally confessional. He also tends to presuppose certain knowledge about Buddhism and meditation that not all Western readers will bring to this book.

In Tibetan Buddhism, there are six traditional sects or schools, perhaps better termed lineages. Largest and most important of the six today are the "Old Order" of the Red Hats, or *Nyingma-pa*, to which Sogyal belongs; and the "Virtuous Reformed Order" of the Yellow Hats, *Gelug-pa*, to which the Dalai Lama belongs. Sogyal downplays the rivalry of these sects throughout his writing, which may be fine for ecumenical readers, but at the same time fails to locate his textual and liturgical tradition within its historicocultural context. It is indeed tragic that Buddhism has been largely driven from

Tibet and that nearly a million Tibetans have been displaced or murdered by the Chinese in the past generation. At the same time, this history of bloodshed is not new; Tibetan monks have been feuding with and killing their religious and nonreligious rivals for power for the past millenium in Tibet.

The *Nyingma-pa* line of Tibetan Buddhism, to which Sogyal belongs, claims to be the oldest and most authoritative sect that preserves the "pure" tradition of Padmasambhava. Padmasambhava was born in Udyana in what is now northern Pakistan. He is said to have been born on the tenth day of the tenth lunar month, adopted and taught by King Indrabodhi, whose court he left to study at Nalanda University in north India. He was renowned as a magician or miracle worker (*maha-siddha*) and exorcist, being able to converse with and quell demons as Jesus did.

Padmasambhava was invited to Tibet in 746, and arrived there in 747, to help exorcise the demons thought to be hindering the development of a proposed monastery there; he is credited with converting the local pre-Buddhist Bon-po gods to become the protectors of Buddhism. (The development of the monastery may also have been assisted by the exile and assassination of the anti-Buddhist faction shortly before Padmasambhava's arrival.) His teachings are often called the Dzogchen, a term referring to a body of teaching to which the non-Buddhist Bon-pos also lay claim, showing the commonalities between the mystical pre-Buddhist and Tibetan Buddhist religions.

Padmasambhava is said to have received wisdom from both human and divine teachers, whose teachings he hid in caves, rocks, and temples, for later teachers to discover; this serves as the "authorization" of the "discovery" beginning in the 12th century of revealed texts credited to Padmasambhava. The facts that Padmasambhava emphasized personal transmission and that no texts remain from the 8th century may also be due to the fact that writing had only very recently been invented in Tibet. Most Tibetans could not read, and Padmasambhava himself used mostly varieties of Sanskrit. Late in life, Padmasambhava was forced to leave Tibet under threat of death after displeasing the court. He is virtually deified by most of the *Nyingma-pa* Red Hats today.

The *Nyingma-pa* school, which claims to represent Padmasambhava's tradition most authentically, believes in nine levels of revelation and six types of tantric practice: *kriya*, or ritual; *upayoga*, or convergence of the two truths; *mandala-yoga*, or identifying oneself with depicted gods; *mahayoga*, or meditation on the *skandhas*;

anuyoga, or meditation on voidness; and *atiyoga*, or meditation on the union of the god and his consort. Only the last three types of yoga are said to enable Buddhahood without repeated rebirth, and these require special initiation from a master. In *The Tibetan Book of Living and Dying*, it is never completely clear to which of these practices Sogyal is referring, but the emphasis seems close to *mandala-yoga*, *mahayoga*, and *anuyoga*. While Sogyal is to be thanked and complimented for bringing clearer than usual expositions to Western readers, he might have placed the practices within a broader context of the entire teaching and given his reasons for selecting those he has selected.

Similarly, he emphasizes *mantras* (spoken formulas) over *mudras* (hand signs) and *mandalas* (depictions), and emphasizes certain Buddhas or bodhisattvas like Amitabha and Avalokitesvara over other equally central Buddhas whom he ignores, like Vairocana, Aksobhya, and Amoghasiddhi. While there are surely good practical and historicocultural reasons for his choices, this is another case where he gives the impression that he is trying to be both comprehensive and tolerant toward other views, when in fact he is consciously or unconsciously selective and preferential towards certain practices and figures over others. Sogyal is relating just one glimpse of one sect among the six in Tibetan Buddhism, and alludes to only a few of the literally hundreds of sacred texts that even this one sect reveres. This is not by any means to denigrate the great power and wisdom of the practices he provides, but rather to alert the reader to the fact that the Tibetan tradition is indeed far greater and richer than even this massive book would suggest.

Despite the shortcomings of a book having been written by a mere human, the tremendously positive reaction to this book by scholars and lay readers alike attests not only to its eminent readability, but also to its profound spiritual insights and practices. This is a Tibetan book, to be sure, but it is also a book for all humankind. To the extent to which we take Sogyal's messages and instructions to heart, it will immensely enrich our living and our dying.

Letters to the Editor

On the Mind/Body Problem

To the Editor:

J. Kenneth Arnette (1992) seems to believe that verified cases of out-of-body vision are proof of the dualist view that mind is a non-physical entity that can exist independently of the body. I submit that his view is open to question. Out-of-body sight could be a form of eyeless, yet body-based, perception that goes into operation when, under certain circumstances, the eyes are not functional. I have identified several features of the phenomenon that suggest this (Krishnan, 1985, 1993).

Not only out-of-body sight but other phenomenon that are said to hint at postmortem survival, including apparitions and reincarnation, also do not support the dualist contention. These phenomena could represent the different ways in which certain sensitive persons become aware of the information about a deceased person — that is, his or her memories, thoughts, and emotions — persisting in the physical environment. In other words, what may survive after a person's death is a record of information about him or her and not a sentient entity. As part of my attempt to reinterpret the concept of postmortem survival, I have pointed out several features of claims of reincarnation that support my view (Krishnan, 1990). As an aside, it seems to me that an approach to the survival issue along the lines I have indicated may provide new knowledge about various matters like, for example, memory mechanisms and storage of information.

It appears that Arnette has ignored two very serious criticisms about the dualist position. One is that if the mind is nonphysical it cannot interact with the material body. The other is that conceiving mind as a factor capable of functioning separated from the body will raise the problem of infinite regression with regard to the question of what makes it function. The dualists have not been able to answer these criticisms and therefore their claim of an autonomous, non-physical mind has to be considered untenable.

It follows that the question of how mind and body interact, mentioned by Arnette, is pointless, and all the so-called mental phenomena, such as mood, emotion, and thought, are explicable in terms of body-based processes. The best explanation along this line that I have seen is the one offered by Jack Ornstein (1972). Very briefly, he suggested that a mental event like, for example, the feeling of pain, is the manner in which we become aware of a certain pattern of electrochemical activity in the brain. That is, the feeling of pain is the experiential or subjective aspect of the cerebral event. (There can be other aspects also, such as verbal and behavioral.) Some writers (e.g., Brown, 1980) have asked the question how a physical process such as electrochemical activity can be translated into a nonphysical subjective event. The answer is that no translation process takes place; the cerebral and subjective events are related to each other like the two sides of a coin, inseparable except conceptually. In Ornstein's view, then, the term "mental" simply means experiential or subjective; it does not imply that there is some autonomous entity called "mind."

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Kenneth Arnette Responds

To the Editor:

In his letter to the *Journal*, V. Krishnan disagrees with my interpretation of near-death experience (NDEs) in the context of the mind/body problem (Arnette, 1992). Krishnan writes that I consider Michael Sabom's (1982) evidence of accurate visual perception during NDEs to be proof of dualism. Further, Krishnan writes that I have ignored the problems of mind-brain interaction and infinite regression of mind function. I would like to address these three points.

Sabom (1982) presented several examples of NDEs in which the NDEr had visual perceptions of events in the operating room (OR), perceptions that were verified via examination of the medical records. In my earlier article (Arnette, 1992), I pointed out that this was a crucial step in NDE research, since these accurate visual perceptions cannot be explained by materialistic theories. I do not consider these data to be proof, per se, of mind/body dualism; rather, I consider them to constitute an anomaly (Kuhn, 1970) which cannot be explained within the materialistic paradigm.

Krishnan (1982, 1993) has accepted the visual accuracy in reports of NDEs, and has proposed that out-of-body vision "may involve receptors and/or brain mechanisms different from those involved in normal vision" (1982, p. 21), and that out-of-body vision "may represent an attempt to compensate for the reduction of sensory input which may occur during the dying process" (p. 22). Thus, while not denying the accuracy of these visual perceptions, Krishnan maintains that they can be explained physiologically and therefore do not constitute an anomaly in the materialistic paradigm. Krishnan does not, however, suggest a way in which eyeless sight could occur.

In considering Krishnan's argument, one should be aware that in most of Sabom's OR NDE cases, the patient's eyes were taped shut or head and body draped with sheets; in several cases the patient's heart had stopped and the medical team was working frantically to revive the patient. Thus, it is highly doubtful that the patient could observe the surrounding events with the eyes or any other receptors, due to physical obstructions, if nothing else.

But more importantly, the stoppage of the heart and the ensuing oxygen deficit in the brain present serious problems for any materialist explanation of accurate NDE sensation, perception, and memory. The human brain is a massive consumer of oxygen. For an adult,

the brain receives 15 to 20 percent of the total cardiac output of blood volume (Powers, 1990). The brain is entirely dependent on the oxygen and glucose delivered by the circulatory system, oxidizing the glucose to provide for all its energy needs; very little glucose is stored as a reserve (Powers, 1990). Therefore, the cessation of blood flow and the resulting anoxia (complete lack of oxygen in the brain) severely inhibit the central nervous system (CNS) chemical reactions necessary for memory and consciousness. In fact, "the chief clinical feature of abrupt and global CNS anoxia is immediate loss of consciousness (within seconds), and irreversible damage may begin after only 2-4 minutes" (Morris and Ferrendelli, 1990, p.365-366).

Among the first areas of the brain to be affected by anoxia is the hippocampus, which is critical to the formation and storage of long-term memory (Morris and Ferrendelli, 1990). Even hypoxia (decreased availability of oxygen in the brain) alone is sufficient to cause damage to hippocampal neurons, and memory deficit is a major consequence of this condition (Morris and Ferrendelli, 1990). In view of the preceding facts, one would expect patients to have no consciousness during, and no memories of, their resuscitations. The detailed and accurate information in the long-term memory of Sabom's subjects is a direct contradiction of the observations and predictions of modern neuropsychology and is impossible from an organic perspective.

The NDE data therefore do indeed constitute an anomaly for materialists. Krishnan's suggestion that investigation of body-based eyeless sight could yield new knowledge about memory mechanisms is an understatement; all of physical and biological science would be turned upside down by the discovery that neurochemical reactions could proceed without their reactants: oxygen and glucose.

Krishnan's second point is that I have ignored the problem of mind-brain interaction, which is supposed to be an unsolvable problem due to the dualist's conception of the mind as nonphysical. Krishnan goes on to say that since dualists cannot answer this objection, the question of interaction is pointless. It is true that I did not propose an interaction model in my first article. The model did not yet exist at that time, but its seeds had begun to take root. I have now completed the first stage in building an interactionist model (Arnette, in press).

Very briefly, the theory of essence proposes that what we call "mind" is in fact the intermingling and interaction of the essence with the brain. The essence is indeed nonphysical, in that it is not composed of matter. This definition does not, however, preclude interaction with physical entities, because the essence, like the body,

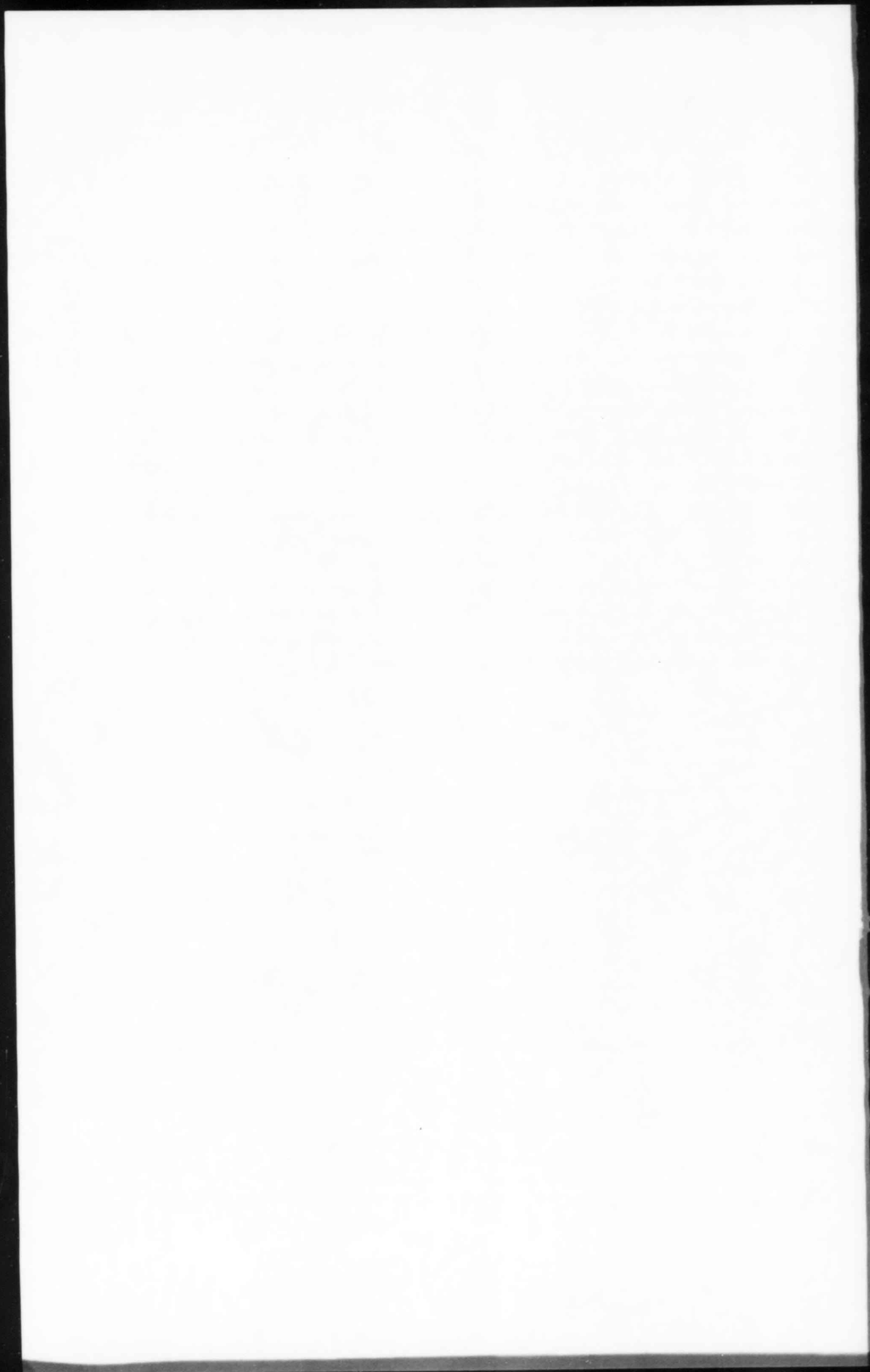
is associated with a time-varying electromagnetic field. It is the interaction of the brain and essence electric fields that allows "mind" and "body" to interact. The paper describing this model (Arnette, in press) elaborates on this basic idea by demonstrating correlations and analogies between NDE data and well-known electromagnetic phenomena from physics and chemistry.

Krishnan's third point is essentially that by removing the workings of the mind from a physiological basis, I am raising the problem of infinite regression with regard to mind functioning. I would like to make it as clear as possible that I do believe that the conscious human mind has a physiological basis, but that the physical basis alone is not sufficient to explain the NDE data. There is more to the picture than neurons and chemical reactions. It is true, however, that I regard the essence as the seat of thought and consciousness, and in that sense I have not tried to answer the question "What is consciousness?" But this is only one step removed from the physical world, not an infinite number of steps. I believe that if we look anew at the NDE, accepting it not as hallucination or wishful thinking but rather as a window into a different reality, we might make progress in understanding consciousness in its essential form.

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Announcement

IANDS Office Relocation

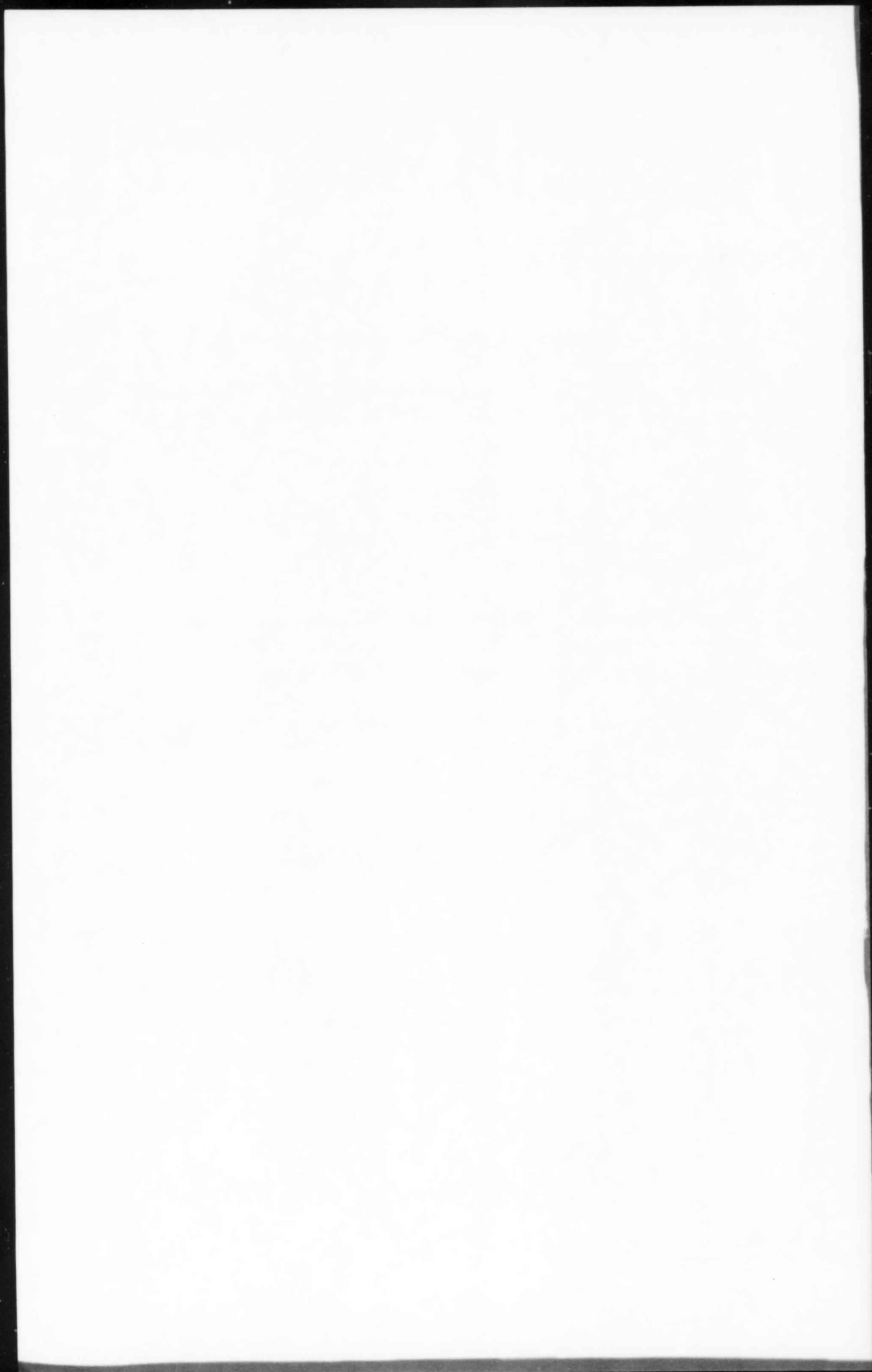
As of March 1, 1994, the administrative offices of the International Association for Near-Death Studies (IANDS) have relocated to the following address:

IANDS
P. O. Box 502
East Windsor Hill, CT 06028
(203) 528-5144

All correspondence to IANDS regarding administrative matters, membership services, and publications other than the *Journal of Near-Death Studies*, should be directed to that address.

The address for the Research Division and the editorial address for the *Journal* will remain as follows:

Bruce Greyson, M.D.
Department of Psychiatry
University of Connecticut Health Center
Farmington, CT 06030-6410



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GENERAL REQUIREMENTS: Logical organization is essential. While headings help to structure the content, titles and headings within the manuscript should be as short as possible. Do not use the generic masculine pronoun or other sexist terminology.

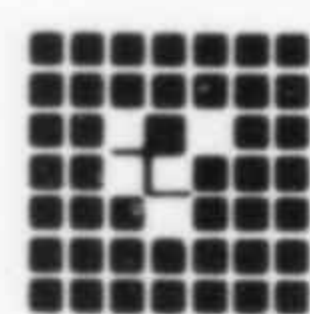
MANUSCRIPTS should be submitted in triplicate, typed on one side of the page only, and double spaced throughout. A margin of at least one inch should be left on all four edges. Except under unusual circumstances, manuscripts should not exceed 20, 8 1/2 × 11" white pages. Send manuscripts to: Bruce Greyson, M.D., Department of Psychiatry, University of Connecticut Health Center, Farmington, CT 06032.

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