

## NEAR-DEATH EXPERIENCES AND SPIRITUALITY

by *Bruce Greyson*

*Abstract.* Some individuals when they come close to death report having experiences that they interpret as spiritual or religious. These so-called near-death experiences (NDEs) often include a sense of separation from the physical body and encounters with religious figures and a mystical or divine presence. They share with mystical experiences a sense of cosmic unity or oneness, transcendence of time and space, deeply felt positive mood, sense of sacredness, noetic quality or intuitive illumination, paradoxicality, ineffability, transiency, and persistent positive aftereffects. Although there is no relationship between NDEs and religious belief prior to the experience, there are strong associations between depth of NDE and religious change after the experience. NDEs often change experiencers' values, decreasing their fear of death and giving their lives new meaning. NDEs lead to a shift from ego-centered to other-centered consciousness, disposition to love unconditionally, heightened empathy, decreased interest in status symbols and material possessions, reduced fear of death, and deepened spiritual consciousness. Many experiencers become more empathic and spiritually oriented and express the beliefs that death is not fearsome, that life continues beyond, that love is more important than material possessions, and that everything happens for a reason. These changes meet the definition of spiritual transformation as "a dramatic change in religious belief, attitude, and behavior that occurs over a relatively short period of time." NDEs do not necessarily promote any one particular religious or spiritual tradition over others, but they do foster general spiritual growth both in the experiencers themselves and in human society at large.

*Keywords:* near-death experience; religiosity; spirituality; transformation.

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Some individuals report having unusual experiences that they interpret as spiritual or religious when they come close to death. These profound experiences, called near-death experiences (NDEs), often include a sense of separation from the physical body, cosmic unity, divine revelation, ineffability, a sense that the experience transcends personal ego, and encounters with religious figures and a mystical or divine presence. Raymond Moody, the psychiatrist who coined the term *near-death experience* in 1975, defined them as "profound spiritual events that happen, uninvited, to some individuals at the point of death" (Moody and Perry 1988, 11).

Once regarded as meaningless hallucinations, NDEs have become the subject of serious study by medical and other researchers in recent years. Once thought to be rare, the NDE has been estimated to occur to a third of people who come close to death (Ring 1984; Sabom 1982), or about five percent of the United States population (Gallup and Proctor 1982), although a recent reassessment suggests that that estimate may be inflated (Greyson 1998). Although the term *near-death experience* and its acronym NDE were not coined until 1975, accounts of similar events can be found in the folklore and writings of European, Middle Eastern, African, Indian, East Asian, Pacific, and Native American cultures. The phenomenon was first described as a discrete syndrome in 1892, when geologist Albert von St. Gallen Heim published a collection (translated into English by Russell Noyes and Roy Kletti in 1972) of the subjective observations of mountain climbers who had fallen in the Alps (as he himself had), soldiers wounded in war, workers who had fallen from scaffolds, and individuals who had nearly died in accidents and near-drownings.

NDEs are reported by individuals who had been pronounced clinically dead but then were resuscitated; by individuals who actually died but were able to describe their experiences in their final moments ("deathbed visions"); and by individuals who, in the course of accidents or illnesses, feared that they were near death. Although all elements of the NDE can be reported by individuals who merely perceive themselves to be near death, certain features, such as an encounter with a brilliant light, enhanced cognitive function, and positive emotions, are more common among individuals whose closeness to death can be corroborated by medical records (Owens, Cook, and Stevenson 1990). Closeness to death may be an even more significant factor among children: In one study, although NDEs were recounted by up to half of those children who survived critical illnesses, they were not recounted by children who suffered serious illnesses that were not potentially fatal (Morse et al. 1986).

#### PHENOMENOLOGY OF NEAR-DEATH EXPERIENCES

In coining the term *near-death experience*, Moody identified fifteen elements that seemed to recur in NDE reports: ineffability, hearing oneself

pronounced dead, feelings of peace, hearing unusual noises, seeing a dark tunnel, being out of the body, meeting spiritual beings, encountering a bright light or "being of light," panoramic life review, a realm where all knowledge exists, cities of light, a realm of bewildered spirits, supernatural rescue, border or limit, and coming back into the body (Moody 1975). He later (1977) added four recurrent aftereffects: frustration upon relating the experience to others, broadened or deepened appreciation of life, elimination of fear of death, and corroboration of out-of-body visions.

Moody noted that no two NDE accounts were precisely the same, that no experience in his collection included more than twelve of the original fifteen elements, that no one element appeared in every narrative, and that the order in which elements appeared varied from one experience to another (1975). He warned that his list was intended as a rough theoretical model rather than a fixed definition (1977). Children's NDEs are similar to those of adults, except that they tend not to include a life review or meetings with deceased friends and relatives—two differences that might be expected, in light of children's brief experience with life (Bush 1983; Morse et al. 1986).

The most common features of NDEs can be grouped into four components: cognitive, affective, paranormal, and transcendental features. Most NDEs include features from all four, although many experiences are dominated by one or more component (Greyson 1985). The first, *cognitive features* reflecting changes in thought processes, includes distortions in the sense of time, acceleration of thought processes, a life review or panoramic memory, and a sense of revelation or sudden understanding. A 21-year-old woman described the following experience, dominated by cognitive features, that occurred during a bicycle accident:

I was riding my bike and failed to see a car coming towards me until I realized it would hit me, regardless of any maneuver I might make. That realization seemed to take forever as time slowed way down, and I consciously decided to let go of the handlebars, cover my head with my hands, and scream. During the next few seconds, or fractions thereof, while the car hit my thigh and the bike (at least), I was unaware of any bodily sensations, but rather "saw" my life flash before me in a series of typical scenes. I felt *very* peaceful, and the thought, "Well, if I die, that's all right; I've had a good life," came very clearly into my mind. I felt apart from my body at this time. (Greyson 1985, 391)

The second component, *affective features* reflecting changes in emotional state, includes a sense of peace and well-being, feelings of joy, a sense of cosmic unity, and an encounter with a brilliant light that seems to radiate unconditional love. A 31-year-old woman described the following experience, dominated by affective features, that occurred during open-heart surgery:

I found myself elevated. There was nothing underneath. I was in a dark place except there were patches of mist. I never saw myself below. . . .

I wasn't frightened. I had no pain. And I think I was wondering, "Why aren't I afraid?" But I wasn't afraid. It felt natural. I felt this feeling of love. It was like all of a sudden I could feel this whole feeling of love and joy. It was all around me. My eyes were automatically drawn to the side and I saw this circle of light off in the distance. I'll never forget it. And I could feel this love just coming from that light. It was all around me. It wasn't a beam. It was just the feeling of it coming from that light. It was so beautiful! I could never explain it in a million years. And I went towards that light with my arms extended. I just wanted to embrace it. And as I did this I started to move. I wasn't walking. But I could feel the vibrations, the air as I was going along, I could absolutely feel it. It didn't bother me and it was perfectly natural.

And as I was getting closer to the light, I was having an argument with myself. And I was saying, "Don't you think you should go back and take care of your children?" I remember I said, "No!" I love my children. And I loved them up there. But it was a different kind of love. This is the hardest part for me to explain. It's a true love, a pure love, free of earthly worries. Absolute pure love! (Greyson 1985, 392)

The third component, *paranormal features* reflecting apparent psychic phenomena, includes extraordinarily vivid physical sensations, apparent extrasensory perception, precognitive visions, and a sense of being out of the physical body. A 26-year-old woman described the following experience, dominated by paranormal features, that occurred during a pulmonary embolism:

I (the real me, the soul, the spirit, or whatever) drifted out of the body and hovered near the ceiling. I viewed the activity in the room from this vantage point. The hospital room was to my right and below me. It confused me that the doctors and nurses were so concerned about the body they had lifted to the bed. I looked at my body and it meant nothing to me. I tried to tell them I was not in the body. Obviously, they did not hear me. One of the most outstanding things about this experience is that my hearing became extremely acute. I heard many things about the gravity of my situation, some of these from the nurses' station many yards away. I watched the hospital personnel work. I listened to their comments, and I began to feel sorry that they were working so hard, when I felt so happy and feeling no pain where I was. (Greyson 1985, 393)

The fourth component, *transcendental features* reflecting apparent otherworldly phenomena, includes apparent travel to a mystical or unearthly realm or dimension, an encounter with a mystical being or presence, visible spirits of deceased or religious figures, and a border beyond which one cannot return to earthly life. A 26-year-old woman described the following experience, dominated by transcendental features, that occurred during an emergency caesarean section:

I heard my doctor say, "I've lost her; she's gone!" Then four angels were carrying me through a great, huge auditorium. The two large doors of the auditorium opened, and we went out and up, through space. I saw a beautiful white city, with a wall around it and a set of gates facing me. I was so excited, because I wanted to go through those gates. There was a beautiful bright light over the city. I could not go through the gates into the city, but found myself back on the

operating table. My doctor said, "I'm so glad you are back; your husband will be so glad you are back." I was crying as if my heart would break, telling him that I did not want to come back. I begged him to let me go again, it was so beautiful! It was the saddest time of my life, and yet it was the most beautiful! (Greyson 1985, 394)

#### EXPLANATORY MODELS FOR NEAR-DEATH EXPERIENCES

How can these phenomena best be understood? No variables that have yet been studied, such as age, gender, race, or history of mental illness, predict either the occurrence or type of NDE. There has been ample speculation about the cause of NDEs but very little data bearing on the question.

One plausible physiological model attributes NDEs to decreased oxygen (hypoxia) or to complete lack of oxygen (anoxia), because that appears to be the final common pathway to death (Whinnery 1997). However, hypoxia or anoxia generally produces idiosyncratic, frightening hallucinations and leads to agitation and belligerence, quite unlike the peaceful NDE with consistent, universal features. Furthermore, studies of persons near death have shown that those who have NDEs do not have lower oxygen levels than those who do not have NDEs (Sabom 1982; van Lommel et al. 2001).

Another frequently cited physiological model attributes NDEs to medications given to dying persons. However, although some drugs may on occasion induce experiences that bear superficial similarities to NDE, comparative studies show that patients who receive medications in fact report *fewer* NDEs than do patients who receive no medication (Greyson 1982; Osis and Haraldsson 1977; Sabom 1982).

NDEs have also been speculatively attributed to a number of neurotransmitters in the brain, most frequently endorphins (Carr 1982), although other models implicate serotonin, adrenaline, vasopressin, and glutamate (Jansen 1997; Morse, Venecia, and Milstein 1989; Saavedra-Aguilar and Gómez-Jeria 1989). NDEs have been speculatively linked to a number of anatomic locations in the brain, most often the right temporal lobe (Blanke et al. 2002) or the left temporal lobe (Britton and Bootzin 2004), although other neuroscientists have argued for involvement of the frontal lobe attention area, the parietal lobe orientation area, the thalamus, the hypothalamus, the amygdala, and the hippocampus (Azari et al. 2001; Fenwick 2001; Newberg and d'Aquili 1994). These putative neurological mechanisms, for which there is little if any empirical evidence, may suggest brain pathways through which NDEs are expressed or interpreted, but they do not necessarily imply causal mechanisms.

Psychological models also have been proposed attributing NDEs to psychological defense mechanisms, depersonalization, wishful thinking, retroactive confabulation, and expectation (Greyson 1983b). While plausible, none of these psychological models is supported by empirical evidence.

Expectations likely influence an experiencer's interpretation of certain features of the NDE, but they do not appear to influence the experience itself: Children who are too young to have internalized expectations of death or of an afterlife describe the same NDE features as do adults (Bush 1983; Herzog and Herrin 1985; Morse et al. 1986), cross-cultural studies show few differences in NDE content from differing societies (Holck 1978–79; McClenon 1994), and NDE descriptions are not affected by the experiencer's prior knowledge of NDEs or expectations of the dying process or of an afterlife (Athappilly, Greyson, and Stevenson 2006; Greyson 1991; Greyson and Stevenson 1980).

The enhancement of mental functioning at a time when the brain is physiologically impaired, as well as the paranormal and otherworldly experiences, are not easily explained by materialistic models. In evaluating proposed explanations for NDEs, it is necessary to consider those features of NDEs that are similar to those of mystical experiences.

#### NEAR-DEATH EXPERIENCES AS MYSTICAL EXPERIENCES

Four years before Moody coined the term *near-death experience*, psychiatrist Russell Noyes (1971; 1972) noted that altered states of consciousness in people as they approached death often have mystical, transcendental, cosmic, or religious features. He included in those features ineffability, transcendence of time and space, sense of truth, loss of control, intensified emotion, and disordered perception.

Many of the experiential features of mystical experiences in general are similar to those of NDEs. The feelings of peace and joy, the ineffability of the experience, the sense of being in the presence of something larger than or transcendent to oneself, and the experience of a bright light or "being of light" are features common to both NDEs and mystical experiences. Protestant theologian Judith Cressy (1994) has compared typical NDE phenomenology and aftereffects to the lifelong mystical experiences of medieval Roman Catholic mystics St. Theresa of Avila and St. John of the Cross and concludes that they shared ecstatic out-of-body travel, visions of God, clairvoyance, loss of fear of death, and healing transformations. She notes that nearness to death has always played a role in the spiritual path and that, for Saints Theresa and John, mysticism was a preparation for death. She points out that, unlike mystics, near-death experiencers are thrust suddenly into spiritual consciousness without any preparation and then returned to a community in which such experiences are not valued. British theologian Paul Badham also concludes that the NDE "shares many of the characteristics of the deepest religious experiences known to humanity" (Badham 1997, 10) and that modern resuscitation techniques have made available to ordinary people mystical enlightenment that formerly was available to people only on rare occasions.

Just as with NDEs, the onset of a mystical experience often is signaled by overwhelming feelings of joy, happiness, and peace (James 1902). Individuals sometimes describe a feeling of sudden release in a mystical experience, and, although some may mean that figuratively, others definitively describe literal out-of-body experiences. As one of psychologist James Leuba's subjects in a study of religious phenomena more than a hundred years ago said, "Indeed I cannot tell you whether I was 'in the body or out of the body' but O! the light came, —it was almost too much for me. I cannot express how I felt" (Leuba 1896, 372). This claim is reminiscent of the experience described by St. Paul about which he said "whether in the body or out of the body I do not know" (2 Corinthians 12:3). Many people also report enhanced mental functioning or heightened perception in mystical experiences, just as in NDEs. Sometimes the "senses are much more acute," such that details of the experience and of one's physical surroundings at the time "are frequently recalled with great minuteness" (Starbuck 1906, 78). One of psychologist William James's informants said that "my memory became exceedingly clear" (James 1902, 157).

A sensory phenomenon that is particularly common to both NDEs and mystical experiences is the sense of seeing a bright light of unusual quality. Typical in mystical experiences are descriptions of "a strange light which seemed to light up the whole room (for it was dark)" (James 1902, 202). Some seem to be using the phrase "seeing the light" in a figurative sense, but others are clearly referring to what was for them a real and vivid sensory phenomenon.

Walter Pahnke, who was both a minister and a psychiatrist, and William Richards, a theologian and psychologist, delineated nine aspects of mystical experience, based on the previous work of James (1902) and British philosopher Walter Stace (1960): a sense of cosmic unity or oneness, transcendence of time and space, deeply felt positive mood, sense of sacredness, noetic quality or intuitive illumination, paradoxicality, ineffability, transiency, and persistent positive aftereffects (Pahnke and Richards 1966). All nine of these features are commonly reported as part of the NDE (Pennachio 1986).

Perhaps the most important feature common to both mystical experiences and NDEs, however, is the transformative impact of the experience. NDEs generally have a profound and apparently lasting impact on many people who experience them, often precipitating a significant change in values and attitude toward death and a new sense of purpose or meaning in life. Similarly, mystical experiences have been recognized for more than a century as leading to sudden and lasting changes in character and values (James 1902), including changes in the person's relationship with God, perception and appreciation of nature, attitude toward self, and, perhaps most significantly, attitude toward other people (Starbuck 1906). As one of James's informants described the transformation, "I was very selfish . . . now I desired the welfare of all mankind" (James 1902, 157).

This transformative aspect of NDEs is never reported in connection with the various fragmentary experiences that are sometimes equated with NDEs, such as the "dreamlets" induced by hypoxia or other abnormalities of blood-gas concentrations (Whinnery 1997) or experiences reported by patients receiving temporal-lobe stimulation (Blanke et al. 2002). Moreover, the transformative features associated with NDEs differ from those associated with simply coming close to death but not having an NDE (Greyson 1983a; Ring 1984; van Lommel et al. 2001). Clearly, the profound transformative aspect of NDEs suggests that we need some explanation that goes beyond the physiological models we have so far and even beyond the psychological experience associated with coming near death.

Before discussing the transformative effects of NDEs, however, we first review the question of religiosity and spirituality prior to the NDE and the role they may play in the experience.

#### RELIGIOSITY/SPIRITUALITY BEFORE THE NEAR-DEATH EXPERIENCE

Because religion addresses fundamental human concerns such as death and dying, one might speculate that there is some relationship between religious orientation and NDEs (McLaughlin and Malony 1984). Is religiousness, or religious affiliation or belief, a determinant or correlate of the NDE? Are persons with different religious beliefs more or less likely to have NDEs or to have specific types of NDE? One skeptical view of the NDE is that it represents essentially a religiously inspired illusion: The crisis of impending death triggers a series of hallucinations in keeping with an individual's religious belief system and expectations concerning an afterlife. As psychologist Kenneth Ring put this hypothesis, "Believing is seeing" (1980a, 3).

Several studies have searched in vain for associations between religion or religiosity and subsequent NDEs. In a cross-cultural study in the United States and India, psychologists Karlis Osis and Erlendur Haraldsson (1977) did not find any straightforward relationship between religiousness and deathbed visions, although they did find that an individual's belief system influenced the *interpretation* of the experience. Cardiologist Michael Sabom and social worker Sarah Kreutziger (1978), in a study of 107 survivors of cardiac arrest, also found no relationship between NDEs and extent of prior religious involvement.

Ring (1980a) interviewed 102 survivors of near-death crises, asking a number of questions that collectively provided an overall index of religiousness, including questions about degree of religiosity, strength of belief in God, degree of certainty about life after death, and belief in heaven and hell. He too found no association whatsoever between prior religiousness and quantitative measures of the NDE. He concluded that

neither the likelihood nor the depth of a near-death experience was systematically related to individual religiousness. Non-religious people—including self-professed atheists—were *just* as likely to have Moody-type experiences as were the conventionally devout. Similarly, there was no obvious relationship between religious affiliation and near-death experiences among my respondents. (Ring 1980a, 4)

However, Ring found, as did Osis and Haraldsson (1977),

that the *interpretation* that was placed on the experience by the individual was markedly influenced by his religious belief system. An atheist or agnostic, for instance, does not *typically* arrive at a Christian interpretation of his experience (although this does happen occasionally). . . . Also, one's *emotional reaction* to the experience may be affected by one's prior belief system, as one would expect. (Ring 1980a, 4)

Psychologist Steven McLaughlin and H. Newton Malony, who is both a minister and a psychologist, speculated that intrinsically oriented religious persons, who tend to have more positive views of death and hope in an afterlife of reward, might be more likely to have deeper NDEs and that people who have a vital relationship with God might be more receptive to an NDE (McLaughlin and Malony 1984). They interviewed forty NDErs, including Protestants, Roman Catholics, Jews, and followers of the Baha'i faith, and others with no religious affiliation. They administered to their participants a standardized measure of religious orientation that included three basic religious attitudes: compliance to religion for personal gain (extrinsic religious orientation), identification with religion for support (consensual religious orientation), and internalization of religion for its own intrinsic value (intrinsic religious orientation). They found no significant relationship between depth of NDE and various measures of religious orientation or other religious measures.

Finally, in a study of NDEs occurring in the course of attempted suicide (Greyson 1991), I found that NDEs were associated neither with religious preference or religiosity nor with prior expectations of death, dying, or postmortem survival.

#### RELIGIOSITY/SPIRITUALITY AFTER THE NEAR-DEATH EXPERIENCE

If NDEs are not influenced by prior religious belief or religiosity, do the experiences themselves affect subsequent religious preference, religiosity, or spirituality? Do people become more or less religious or spiritual following an NDE? If so, how is that effect manifested?

Several studies have documented that, for many, an NDE permanently and dramatically alters the person's attitudes, beliefs, and values, often leading to beneficial personal transformations. Near-death experiencers tend to see themselves as integral parts of a benevolent and purposeful universe in which personal gain, particularly at others' expense, is no longer relevant. Aftereffects most often reported include increases in spirituality, concern for others, and appreciation of life; a heightened sense of purpose;

and decreases in fear of death, in materialistic attitudes, and in competitiveness (Bauer 1985; Flynn 1982; 1986; Grey 1985; Greyson 1983a; 1992; McLaughlin and Malony 1984; Noyes 1980; Ring 1980b; 1984; Sabom 1982; 1998). These changes that often follow NDEs meet the definition of spiritual transformation as “a dramatic change in religious belief, attitude, and behavior that occurs over a relatively short period of time” (Schwartz 2000, 4).

Observations of spiritual transformation after NDEs are not new. In 1865, British surgeon Sir Benjamin Brodie wrote of a sailor who was rescued from near drowning and then proclaimed on his recovery that he had been in heaven—and complained bitterly about being restored to life. Brodie wrote that the sailor had previously been regarded as a worthless fellow but that after the rescue his moral character was changed, and he became one of the best-behaved sailors on the ship (Brodie 1865).

In studies comparing NDErs' attitudes before and after their experiences, Noyes (1980) found that they reported a reduced fear of death, a sense of relative invulnerability, a feeling of special importance or destiny, and a strengthened belief in postmortem existence. Ring (1980b; 1984) found that NDErs reported a greater appreciation for life, a renewed sense of purpose, greater confidence and flexibility in coping with life's vicissitudes, increased value of love and service, greater compassion for others, a heightened sense of spiritual purpose, decreased concern with personal status and material possessions, and a greatly reduced fear of death.

In Ring's interviews with 102 survivors of near-death crises (1980a), he collected information on any systematic religious aftereffects of the experience. He found that NDErs did describe themselves as more religious than they were before. By contrast, near-death survivors who reported no NDE did not report any change in their religiousness as a result of their close encounter with death. Ring found that NDErs did not attend church more often than they had prior to their experiences or participate in other modes of formal religious worship:

Rather, there is a heightened *inward* religious feeling that is often indicated which does not seem to require a conventional religious format for it to be manifested. Instead, near-death survivors will describe themselves as feeling closer to God, as more inwardly prayerful, or as having a greater awareness of God's presence. This personal sense of God is sometimes so strong that conventional religious observances seem irrelevant or unnecessary. (1980a, 4)

Ring also found that, even though NDErs expressed indifference toward organized religion, they also described

an overall tolerance for all ways of religious worship. From this point of view, there is no one religion or religious denomination which is superior or “true”; rather, all religions are expression of a single truth. It is the smug sectarian quality of some religious groups to which experiencers tend to object, not to the basics of religious worship itself. (p. 4)

In summarizing these changes, Ring concludes that NDErs emphasize the humanitarian and ethical teachings of the great religions: respondents will stress the importance of love, caring and compassion for others. In fact, if there was a single value which seemed to epitomize the comments of near-death survivors in this respect, it was their increased emphasis on the need for *unconditional love* or *acceptance* for others . . . near-death experiencers emerge from their confrontation with death convinced, as a group, that there is a life to come and that it will be beautiful, peaceful and joyous. This is a striking effect statistically, and, again, it is found chiefly for experiencers; near-death survivors who do not have an experience tend to show no change in their belief patterns here. (p. 4)

Ring focused his second book on NDEs (1984) on the radical reorientation in spiritual values and life directions that often follow NDEs. Unlike many authors who based their conclusions on subjective testimonies of experiencers, Ring included a number of objective measures of psychospiritual changes to bolster his arguments. His most recent book on NDEs (Ring and Valarino 1998) focuses on the spiritual meaning and “soul-making” significance of NDEs.

Sociologist Charles Flynn (1982) found that NDErs reported a greatly increased concern for others, increased belief in an afterlife, increased religious interest and feeling, decreased fear of death, and lessened desire for material success and approval of others. Subsequently, Flynn (1986) described the life-transforming nature of NDEs, changing experiencers’ values, decreasing their fear of death, and giving their lives new meaning. He argued that NDEs produce the same aftereffects as religious conversion experiences: those who face death return with a love of the divine light that transforms their own lives and a mission to bring that love to others. He concluded that NDEs lead to a shift from ego-centered to other-centered consciousness, disposition to love unconditionally, heightened empathy, decreased interest in status symbols and material possessions, reduced fear of death, and deepened spiritual consciousness.

McLaughlin and Malony (1984) measured religious orientation and religious change as a result of the NDE in forty experiencers who were interviewed in depth and completed a series of questionnaires. They found strong associations between depth of NDE and various measures of religious change after the experience. Near-death experiencers placed greater importance on religion afterward and became more active in their religion, and the strength of those changes was positively associated with the depth of their NDE. For many experiencers, the NDE was an experiential reaffirmation of the reality of the spiritual realm they had believed in previously and served to intensify their relationship with God. This increase in religious activity contradicted Ring’s finding that NDEs led to inward spiritual change but no change in religious activity. McLaughlin and Malony concluded that NDEs are spiritual interventions in the lives of people regardless of their religious orientations or beliefs beforehand. They found that the NDE reaffirmed religious faith for some experiencers, had no effect

on beliefs of others, and led still others to abandon their prior belief systems:

Thus, on an individual level the NDE can have a variety of effects upon a person's religion, ranging from conversion or reaffirmation of belief all the way to disillusionment or a change away from conventional religion. Only when the subject group is examined as a whole is there evidence that NDEs result in an increase in the importance of religion and an increase in religious activity. (1984, 158)

Sociologist Martin Bauer (1985), using an instrument based on Austrian psychiatrist Viktor Frankl's (1969) logotherapy, found that NDEs led to significant positive changes in the purpose and meaning of life and in death acceptance.

British philosopher David Lorimer (1990) presented NDEs, and particularly the moral assessment that takes place in the life review, as providing an experiential basis for moral order based on "empathic resonance" with other people, meaning the direct perception of an intrinsic interconnectedness and interdependence of all living beings. He argued that in the life review one experiences first-hand, with compassionate and empathic understanding, how one's thoughts, feelings, and actions affect others. This experience, he reported, leads to a new appreciation of the Golden Rule—"whatever you wish that men would do unto you, do so to them" (Matthew 7:12 RSV)—as not just a prescription for moral conduct but also an accurate description of the interconnectedness of the universe. Lorimer concluded that the ego-shattering effect of NDEs reveals the illusion of separate individual egos by inducing direct experience of cosmic unity.

Australian sociologist Cherie Sutherland interviewed fifty NDErs and specifically asked them to differentiate changes in their spirituality from changes in their religiosity. Her subjects largely rejected describing themselves as "religious," often vehemently, but did describe themselves as "spiritual." They reported "dramatic change in religious affiliation, especially from organized religion, of whatever denomination, to no religion" (Sutherland 1990, 24). Following their NDEs, 76 percent of her interviewees described themselves as "spiritual," an increase from 16 percent prior to their NDEs, whereas 6 percent described themselves as "religious," a decrease from 24 percent prior to their NDEs. None of her subjects described the NDE as a religious experience, but 70 percent described it as a spiritual experience. Asked an open-ended question about the most significant change resulting from the NDE, the single most common response (31 percent of respondents) was "spirituality" or "spiritual growth."

In studies comparing the attitudes of NDErs with those of other groups, including persons who had come close to death but not had NDEs, I found that experiencers placed significantly lower value on social status, professional and material success, and fame (Greyson 1983a) and found death less threatening (Greyson 1992). Although a less fearful attitude toward death has been associated with an increase in suicidal thoughts (Shneidman

1971), NDErs paradoxically express stronger objections to suicide than do comparison samples, primarily on the basis of increased transpersonal or transcendental beliefs (Greyson 1992–93). These profound changes in attitudes and in behavior have been corroborated in long-term studies of NDErs and in interviews with their significant others (Ring 1984).

Transpersonal counselor Cassandra Musgrave (1997) surveyed fifty-one NDErs about changes in their attitudes, beliefs, and behavior. She found that the vast majority of her respondents claimed that since the NDE they were more helpful toward others (82 percent), more compassionate or understanding (82 percent), more open-minded in general (82 percent), more spiritually or religiously open (80 percent), more intuitive (78 percent), more aware of guidance by a higher power (75 percent), more appreciative of life (73 percent), emotionally stronger (69 percent), more purposeful (65 percent), and less fearful of life (51 percent). Absolute belief in God increased from 24 percent before the NDE to 82 percent after it; definite belief in an afterlife increased from 22 percent to 92 percent; 89 percent reported a decreased fear of death; 88 percent reported a positive change in spirituality. In general, a sense of spirituality or inner connection to God gained in the NDE took precedence over subscribing to religious doctrine. Those believing that there was more than one path to God increased from 28 percent before the NDE to 65 percent after it; 77 percent claimed that their lives had changed dramatically as a result of the NDE; and 73 percent reported that the NDE led them to discover their life purpose.

Sabom (1998), after completing a rigorous study of 116 NDEs and then observing NDEs and their aftereffects in his own patients over twenty years as a cardiologist, found that NDEs produced a stronger faith and a higher level of commitment to traditional religious practice, which he thought, in turn, affected their medical outcome. Although he originally had approached the study of NDEs as a skeptical medical scientist, expecting to find that these experiences were misfirings of a dying brain, he eventually concluded that they were instead powerful spiritual experiences whose underlying message was consistent with divine revelation from more traditional sources.

A large study of NDEs among survivors of cardiac arrest showed that, after both a two-year and an eight-year follow-up interval, people who had NDEs in connection with the cardiac arrest had a significant decrease in their fear of death and a significant increase in their belief in survival after death, whereas those who had not had an NDE tended not to believe in such survival (van Lommel et al. 2001). More specifically (and seemingly paradoxically, given the positive nature of most experiences and the reluctance of many experiencers to return to the body), those who experienced an NDE as the result of a suicide attempt rarely attempted suicide again, in contrast to most suicide attempters. This effect may be the result of an increased sense of purpose and appreciation for life (Greyson 1981; 1992–93).

## IMPLICATIONS OF NEAR-DEATH EXPERIENCES FOR OTHERS

Mainstream theologians have had little to say about near-death experiences. British religious scholar Mark Fox (2003) speculates on the reasons for what he calls this “deafening silence.” He suggests that perhaps some theologians regard NDEs as so expected at the point of death that they do not merit discussion, whereas others ignore the phenomenon out of general academic distrust of any paranormal phenomena. Religious scholar Carol Zaleski (1987) suggests that many theologians feel more comfortable regarding NDEs as metaphors or literary motifs rather than actual encounters with the divine. Religious historian Ioan Couliano (1991) places NDEs within a continuing cross-cultural tradition of fantastic accounts of otherworld journeys. Indeed, the Buddhist perspective on visions of the dying, as described in *The Tibetan Book of the Dead* (Evans-Wentz 1957), is that they occur in the mind of the experiencer. Roman Catholic theologian Hans Küng ([1982] 1984) regards NDEs as psychological experiences of dying that have no bearing on what happens after death.

Whatever the reason for the disinterest in NDEs among theologians, the result is that most of what has been written about the implications of NDEs, discussed below, has come from psychologists who argue that NDEs *should* have relevance to theology. Ring, for example, writes, “When an individual knows with a sense of unshakable certitude that he can exist outside of his own body, he intuitively understands that physical death is not an end. . . . Such a view does not logically require a *religious* interpretation of the afterlife, but, in practice, it is usually put that way” (1980b, 110). He further notes that those experiencers who see visions of deceased loved ones in their NDEs become convinced that life beyond death is more than “a vague emotional yearning” (1980b, 110). Fox has opined that “many of the claims that near-death experiencers (NDErs) have made in the last quarter-century are such that they may well be said to *demand* a response which goes to the very heart of the West’s understanding of what it is to be human, and what it is for human beings to die” (Fox 2003, 5).

Adherents to various religions have claimed NDEs as empirical support of their particular doctrines. It has been argued that NDEs provide striking parallels to the teachings of the Hindu *Upanishads* and to early Babylonian, Egyptian, and Zoroastrian texts (Holck 1978–79), to shamanism (Green 2001), to Taoism (Hermann 1990), to Sino-Japanese Pure Land Buddhism (Becker 1981), to Tibetan Buddhism (Becker 1985; Holck 1978–79), to Gnostic Christianity of the second through fourth centuries (Bain 1999), to medieval Christian religious treatises (Zaleski 1987), to Mormon doctrine (Lundahl 1983), to Christian Universalism (Vincent 2003), to Bishop John Shelby Spong’s New Christianity (Gibbs 2005), and to New Age spirituality (Lee 2003). Regarding these “religious wars” over NDEs, Ring expresses regret that “the body of the NDE, like some sort of

sacred relic or corrupted corpse, is fought over by warring parties either for rights of possession or unceremonious burial" (2000, 240).

Ring found beliefs common among NDErs that seemed consistent with a Judaeo-Christian worldview (1980b). He reports that more than half of his sample of NDErs reached a point where a decision was made either by or for them as to whether they would return to physical life, and 40 percent of them described an encounter with a presence (not always seen) that included an auditory or telepathic conversation. Sometimes the presence would describe specific consequences of the decision whether or not to return, including information about what would occur if the experiencer chose to return to life. This often was accompanied by a life review, and sometime a preview of events to come, in which the experiencer evaluated his or her life. Most experiencers interpret this sequence of events as a direct encounter with God and with God's unconditional love.

Ring himself interprets this sequence of events as an encounter not with an external deity but rather with the experiencer's "higher self," of which the individual personality is only a fragment. This higher self seems to have divine aspects and is clearly omniscient with respect to the personality; Ring speculates that experiences of this encounter may give rise to the Christian concept of the guardian angel.

Ring later documents further psychological effects in NDErs evidencing changes in attitude and belief that are consistent with the dominant Western Judaeo-Christian heritage (Ring and Valarino 1998). He argues that NDEs lead directly to the Golden Rule and to Jesus' admonition that "as you did it to one of the least of these my brethren, you did it to me" (Matthew 25:40 RSV). In fact, Ring argues, in concert with Lorimer (1990), that for NDErs the Golden Rule is no longer just a commandment one is taught to obey but rather an indisputable law of nature, as inevitable as gravity. They know it is the way the universe works because they have experienced it first-hand in suffering directly the effects of their actions upon others. Though they do not feel punished or judged for their misdeeds, they do receive back as part of their life review everything they have ever given out, measure for measure.

Some Christian theologians have corroborated this view of NDEs as consistent with their teachings. Johann Christophe Hampe, a German Lutheran minister, conducted a study of dying persons' experiences before Moody coined the term *near-death experience*. Working independently of Moody, he reported a similar phenomenon and concluded that the expansion of consciousness at death implied separation of the soul from the body and that the continued fellowship with God reported by many NDErs reinforced New Testament teachings (Hampe 1979). That conclusion is shared by British theologians Paul and Linda Badham (1982, 89): "What appears to happen is that the soul leaves the body and begins to move on to another mode of existence."

However, whereas some religious scholars view NDEs as proof of spiritual capacities in humans and of divine grace, others see them as Satanic deceptions that contradict Christian teachings. The conflicting and often negative views of psychic phenomena held by many religious people extend to their interpretations of NDEs (McLaughlin and Malony 1984).

Fox (2003) points out ways that NDEs appear to contradict traditional Christian beliefs in the afterlife. First, NDEs suggest a separation of a disembodied soul from the physical body at the point of death, which seems to contradict the Christian belief in resurrection of an embodied soul. Second, NDEs imply that survival of death is a universal human birthright rather than a gift of grace. Third, a judgment at the time of death appears to contradict belief in a far-off judgment day when Christ returns. (However, Fox did note that there is a belief going back at least to the third century in two judgments: first a “friendly warning” at death and later the earth-shattering finality of the judgment day.) Fourth, the divine being of light is often encountered by non-Christians, who do not identify it as Christ. Finally, all NDErs seem to go to the same place after death, regardless of whether or not they were “saved,” “born again,” or baptized.

Fox reconciles these discrepancies by invoking the traditional Christian belief that death ushers in a type of sleep that lasts until the judgment day, but that that sleep is accompanied by a dream, which we have come to call an NDE. Others suggest that apparent insights from NDEs cannot challenge traditional concepts of death because “near-death experiences may be too brief an experience of the dying process to reveal much knowledge about the ultimate nature of death. The person may not have entered deeply enough into the dying process to experience the ultimate nature of death” (McLaughlin and Malony 1984, 157).

Some Christians have claimed that NDEs not only contradict biblical religion but furthermore foster an anti-Christian “New Age” moral code. Although the interpretation of NDEs as deceptions perpetrated by “fallen spirits” has been espoused by Eastern Orthodox theologian Fr. Seraphim Rose (1980), this perspective has been put forward primarily by Fundamentalist Protestant authors, who argue that NDEs must have a Satanic rather than divine source because they present death as a benign event in which the Grim Reaper is replaced by a nonjudgmental Being of Light who extends unconditional love to all souls, regardless of whether or not they are born-again Christians:

If we are to take the teachings of Jesus seriously, we must also take Satan and his forces seriously. . . .

Paul warns us that Satan’s emissaries regularly disguise themselves, and that Satan himself appears as an “angel of light” (II Corinthians 11:14). . . .

[Death] is ultimately an expression of the fall (Genesis 3), which was the result of sinful disobedience. Death is pre-eminently the sign of that fall, and the symbol of God’s rejection of sin. . . .

[Death] is *not* regarded biblically as a normal and benign complement to the process of life, but as something alien and abnormal. . . .

For those who accept the values of contemporary death researchers . . . there is little if any need for the basic biblical doctrines of the fall, redemption, and repentance before God. The atoning death . . . of Jesus Christ is not only unnecessary, it is meaningless and altogether irrelevant. (Albrecht and Alexander 1977, 10–11)

Fox (2003) argues that this view implies that Satan's deception is more powerful than God's grace. Noting that millions of people now look forward to meeting a loving, accepting being of light when they die, he asks: If this being is actually Satan pulling off an appalling deception, where is the Christian God of grace and truth, the real Light? Psychologist Ken Vincent likewise dismisses the idea that NDErs' Being of Light could be a demonic deception: "Satan may be a neon sign, but God is the Light of the Universe" (Vincent 2003, 64).

Ring counters the argument that a Being of Light who seems to love both devout Christians and sinners unconditionally must be Satanic rather than divine by appealing to Jesus' dictum "you will know them by their fruits" (Matthew 7:20 RSV). By that criterion, Ring argues, NDEs should be judged by their fruits of increased compassion, humility, honesty, and altruism (Ring and Valarino 1998).

Regarding the question of whether unconditional love renders the atoning death of Christ irrelevant, Vincent argues that NDEs are compatible theologically with Christian Universalism—the doctrine of universal salvation—a classical Christian position that was declared heretical at one point but has been espoused by a large number of theologians from Origen in the third century to Karl Barth in the twentieth. This belief postulates that God, despite his wrathfulness and judgment, wills the eventual redemption of all people rather than condemnation to eternal hell, which would be inconsistent with the nature of God as loving. Vincent notes that virtually all major religions include some kind of belief in universal salvation but that Christian Universalism allows for a temporary hellish state to "shape up" if necessary before the ultimate reward. He argues that there is more biblical support for the doctrine of universal salvation than for the belief in salvation for only the born again, and he cites biblical passages favoring the doctrines that Jesus saves everyone, that humanity can be saved by good works, and that hell is not permanent.

Other religious writers have decried NDEs for holding out the false promise of "cheap grace," which they define as the unconditional forgiveness of sins without any required contrition (Tracy 1993; Zaleski 1987). The promise of cheap grace so defined may well be part of the popular image of NDEs, but it does not seem to play a role in the actual experience.

In fact, Ring argues, the unconditional love NDErs report in their experiences does not gloss over their sins or excuse their future behavior (Ring and Valarino 1998). Quite to the contrary, NDErs experience first-hand

in their NDEs the painful consequences of their sinful behavior and return to earthly life as confirmed disciples who understand from their experience that their behavior does indeed matter far more than they could have imagined. NDErs do not come back with a sense that they are perfect beings as they are now, but they are rather committed to work toward perfection and to carry out the work of a higher power, often at great emotional as well as material sacrifice. Far from encouraging indiscriminate behavior, the unconditional love NDErs experience confers on them the self-esteem, courage, and self-knowledge to bring about the kind of life changes demanded of disciples. Values and beliefs are changed, but NDErs still struggle to change their behaviors.

Cressy points out that NDEs differ from many other mystical experiences in that they do not occur in the context of a conscious search for meaning or resolution of spiritual crisis; one encounter with mystical consciousness may start a near-death experiencer on a spiritual path, but the NDE by itself does not confer sainthood. As Cressy warns, "One mystical experience does not make a mystic" (1994, 64). The empirical data support her view that all NDEs do not lead to immediate transformation; but, whereas *all* NDEs do not lead to radical changes, those that do transform do so through a process that is characteristic of other spiritual encounters.

Expanding on this theme of the NDE as a mere taste of mystical consciousness, Ring (1984) develops a hypothesis of NDEs as "spiritual catalysts" fostering spiritual awakening and development. He argues that this spiritual catalysis is linked particularly to the later stages of NDEs in which one transcends space and time, communes with a divine light, and is overcome with peace and joy.

Furthermore, NDEs may have significant moral impact even on people who do not experience them but encounter them indirectly. Flynn (1986) describes a project in which his college students practiced unconditional love, after having studied the message of NDEs, and were themselves transformed by the exercise. More recently, Ring has described the spiritual meaning and "soulmaking" significance of NDEs (Ring and Valarino 1998). Like Flynn, he reports that his students, having studied NDEs, also became more empathic and spiritually oriented through applying the lessons of NDEs: that death is not fearsome, that life continues beyond, that love is more important than material possessions, and that everything happens for a reason.

There are suggestions that NDEs may have more widespread spiritual implications. Twentieth-century social critics as diverse as British historian Arnold Toynbee, Swiss psychiatrist Carl Jung, and German theologian and medical missionary Albert Schweitzer have written that "nothing short of a worldwide spiritual revolution will suffice" to save human civilization (Lorimer 1990, 259). Ring suggests "that the NDE can be viewed as an *evolutionary device* to bring about this transformation" (1984, 7) and

that NDEs and similar mystical experiences may point the way toward unlocking humankind's dormant spiritual potential.

Ring speculates that, with increasing resuscitation technology enabling more and more individuals to return from the brink of death, the cumulative impact of their uplifting testimonies may foster the spiritual evolution of the collective consciousness of humanity. The title of his book on NDE aftereffects, *Heading toward Omega* (1984), comes from French Jesuit philosopher and scientist Pierre Teilhard de Chardin's notion of the "Omega point," a hypothetical end point in human history representing an evolutionary culmination in the highest strivings of human culture.

Badham argues that NDEs revitalize society's belief in God and hope for an afterlife (1997). Fox concludes, "NDEs cannot unambiguously be used as apologetic tools for the propagation of any one particular religious or spiritual tradition or be somehow fitted into any one tradition to the exclusion of all others" (2003, 339). But these experiences should foster spiritual growth by leading us to question some of our basic assumptions about mind and brain, about our relationship to the divine, and about the universe and our role in it. This may prove to be their primary relevance to theology. As Zaleski (1987) points out, theology has a rich tradition of investigating the symbols, stories, and themes of the human religious imagination and in that regard may have a distinctive contribution to make in our understanding of the meaning for humanity of near-death experiences.

#### NOTE

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#### REFERENCES

- Albrecht, Mark, and Brooks Alexander. 1977. "Thanatology: Death and Dying." *Journal of the Spiritual Counterfeits Project* 1: 5–11.
- Athappilly, Geena K., Bruce Greyson, and Ian Stevenson. 2006. "Do Prevailing Societal Models Influence Reports of Near-Death Experiences? A Comparison of Accounts Reported before and after 1975." *Journal of Nervous and Mental Disease* 194 (3): 218–22.
- Azari, Nina P., Janpeter Nickel, Gilbert Wunderlich, Michael Niedeggen, Harald Hefter, Lutz Tellmann, Hans Herzog, Petra Stoerig, Dieter Birnbacher, and Rudiger J. Seitz. 2001. "Neural Correlates of Religious Experience." *European Journal of Neuroscience* 13 (8): 1649–52.
- Badham, Paul. 1997. "Religious and Near-Death Experience in Relation to Belief in a Future Life." *Mortality* 2: 7–21.
- Badham, Paul, and Linda Badham. 1982. *Immortality or Extinction?* 2d ed. London: SPCK.
- Bain, Brian A. 1999. "Near-Death Experiences and Gnostic Christianity: Parallels in Antiquity." *Anabiosis: Journal of Near-Death Studies* 17 (3): 205–9.
- Bauer, Martin. 1985. "Near-Death Experiences and Attitude Change." *Anabiosis: Journal of Near-Death Studies* 5 (1): 39–47.
- Becker, Carl B. 1981. "The Centrality of Near-Death Experiences in Chinese Pure Land Buddhism." *Anabiosis: Journal of Near-Death Studies* 1 (2): 154–71.
- . 1985. "Views from Tibet: Near-Death Experiences and *The Book of the Dead*." *Anabiosis: Journal of Near-Death Studies* 5 (1): 3–19.

- Blanke, Olaf, Stephanie Ortigue, Theodor Landis, and Margitta Seeck. 2002. "Stimulating Illusory Own-Body Perceptions." *Nature* 419 (September 19): 269–70.
- Britton, Willoughby B., and Richard R. Bootzin. 2004. "Near-Death Experiences and the Temporal Lobe." *Psychological Science* 15 (4): 254–58.
- Brodie, Sir Benjamin Collins. 1865. *The Works of Sir Benjamin Collins Brodie*. London: Longman, Green, Longman, Roberts, and Green.
- Bush, Nancy Evans. 1983. "The Near-Death Experience in Children: Shades of the Prison-House Reopening." *Anabiosis: Journal of Near-Death Studies* 3 (2): 177–93.
- Carr, Daniel. 1982. "Pathophysiology of Stress-Induced Limbic Lobe Dysfunction: A Hypothesis for NDEs." *Anabiosis: Journal of Near-Death Studies* 2 (1): 75–89.
- Couliano, Ioan. 1991. *Out of This World: Otherworld Journeys from Gilgamesh to Albert Einstein*. Boston: Shambhala.
- Cressy, Judith. 1994. *The Near-Death Experience: Mysticism or Madness?* Boston: Christopher.
- Evans-Wentz, W. Y., ed. 1957. *The Tibetan Book of the Dead*. London: Oxford Univ. Press.
- Fenwick, Peter. 2001. "The Neurophysiology of Religious Experience." In *Psychosis and Spirituality: Exploring the New Frontier*, ed. Isabel Clarke, 15–26. London: Whurr.
- Flynn, Charles P. 1982. "Meanings and Implications of NDEr Transformations: Some Preliminary Findings and Implications." *Anabiosis: Journal of Near-Death Studies* 2 (1): 3–13.
- . 1986. *After the Beyond: Human Transformation and the Near-Death Experience*. Englewood Cliffs, N.J.: Prentice-Hall.
- Fox, Mark. 2003. *Religion, Spirituality and the Near-Death Experience*. London: Routledge.
- Frankl, Viktor. 1969. *The Will to Meaning: Foundations and Applications of Logotherapy*. New York: World.
- Gallup, George, and William Proctor. 1982. *Adventures in Immortality: A Look Beyond the Threshold of Death*. New York: McGraw-Hill.
- Gibbs, John C. 2005. "What Do Near-Death Experiencers and Jesus Have in Common? The Near-Death Experience and Spong's New Christianity." *Journal of Near-Death Studies* 24 (2): 61–95.
- Green, J. Timothy. 2001. "The Near-Death Experience as a Shamanic Initiation: A Case Study." *Journal of Near-Death Studies* 19 (4): 209–25.
- Grey, Margot. 1985. *Return from Death: An Exploration of the Near-Death Experience*. London: Arkana.
- Greyson, Bruce. 1981. "Near-Death Experiences and Attempted Suicide." *Suicide and Life-Threatening Behavior* 11 (1): 10–16.
- . 1982. "Organic Brain Dysfunction and Near-death Experiences." Paper presented at the American Psychiatric Association 135<sup>th</sup> Annual Meeting, Toronto.
- . 1983a. "Near-death Experiences and Personal Values." *American Journal of Psychiatry* 140 (5): 618–20.
- . 1983b. "The Psychodynamics of Near-Death Experiences." *Journal of Nervous and Mental Disease* 171 (6): 376–81.
- . 1985. "A Typology of Near-Death Experiences." *American Journal of Psychiatry* 142 (8): 967–69.
- . 1991. "Near-Death Experiences Precipitated by Suicide Attempt: Lack of Influence of Psychopathology, Religion, and Expectations." *Journal of Near-Death Studies* 9 (3): 183–88.
- . 1992. "Reduced Death Threat in Near-Death Experiencers." *Death Studies* 16 (6): 533–46.
- . 1992–93. "Near-Death Experiences and Antisuicidal Attitudes." *Omega: Journal of Death and Dying* 26 (2): 81–89.
- . 1998. "The Incidence of Near-Death Experiences." *Medicine and Psychiatry* 1 (2): 92–99.
- Greyson, Bruce, and Ian Stevenson. 1980. "The Phenomenology of Near-Death Experiences." *American Journal of Psychiatry* 137:1193–96.
- Hampe, Johann Christophe. 1979. *To Die is Gain: The Experience of One's Own Death*. Atlanta: John Knox.
- Heim, Albert von St. Gallen. 1892. "Notizen über den Tod durch Absturz" (Remarks on Fatal Falls). *Jahrbuch der Schweizerischen Alpenclub (Yearbook of the Swiss Alpine Club)* 27:327–37.

- Hermann, Edward J. 1990. "The Near-Death Experience and the Taoism of Chuang Tzu." *Journal of Near-Death Studies* 8 (3): 175-90.
- Herzog, David B., and John T. Herrin. 1985. "Near-Death Experiences in the Very Young." *Critical Care Medicine* 13:1074-75.
- Holck, Frederick H. 1978-79. "Life Revisited: Parallels in Death Experiences." *Omega: Journal of Death and Dying* 9 (1): 1-11.
- James, William. 1902. *The Varieties of Religious Experience: A Study in Human Nature*. New York: Longman, Green.
- Jansen, Karl L. R. 1997. "The Ketamine Model of the Near-Death Experience: A Central Role for the N-Methyl-D-Aspartate Receptor." *Journal of Near-Death Studies* 16 (1): 5-26.
- Küng, H. [1982] 1984. *Eternal Life? Life after Death as a Medical, Philosophical, and Theological Problem*. Garden City, N.Y.: Doubleday.
- Lee, Raymond L. M. 2003. "The Reenchantment of Death: Near-Death, Death Awareness, and the New Age." *Journal of Near-Death Studies* 22 (2): 117-31.
- Leuba, James H. 1896. "A Study in the Psychology of Religious Phenomena." *American Journal of Psychology* 7 (3): 309-85.
- Lorimer, David. 1990. *Whole in One: The Near-Death Experience and the Ethic of Interconnectedness*. London: Arkana.
- Lundahl, Craig R. 1983. "The Mormon Explanation of Near-Death Experiences." *Anabiosis: Journal of Near-Death Studies* 3 (2): 97-106.
- McClenon, James. 1994. *Wondrous Events: Foundations of Religious Belief*. Philadelphia: Univ. of Pennsylvania Press.
- McLaughlin, Steven A., and H. Newton Malony. 1984. "Near-Death Experiences and Religion: A Further Investigation." *Journal of Religion and Health* 23 (2): 149-59.
- Moody, Raymond A. 1975. *Life after Life*. Covington, Ga.: Mockingbird.
- . 1977. *Reflections on Life after Life*. St. Simon's Island, Ga.: Mockingbird.
- Moody, Raymond A., and Paul Perry. 1988. *The Light Beyond*. New York: Bantam.
- Morse, Melvin L., Paul Castillo, David Venecia, Jerrold Milstein, and Donald C. Tyler. 1986. "Childhood Near-Death Experiences." *American Journal of Diseases of Children* 140: 1110-14.
- Morse, Melvin L., David Venecia, and Jerrold Milstein. 1989. "Near-Death Experiences: A Neurophysiologic Explanatory Model." *Journal of Near-Death Studies* 8 (1): 45-53.
- Musgrave, Cassandra. 1997. "The Near-Death Experience: A Study of Spiritual Transformation." *Journal of Near-Death Studies* 15 (3): 187-201.
- Newberg, Andrew B., and Eugene G. d'Aquili. 1994. "The Near-Death Experience as Archetype: A Model for 'Prepared' Neurocognitive Processes." *Anthropology of Consciousness* 5 (4): 1-15.
- Noyes, Russell. 1971. "Dying and Mystical Consciousness." *Journal of Thanatology* 1:25-41.
- . 1972. "The Experience of Dying." *Psychiatry* 35 (2): 174-84.
- . 1980. "Attitude Change Following Near-Death Experiences." *Psychiatry* 43 (August): 234-42.
- Noyes, Russell, and Roy Kletti. 1972. "The Experience of Dying from Falls." *Omega: Journal of Death and Dying* 3 (3): 45-52.
- Osis, Karlis, and Erlendur Haraldsson. 1977. *At the Hour of Death*. New York: Avon.
- Owens, Justine E., Emily W. Cook, and Ian Stevenson. 1990. "Features of 'Near-Death Experience' in Relation to Whether or Not Patients Were Near Death." *Lancet* 336:1175-77.
- Pahnke, Walter N., and William A. Richards. 1966. "Implications of LSD and Experimental Mysticism." *Journal of Religion and Health* 5:175-208.
- Pennachio, John. 1986. "Near-Death Experience as Mystical Experience." *Journal of Religion and Health* 25 (1): 64-72.
- Ring, Kenneth. 1980a. "Religiousness and Near-Death Experiences: An Empirical Study." *Theta* 8 (3): 3-5.
- . 1980b. *Life at Death: A Scientific Investigation of the Near-Death Experience*. New York: Coward, McCann and Geoghegan.
- . 1984. *Heading toward Omega: In Search of the Meaning of the Near-Death Experience*. New York: Morrow.
- . 2000. "Religious Wars in the NDE Movement: Some Personal Reflections on Michael Sabom's *Light & Death*." *Journal of Near-Death Studies* 18 (4): 215-44.

- Ring, Kenneth, and Evelyn Elsaesser Valarino. 1998. *Lessons from the Light: What We Can Learn from the Near-Death Experience*. New York: Plenum/Insight.
- Rose, Seraphim. 1980. *The Soul After Death: Contemporary "After-Death" Experiences in the Light of the Orthodox Teaching of the Afterlife*. Platina, Calif.: St. Herman.
- Saavedra-Aguilar, Juan C., and Juan S. Gómez-Jeria. 1989. "A Neurobiological Model for Near-Death Experiences." *Journal of Near-Death Studies* 7 (4): 205–22.
- Sabom, Michael B. 1982. *Recollections of Death: A Medical Investigation*. New York: Harper and Row.
- . 1998. *Light and Death: One Doctor's Fascinating Account of Near-Death Experiences*. Grand Rapids, Mich.: Zondervan.
- Sabom, Michael B., and Sarah A. Kreuziger. 1978. "Physicians Evaluate the Near-Death Experience." *Theta* 6 (4): 1–6.
- Schwartz, Arthur. 2000. *The Nature of Spiritual Transformation*. Radnor, Pa.: John Templeton Foundation.
- Shneidman, Edwin S. 1971. "On the Deromanticization of Death." *American Journal of Psychotherapy* 25 (1): 4–17.
- Stace, Walter T. 1960. *Mysticism and Philosophy*. Philadelphia: Lippincott.
- Starbuck, Edwin D. 1906. *The Psychology of Religion: An Empirical Study of the Growth of Religious Consciousness*. New York: Walter Scott.
- Sutherland, Cherie. 1990. "Changes in Religious Beliefs, Attitudes, and Practices Following Near-Death Experiences: An Australian Study." *Journal of Near-Death Studies* 9 (1): 21–31.
- Tracy, David. 1993. "God of History, God of Psychology." *Concilium* 1993 (5):101–11.
- van Lommel, Pim, Ruud van Wees, Vincent Meyers, and Ingrid Elfferich. 2001. "Near-Death Experiences in Survivors of Cardiac Arrest: A Prospective Study in the Netherlands." *Lancet* 358:2039–45.
- Vincent, Ken R. 2003. "The Near-Death Experience and Christian Universalism." *Journal of Near-Death Studies* 22 (1): 57–71.
- Whinnery, James E. 1997. "Psychophysiologic Correlates of Unconsciousness and Near-Death Experiences." *Journal of Near-Death Studies* 15 (4): 231–58.
- Zaleski, Carol G. 1987. *Otherworld Journeys: Accounts of Near-Death Experience in Medieval and Modern Times*. New York: Oxford Univ. Press.