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Editor's Foreword

We open this issue of the Journal with a Guest Editorial by health scientist William Serdahely, viewing near-death studies within the context of scientific paradigms, and speculating on whether contemporary science can accommodate near-death experiences (NDEs) without undergoing a paradigm shift. This notion is developed further in our lead article by philosopher Carl Becker, suggesting that NDEs may be a type of natural phenomenon beyond the explanatory power of current scientific knowledge.

In reports of empirical studies, sociologist Cherie Sutherland describes changes in religious beliefs, attitudes, and practices among NDErs, finding that the NDE may promote spirituality but not necessarily religiosity; and Serdahely reviews NDEs reported by children, finding that life review may be a function of age.

Next, in methodological papers, medical researcher Michael Glikman and sociologist Allan Kellehear question the relevance of arterial blood gas measurements to near-death research; and counselor educator Janice Miner Holden and chaplain Leroy Joesten describe problems and strategies for studying veridical out-of-body perception in NDEs occurring in hospitals.

We also include in this issue two divergent reviews—by psychiatrist Ian Stevenson and by transpersonal psychologist Arthur Hastings—of Jungian psychotherapist Roger Woolger's book, *Other Lives, Other Selves*. We chose to publish these paired reviews because of the controversy surrounding this book's approach to past life therapy and the importance to near-death studies of these questions. Finally, we end this issue with a letter from NDEr Leslee Morabito questioning the notion that the NDE is an encounter with Love or God.

Bruce Greyson, M.D.
Guest Editorial

Thomas Kuhn Revisited: Near-Death Studies and Paradigm Shifts

William J. Serdahely, Ph.D.

Montana State University

ABSTRACT: Near-death studies can be viewed within a theoretical framework of "paradigms" and "paradigm shifts" as explicated by Thomas Kuhn (1962). Assuming the validity of Kuhn's model, I hypothesize that the paradigm of today's "normal science" is shifting to a new paradigm to accommodate data from near-death studies.

One of my respondents recently shared a vision she had of her mother after her mother's funeral. My respondent was driving along in her vehicle when suddenly she saw her mother go through a dark tunnel and come out in a light. Her mother was met by Jesus, and she asked Him, "I made it here?" Jesus laughed and said, "Yes. Come." They went into an area with blue sky. A white light illuminated her deceased parents, who welcomed her to that place. Then other spirits joined the woman as they walked on grass, with trees and a lake nearby.

Another respondent related a vision that occurred while she thought she was asleep. She saw her recently deceased father in Hell. "He was so real," she wrote. There were many people in Hell, which was a lot like a great lake with high "horrible" flames. People were screaming.
and extending their hands in a pleading fashion. There was only one path, without an exit, leading to the fiery lake. A black-robed figure approached her father and said, "You are next to go in." Her father then said to her, "You never warned me about this place." My respondent referred to her father as a "vile" man "who mocked Christians," and indicated that he was an alcoholic who abused her.

How are we to explain these two visions? We could invoke what Thomas Kuhn (1962) called "normal science," science as we know it today. For example, Paul Kurtz asserted that near-death experiences (NDEs) can be best explained by "ordinary science" (1988, p. 15), with the explanation residing in well-known phenomena such as hypnagogic or hypnopompic states; "reasonable" physiological interpretations relying on cerebral anoxia, anesthetics, fever, hallucinations, or phosphenes to account for the light experience; and depersonalization, a concept commonly accepted by the psychological and psychiatric communities.

Using the concepts of "ordinary science," perhaps the first vision described above is really a wishful fantasy, a daydream, in which my respondent is hoping for the best for her recently deceased mother, wanting her to go to Heaven and be with Jesus. And maybe the second vision is an ordinary dream in which the respondent has the power to punish her father who punished his powerless daughter abusively in "real" life.

**Anomalies For "Normal Science"**

Or do we have here what Kuhn would call an "anomaly" for normal science (or "ordinary science" to use Kurtz's phrase)? Do we have valid phenomena that cannot easily be accounted for by the prevailing paradigm of science? Kuhn likened a paradigm to an inflexible box into which anomalies do not neatly fit. Do these two visions provide data that cannot be placed easily inside the box of ordinary science?

If these were the only two visions of this kind ever reported, then normal science could readily accommodate them. But since the publication of Raymond Moody's *Life After Life* (1975), the "anomalies" have continued to mount. Hundreds of near-death experiences, death-bed visions, and related paranormal experiences have been reported in the literature, so that perhaps the paranormal is actually normal, and the anomalies only appear anomalous given the current paradigm of Western science.

According to Kuhn, "philosophies of science have repeatedly demon-
WILLIAM J. SERDAHELY

strated that more than one theoretical construction can always be placed upon a given collection of data" (1962, p. 76). Kimberly Clark (1984) wrote she had very solid evidence for the phenomenon of out-of-body experiences (OBEs) in her NDE account of Maria, who described a tennis shoe she had seen on the third floor ledge of the hospital during her OBE. And yet Kurtz has countered with another theoretical construction: rather than thinking of OBEs as actual departures from the body, they may be "twilight states we pass through between waking and sleeping" (1988, p. 15).

A historian of science, Kuhn said that prior to a paradigm shift, one often finds resistance, suppression, and skepticism from the practitioners of the prevailing scientific paradigm. As these scientists conduct normal science within that paradigm, they have a tendency, according to Kuhn, to take that paradigm for granted. There is the unchallenged assumption that the paradigm actually describes how the universe works and can account for all things, anomalous or not.

Then, according to Kuhn's theory of paradigm shift, along come scientists who are younger or new to the field, who see things differently and do not necessarily take the accepted paradigm for granted. They conduct what Kuhn called "extraordinary science" (1962, p. 82).

In the field of near-death studies, Moody and Kenneth Ring both fit Kuhn's prediction of "extraordinary scientists." Moody began collecting NDE accounts while a graduate student of philosophy, before his medical school training. And Ring, having been "burned out" after a decade as a social psychologist, then came to near-death studies with a fresh perspective and a renewed energy. Moody and Ring conducted "extraordinary science," that is, science outside the paradigm of the normal science at that time, a time in which normal scientists were highly skeptical of phenomena such as NDEs.

A Paradigm Shift for Near-Death Studies

I hypothesize that from a historical perspective, near-death studies are a part of, and are in the middle of, a transition from one paradigm of normal science to another. To account for the data from near-death studies, a paradigm shift is not only necessary but well underway.

Kuhn wrote, "When . . . an anomaly comes to seem more than just another puzzle of normal science, the transition to crisis and to extraordinary science has begun" (1962, p. 82). After enough extraordinary science has been completed successfully, a paradigm shift occurs. The new paradigm replaces the old, and with time the new becomes ac-
cepted and embraced by practitioners of the old. A transformation of world view occurs, and the scientific revolution is completed.

Some transformations of world view have taken place, but these are not widely recognized nor generally accepted. One indication of this lack of recognition is the statement still commonly made by NDErs to the effect that they are afraid to tell loved ones or medical providers about their NDEs for fear of being labelled "crazy," "strange," or "weird." The respondent with the second vision above wrote, "It helps to be able to relate my bizarre experiences with you. If I told them out here, I'd be a candidate for the funny farm!" These labels suggest that the NDE is still considered a deviation from the norm and the accepted, even in the minds of NDErs.

If we lived in a culture in which what we now call the paranormal was taken for granted and was an integral part of the prevailing paradigm, then NDErs would not fear being labelled; it would not even be an issue. NDEs would be considered "normal."

Ring's *Heading Toward Omega* (1984) was a harbinger of transformation on two levels. The book chronicled the personal transformations of NDErs who have had the most robust NDEs, documenting how their lives have fundamentally changed in a spiritual way. But *Heading Toward Omega* also presaged the transformation of the paradigm of "normal science." We cannot accept Ring's findings on personal change without also accepting the legitimacy of the "extraordinary science" that led to those findings.

As the paradigm shift continues, we are finding evidence of greater acceptance of NDEs in the common culture, as they and similar paranormal experiences appear as the topic of radio and television talk shows and in movies and works of fiction. The fact that NDEs are becoming more accepted in the general culture is an indication that the paradigm shift is underway.

The New Normal Science

Kuhn's model of scientific revolution posits that once the new paradigm has become more acceptable and is moving to supplant the old, then new normal science becomes practiced within the newer paradigm. The new normal science attempts to answer questions and solve puzzles not even fathomed under the old scientific paradigm.

We can see some evidence for the supposition that we are operating as if the new normal science is already in place. For example, Margot Grey (1985) has begun to explore negative NDEs, still an enigma for
near-death research. The original models for Moody and Ring described the NDE as a positive experience for the most part. While these two researchers recognized the anomaly of negative NDEs, Moody (1988) dealt with them mainly by citing the quite low percentage of such experiences, while Ring (1980) wrote primarily of Maurice Rawlings' fundamentalist Christian agenda as an explanation for Rawling's (1978) observations of negative NDEs.

The negative NDE did not fit neatly into the models proposed by Moody and Ring. And yet using the very same scientific methodology that elicited so many positive experiences, we are now finding negative NDEs as well. So one challenge then for the new normal science, which conceptualizes NDEs not as paranormal but as normal phenomena, is somehow to account for the anomaly of negative and Hell-like NDEs.

In a similar vein, Ian Stevenson, Emily Williams Cook, and Nicholas McClean-Rice (1989-90) have presented evidence that NDEs occur to some people who are not at all close to death. They perhaps facetiously have called these "fear-death experiences" (1989-90, p. 53). If their finding holds up, then again, the new normal science somehow will have to account for this anomaly, or it will have to change.

A New Paradigm For Paradigms?

And if the new paradigm, which accepts NDEs as valid and legitimate phenomena, must change, as Kuhn predicted all paradigms inevitably do, then what might its successor look like? Many NDErs have written that the lessons of their NDEs were to love others unconditionally; to forgive, especially those who have been most injurious to us; and to seek knowledge, particularly about things spiritual. It is difficult to imagine the new normal scientific paradigm having to shift to encompass something beyond these lessons. But then perhaps that is an anomaly for Kuhn's paradigm of scientific revolutions, with the answer being that there may be an end point to paradigm shifts. Ring (1984) and Pierre Teilhard de Chardin (1959) have called this end point the "Omega Point."

As we witness the paradigm shift in Western science to accommodate near-death studies, we may also be witnessing the emergence of a new paradigm about paradigms. The anomaly of an end point to paradigm shifts may change our thinking about the inevitability of paradigm shifts. On the other hand, perhaps I am simply so immersed in the new paradigm I have hypothesized that I am unable to see what the paradigm beyond this new one might look like.
References


Extrasensory Perception, Near-Death Experiences, and the Limits of Scientific Knowledge

Carl B. Becker, Ph.D.
Tsukuba University

ABSTRACT: If mental state can influence the external world, or if alternate dimensions of reality are accessible only in certain mental states, then important aspects of the universe are unknowable with current scientific tools. Near-death studies suggest that both those conditions may occur. Thus the exploration of NDE-like phenomena requires a radically new scientific paradigm.

Our common concern as philosophers and scientists is the question of the limits of scientific knowledge. In this paper, I shall argue that some significant aspects of the natural universe may be in principle unsolvable by the tools of natural science as presently practiced. To advance this claim, I propose two simple theses:

A. The mental state or conviction of the scientific investigator actually influences the behavior of the external world in some instances.

B. There exist other dimensions of the universe that are objectively real but accessible only to individuals in specific mental states.

If either of these theses proves defensible, then we must reconceptualize either the methods or the definitions of the sciences, or possibly

Dr. Becker is Assistant Professor of Philosophy at Tsukuba University. Requests for reprints should be addressed to Dr. Becker at the Institute of Philosophy, Tsukuba University, Tsukuba City 305, Japan.
even concede that there exist insoluble scientific questions. In the following sections I shall treat each of these theses respectively.

**Influence of Observer Belief**

Since Werner Heisenberg's indeterminacy principle, it has become widely accepted that there are submolecular processes in the natural world that we cannot specify with precision, and that every investigation of these processes or particles inevitably influences them, so that their state while (and after) being investigated is different than it would be if they were left uninvestigated.

It is also widely known that scientists "find what they are looking for" (Kuhn, 1970, p. 135), and that they may unconsciously misreport or inaccurately observe data that fail to accord with their expectations (Bruner and Postman, 1958). Neither of these facts, however, constitutes a limit of science per se; they simply place limits on precision at one end of the microscopic scale, and suggest that we be very wary of self-fulfilling experiments.

There is another range of phenomena, however, that actually conform themselves to the convictions of the experimenter to a far greater degree than can be explained by individual differences or experimental error. The "sheep-goat" effect, in which "sheep" refers to believers and "goats" to hardened skeptics, holds that people who believe in and expect psychic abilities are far more likely to manifest them than are those who are skeptical of them. The "sheep-goat" effect has been found to hold true for a wide range of psychosomatic and paranormal phenomena, of which I shall consider a few examples here.

The sheep-goat effect was first documented in experiments in extrasensory perception (ESP), in which it was noted that some experimenters repeatedly failed to replicate standard ESP results, while others had no trouble in achieving results significantly indicative of ESP. It was concluded that the mindset of the experimenter was affecting the abilities of the subjects to perform. Numerous experiments have confirmed this sheep-goat effect in testing for clairvoyance (Schmeidler, 1963), ESP (Palmer, 1973), and out-of-body experiences (Palmer, 1975).

Another area to which the sheep-goat effect applies is that of psychosomatic interactions, especially placebo phenomena and the process of faith healing. Medical doctors have found that the mere expectation that a particular pill or injection would cure a particular ailment was sufficient to bring about healing, even when there were no active ingredients in the pill or injection, and when there were no medical reasons to expect healing of any kind.
Similar situations may be observed in the cases of primitive medicine men and even in modern faith healing, where it is clearly not the specific dance or prayer that is curative, but rather the unwavering conviction of the patient that the particular treatment will cure him or her. Whether in Tenrikyo or in Christian Science, an absolute reliance on and commitment to the "principles" of the healer are required, and failure to be healed is attributed to inadequate faith (Becker, 1979). Sheep-goat effect research indicates that this is precisely what we should expect; it is not the content or practice of the belief that affects the healing as much as the firmness with which it is maintained.

Another simple illustration of the relationship between belief and the state of the world can be found in the use of invisible vital energy, called ch'i in Chinese and ki in Japanese, in the martial arts (Back and Kim, 1979). The martial arts practitioner who doubts his or her own vital energies will naturally be unable either to discover or to marshall them. Those who intuitively accept and work as if they have invisible energies will find themselves performing feats that the laws of physics and medicine would hold to be virtually impossible (Miller, 1980). Virtually every great master or practitioner of the martial arts insists upon the extreme importance of the cultivation of the appropriate frame of mind, even more than physical development, in order to perform the incredible feats for which martial masters have become known (Johnston, 1976).

In each of these areas—psychical research, psychosomatic healing, and martial arts—the connection between belief and objective reality is more profound than mere positive thinking. It suggests that the way the world, including human bodies, works is inextricably intertwined with the states of mind of the individuals in that world, including, of course, scientific investigators. If the sheep-goat effect is valid, it may indicate that there are areas in which humankind can never know the world objectively, not because of uncertainty principles and fudge factors, but because, in ways we do not understand, our minds actually change the physical universe. It remains to be seen whether this observer-belief factor influences other fields of scientific experimentation.

Dimensions Accessible in Altered Mental States

In the early part of this century, Ernst Mach speculated about the fourth spatial dimension as a purely mathematical construct that would also explain the sudden disappearance of objects in this world.
Peter Ouspensky too did some rather wild philosophizing along this line, before Hornell Hart finally applied dimension theory to psychic phenomena (Hart, 1953). More recently, Herbert Benson worked out a version of fourth dimension theory that would make sense of both psychic phenomena and physical systems such as tunnel diodes (Benson, 1971). A growing number of physicists are becoming inclined to accept the possibilities of other dimensions, or hyperspaces, analogous to the dimensional system in which we live, but either inaccessible to or invisibly interpenetrating our own (Burt, 1967).

The possible existence of such inaccessible or interpenetrating but invisible dimensions has been used by philosophers and theologians to make sense of other worlds invisible to this one but real enough in their own right. John Hick and Alan Olding have seriously debated whether two spatially unrelated dimensions could be temporally related (Hick, 1976). Austin Farrer has suggested that "heaven can be as dimensional as it likes without ever getting pulled into our spatial field, or having any possible contact with us of any physical kind." (Farrer, 1965, p. 145). Even conservative Peter Geach granted the intelligibility of other spaces to make sense of Heaven and Hell (Geach, 1977).

The problem seems to be how humankind could know if there were different realms of reality inaccessible to each other. One solution lies in the suggestion that these dimensions may be experienced or even explored during certain unusual mental experiences of "privileged access."

*Prima facie*, the existence of other dimensions may appear analogous to the old philosophical bugaboo of the *noumenon* underlying phenomena; even if it exists, there seems to be no way of investigating or falsifying it, and therefore as a hypothesis about the world, it is useless and empty. However, in the case of fourth dimension theory, it is seriously suggested that there may be ways of accessing it.

Physicists have come up with some theories as to how black holes, antimatter, and subatomic entities may relate to other dimensions. Medical scientists have explored possible connections between extreme mental states and perceptions of other realms. I do not intend to argue that the nether worlds of heaven and hell could exist in the same dimensions as those to which antimatter and black holes flee. Rather, I shall focus on recent medical literature suggesting only one approach to dimension problems.

The past decade has seen a burgeoning interest in the subject of near-death experience (NDEs). Many NDEs are easily explained away as
hallucinations produced by chemical changes in the brain, therefore corresponding to no objective reality. When such cases have been discarded, however, what remains is a group of people making paranormal knowledge claims with unnervingly similar content. NDErs maintain that there is an objective reality to their experiences of relatives, friends, or religious figures in a realm of the departed.

In some cases, NDErs correctly identified persons as being dead whose death was yet unknown to anyone around them (Baird, 1944; Osis and Haraldsson, 1977). In other cases, people had visions of past or future events that could be proven to occur precisely as their NDEs had foreseen (Delacour, 1973). Many believe that this paranormal knowledge that transcends spatial and temporal barriers is possible because persons on the verge of death have begun to pass through a tunnel of mental energy into another dimension.

Kenneth Ring has argued that it is precisely to this other dimension that NDErs gain access in the transition from death to afterlife, a transition that increasing numbers of resuscitated people have described (Ring, 1980). Karl Pribram analogized the experience of mystics to those of another dimension, "bespeaking the possibility of tapping into that order of reality that is beyond the world of appearances" (Pribram, 1979, p. 84).

Charles Tart has seriously proposed that drug-induced altered states of consciousness could be utilized to gain access to and study the nature of such normally inaccessible dimensions. He propounded that our normal perceptual mechanism give us perspectives on only one particular dimension, and that modern science is specific to this state, but that theoretically, we might develop a whole range of "state-specific sciences," in which "explorers of other dimensions" might try to map coherent "landscapes" of other "dimensions," just as NDE accounts tend to be very consistent (Tart, 1972, pp. 1203-1210).

If there exist other dimensions that we can detect but explore only by inference or perhaps through near-death experiences, then this too would seem to constitute a limitation on natural science as presently understood. I do not intend to argue that humans do continue to live in other dimensions after death, nor even that there definitely exist such dimensions.

Rather, I am asserting that if such facts were to pertain, they might require revisions of thinking in scientific circles, and that there are both circumstantial evidence and philosophical thought to suggest that such facts might pertain within certain areas. In both near-death and mind-body research, we find fields in which objectivity must be reduced to something like comparisons of individuals’ experiences.
Some philosophers and scientists have tried to argue that the question of survival or life after death is a metaphysical one that cannot be formulated into a falsifiable and meaningful scientific hypothesis. But Hick (1977) has rigorously demonstrated that statements like "my consciousness will survive the death of my body" are both meaningful and falsifiable, although not necessarily by a community of observers all at once, and are important experiential questions about the content and nature of the universe, and not necessarily religious wand-waving nor gibberish.

The apparent anomalies of psychic and near-death phenomena discussed above leave us with several possible alternative explanations. The fact that "the existence of psi phenomena is clearcut scientific demonstration that our knowledge of the physical world is quite inadequate" (Tart, 1979, p. 182) will come as no surprise to philosophers of science, who for many other reasons have long agreed that science is still far from providing a complete understanding of the natural world.

The question for us today is rather whether such psychic and near-death phenomena as we have alluded to will ultimately be explicable according to physical-like models and the methods of present science, or whether they shall always be impenetrable to interpretations by behaviorist and empirical models. This is currently a question of some debate in the literature on the subject (Pratt, 1979). Robert Binkley has aptly pointed out, "We are never entitled to declare that a certain effect must be non-physical just because it happens to be incompatible with any certain system of physics" (Binkley, 1966, p. 28).

The Options of Interpretation

There are several options open to philosophers of science and philosophical scientists at this point. They might construct an ad hoc, a priori definition that excludes the phenomena we have been considering from the purview of science. This has been the inclination of many traditional scientists, but it seems unjustifiably arbitrary, especially since the phenomena involved include perceptions, bodies, and medical states, traditional concerns of the natural sciences and philosophers of science. This worldview "totally denies the existence of psi phenomena as we experimentally know them" (Tart, 1979, p. 182).

If we grant that scientific knowledge is neither complete nor un revisable, then we should prefer to adjust our theories to demonstrable facts, and not write off the facts because they violate our preconcep-
tions. We may have to make major revisions in our conceptions of scientific tools and methods, but this should not curtail our inquiry.

Alternatively, philosophers of science and philosophical scientists might come to accept such phenomena by conferring labels upon them, such as ESP and NDE, that give us feelings of comprehensibility without any real explanatory power. This is common in science, as noted by Michael Scriven (1976, pp. 188–189):

Physics itself has come to accept the existence of inexplicable events... There comes a point at which sufficiently elaborate description, documented and worked with for years, gives us the feeling that we have an understanding of the phenomenon thus described. We have not reduced it to another phenomenon, but this only offends our sense of aesthetics, not our scientific sense.

It should be noted, however, that this is a legitimate part of the scientific process and the culmination of years of research, and not the dismissal of ignorant disinterest. This approach would admit that there are genuine limits to our abilities to explain one phenomenon in terms of other phenomena. But it would still advocate the study of these phenomena and the variables that facilitate or frustrate their study. If it is plausible to consider such phenomena as ESP, psychosomatics, and NDEs as objects of scientific study, as I would urge, then our conceptions of the tools and limits of scientific precision need to be broadened in at least two areas, on the objectivity and knowability of the universe.

If thesis A at the beginning of this paper prove true, then we may need to modify substantially our ideas concerning the objectivity of the natural world that science studies. If it prove the case that the fall of dice, the conditions of living organisms, and the impressions of one's brain are all affected by mental convictions, even at a distance and without intervening physical mechanisms, then we should also ask to what extent such mental influences affect other physical phenomena, from Brownian or bacterial movement, to weather patterns after rain dances, to the uncanny successes of archeological expeditions. We may find that, in fact, most of modern science, its methods and experiments, is relatively free of interference from the sheep-goat effect, just as Heisenberg's principles need trouble us little in the realm of macro-level physical interactions.

If in fact we find that some experiments are affected by sheep-goat interactions, then we shall want to explore the nature of the variables that render them vulnerable to such mental influences more than
other less-influenced experiments. This process of looking for important variables, however, will be one of much more subjective psychological types of analyses, difficult to quantify and catalog, which had previously been thought irrelevant to much of natural science.

Thus the admission of the possible influence of mental states on scientific experiments places both theoretical limits and practical problems on the tools of what we tend to think of as "exact science." We end up with situations in which the objects of our investigations cannot even theoretically be separated from consideration of the mindframes of their human investigators.

But the problems of determining (a) what the mindframes of those human investigators are, (b) how those mindframes affect the actual physical interactions of the objects being studied, and (c) which types of experiments seem particularly prone to or immune from influence of the sheep-goat effect, and measuring the variables therein—all of these constitute issues that most scientists heretofore have been only too content to pronounce irrelevant. If these problems become important, natural science will become far more complicated and less precise than it has seemed hitherto.

On the other hand, if thesis B at the beginning of this paper prove true, and there indeed exist other dimensions in which other energies or forms of life may exist, to which humans have at best inferential and occasional altered-state mental access, then again notions of the objectivity of experience are challenged, from a slightly different perspective. To accommodate such problems partially, we might change our definition of intersubjectivity from referring to "perceivable by several subjects at the same time in the same place," to "perceived by all subjects in the same condition and the same mental states."

Still at the same time we would want to build in provisions for distinguishing between physicochemically explicable perceptions, such as of a buzzing in one's ears, and perceptions that are not even conceivably explicable on a physicochemical model, such as of past or future events. Once again, if thesis B be true, and scientists were to concede that studies of experiences of other dimensions were legitimate, we should face such questions as:

What meditative, near-death, or drug-induced states enable humans to have experiences that are intersubjective at least in the sense that others have similar experiences while in similar states? To what extent do such experiences depend on the structure of the universe? If certain experiences contain elements that could best, or only, be explained on the theory of other-dimensional interactions, what might the nature or geography of those other dimensions be?
This might be a bit like sending spelunkers into passages too tiny for more than one person to breathe at a time, and compiling their accounts to come to rough conclusions about a cave we may never experience ourselves. If these ever become valid questions for science, as proponents of this psychic dimension theory believe they will, then this too would open our understanding of our world to a range of psychological variables that must be studied largely through the unsophisticated tools of the soft or social sciences. In other words, if we have to collect individuals' subjective accounts of their experiences of other dimensions in order to come to an understanding of either death or dimensionality or consciousness, then the problems of language, mindset, and data interpretation loom immense, in a way that the natural sciences presently and prudently eschew.

Even through such approaches, however, the mechanisms by which consciousness interacts with bodies, or by which altered states of consciousness might enable access to intersubjective experiences of other realms in more than a metaphoric sense, remain a mystery.

This paper is not meant as an indictment of modern science in any sense. Science has undergone many paradigm shifts both in method and in what were thought appropriate objects of study. It has come to accommodate many phenomena that seemed anomalous to scientists of earlier eras. Surely it will continue to progress in such ways. Rather, it is the point of this paper that (a) if such anomalies in fact exist, radically new paradigms of science may be necessary to accommodate them; and (b) the variables involved in accommodating such fields to the scientific method may open up realms of uncertainty, subjectivity, or even unknowability, that present day science has not yet fully explored.

References


Changes in Religious Beliefs, Attitudes, and Practices Following Near-Death Experiences: An Australian Study

Cherie Sutherland, B.A.

University of New South Wales

ABSTRACT: This study examined changes in religious beliefs, attitudes, and practices in the lives of 50 near-death experiencers. I attempted to clarify whether these changes were to greater religiousness or to a deeper spirituality. I found that before the near-death experience (NDE), my respondents were no more religious or spiritually inclined than the general Australian population. Following the NDE there was a statistically significant shift towards spirituality on most items investigated.

The near-death experience (NDE) is an intense, profoundly meaningful episode, following which many life changes are now known to occur. George Gallup Jr. (1982) reported that eight million Americans, or approximately five percent of the adult American population, have had what he called a "verge-of-death" or "temporary death" experience with some sort of mystical encounter associated with the actual death event. A recent Australian survey by Allan Kellehear and Patrick Heaven (1989) found that 10 percent of a sample of 173 people, when shown a vignette depicting five typical elements of an NDE, claimed to have had a similar experience. These figures are of considerable sociological significance.

Ms. Sutherland was formerly a lecturer in the Department of Social Work, University of Sydney, and is currently a full-time doctoral student in the School of Sociology, University of New South Wales. Reprint requests should be addressed to Ms. Sutherland at the School of Sociology, University of New South Wales, P.O. Box 1, Kensington, NSW 2033, Australia.
This paper reports the results obtained from one section of a larger study still in progress, and concerns changes in religious beliefs, attitudes, and practices in the lives of 50 near-death experiencers (NDErs).

Most early studies of the NDE focused on the actual phenomenology of the experience itself. A few researchers have explored the connections between religion and NDEs from a variety of directions. David Royse (1985) conducted a questionnaire survey of 174 clergy to determine their attitudes and knowledge of NDEs. Michael Sabom (1982) made note not only of the religion but of the regularity of church attendance of each of the subjects in his medical investigation of NDEs. Carl Becker (1981) took a cross-cultural approach with an historical look at the centrality of NDEs to Chinese Pure Land Buddhism, and later explored the similarities between modern near-death accounts and both ancient Japanese deathbed visions (1984) and the theories of the Tibetan *Bardo Thodol* or *Book of the Dead* (1985).

Steven McLaughlin and Newton Maloney (1984) administered instruments to a sample of 40 NDErs to measure religious orientation and religious change. As Kenneth Ring (1980) had earlier found, they detected no relationship between prior religiousness and depth of NDE. However, they did note an increase in importance of religion and religious activity. Ring (1980) and others have suggested that, although prior religiousness does not affect the occurrence or depth of NDEs, it can color their interpretation. This is particularly evident in Carol Zaleski’s comparison of modern and medieval Christian near-death accounts (1987) and in the findings of Craig Lundahl (1981–1982) concerning the perceived “other world” in Mormon NDEs.

In recent years, interest in the aftereffects of the NDE has grown. Ring (1984), Margot Grey (1985), Charles Flynn (1986), and P.M.H. Atwater (1988) all looked at a wide range of aftereffects, each giving some consideration to the question of religiousness of NDErs. They all concluded that experiencers became more religious after their NDEs, but it must be noted that this so-called religiousness was ambiguous in its manifestations. It tended more toward inward spiritual transformation rather than toward outward demonstrations of faith such as greater involvement in organized religion.

In the present study, I made a consistent effort to clarify this point. For example, in a question concerning the experience itself, I asked: “Would you describe your experience as a religious or spiritual experience or would you describe it in some other way?” In another question I asked: “Would you have described yourself as a religious or spiritual person before this experience? Now would you describe yourself as a religious or spiritual person?” As could have been suggested from the
previous research cited, I found that my respondents in large numbers rejected the "religious" label, often vehemently, and availed themselves of the "spiritual" alternative, making clear the reason for their choice in most cases without any further prompting on my part.

Changes in belief following NDEs have also been explored by a number of researchers (Greyson and Stevenson, 1980; Grey, 1985; Flynn, 1986). For example, Sabom (1982) and Ring (1980) each found a dramatic increase in belief in an afterlife and a marked decrease in fear of death among their samples of NDErs. Sabom also found that religious views were often strengthened, although he noted that there was no change in religious affiliation (1982).

In order to determine whether my sample could be considered "normal" before their NDEs or whether they had already been unusually religious or spiritually inclined, I compared them with a sample from the general population. Although not all areas of my enquiry were covered, "The Australian Values Study Survey" (Roy Morgan Research Centre, 1983) provided some of the data on the religious and spiritual practices and associated beliefs among a general population appropriate for this comparison.

Method

Subjects for this study were located by various means. Since my interest centered on the aftereffects of the NDE rather than the experience itself, I interviewed only people who had had their experiences over two years ago. The 50 NDErs who were the subjects for this paper were contacted by various means:

1. 2 subjects responded to my published articles on the subject (Sutherland, 1987–1988, 1988);
2. 5 subjects responded to public talks I gave;
3. 2 subjects responded to media interviews;
4. 12 subjects were recruited from a sample of experiencers already obtained by another researcher; and
5. 29 subjects were referred to me by a third party who had read my articles, heard me speak, or met me in some other context.

I personally interviewed each of these 50 respondents, in semi-structured interviews that usually lasted 90 minutes, although at times I spent much longer with them. These interviews dealt with a
wide range of issues, of which their religious or spiritual practices and associated beliefs was only one.

The depth of NDE for each respondent was scored independently by myself and another person on the Weighted Core Experience Index (WCEI) developed by Ring (1980). This scale assigns a weighted score to each of 10 elements of the NDE. For example, a subjective sense of being dead is given 1 point, a clear out-of-body experience is given 4, and encountering visible “spirit” is given 3.

My interview included questions related to respondents’ religion before and after the NDE; their perception of themselves as religious or spiritual before and since the NDE; their perception of the experience as religious or spiritual; nine religious or spiritual activities and associated beliefs both before and after the NDE; respondents’ attitudes to suicide before and after the NDE; and the most significant change since the NDE.

A chi-squared test, which gives the probability that there has been no change since the NDE, was then performed on most of these items. I also made comparisons with the general population wherever possible, to determine whether my sample, before their NDEs, was “normal” or already unusually religious or spiritually inclined.

Results

The 50 respondents included 15 men and 35 women. Their ages at the time of the NDE ranged from 7 to 76 years. Twenty percent were 19 years old or younger, 58 percent were 20 to 39 years, 20 percent were 40 to 59 years, and 2 percent were 60 to 79 years. The number of years since their experience ranged from 2 to 52.

The NDEs in this sample occurred as a result of illness in 17 cases; surgery or postoperative complications in 9 cases; pregnancy, miscarriage, or childbirth in 11 cases; serious injury in 7 cases; drowning in 2 cases; poisoning in 1 case; and suicide in 3 cases.

WCEI scores ranged from 6 to 24, with a mean of 13.86; 17 were “moderate” experiences scoring between 6 and 10, and 33 were “deep” experiences scoring 11 to 24.

The religious denominations of NDErs before and after the NDE are summarized in Table 1, along with a comparison with the general population in Australia. Unlike Sabom (1982), I found a dramatic change in religious affiliation, especially from organized religion, of whatever denomination, to no religion. Only two respondents changed
Table 1

Religious Denomination Before and after NDE

<table>
<thead>
<tr>
<th>Denomination</th>
<th>Percent General Population</th>
<th>Percent Sample (n = 50) Before NDE</th>
<th>Percent Sample (n = 50) After NDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No religion</td>
<td>16</td>
<td>46</td>
<td>84</td>
</tr>
<tr>
<td>Church of England</td>
<td>28</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>26</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Methodist</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Presbyterian</td>
<td>7</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Jewish</td>
<td>&lt; 1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Baptist</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Lutheran</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Calvinist</td>
<td>no data</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Brethren</td>
<td>no data</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Buddhist</td>
<td>&lt; 1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

from no religion, one to Buddhism and the other to Roman Catholicism. Of the general Australian population, 58 percent describe themselves as religious. Among my respondents, 24 percent stated they would have described themselves as religious before the NDE, 16 percent as spiritual, and 60 percent as neither. Following the NDE, 6 percent of my respondents described themselves as religious, 76 percent as spiritual, and 18 percent as neither.

None of my respondents perceived the NDE as a religious experience. However, 70 percent perceived it as a spiritual experience, 2 percent perceived it as both religious and spiritual, and 28 perceived it as neither religious nor spiritual.

The percentage of subjects who responded positively to questions concerning each of the nine religious or spiritual activities and associated beliefs before and after the NDE is summarized in Table 2, along with comparisons wherever possible with the general population. The number of subjects is less than 50 for some items, because I eliminated from analysis those respondents who could not remember or had not heard of or thought about various practices, phenomena, or beliefs before the NDE. This applied primarily to those who had had an NDE during childhood.

The attitudes of NDErs to suicide both before and since the NDE are summarized in Table 3. I asked this question in a very general form
Table 2
Religious or spiritual experiences, activities, and beliefs.

<table>
<thead>
<tr>
<th>Experience, activity or belief</th>
<th>Percent General Population</th>
<th>Percent Sample Before NDE</th>
<th>Percent Sample After NDE</th>
<th>NDEr Sample Size</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>value organized religion</td>
<td>56</td>
<td>36</td>
<td>20</td>
<td>50</td>
<td>.02</td>
</tr>
<tr>
<td>attend church</td>
<td>34</td>
<td>38</td>
<td>22</td>
<td>50</td>
<td>.02</td>
</tr>
<tr>
<td>pray</td>
<td>56</td>
<td>47</td>
<td>76</td>
<td>49</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>meditate</td>
<td>no data</td>
<td>12</td>
<td>60</td>
<td>50</td>
<td>&lt; &lt;.0001</td>
</tr>
<tr>
<td>quest spiritual values</td>
<td>no data</td>
<td>18</td>
<td>88</td>
<td>50</td>
<td>&lt; &lt;.0001</td>
</tr>
<tr>
<td>guidance</td>
<td>44</td>
<td>33</td>
<td>88</td>
<td>48</td>
<td>&lt; &lt;.0001</td>
</tr>
<tr>
<td>reincarnation</td>
<td>32</td>
<td>43</td>
<td>80</td>
<td>40</td>
<td>&lt; &lt;.0001</td>
</tr>
<tr>
<td>life after death</td>
<td>59</td>
<td>50</td>
<td>100</td>
<td>40</td>
<td>&lt; &lt;.0001</td>
</tr>
<tr>
<td>fear death</td>
<td>no data</td>
<td>80</td>
<td>0</td>
<td>41</td>
<td>&lt; &lt;.0001</td>
</tr>
</tbody>
</table>

*p* probability of no change since NDE, based on chi-squared test
that permitted respondents to answer in terms of attitudes either toward themselves committing suicide or toward others committing suicide.

Responses to my question about respondents' judgment of the most significant change to come about as a result of the NDE were as follows:

1. spirituality or spiritual growth, 31 percent of respondents;
2. love, 11 percent;
3. knowing God, 9 percent;
4. inner peace, 9 percent;
5. more responsible, caring, 7 percent;
6. no fear of death, 7 percent;
7. deepened beliefs, 4 percent;
8. life of service, 4 percent;
9. self-understanding, 4 percent;
10. no fear, 2 percent;
11. thirst for knowledge, 2 percent;
12. greater awareness, 2 percent;
13. open attitude, 2 percent;
14. able to feel, 2 percent; and
15. not introverted, 2 percent.
Discussion

About half of the sample claimed to have had no religious affiliation at the time of the NDE, while after the NDE 84 percent claimed to have no religion.

Sixty percent claimed to be neither religious nor spiritual in orientation before the NDE. Since their WCEI scores ranged from 6 to 24, this confirms Ring's finding that prior religiousness has no apparent bearing on either occurrence or depth of NDE. The remaining 40 percent were made up of those who claimed to have been religious (24 percent) and spiritual (16 percent) before the NDE. After the NDE, only 6 percent claimed to be still religious, while 76 percent now claimed to be spiritually inclined.

Over two-thirds perceived the NDE itself to be a spiritual experience, but 28 percent perceived it to be neither religious nor spiritual. Of those who perceived it to be a spiritual experience, over three-quarters had a WCEI score between 11 and 24, which suggests that the deeper the experience, the more likely it is that it will be perceived as spiritual in content.

The data in Table 2 concerning changes in activities, experiences, and beliefs after the NDE show an established shift on all nine items away from organized religion and church attendance and towards private informal prayer, meditation, and a general quest for spiritual values.

Of the 11 respondents who still attend church after the NDE, one person goes only to take her massively brain-damaged son, who enjoys the service. She stated that she can't accept the sermons being preached:

They say if you're not a Christian none of you will be able to come in through the eye of the needle, and all that sort of thing. And I think, well, I went up there and I saw it and I certainly wasn't a Christian at the time. So how do they know? So I can't accept it. I've got my own beliefs and I try to live my way.

Another of those 11 respondents enjoys going to church but claims she is a believer rather than a Roman Catholic and that her beliefs are not necessarily those of the Catholic Church. After describing her strong belief in reincarnation she laughed and said: “The Roman Catholic Church would be horrified if they knew what I believed.”

A few others who attend church regularly, although nominally attached to a particular denomination, are happy in any church. One woman said:
I feel that church is a bit of a sham. Not God but the people. They seem to fuss over stupid little things that are really just political. But I belong to a lot of churches. I play the guitar in the Roman Catholic folk group, I'm in the musical group of the Church of Christ, and I play with the Salvation Army. I'm probably Anglican but it doesn't worry me where I am—it's all God inside me.

With regard to belief in reincarnation and in life after death, as I noted elsewhere (Sutherland, 1989) the numbers tend to obscure the actual complexity of these beliefs. Those 41 percent who believed in reincarnation before the NDE believed in it only "a bit," whereas the 78 percent who believed in it afterwards tended to be more convinced. Similarly, the 50 percent who said they believed in life after death before the NDE generally retained such beliefs from their childhood religious training. On the other hand, 100 percent of my respondents now believe in life after death, and base that belief on their own experience, which in many cases explicitly contradicts the views held earlier.

Over three-quarters of my respondents said that they had a fear of death before the NDE, whereas not one person among my sample has a fear of death now. Many laughed at the question.

There is good agreement, within statistical errors, between the general population and my respondents' reports of their belief in the value of organized religion, their church attendance, their tendency to pray, their having a sense of being guided, and their belief in reincarnation and life after death before the NDE.

In terms of religious affiliation, my sample superficially appears to differ from the general population, in that 46 percent of them claimed to have had no religious affiliation prior to the NDE, compared to 16 percent of the general population. However, two-thirds of this group mentioned that they had had some religious training as children in a variety of denominations but had abandoned that before the NDE. They further volunteered that, had they been asked prior to the NDE about religion in a survey, they would normally have named a denomination just out of habit, although they were no longer affiliated with one. Therefore, although the 46 percent figure is accurate for my sample, it is not necessarily in disagreement with the Australian Values Survey results.

In terms of whether NDErs perceive themselves to have been religious or spiritual before the NDE, there also appears to be a discrepancy between my sample, 24 percent of whom considered themselves to have been religious, and the general population, 58 percent of whom
regard themselves as religious. However, for the purpose of comparison with this general population figure, it is necessary to combine both "religious" (24 percent) and "spiritual" (16 percent) categories, due to the wording of the Australian Values Survey question. Thus, while the Australian Values Survey results can provide a basis for direct comparison on some items, for others a comparison should only be seen as suggestive, due to differences in methodology and in question wording.

My data also show a dramatic change in attitudes toward suicide. For my sample before the NDE, the sum of the "wouldn't do it" and "wrong to do it" categories is comparable to the 48 percent of the general population who believe suicide is never justified. Three of my respondents had their NDEs as a result of a suicide attempt; three others had attempted suicide at some other point in their lives; and 15 others had thought of suicide at some stage. However, since the NDE only one person out of 43 said that she could do it, and that was only if her life purpose was achieved.

Although it is sometimes suggested that people who have had NDEs or know about them would be more likely to take their own lives in order to re-enter the bliss of the "world of light," the above results demonstrate that the opposite is the case. People who have had NDEs do not take their own lives, and my data support recent studies that indicate that even repeated suicide attempters, once they have had an NDE, do not generally attempt to take their lives again (Greyson, 1981, 1986).

My final question concerned the most significant change to come about as a result of the NDE. As the list of responses above shows clearly, spiritual growth, a loving attitude, knowing God, and inner peace characterize the changes most meaningful to a majority of NDErs.

Overall, there is a feeling among my sample that they now have an ongoing direct contact with God or a Higher Power that requires no mediation by institutions such as a church or interpretation by the teachings of any denomination or tradition. If one was to assess many of the above results in isolation from the more distinguishing details of this particular population, one would have a group of people among whom 84 percent claim to have no religion, 80 percent see no value in organized religion, 78 percent never attend any church, and only 6 percent claim to be religious. It would be tempting to see this as further evidence of the secularization of our society. I believe this interpretation would be a mistake, and in fact this study calls into question just who is included in figures that are given as evidence of the pervasive Godlessness of our times.
References


ABSTRACT: A review of one previously reported and three new pediatric near-death experiences (NDEs), in which the experiencers were interviewed as children, suggests that the childhood core NDE as described by Melvin Morse and colleagues may be expanded to include feeling pain-free, seeing a light at the tunnel's end, entering the light, and time alteration. These cases also suggest that the life review may be a function of chronological age.

A paucity of pediatric near-death experience (NDE) cases, in which these experiences are reported by children and adolescents rather than retrospectively by adults, exists in the literature. At the time of the publication of my first pediatric case (Serdahely, 1989–1990), fewer than 20 pediatric cases in the above sense of the word had been published.

Besides the subject of my previous publication, who was 8 years old at the time he was interviewed about his NDE, three additional and previously unpublished cases have come to my attention. One is the NDE of a girl who was 12 years old when she was interviewed; another is that of an adolescent girl who was 17½ years old when she described her NDE to me; and the third is the NDE of a boy who was 9 years old when he recounted his NDE.

I describe below the pediatric NDEs of these youngsters. Realizing that I am dealing with a very small sample, I will then compare the tentative findings from this pediatric sample with those presented in the pediatric NDE literature.

Dr. Serdahely is Professor of Health Science at Montana State University. Reprint requests should be addressed to Dr. Serdahely at the Health and Human Development Department, Montana State University, Bozeman, MT 59717.
Case 1: Pat

When Pat was 7 years old, he fell from a fishing bridge into a lagoon below. He struck his head on a rock at the bottom of the pond and nearly drowned. Professional rescuers had difficulty finding a pulse; his heart had ceased beating, and he had stopped breathing.

A little while after his NDE, Pat told his mother that he had died after falling into the lagoon. When he was 8 years old, he described his NDE to me (1989-1990).

Pat’s NDE reached Stage 3 according to Kenneth Ring’s (1980) model. He floated out of his body and saw a police officer trying to save him by diving into the water to pull him out. He also saw himself first being transported to a local hospital by ambulance, and then to another hospital in a nearby city by helicopter.

Pat found himself in a dark, black tunnel in which his two deceased pets, a cat and a dog, appeared to him. The former family cat brushed against his leg, and his dog licked his face, sending Pat back to his body. He did not encounter any other spirits or presence while in the tunnel. All of Pat’s close relatives were alive at the time of his NDE.

He did not see a light at the end of the tunnel, but did see white clouds up above the tunnel. When asked about a life review while in the tunnel, Pat said he did not have one. When asked about time during his NDE, he replied: "Time doesn’t exist."

Case 2: Amber

Recovering from spinal surgery in an intensive care unit (ICU), this 10-year-old’s heartbeat and respiration suddenly stopped; she was resuscitated by the ICU nurse. Two years later, Amber described her NDE to me.

Amber said she felt "peaceful," "relaxed," and pain-free during her NDE. She had what Ring called a Stage 4 experience, seeing a "whitish-blue light" at the tunnel’s end that drew her to it.

Two animals also appeared to Amber while she was in this "dark place." She saw a shadow of what she believed was a dog and thought it might have been the family’s pet, which had been put to sleep a few years earlier. She also saw a white lamb that came near her but did not touch her. The lamb was loving and gentle, and led Amber back to her body, whereupon she regained consciousness.

None of Amber’s loved ones were deceased at the time of her NDE. She had always had a love for animals, but when she was young, she developed a fear of people, especially people dressed in white. During surgery at age 2, she was permanently injured when her surgeons, who wore white, accidentally severed nerves to her left leg; she has little mobility in that limb to this day.

When asked if there was "time" during her NDE, Amber said she was not sure whether or not time stood still. She spoke in terms of minutes to
describe how long she felt she was in her NDE, although her sister related that Amber had been clinically dead for approximately 30 seconds.

Case 3: Natalie

At age 17½, Natalie talked about her NDE of two years earlier. An acute asthma attack caused her to pass out in her pediatrician’s clinic, after she had been driven there at the onset of her respiratory distress. Later she was told she had had a seizure while unconscious. Her physician diagnosed her condition as a life-threatening episode of status asthmaticus.

During her Stage 4 NDE she found herself in a tunnel, “thinking logically” about being in the tunnel and yet knowing she was having an asthma attack. Suddenly, two “light figures” (her words) came to her. These beings were of the same bright light she saw at the tunnel’s end. The “friendly” light figures, one on either side of her, each took one of her hands, and together the three of them floated towards the light. Natalie recalled wanting to go to the light “badly” (her word), and reported that the light beings seemed to be going too slowly for her liking.

As they were traveling down the tunnel, images from her past floated over her head. The most memorable image was that of her father swinging her. Then Natalie saw her mother and how sad her mother and her other relatives would be if she died. She felt “worried” for her family should she die. At that point, the light figures set her down, and she walked out of the tunnel and back to her body.

Natalie saw “lots” of other light figures waiting for her in the light at the tunnel’s end. She believed they would have welcomed her, but she did not recognize any of them. At the time of her NDE, all of the people close to Natalie were still alive. Her two paternal grandparents had passed away when she was quite young, but she had no recollection of them.

Natalie reported that it was difficult to judge time during her NDE. She mentioned that the NDE “happened fast,” but that the light figures seemed to be going slowly.

Case 4: Mike

When Mike was 4 years old, he fell off a high diving board and landed on his head on the concrete below. His mother came to him and cradled him. Finding no vital signs, she closed his eyes, covered him with a towel, and said goodbye to him.

Floating out of his body, Mike saw his mother below, holding him. He next found himself in a cloudiness or a fog. Then a shaft of light that was bright, warm, and “yellow like the sun” penetrated the fog and surrounded him, making this a Stage 5 NDE according to Ring's model. His
out-of-body experience was at first scary, but then he felt he was with "friends" (his word), at which point he felt peaceful and pain-free.

A warm hand touched his shoulder as he looked at his body below, preventing him from turning around. A comforting, loving male voice, coming from the presence whose hand was on his shoulder, told him: "This is not your time. Do you want to go back or stay here?"

Mike reported that he believed he would miss his parents if he died. He told the presence, who he thought might have been Jesus (he equivocated here) that he would like to go back, and he was back in his body in an instant.

Discussion

Melvin Morse, Paul Castillo, David Venecia, Jerrold Milstein, and Donald Tyler (1986), after describing the experiences of their pediatric patients, concluded that the "childhood core NDE" includes (a) a feeling of being out of the body, (b) viewing one's body from above, (c) perceiving a darkness, (d) a tunnel experience, and (e) returning to one's body.

Ring included in his description of the adult core NDE, in addition to those five features described by Morse, Castillo, Venecia, Milstein, and Tyler as the childhood core NDE, a feeling of peacefulness (Stage 1) and a light experience (Stage 5). The four cases described in this paper provide some evidence that the childhood core NDE may have the same five stages as the adult core experience as defined by Ring.

Pat, Amber, and Mike all found their NDEs to be pain-free and/or peaceful, and Mike had a light experience like those reported by adult NDErs in Stage 5. In addition, Morse (1983) has reported a case of a 7-year-old girl who also had a Stage 5 light experience.

Morse, Castillo, Venecia, Milstein, and Tyler (1986) noted that the pediatric NDEs they studied lacked (a) transcendent feelings, (b) a life review, and (c) time alteration. It is not clear how they defined transcendental feelings; but if they used the term as Michael Sabom (1982) did, to include, in part, experiences of a brilliant light, sitting in a mist, and floating through clouds, then clearly Mike had a "transcendent" experience.

Furthermore, Natalie seems to have had a life review. She saw images of her past floating overhead as she and the two light figures were traveling down the tunnel, images Ring (1980) referred to as "flashbacks." Raymond Moody (1988) wrote that the life review is often conducted in the company of a loving presence, and that an element of empathy is common in which the NDEr feels how his or her actions
have affected others. While Natalie was in the presence of two friendly light figures, she did not seem to have been in the presence of the loving light often described accompanying the life review, and she did not report an experience of empathy described by Moody.

Perhaps the life review as described by Moody is absent from the pediatric NDE because young NDErs are simply not equipped psychologically to deal with feeling how their actions have impacted on others. My three youngest NDErs reported no life review. Natalie was 15½ at the time of her NDE and had images floating overhead, a life review with flashbacks. But she also saw images of how her relatives would respond in the future if she were to die. Ring (1984) wrote that “flashforwards” sometimes occur in the context of the life review. George Ritchie (1978), who had an NDE at age 20, reported a life review with a loving presence present and the accompanying empathy for others when viewing images of his life.

Again, realizing I am on speculative ground here and that drawing conclusions from such small numbers is highly risky, we may be looking at the development of the life review as a function of age. While the youngest NDErs report no life review, teenagers may report a life review with images of the past and possible “flashforwards,” but no loving presence or accompanying feelings of empathy for others; and by age 20 the fullblown life review as described by Moody appears.

In further contrast to the findings of Morse, Castillo, Venecia, Milstein, and Tyler (1986), the respondents in my pediatric cases also reported time alteration. Pat was quite emphatic about time not existing; Amber reported a time distortion; and Natalie talked about the difficulty of judging time. All three seemed to suggest that time was altered during their NDEs. Based on the few pediatric cases described in the literature so far, therefore, it seems that the childhood core NDE is very similar to, if not identical with, the adult core NDE described by Ring.

Previous investigators have not discussed aftereffects of pediatric NDEs, though characteristic aftereffects have been described for adult NDErs (Ring, 1984). Amber’s sister said Amber was unusually mature for her age after her NDE, and described her as calmer, more relaxed, able to stay out of family arguments, and exercising her “common sense.”

Mike’s mother reported a couple of things that she regards as aftereffects of his NDE. He exhibited great faith that his stolen puppy would be returned, and it was; and once when his father went on a trip to Australia, Mike began to make a cross on his mother’s forehead when she was presumed by Mike to be asleep. Making such a cross was
something the grandmother had done to his father when Mike's father was a boy; his mother wondered how Mike could have known this when he had never seen his grandmother.

Pat also has had at least one known incident that may be an after-effect of his NDE, about two and a half years after his NDE. One evening his father and his brother went out into the woods in a truck to pick up two relatives whose vehicle had broken down. About 8:55 p.m., Pat urgently called his mother, demanding that that instant they say a prayer they had recently been learning. When Pat's father and brother returned later that night, his father related that they had nearly been killed. Their truck had apparently lost traction on a steep incline and rolled backwards out of control, when it suddenly stopped, according to Pat's father, "about five minutes to nine o'clock."

Morse, Castillo, Venecia, Milstein, and Tyler (1986) noted that their sample of childhood NDEs differed further from adult experiences in that "adults typically report meeting dead relatives and friends, while children report meeting teachers and living friends" (p. 1112). However, of the four cases described above, Pat encountered two deceased pets, a lamb and perhaps the deceased family dog came to Amber, two light figures floated to Natalie's side, and Mike felt the hand and heard the voice of a loving, friendly male whom he equivocally identified as Jesus. These encounters were more in keeping with those reported for adults, the main difference being the animals that accompanied two of these pediatric NDErs. None of the four reported meeting any living friends or teachers.

Morse, Castillo, Venecia, Milstein, and Tyler (1986) wrote that "religious figures, schoolmates, teachers, and relatives who may have died may all represent familiar symbols that the mind incorporates into the experience in an effort to make sense of it" (p. 1112). That explanation certainly can be applied to Amber, who had been comforted by a lamb music box at the time of her first surgery at age 2, and who played with lambs on her grandparents' ranch. The same argument could be applied to Pat and to Mike, although it is difficult to see how two light figures might be "familiar symbols . . . to make sense" of nearly dying.

Morse, Venecia, and Milstein (1989) argued that the explanation for an NDE may reside in the person's neuroanatomy and neurochemistry. The neurological explanation and the argument of familiarity above are couched in a paradigm that implies there is only one reality, that which is perceived and created by the brain. But if we shift paradigms and assume that there is at least one other reality, the timeless or time-altered reality of our pediatric NDErs, then we might hypothesize that NDErs get what they need to provide assistance, comfort, and assurance during the experience and to send them back to their bodies.
Comfort was provided for Pat by deceased pets, for Amber by the lamb, for Natalie by the two light figures, and for Mike by the friendly male presence. But these presences did more for these children than to help them make sense of their NDEs. In each case, the presence was a part of sending the NDEr back to his or her body: the family dog sent Pat back, the lamb led Amber back, the male presence told Mike to return, and the two light figures went slowly until Natalie began to worry about her relatives, whereupon they set her down and she walked out of the tunnel.

We know that for three of these children—Pat, Amber, and Natalie—all of their loved ones were alive at the time of their NDEs. This is consistent with my previously published hypothesis (1989–1990) that if those close to the child are still alive at the time of the NDE, then alternate spirits or beings will appear to assist them.

Finally, it goes without saying that many more pediatric NDE cases are needed to help refute or confirm the above hypotheses. Finding childhood NDErs has proven exceedingly difficult, and the appeal of Morse, Doug Conner, and Tyler (1985) for additional cases to advance our understanding of children’s NDEs is as pertinent today as it was five years ago.

References

Near-Death Experiences and the Measurement of Blood Gases

Michael D. Gliksman, M.P.H., F.A.C.O.M.
Sydney University

Allan Kellehear, Ph.D.
La Trobe University

ABSTRACT: Although cerebral anoxia is not thought to be responsible for triggering near-death experiences (NDEs), the issue is not so clear in the case of hypercapnia. Detection of normal blood gases in Michael Sabom's (1982) case study seems to be the major reply to suggestions that hypercapnia may have a causal role in NDEs. We argue, however, that routine arterial measures of blood gases are not a reliable indicator of cerebral levels.

Raymond Moody (1977), Kenneth Ring (1980), and Michael Sabom (1982) have discussed the role of cerebral anoxia and/or hypercapnia in stimulating the features of the near-death experience (NDE). In those discussions, all three authors minimized the role of cerebral anoxia (oxygen deprivation of the brain) on the grounds that (1) visionary aspects of the NDE have been reported by people who were fully conscious, and (2) hypoxic conditions give rise to mental states such as mental laziness, irritability, slowness of reasoning, and difficulty of remembering. These are contrary to the cognitive experiences regularly reported by NDErs.

Recently, however, Moody (1988) has focused attention on the possi-
ble role of hypercapnia (elevated arterial levels of carbon dioxide) in stimulating the tunnel sensation and the feeling of being surrounded by bright lights. Nevertheless, he questioned the role of carbon dioxide overload by referring to Sabom's (1982) case study of a patient whose blood gas levels were measured at the time of the patient's NDE. But how reliable is the measure of arterial blood gases as an indicator of those levels in the central nervous system?

Sabom's (1982) account of the case recorded that the blood taken from the patient's femoral artery showed above-normal levels of oxygen ($pO_2 = 138$) and lower than normal carbon dioxide levels ($pCO_2 = 28$; $pH = 7.46$). The assumption behind this case, and Moody's reference to it, seems to be that peripheral measures are, in fact, a reliable measure of central nervous system levels. Recent experimental evidence, however, calls this assumption into question.

In a study examining blood gases as a quantitative measure of brain death, Edward Benzel, Charles Gross, Theresa Hadden, Lee Kesterson, and Michael Landreneau (1989) measured the rate of rise in peripheral arterial carbon dioxide in 20 critically ill patients after respiration had ceased. Resuscitation was not attempted. The rate of increase was found to be slow and erratic and in a number of patients the level had risen less than 10 mm Hg above normal levels (40 mm Hg) after 12 minutes.

Another study, using rabbits as subjects (Takeichi, Tokunaga, Maeiwa, Okada, Kambara, Nii, Nanishi, and Oka, 1986), found that tissue metabolism continues for a significant time after cessation of respiration and circulation. This is by no means a new observation, but the unique attribute of this study lies in its quantification of the degree of metabolism by comparison of oxygen levels in venous and arterial blood. Significantly lower levels of oxygen were found in the tissues than would have been gauged from the measurement of arterial blood gases alone.

These two studies demonstrate that care must be taken in equating relatively normal arterial blood gases with normal tissue oxygenation and carbon dioxide levels when death is near. This is especially so when considering the metabolically very active brain.

However, the above observations are not the only problems with interpreting Sabom's case study. Hypocapnia (lower than normal levels of carbon dioxide) is known to reduce blood flow, which can lead to hypoxia in the brain, even when the arterial oxygen content is normal (Hopewell, 1985). Thus Sabom has not eliminated the possibility that anoxia is associated with the NDE he described, irrespective of other arguments about the importance of anoxia in NDEs.
Finally, if the cerebral blood gases were normal in at least some NDErs, then in what physiological sense can these people be said to be near death? In attempting to dismiss physiological explanations of the NDE with physiological arguments, researchers risk accepting the primacy of physiology in explaining the NDE, when it is not clear whether such a pivotal role is warranted.

As Moody (1988) himself cautioned, we need much more research before we can come to any firm conclusions on the role of blood gases and the NDE. However, we suggest that current arterial measures are not helpful in our understanding of this problem. Routine measures of blood gases in normal hospital settings do not appear to offer reliable information that will shed light on the relationship or meaning of blood gas saturation in organs, such as the brain, and the occurrence of NDEs.

Precisely identifying physiological correlates is important for our search for a greater understanding of the biological mechanism behind the NDE. However, these searches will not necessarily resolve the questions of cause or significance of the NDE, because these questions are, at least in part, also philosophic ones. When the physiological processes responsible for NDEs become clear, this should not necessarily lead to the reductionist conclusion that NDEs are simply their byproduct. As Stanislav Grof and Joan Halifax (1977) have indicated, these processes may simply be the reorienting trigger mechanism of one reality toward another.

References


Near-Death Veridicality Research in the Hospital Setting: Problems and Promise

Janice Miner Holden, Ed.D.
Northern Illinois University

Leroy Joesten
Lutheran General Hospital, Park Ridge, IL

ABSTRACT: We attempted to conduct near-death veridicality research in the hospital setting, the rationale for which (we presented previously (Holden, 1988)). This paper describes problems, both anticipated and unanticipated, that we encountered. Based on the successes and failures of this undertaking, we present recommendations for future research of this type.

The biggest hurdle in research, it has been said, is the formulation of the research question and the refinement of the research design. Our experience, in the case of near-death (ND) research in the hospital setting, suggests that even the researcher armed with a well-developed question and design faces numerous obstacles. This article describes our experience with research of this type.

At the time of this study, Dr. Holden was a candidate for the Ed.D. degree at the Northern Illinois University Graduate School; she is now Assistant Professor of Counselor Education at the University of North Texas. Chaplain Joesten is Director of Parish Relations at Lutheran General Hospital in Park Ridge, IL. This study was funded in part by a Dissertation Completion Award granted to Dr. Holden by the Northern Illinois University Graduate School. The authors also express gratitude to Robert Stromberg, Chaplain of the Lutheran General Hospital CCU at the time of this study, for his assistance in this research. Reprint requests should be addressed to Dr. Holden at the Department of Counselor Education, College of Education, P.O. Box 13857, University of North Texas, Denton, TX 76203-3857.
Research Question and Design

Holden (1988) previously presented in depth the rationale for the study undertaken herein. To summarize briefly, the focus was the naturalistic near-death out-of-body experience (nND OBE). In this phase of the near-death experience (NDE), experiencers (NDErs) have reportedly observed the physical environment, usually in the immediate vicinity of, but from a vantage point separate from, the physical body (Irwin, 1985; Ring, 1980; Sabom, 1982). The research question was, "Are nND OBErs' visual perceptions veridical?" That is, do such perceptions match consensual reality?

The research design involved placing visual stimuli in the corners of hospital rooms in which near-death episodes were most likely to occur. The stimuli were to be placed in such a way as to be visible only from a vantage point of looking down from the ceiling. No living person was to know the exact content of the stimuli, thus rendering the design double-blind. Once the patient was resuscitated from a near-death episode in one of the "marked" rooms, knowledge of the content of the visual stimulus would be assessed.

We used for the visual stimuli eight-inch square cards made of picture matting. Each card was one of six colors: red, yellow, blue, orange, green, or purple. In the center was one of six symbols: solid circle, square, diamond, triangle, five-pointed star, or plus sign. Also printed on each card was one of six single digits: 1, 2, 3, 4, 5, or 7.

Six sets of 100 cards each were produced by an artist. Each set contained cards showing one of the colors, symbols, and numbers. The artist had determined the combinations through use of a random numbers table. So, for example, all the blue cards might have contained a triangle with the number 3, all red a square with the number 7, and so forth. She produced these cards in isolation and packed each set in a box. The six boxes were then sealed and randomly numbered.

Meanwhile, card holders had been constructed of white poster board, 9" square with a ½" lip all around. Each was mounted with adhesive tabs onto two L-shaped gray metal brackets. The holders were to be mounted in the Emergency Room (ER) and in each room in the Coronary and Intensive Care Units (CCU and ICU). One holder was to be mounted in each corner, as far down from the ceiling as possible without the contents being visible to anyone sitting, standing, or lying in the room.

The backs of all the printed cards were white, and the cards had all been packed face down in the boxes. Thus it was intended that when one chose a box at random and opened it, one would not see the face of
the cards and therefore would not know the visual content of the card. A research associate was to take the box to each hospital room containing holders, at a time when the room was empty and closed, stand on a stool and, while looking away, select the top card from the box, turn it over, and place it in the holder. Thus double-blind criteria were maintained.

Potential subject identification would begin with a member of the Cardiac Review Team. After each weekly meeting, the team member would notify the research associate of any cardiac resuscitations that had occurred that week. The associate would then, if the patient was in sufficient health to be interviewed, approach the patient. The patient would be told that people sometimes remember things that happened during their cardiac arrests, and that whether or not this patient did, the research associate would like briefly to interview him or her. The patient would be informed that the interview would consist of a tape recording of the patient’s answers to a few oral questions as well as completion of a brief written questionnaire, all of which would take not more than 20 minutes. Upon agreement, the patient would be asked to sign a consent form. Because NDErs might, during the retelling of an NDE, express strong emotions that could threaten a still-fragile physical condition, the associate was prepared to respond appropriately, including, if necessary, postponement of completion of the interview until a later date.

Consenting patients would first be asked to provide a narrative describing in as much detail as possible any memory of their cardiac arrest and resuscitation. During the narrative the interviewer would not comment if the patient made any references to the cards and/or holders. When the patient was finished, the interviewer would verify with the patient that he or she had related a complete and detailed account.

Once the narrative was completed, the interviewer’s first task would be to categorize the patient’s near-death episode as either an NDE with nND OBE, an NDE without nND OBE, or not an NDE. The interviewer would ask only as many clarifying questions as necessary to arrive at this categorization, which would not be shared with the patient.

The interviewer’s second task would be to pursue patient responses regarding card content. The interviewer would adapt the transition into the structured portion of the interview based on the location of the interview and what had been revealed in the free narrative. For example, if the patient was being interviewed in the same room in which the resuscitation had occurred, but he or she did not make reference to the
holders or cards during the free narrative, the interviewer would point the holders out and indicate that they contained 8" square cards. If the patient was being interviewed in a different room and had made reference to the cards and/or holders, the interviewer would verify that holders containing 8" square cards had, in fact, been present at the time of resuscitation. In any case, the patient would then be asked to guess or repeat what was on the face of the card. Patients expressing complete ignorance of card content and reluctance to guess would be encouraged to do so with the explanation that their guess was crucial to the study.

After patient responses to the structured questions had been recorded, the patient would be given a multiple-choice sheet and asked to select one color, one number, and one symbol. The sheet would also ask whether each of the three answers given was a guess about, or an actual memory of, the content on the face of the card.

Cards would then be removed, responses assessed for accuracy, and accuracy figures statistically analyzed. If nND OBErs accurately identified card content with significantly greater frequency than other NDErs and non NDErs, and if double blind criteria had been maintained throughout, the hypothesis that nND OBErs have veridical perception and/or knowledge of visual material through some other paranormal process would be supported.

**Finding the Hospital**

The first question that arose regarded how best to approach a potential cooperating hospital. At the time, Janice Miner Holden's status as a doctoral candidate in a nonmedical field seemed, in her judgment, to militate against directly approaching medical or administrative hospital personnel. Willing to conduct the research anywhere, Holden wrote to and/or telephoned several professionals active in the field of near-death and psychic research, as well as holistic health. Reactions of those who responded ran the gamut from active discouragement, to interest but inability to help, to yet further referrals, to hearty encouragement. None of these contacts yielded even a potential research site.

Holden then approached hospitals in her own area, the city and suburbs of a major midwestern metropolis. On the assumption that the hospital employee most likely to be sympathetic to the subject of NDEs was the chaplain, one from each of seven different hospitals was contacted, either in person or by phone and writing, over a four-month period.

Four of these involved private hospitals. Chaplains from two of these
hospitals were not supportive. However, a third private hospital chaplain showed great personal interest in the subject because his daughter had had an nND OBE involving apparently veridical perception. A chaplain from a fourth hospital, who was himself a doctoral candidate specializing in Jungian psychology, was extremely committed to assisting with the research, where a good friend of Holden's lobbied heavily on her behalf with the administrative director of this hospital. Despite hopeful beginnings in these two hospitals, the study was disallowed by the administrations of each. The message was quite consistent: Private hospitals were not in the business of conducting or supporting research. In both cases it was contended that refusal would be the outcome no matter who was the applicant or what was the nature of the study.

By the time this message had become clear, three research hospitals had also been contacted. Two were contacted by telephone and correspondence. From one of these, the chaplain reported back that "CCU doesn't want to be bothered" and that the director of research "nearly fell out of his chair laughing" and considered the study "Mickey Mouse."

A chaplain from the third research hospital had been contacted in person. This latter contact was initially encouraging but, upon seeking the support of his colleagues, the chaplain, Leroy Joesten, became discouraged by skeptical or indifferent reactions. However, through his perseverance he arranged an interview between Holden and the director of the Coronary Care Unit. During the interview the director estimated 3–5 cardiac resuscitations per month in the CCU. If our assumption was correct that about 20% of the resuscitants would report an nND OBE (Gallup, 1982; Ring, 1980; Sabom, 1982), then it could be projected that the study in question could be completed in a year or so. The CCU director approved our application to the hospital's Institutional Review Board, and Evaluation and Research Committee. The latter stipulated that no patient be approached until the attending physician's approval had been attained, and six months after the initial contact between Holden and Joesten the study was approved.

**Practical Problems**

Another six months passed before the study was underway. Some of this delay involved the time needed to produce cards, holders, and forms, as well as selection and orientation of the research associate. Hospital housekeeping staff also had to be instructed not to look at the cards while dusting them.
Joesten initially installed the holders without the cards for a trial run, to identify any unanticipated problems. Shortly thereafter, the research associate found that all the holders from CCU had been removed and were piled up at the nurses' station, as one of the nurses, not knowing the purpose of the holders, had taken it upon herself to remove them all. Up to that point, we had purposely avoided discussing any details of the study with the nursing staff, thinking that the less said, the better, regarding protection of the double-blind criteria. We had expected that questions might be directed to the head nurse or the research associate, who had been coached to explain that the holders involved an ongoing study but to plead ignorance regarding any specifics. But we had not counted on the authoritative initiative of this nurse, and the need for an inservice meeting became apparent.

Consequently, Joesten attended the next CCU nurses' staff meeting, and asked that the holders be left undisturbed. There he learned from the nurses that patients almost invariably asked about the holders. Joesten suggested that the nurses explain to inquisitive patients as briefly as possible that the holders involved ongoing research, that the nurses did not know any details about the study, and that the patients could assume that the holders did not concern them unless they were otherwise notified.

Having dealt with the unanticipated "nurse factor," we were foiled again by the laws of physics. The tabs intended to adhere the metal brackets to the walls would not stick for long to the semigloss painted walls. All holders had to be reinstalled using screws, a method we'd hoped to avoid because of the more costly repair once the study was ended and the holders removed.

Holders were then secured and cards were installed. We had anticipated keeping the cards out of visual range, but had not anticipated the reach of inquisitive visitors. The holder material, flimsy poster board, allowed holders to be bent down and read, thus, cards viewed. Whenever it appeared that someone had tampered with a card, it was changed to one from a different box. This presented a continuing threat to the double-blind criteria and, thus, to the validity of the study. It also complicated the research procedures by requiring the ongoing vigilance of the research associate, a nuisance we had not anticipated.

Results

Contrary to the CCU director's estimate, the first three months passed without a single cardiac resuscitation. In the fourth month, a male patient was resuscitated. His physician approved the interview
but the patient, a recent Armenian immigrant with very poor English skills, declined. By the end of the sixth month, no more potential subjects had been identified. Curiously, one NDE was known to have occurred during this time, in the delivery room, which had not been included in our study. It became obvious that the study would require far more time than Holden's dissertation deadline would allow. She abandoned the study, but Joesten continued for another six months, during which time there were no reported resuscitations.

**Follow-up**

Fourteen months after the study had been implemented, a meeting was held to review the study and try to learn from it. In attendance were Holden, Joesten, the research associate, the Cardiac Review Team member (the CCU head nurse), and a CCU staff nurse.

In discussing the lack of subjects, two important points arose. First, the nurses believed that technology had advanced to the point that monitored patients' mild to moderate cardiac arrests could be foreseen and aborted. In these cases there was no need and therefore no opportunity for resuscitation. In cases in which the arrest was so severe that it couldn't be aborted, the chances of successful resuscitation were greatly diminished. This information was reminiscent of a comment made by the ER head nurse during the implementation phase of the study. She had reported that those patients who had not been resuscitated before or during the ambulance ride to the hospital were rarely resuscitated once they arrived; she therefore predicted that we'd have very few if any potential subjects from the ER. Overall, a disquieting possibility is suggested by these findings: that the apparent increased incidence of NDEs that was created by technological developments in resuscitation may soon be reversed in the hospital setting due to further technological advances in the prevention of resuscitatable cardiac arrests.

A second point arose when the nurse disclosed that during the last months of the study there may have been potential research subjects of whom the research associate had not been informed. The team member, whose responsibility it was to report potential subjects, had virtually forgotten about the study due to its inactivity and attenuation. Both nurses expressed the opinion that the identification of potential subjects not be the responsibility of a nurse, but rather of the research associate. It was suggested that records of arrests be coded into the hospital computer, so as to be easily retrieved by the associate on a regular basis.
The need for more thorough inservice meetings with nursing staff was also emphasized. The nurses expressed dismay and even irritation at having been so ill-equipped to answer patient questions about the card holders, and such questions were apparently numerous. Patients were reportedly dissatisfied and sometimes distressed by evasive answers. The idea of explaining to recent resuscitants that NDEs sometimes occur during cardiac arrest was unacceptable to the nurses, who believed that such information could be psychologically distressing and, therefore, potentially physically dangerous to such patients. Consequently, it was suggested that in any subsequent study, every effort be made to disguise or camouflage the holders; if possible they should be made to look like part of the structure or decor of the room, so as not to draw attention and provoke questions. Patients should not even notice them, let alone have their curiosity piqued by them.

A final point addressed a major premise of the study: that cardiac arrest was most likely to occur in the CCU, ICU, or ER. Of all the hospital personnel with whom we conferred in the process of implementing the study, only the ER nurse objected to the accuracy of this assumption. In retrospect, however, the Cardiac Review Team member estimated that as many as 75% of arrests occur outside of these areas in the hospital. The nurses suggested two promising sites for future veridicality studies: the cardiac catheterization lab and the electrophysiology lab, which does not exist in every hospital. They suggested that each hospital may be unique in terms of the areas where cardiac resuscitations most frequently occur, leading to the suggestion that this factor be better assessed during the implementation stage of any future research.

Suggestions for Further Research

The difficulty of conducting good near-death veridicality research in the hospital setting is, in our opinion, equaled only by its importance. In addition to those considerations that have grown out of knowledge of visual perception during the nND OBE (Holden, 1989), the research attempt described herein gives rise to others.

The degree to which this study succeeded suggests the following. The researcher would conserve energy by approaching, in person, research hospitals, not private ones. Unless the research protocol involves a more appropriate avenue of introduction into the hospital, the hospital chaplain would be a promising initial contact and potential ongoing research associate.

In addition, the degree to which we failed to achieve our purpose in
this study suggests the following changes. First, the apparent rarity with which in-hospital resuscitations occur portends an extremely protracted study; this may be shortened somewhat by conducting the research concurrently at several hospitals, and by better assessing at each hospital the rooms in which resuscitations from near-death episodes most frequently occur. Second, patients and their guests are likely to notice and ask about research stimuli that appear out of place in the hospital room; they are dissatisfied with evasive answers and will even take investigation of the materials literally into their own hands. It seems imperative that research stimuli take some form that does not attract attention, that in fact seems to be an uninteresting aspect of room structure or decor. Only if this last point is executed with complete success would it be possible to forego inservice training of nursing staff regarding the study. Cleaning staff would presumably still need to be instructed, at least with this particular research design. Finally, the perpetual dearth of subjects calls for perseverance through the prolonged data collection period by a committed, reliable research associate at each hospital research site, one who has direct access to records of recent cardiac arrests. Fulfillment of these considerations of structural change of rooms and long-term salaries for research associates at several sites will undoubtedly require substantial funding.

The hypothesized decreasing opportunity for NDEs that occur during cardiac resuscitations in hospitals indicates that further research of this type should be undertaken with all due haste. Further technological advances in the prevention of mild to moderate cardiac arrest in the hospital setting may so reduce the frequency of NDEs as to render the research unreasonably protracted or even impossible.

The research attempt described herein has left us sadder, temporarily disappointed at the failure of the initial effort and at the likelihood of unavoidable difficulties in future research of this type, but wiser about how to increase the chances of success in future undertakings of this kind. We have maintained our enthusiasm about and belief in the promise of this type of research. We believe the NDE veridicality research, properly designed and conducted, has the potential to add greatly to our understanding of the nature of the NDE as well as the very nature of humans.

References


The subtitle of this book runs "A Jungian psychotherapist discovers past lives," and that is a succinct description of it. Roger Woolger starts with a brief introduction that is part autobiography and part a rapid survey of different grounds—religious and empirical—for believing in reincarnation. The bulk of this book, which follows this introductory material, consists of case histories of patients whose symptoms have apparently benefited from their seeming recovery of memories of previous lives.

These past lives are "relived" with a full discharge of emotion, and Woolger (more Freudian than Jungian in this) attaches importance to this "release" of emotion as essential for the patient's improvement. Woolger does not use hypnotism, at least overtly; he merely encourages his patients to let themselves go and try to remember any events, in this life or another one, that may bear on their symptoms. His technique derives from what Carl Jung called "active imagination."

Woolger is, or affects to be, indifferent to the question of whether reincarnation occurs. He acknowledges that many, perhaps most, of his patients are engaging in fantasies, and he mentions having encountered two Anne Boleyns and two Joans of Arc. No matter, says Woolger; the past life fantasies are expressions of the patient's collec-
tive unconscious and "reliving" an imaginary past life may be as beneficial to the patient as remembering a real one.

As the book continues, however, Woolger's initial stance of neutrality on the question of whether reincarnation occurs becomes weaker. First, he emphasizes the importance for the patient of fully releasing previously repressed emotion. Even assuming that this release of emotion is beneficial in conventional psychotherapy dealing with this life (something far from established and, in my view, unlikely), the same benefit cannot be claimed for the release of emotion based on fantasy. One of numerous reasons for the decline of psychoanalysis is Sigmund Freud's insistence that the difference between having been raped and imagining you had been raped is unimportant.

Second, Woolger forgets his stated doubts and, in later chapters of the book, he slips into accepting the past life fantasies at face value. In these sections words like karma and samskara occur repeatedly as Woolger claims to see, in case after case, causal connections between events evoked in the patient's past life memories (or fantasies) and his or her current symptoms or behavioral weaknesses. Woolger would like to have it both ways, but he has not convinced me that he can.

As a psychiatrist, I found Woolger's indifference to the question of the reality of reincarnation less troublesome than his failure to understand the common ingredients in all successful psychotherapy. For benefit to ensue in psychotherapy, the patient must want relief from his or her symptoms and must believe that the therapist can help; equally essential is the therapist's ability to communicate to the patient a sense of optimism and a conviction that he or she can be helpful. To use Fuller Torrey's metaphor, these universal ingredients of all successful psychotherapy are the horse in a horse and canary pie (Torrey, 1986).

The canary in the pie is the therapist's special technique or theory, whether it be body massage, free association, systematic desensitization, or seeming to remember fantasied past lives. However, therapists need to believe in the efficacy of their special techniques. They would not succeed if they simply read the Manhattan telephone book to their patients (or clients), because they would not believe that this could be helpful. Such disbelief would sap confidence in their ability to help patients and doubts would soon spread to the patients. There is no place for skepticism about methods during the practice of psychotherapy.

I have no doubt that Woolger is a good psychotherapist. I am also sure that he helps patients whom other therapists have not been able to help, just as, I think, other therapists may help some of those who do
not benefit from consulting him. However, being a good psychotherapist does not vindicate one's favored technique of psychotherapy.

In conclusion, I have to express my disappointment that Woolger did not grapple more effectively with some of the issues that his claims are bound to raise in the minds of intelligent readers. After all, he is not just another half-educated "New Age" counsellor of the kind that abounds in Southern California (and in Virginia too). He is a graduate of two of the best universities in the world, and I think we had a right to expect a better book from him.

References

BOOK REVIEW

Arthur Hastings, Ph.D.
Institute of Transpersonal Psychology


If you think studying near-death experiences is looked at askance by orthodoxy, you should try doing past life therapy for a while. Then you can return to the relatively sober, grounded, and mundane world of near-death experiences (NDEs). Well, perhaps I exaggerate just a bit. Whatever the relative levels of scientific acceptance, there are several parallels between NDEs and past life regressions.

First is that each is a subjective occurrence, and personal acceptance most often comes from the self-evident nature of the experience, not from external corroboration of angels or historical facts. Second, major life changes often result from NDEs and from recall of past life memories in therapy. Third, in past life therapy some people report a death experience, with many characteristics similar to near-death experiences.

Roger Woolger is a Jungian analyst who was originally skeptical about past life memories. He even wrote a critical and disbelieving review of Arthur Guirdham’s The Cathars and Reincarnation (Woolger, 1970), a classic account of a patient who experienced memories of an earlier life. A few years later, at the invitation of a colleague, he tried (still skeptical) a technique for regressing to a past life. "Imagine

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Dr. Hastings is a professor at the Institute of Transpersonal Psychology, and former President of the Association for Transpersonal Psychology. Reprint requests should be addressed to Dr. Hastings at the Institute of Transpersonal Psychology, 250 Oak Grove Avenue, Menlo Park, CA 94025.
my surprise," he says, to find himself, "not only in southern France, 
but in the thick of the Albigensian crusade!" Ironically, this is the 
same period Guirdham's patient remembered. He recalled memories of 
massacres and funeral pyres that he felt finally accounted for dreams 
and images of violence, torture, and killing, and an unaccountable fear 
of fire he had all his life. The story of this past life French mercenary 
explained many reactions and traits that had been untouched by his 
personal analysis.

Woolger continued to explore past life recall, first with colleagues, 
then in his practice of psychotherapy. This book reports the technique, 
illustrates with many cases, discusses traditional beliefs in reincarna-
tions, and gives Woolger's own transpersonal model in which past 
lives, archetypes, and perinatal experiences take their place with bio-
ographical, existential, and somatic forces as influences on the psyche. 
He observes that emotionally significant events from past and present 
lives are often built around archetypes or themes, similar to Carl 
Jung's idea of a complex, or Stanislav Grof's COEX (condensed experi-
ence) systems.

Woolger acknowledges that the lives that are recalled can rarely be 
validated. Some or all may indeed be memories of a person's previous 
life, a classical reincarnation interpretation which would be perfectly 
acceptable in some cultures or times. They might be drawn for therapeu-
tic purposes from the storehouse of collective consciousness. They 
may be fantasy. Woolger observes that they are similar to deeply 
submerged secondary personalities, but they are manifested in the 
garb of another time, with a complete history from birth to death, and 
often dynamically relevant to the person's present life. Whatever the 
origin, they present themselves as past lives. Woolger says that he 
tells patients they do not have to believe in reincarnation, only in the 
healing power of the unconscious. He views the psyche as capable, 
given the opportunity, of producing a story or experience that will be 
healing. However, he appears to take past life memories at face value, 
at least for the purposes of therapy.

A major portion of the book consists of cases illustrating past life 
experiences in relation to current problems. A person with a pain in 
the left eye recalls being struck by an enemy arrow on a battlefield. A 
man with a history of impotence remembers a life as a court jester who 
felt feelings of shame and guilt as he witnessed sexual atrocities of the 
nobles. A woman with a history of abdominal surgery remembers a 
past life in which she was raped by her father, then later kicked in the 
belly when she was pregnant.

Woolger says that these past lives are like unfinished dramas of the
soul. Traumatic events and reactions are continued into present lives, and are re-enacted in various ways; somatically, symbolically, with illness, emotional charge, conflicts, and other symptoms and responses. Often the character from the past life can be recognized as a facet of the personality, the "other self" of the book's title. When Woolger's clients recall the experience, the repression is lifted, emotions are expressed, and the experience can be completed. Not only is the symptom understood, but it often dissolves.

Past life therapists recognize the importance of taking clients through to the end of a remembered life, and Woolger says his cases include thousands of past life deaths. The moment of death for most is experienced as a great release. About 95 percent report floating above the body and on up to a realm of peace. Often there is a spontaneous life review, or Woolger may encourage the person to evaluate his or her life. Some persons, about 2.5%, float down into the earth or into vortexes or dark places. About 80 percent of those who float up or down recall another past life or incarnation quickly, going from one drama to another.

Another 2.5% spontaneously encounter spirit figures or discarnate spiritual beings. There are friends and family, children and parents. Occasionally a teacher or guru appears, and rarely there may be an old adversary. The spiritual figures may come in a group (a "karmic committee") or singly. Woolger feels that the spiritual visions are rare because they are part of a stage of integration that occurs when several painful lifetimes have been worked through. They are graces, not to be deliberately sought.

Woolger is aware that these experiences resemble NDEs. He says that his cases have not included the experience of moving through a tunnel. Nevertheless, he is persuaded that both the regression deaths and NDEs are "archetypal or universal experiences of death and transition that are recorded in the collective unconscious of the individual" (p. 297).

Woolger does not give many details of death and after death experiences, but it would seem that they are not so intense as NDEs reported by the living. In any event, he focuses more on the emotional catharsis of past life events than the death, bardo, and rebirth transitions. Parenthetically, another recent book narrating the case of a patient who remembered a series of past lives that helped to resolve crippling symptoms and fears, Many Lives, Many Masters, by psychiatrist Brian L. Weiss (1988), reports that death in the woman's past life regressions was an easy floating up from the body, thence to another life or to remain for a time in the presence of guides or masters.
Woolger presents his work in *Other Lives, Other Selves* as a therapeutic technique, not as reincarnation research. How effective is it? The cases in the book show phobias relieved, somatic ailments healed, emotional patterns changed, faulty relationships mended, puzzling reactions understood, and other symptoms relieved as a result of re-membering and re-experiencing traumatic relevant past life memories. Some of the individuals discussed were private clients of the author or other therapists and worked with the memories in further therapy. It is not clear how those not in therapy integrated the past life regressions. The book does not report on long term results from the therapy for most of the cases.

Are these really memories of historical past lives and death experiences of the individual? Certainly many of the stories are plausible. However, their validity could only be established by getting specific details that can be checked against historical facts, and by eliminating other interpretations. This level of detail is clearly irrelevant to the purpose of therapy, and would probably even obstruct it.

The methodology for establishing that a memory is probably from a past life is a technically demanding one, best exemplified by the contemporary work of Ian Stevenson, who has documented his investigation of several dozen cases of individuals, mostly children, who appear to remember a past life. The memories Stevenson and others have studied are pieces of information about the remembered life, rather than the emotional experiences that erupt in past life therapy. Stevenson cautiously says the data are suggestive, an understatement in my opinion. One of his findings, of relevance for this book, is that experiences in the previous life can sometimes influence attitudes, reactions, and even physical birthmarks in the present life, though his cases are usually not so dramatic as those of Woolger. On the other hand, there are studies in the literature of many apparent previous incarnation memories that show inconsistencies, contradictory historical data, or that document that the memory has been fabricated out of conscious or unconscious knowledge of the person. Many therapy cases fall into this category.

An ethical question in regard to this approach might be phrased thus: is it ethical to allow the individual to believe that he or she is experiencing a past life as a part of therapy, when it is at least not proved, and may be indeed a total fantasy? Woolger says there are many interpretations of the origin of the events, but he and other past life therapists I know behave as if these are valid memories. Should not therapists be champions of truth?

Of course this is a more general issue. Ordinary therapists rarely try
to document traumatic childhood memories recovered by their clients. If the memories relate to symptoms, they are accepted and worked with therapeutically. Yet, they may be just as uncertain historically as a past life regression. The dilemma about truth also arises with placebos in medicine. These are triggers for physical and mental healing processes, but they are often discounted as false medicine, or not really treatment.

But why should not the psyche be allowed to produce whatever will heal itself? If Freudian patients dream Freudian dreams, and Jungian patients dream Jungian dreams, is it any surprise that Woolgerian patients dream past life dreams? If a person is phobic about water or men or women or violence, or is emotionally crippled, and is miserable, is it not a service for him or her to be freed of the phobia, or something more devastating, even with the side effect of believing in a past life event? Jungian analyst James Hillman has observed that we have many fictions in our psychologies that are nevertheless healing because we believe them. In discussing this, my wife Sandy suggested that perhaps the idea of a past life is an archetype that we fill in with appropriate content. And what if some of these memories are really of past lives, even though we do not have proof of it in the therapeutic situation?

The critical therapeutic factor seems to be the absorption in the experience. The state in which cognitive belief occurs is put aside as the person engages in the emotional drama, just as the Greeks were caught up in the tragedy of Oedipus, just as people shed tears in a touching movie, or patients emotionally relive a childhood experience in imagination. Perhaps afterwards there are some who wonder whether or not they made up the reincarnation experience. Hopefully, whatever gain they achieve is not offset by their objective appraisal.

Of course, the same issues arise with NDEs. Some critics and researchers view them as fantasies generated by the brain to ease a crisis reaction. If so, they nevertheless have profound therapeutic and developmental effects on the individual. One may put aside the ontological questions of reality, and simply trust the experience as a spontaneous, transcendent, crisis experience, to be used in psychological and existential growth. Some have considered re-evoking the experience through hypnosis like a past life memory or creating an NDE for therapeutic purposes through guided imagery.

On the other side are the questions about the origins of the experience and various models of brain and mind, patterns and stages of the experience, and implications for reality. As with past life memories, the straightforward acceptance of the near-death journey as valid is
the most far-reaching and challenging interpretation. It seems to me that near-death research has been focused more on this theoretical interest, in contrast to past life therapy, which is more clinically oriented. Some researchers, like Woolger, are beginning to compare past life accounts of death to descriptions of NDEs. Such investigations may bring new perspectives and data that will enrich understanding in both fields.

This book is worth reading for the vivid portrayal of Woolger's approach to therapy and the challenges that it presents. The model of the psyche developed by Woolger is much broader than just past lives. The consideration of reincarnation memories opens the possibilities that the self draws from many sources, and that the psyche contains the seeds of healing if we but know how to nourish them.

References


Letter to the Editor

Love and God in the Near-Death Experience

To the Editor:
I'm going to say something totally blasphemous about the near-death experience: the NDE is not a Love or God experience. It is rather an event that allows us to experience pure Being, a state in which judgment has absolutely no place.

I know we've heard right along that judgment is internal rather than external. But I think that is a misinterpretation, or only part of what we should be knowing. Love is a judgment, hate is a judgment, and both are human. In a pure state of Being, which is experienced during a Light experience, neither has a place. I think the NDE got tagged as Love because Love and God are the biggest labels we can come up with for something that has no hate, no judgment at all. Because there's no hate or judgment, it's assumed to be Love. I think that mislabelling the experience is keeping many experiencers from understanding it.

Love, God, the Devil, good, evil, laws, and lawbreakers all belong to this reality, our human existence. All of them play parts in moral and ethical development. All are emotions, events, feelings, etc., that must be experienced as part of the human experience. They have their places and reasons. But they are not All; they are not all we aspire to, or the only things available to us.

What does this do to the concept of God? I don't really know, but for me it increases God to GOD . . . and on and on and on. Before my own experience, I thought I understood God. I knew there was no Old Man with a white beard. I had done quite a bit of reading of esoteric material and thought I had somewhat of an idea that God was much bigger than the Old Man and was rather a "Force" of some sort.

During my experience I realized that no matter how large a Force I envisioned, it was still too limited to encompass GOD. I found that it is not possible to imagine GOD, and that it is okay to not know something, to be unable to define (and therefore limit) something. I found that there is so much "out there" that I will get to at some other
point during my existence, that even though all knowledge is available, it is available only when we are ready to receive it.

When I first entered the Light and felt the wonderful expansion of self and dissolution of my own limits, I thought I had found God. But as my experience increased over a period of several days, I "saw" a series of "planets" of differing colors stretching infinitely into the distance. I did not immediately know the symbolism, but understand now that each colored planet represented a different Light and that our white-to-yellow Light is "Home" to but one of many different existences. When I understood the symbolism, I understood that, because there is so much, I will learn when I learn, and not before. I understood that Being is truly multidimensional and oh so much bigger than any label we can come up with—and therefore, so must God be.

I haven't seen these lessons from the NDEs presented elsewhere in the near-death literature. I would be interested in other experiencers' comments.

Leslee Morabito
35 Lakewood Circle North
Manchester, CT 06040
ANNOUNCEMENT

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