# Varieties of Near-Death Experience

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NEAR-DEATH experiences are profound subjective events frequently reported by individuals who have come close to death. They are of importance to mental health professionals, not only because they often happen to patients under our care, but because they have been reported to produce widespread and long-lasting changes in values, beliefs, and behavior that dramatically affect the experiencers' attitudes toward living and dying (Bates and Stanley 1985; Bauer 1985; Flynn 1982; Greyson 1983b; Noyes 1980; Ring 1984). Several studies, including surveys of recently resuscitated hospitalized patients (Ring 1980; Sabom 1982) and a nationwide poll of the general population (Gallup and Proctor 1982) have estimated that near-death experiences are reported by 30%-40% of individuals who come close to death, or about 5% of the adult American population.

Earlier studies found no demographic, psychological, or situational variables that reliably differentiated between survivors who report near-death experiences (NDEs) and those who do not, nor between different kinds of near-death experiences. This lack of reliable distinctions suggested a unitary concept of the near-death experience, which Ring (1980) called the *invariance hypothesis*: "That is, however NDEs are brought about, the experience itself is much the same" (Ring and Franklin 1981–82, p. 203). However, some researchers (e.g., Greyson 1981) warned against premature acceptance of the unitary theory, and Bates and Stanley (1985) suggested "There may be several classes of NDEs, each with its own typical sequence of experiences" (p. 545).

A series of studies have now suggested alternatives to the invariance hypothesis. Sabom (1982) categorized near-death experiences phenomenologically into three types: "autoscopic," involving visualization of one's body from an apparent position of height; "transcendental," involving apparent passage of consciousness into a foreign region or dimension; and a mixed type. Twemlow, Gabbard, and Coyne (1982) identified five distinct clusters of cases, based on conditions just before the near-death experience: cardiac arrest, anesthesia, intoxication, emotional stress, and low stress. They suggested that near-death experiences associated with cardiac arrest most resembled out-of-body experiences, whereas those associated with other conditions were more like depersonalization; and that experiences occurring to intoxicated subjects tended to be bizarre and confused, like hallucinations.

Stevenson and Greyson (1979), noting the varying frequency of the life review or panoramic memory experience in differing published studies, suggested that suddenness and unexpectedness of a close brush

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with death might influence the occurrence of the life review. Greyson (1985) found within a sample of 89 near-death experiences that those precipitated by sudden and unexpected events were more likely to include cognitive elements such as time distortion and a life review than were experiences in which death might have been anticipated. Drab (1981) reported that the tunnel experience as well was more common in near-death experiences of sudden onset than in those associated with degenerative diseases. Most recently, Owens, Cook, and Stevenson (1990) reported that near-death experiences for which proximity to death was corroborated in the medical records included more encounters with a brilliant light, enhanced cognitive function, and positive emotions than those for which proximity to death could not be corroborated.

The manifest content of the near-death experience can be grouped into four meaningful and factor analytically distinct components, which have been labeled cognitive, affective, paranormal, and transcendental (Greyson 1983a). Most near-death experiences tend to be dominated by one or more of these four components (Greyson, 1985, 1990).

## Case Examples

### *Cognitive Near-Death Experiences*

The cognitive component of the near-death experience includes features related to changes in thought process: distortion of one's sense of time, acceleration of thoughts, panoramic life review, and sense of sudden understanding.

A 44-year-old man was standing on a ladder leaning against his house when it suddenly fell backward. He described his predominantly cognitive near-death experience as follows:

> Ensnared in a backward sliding ladder, now also crashing to a lower level, a very strange phenomenon took place. The actual fall was slowed way down, almost like a series of camera still pictures being taken. A sort of "click," "click" visual progression. And this slowing up dramatically increased my thinking time, which resulted in my being able to size up how I could maneuver the ladder and not end up on the flagstones from two stories up. Not only did the fall slow way down, but my thinking became very clear. I actually remember wanting to head for the shrubs which, while they might pierce my skin, would break my fall. And that's exactly what happened. I rolled, avoiding head injuries. This wonderful slowdown which allowed me to think clearly in split seconds was phenomenal.

A 21-year-old woman reported the following predominantly cognitive near-death experience that occurred during a bicycle accident:

> I was riding my bike, and failed to see a car coming toward 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 arms, 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.

A historical example of a cognitive near-death experience was recorded by Rear-Admiral Sir Francis Beaufort, who on June 10, 1791, while a new midshipman who did not know how to swim, fell off a boat into Portsmouth harbor. Beaufort (1858) subsequently wrote:

> With the violent but vain attempts to make myself heard I swallowed much water; I was soon exhausted by my struggles, and before any relief reached me sank below the surface—all hope had fled—all exertions ceased—and I *felt* that I was drowning. . . . From the moment that all exertion had ceased—which I imagine was the immediate consequence of complete suffocation—a calm feeling of the most perfect tranquillity superseded the previous tumultuous sensations—it might be called apathy, certainly not resignation, for drowning no longer appeared to be an evil—I no

longer thought of being rescued, nor was I in any bodily pain. On the contrary, my sensations were now of rather a pleasurable cast. . . . Though the senses were thus deadened, not so the mind; its activity seemed to be invigorated, in a ratio which defies all description, for thought rose above thought with a rapidity of succession that is not only indescribable, but probably inconceivable by any one who has not himself been in a similar situation. The course of those thoughts I can even now in a great measure trace . . . travelling backwards, every past incident of my life seemed to glance across my recollection in retrograde succession; not, however, in mere outline, as here stated, but the picture filled up with every minute and collateral feature. In short, the whole period of my existence seemed to be placed before me in a kind of panoramic review. . . . indeed, many trifling events which had been long forgotten then crowded into my imagination, and with the character of recent familiarity. . . . The length of time that was occupied by this deluge of ideas, or rather the shortness of time into which they were condensed, I cannot now state with precision. (pp. 7–8)

### *Affective Near-Death Experiences*

The second component of the near-death experience includes affective elements, features related to changes in emotional state: feelings of overwhelming peace, painlessness, well-being, joy, and cosmic unity, and an apparent encounter with a loving being of light.

A 31-year-old woman who had a predominantly affective near-death experience during open-heart surgery described her experience as follows:

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

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!

A 74-year-old woman reported the following affective near-death experience that occurred during a heart attack:

I seemed to be floating in a more or less confined space, but there were no walls as we know them. I was moving in and out of a billowing soft, dark, purple velvety substance. It was beautiful, sensual, voluptuous, sort of like falling into a great mass of soft satin and down feathers. I was completely surrounded by this substance and I floated up and down slowly, restfully.

Each time I got near the bottom I could see a great brightness at the end of this space, slightly to the right. This brightness was warm, soft, and so welcoming. I floated down to it a few times, but even though I got close I never made any effort of my own to reach it. I didn't seem to have a body or a mind. I didn't seem to be a person or even a thing. I was peaceful, happy, contented. I didn't seem to care about anything anymore. It was not a feeling you can put into words: no mind, no body, no boundaries, only contentment, sort of like an amoeba that had gotten into the ocean by mistake.

A historical example of an affective near-death experience was recorded by the explorer David Livingstone, who was attacked by a lion in Africa. Livingstone (1872) subsequently wrote:

Starting and looking half round, I saw the lion just in the act of springing upon me. I was on a little height; he caught my shoulder as he sprang and we both came to the ground below together. Growling horribly close to my ear, he

shook me as a terrier does a rat. The shock produced a stupor similar to that which seems to be felt by a mouse after the first shake of a cat. It caused a sense of dreaminess in which there was no sense of pain or feeling of terror, though quite conscious of all that was happening. . . . This singular condition was not the result of any mental process. The shake annihilated fear, and allowed no sense of horror in looking round at the beast. The peculiar state is probably produced in all animals killed by carnivora; and if so, is a merciful provision by our benevolent Creator for lessening the pain of death. (p. 15)

### *Paranormal Near-Death Experiences*

The third component of the near-death experience includes paranormal elements, features related to what appear to be psychic phenomena: hyperacute physical senses, apparent extrasensory perception and precognitive visions, and a sense of being out of the body.

A 26-year-old woman who had a predominantly paranormal near-death experience during a pulmonary embolism described her experience as follows:

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 in the room 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.

A 31-year-old woman reported the following paranormal near-death experience that occurred during a postpartum hemorrhage:

When I became conscious again, not only was I out of my body, but it took me a few moments to realize that that cadaverously pale, blood-soaked body lying on the operating table was indeed mine! My "point of consciousness" was up somewhere near the ceiling. I was watching this bevy of nurses and doctors rushing madly around the room, all very much intent on bringing that poor young girl back to life. . . .

And then suddenly, I floated down a bit lower and realized with utter shock and amazement that that thin, pallid, bloody body was indeed *my* body. . . . When I had lost consciousness I had been in sheer physical agony and now I found myself divested of my pain-wracked body and I was now existing in a most blissful state. . . .

There was a tremendous heated discussion between my gynecologist and the anesthetist who had been summoned. My gynecologist was insisting that it was useless to try anything because it was evident that it was much too late, that I was in fact dead and that was it for him. The anesthetist, fought to bring me back to life. . . . I remember being shocked at the language being used by the two doctors. I could not believe that *doctors* uttered such coarse things, and in the presence of nurses too!

When I regained consciousness – in the normal way – in my body – a few days later, I was in an intensive care unit all hooked up to some IV machines and a doctor came in the room. I recognized him immediately and I thanked him for saving my life; it was the anesthetist.

A historical example of a paranormal near-death experience was recorded by Sir Alexander Ogston, who was hospitalized with typhoid fever during the Boer War. Ogston (1919) subsequently wrote:

I lay, as it seemed, in a constant stupor which excluded the existence of any hopes or fears. Mind and body seemed to be dual, and to some extent separate. I was conscious of the body as an inert tumbled mass near a door; it belonged to me, but it was not *I*. I was conscious that my mental self used regularly to leave the body . . . and wander away from it under grey, sunless, moonless, and starless skies, ever onwards to a distant gleam on the horizon, solitary but not unhappy . . . until something produced a consciousness that the chilly mass, which I then recalled was my body, was being stirred as it lay by the door. I was then drawn rapidly back to it, joined it with disgust, and it became *I*, and was fed, spoken to, and cared for. When it was again left I seemed to wander off as before . . . and though I knew that death

was hovering about, having no thought of religion nor dread of the end, and roamed on beneath the murky skies apathetic and contented until something again disturbed the body where it lay, when I was drawn back to it afresh, and entered it with ever-growing repulsion. . . .

In my wanderings there was a strange consciousness that I could see through the walls of the building, though I was aware that they were there, and that everything was transparent to my senses. I saw plainly, for instance, a poor R.A.M.C. surgeon, of whose existence I had not known, and who was in quite another part of the hospital, grow very ill and scream and die; I saw them cover his corpse and carry him softly out on shoeless feet, quietly and surreptitiously, lest we should know that he had died. . . . Afterwards, when I told these happenings to the sisters, they informed me that all this had happened just as I had fancied. (pp. 222–223)

### *Transcendental Near-Death Experiences*

The fourth component of the near-death experience includes transcendental or mystical elements: apparent travel to an unearthly realm and encounters with a mystical being, visible spirits of deceased or religious figures, and a barrier beyond which one cannot return to earthly life.

A 26-year-old woman who underwent an emergency caesarian section described a predominantly transcendental near-death experience she had at that time as follows:

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!

An adult woman reported the following transcendental near-death experience that occurred during an emergency appendectomy when she was 6 years old:

I suddenly was walking along a path with a beautiful lady who was holding me by the right hand. As we walked along I became aware of the gorgeous mixture of flowers that were banked very high along the sides of it. The fragrance from them was so overwhelmingly beautiful, and I looked up at her and said, "Are these flowers real?" She looked down at me with an amused smile on her face and said, "Yes, they are."

As we walked along I heard excited voices coming from the end of the path. They were questioning why she was bringing me to them now. She was unperturbed by the excitement and continued to walk on toward them, holding my hand all the while. I heard one of them say, "She knows it is not her time; why is she bringing her here now?" We reached the end of the path by then and I heard one of them say to her, "It's not her time; she can't come in."

All of a sudden I was back in my bed, and she was standing at the left-hand railing looking down at me, and said "I'm sorry, you will have to go back now." After this happened, I started to get better steadily.

A historical example of a transcendental near-death experience was recorded by the psychoanalyst Carl Jung, who suffered a heart attack in 1944. Jung (1961) subsequently wrote:

A short distance away I saw in space a tremendous dark block of stone, like a meteorite. It was about the size of my house, or even bigger. It was floating in space, and I myself was floating in space. I had seen similar stones on the coast of the Gulf of Bengal. They were blocks of tawny granite, and some of them had been hollowed out into temples. My stone was one such gigantic dark block. An entrance led into a small antechamber. To the right of the entrance, a black Hindu sat silently in lotus posture upon a stone bench. He wore a white gown, and I knew that he expected me. Two steps led up to this antechamber, and inside, on the left, was the gate to the temple. Innumerable tiny niches, each with a saucer-like concavity filled with coconut oil and small

burning wicks, surrounded the door with a wreath of bright flames. . . .

From below, from the direction of Europe, an image floated up. It was my doctor. Dr. H. . . . As he stood before me, a mute exchange of thought took place between us. Dr. H. had been delegated by the earth to deliver a message to me, to tell me that there was a protest against my going away. I had no right to leave the earth and must return. The moment I heard that, the vision ceased. I was profoundly disappointed, for now . . . I was not to be allowed to enter the temple, to join the people in whose company I belonged. . . .

Suddenly the terrifying thought came to me that Dr. H. would have to die in my stead. . . . In actual fact I was his last patient. On April 4, 1944—I still remember the exact date—I was allowed to sit up on the edge of my bed for the first time since the beginning of my illness, and on this same day Dr. H. took to his bed and did not leave it again. I heard that he was having intermittent attacks of fever. Soon afterward he died of septicemia. (pp. 289–293)

The identification of differing types of near-death experience raises the possibility that these types may be differentially associated with various psychological or physiological factors. The present study was a retrospective survey of certain factors surrounding a large sample of near-death events. As a hypothesis-generating study, this investigation sampled self-selected individuals who had come close to death and relied on their recollections of precipitating and predisposing factors. The purpose was to identify associations between situational factors and the near-death experience or its components, which may lead to a clearer understanding of the etiology of these experiences and of their profound impact on experiencers' lives.

Cardiac arrest was included as an independent variable to be studied, based on the suggestive findings of previous investigators (Owens et al. 1990; Twemlow et al. 1982). Suddenness or unexpectedness of the near-death event was included for study, based on its apparent selective association with cognitive elements of the near-death experience (Greyson 1985; Stevenson and Greyson 1979). Surrender or resistance to the dying process or to impending death was included for study, based on anecdotal evidence that surrender may change the emotional quality of a near-death experience (Greyson and Bush 1992). Gender and age were included for study as control demographic factors.

## Study Methods

### *Subjects*

Subjects who had personally had a close brush with death were recruited from the membership of the International Association for Near-Death Studies, an organization founded to promote research into near-death experiences. A total of 246 individuals were studied, 187 of whom (76%) claimed to have had near-death experiences and described experiences that met the criteria outlined below for a near-death experience (hereinafter called "near-death experiencers"), and 59 of whom (24%) denied having had near-death experience at the time of their brush with death and described experiences that failed to meet the criteria below for a near-death experience (hereinafter called "control subjects").

### *Questionnaire*

Respondents were asked to complete a two-part questionnaire by mail. The first part of the questionnaire included the Near-Death Experience Scale (NDE) a 16-item multiple choice instrument (Greyson 1983a, 1990). The total score on this scale yields a quantitative measure of the presence and depth of near-death experience, if one occurred, and subscale scores quantify its cognitive, affective, paranormal, and transcendental components. The second part of the questionnaire inquired about gender; age at the time of the close brush with death; cause of the near-death event, from which suddenness and probable anticipation of death were inferred as described below; surrender versus resistance to the dying process and to possible

death; and corroborated cardiac arrest. Not all 246 respondents were able to answer all questions; consequently, the number of subjects included for statistical analysis varied from a low of 181 (for known presence or absence of cardiac arrest) to 246.

Close brushes with death were regarded as sudden and unanticipated if they resulted from accidents, such as falls or near-drownings; natural events, such as lightning strikes or anaphyllactic reactions to insect bites; or medical catastrophes, such as cardiac arrests or cerebrovascular accidents, in previously healthy individuals. Near-death events were regarded as possibly anticipated if they resulted from intentional brushes with death, such as suicide attempts or military combat; exacerbations of serious medical illness, such as diabetic comas or hypertensive crises; or complications of surgery or pregnancy. By these criteria, 107 near-death events (44%) were classified as sudden and unexpected and 128 (52%) as possibly anticipated; 11 events (5%) were not described in sufficient detail to permit classification.

### *Statistical Analysis*

Presence of a near-death experience has been defined for research purposes by an NDE Scale score of 7 or more points out of a possible 32 (Greyson 1983a). In addition to this dichotomous categorization, the NDE Scale also yields a continuous score that can be interpreted as measuring depth of the near-death experience, and continuous scores on four subscales quantifying the cognitive, affective, paranormal, and transcendental components.

The possible association between age and presence of a near-death experience was evaluated with Student's *t*-test. Possible associations between age and depth of the near-death experience or its components were evaluated with Pearson's correlation coefficient.

Possible associations between presence of a near-death experience and gender, suddenness of the close brush with death, surrender to the experience, or cardiac arrest were evaluated with chi-squared tests. Possible associations between depth of the near-death experience or its components and gender, suddenness of the close brush with death, surrender or resistance to death, or cardiac arrest were evaluated with Student's *t*-test. In all analyses, a $p$ value of .01 (2-tailed) was used as the level of significance.

## RESULTS

### *Gender*

The 187 near-death experiencers and 59 control subjects were statistically comparable in gender distribution: 118 (63%) of the near-death experiencers were women, as were 30 (51%) of the control subjects (chi-squared = 2.32, $df$ = 1; NS).

### *Age at Time of Near-Death Event*

The 187 near-death experiencers and 59 control subjects were also statistically equivalent in age at the time of the close brush with death. For the 224 respondents who could specify their age at that time, the mean age was 32.5 years ($SD$ = 14.8) for the 174 near-death experiencers and 29.1 years ($SD$ = 16.9) for the 50 control subjects ($t$ = 1.41, $df$ = 222; NS).

### *Suddenness versus Anticipation*

Of the 107 subjects reporting sudden and unexpected accidents, 80 (75%) described near-death experiences, as did 97 (76%) of the 128 subjects reporting potentially anticipated brushes with death (chi-squared = 0.00;$df$ = 1; NS). Mean NDE Scale scores for those reporting sudden or unexpected accidents and for those reporting potentially anticipated events are listed in Table 1. Differences between these two groups were not significant for scores on the total NDE Scale or for scores

Table 1

NDE Scale Scores in Sudden/Unexpected or Anticipated Near-Death Events

| | *Sudden or Unexpected (n = 107)* | | *Potentially Anticipated (n = 128)* | | | |
|---|---|---|---|---|---|---|
| | M | SD | M | SD | t | p |
| NDE Scale | 13.05 | 8.59 | 12.82 | 8.36 | 0.21 | NS* |
| Cognitive component | 3.46 | 2.34 | 2.64 | 2.21 | 2.33 | <.01 |
| Affective component | 4.22 | 3.05 | 4.47 | 2.92 | 0.68 | NS |
| Paranormal component | 2.51 | 2.05 | 2.63 | 2.21 | 0.42 | NS |
| Transcendental component | 3.15 | 2.79 | 3.08 | 2.71 | 0.20 | NS |

*$p > .01$.

on any of the components *except* the cognitive component.

*Surrender versus Resistance*

Of the 203 respondents who could answer this question, 151 (74%) reported that at some point they let go of control and surrendered to the dying process and the possibility of death, whereas 52 (26%) reported that they continued to fight to stay alive. Of those who reported surrendering control, 124 (82%) described near-death experiences, as did 31 (60%) of those reporting continued resistance (chi-squared = 9.64, $df = 1$; $p = .0019$).

Mean NDE Scale scores for those reporting surrender and for those reporting resistance are listed in Table 2. Differences between these two groups were significant for the total NDE Scale and for the affective and transcendental components, but not for the cognitive or paranormal component.

*Cardiac Arrest*

Of the 181 respondents who could answer this question, 55 (30%) reported they experienced a documented cardiac arrest, whereas 126 (70%) reported no cardiac arrest. Of those reporting a documented cardiac arrest, 46 (84%) described near-death experiences, as did 81 (64%) of those denying cardiac arrest (chi-squared = 5.96, $df = 1$; $p = .01$). Mean NDE Scale scores for subjects reporting and denying cardiac arrest are listed in Table 3. Differences between these two groups were significant for the total NDE Scale

Table 2

NDE Scale Scores among Subjects who Surrendered to or Resisted Death

| | *Surrendered (n = 151)* | | *Resisted (n = 52)* | | | |
|---|---|---|---|---|---|---|
| | M | SD | M | SD | t | p |
| NDE Scale | 14.69 | 8.24 | 9.93 | 8.18 | 3.73 | <.0005 |
| Cognitive component | 3.18 | 2.28 | 2.63 | 2.40 | 1.53 | NS* |
| Affective component | 5.07 | 2.72 | 2.79 | 2.87 | 5.33 | <.0001 |
| Paranormal component | 2.83 | 2.13 | 2.21 | 2.20 | 1.87 | NS |
| Transcendental component | 3.61 | 2.75 | 2.30 | 2.34 | 3.20 | .002 |

*$p > .01$.

Table 3

NDE Scale Scores among Subjects with and without Cardiac Arrest

| | *Cardiac Arrest* (n = 55) | | *No Cardiac Arrest* (n = 125) | | | |
|---|---|---|---|---|---|---|
| | M | SD | M | SD | t | p |
| NDE Scale | 15.61 | 8.59 | 10.79 | 8.46 | 3.65 | <.0006 |
| Cognitive component | 3.08 | 2.35 | 2.66 | 2.35 | 1.17 | NS* |
| Affective component | 5.10 | 2.89 | 3.66 | 3.05 | 3.10 | <.0026 |
| Paranormal component | 3.25 | 2.29 | 2.09 | 2.01 | 3.54 | <.0008 |
| Transcendental component | 4.18 | 2.85 | 2.39 | 2.56 | 4.35 | <.0001 |

*$p > .01$.

and for all components *except* the cognitive.

## Discussion

The comparability in gender and age between these near-death experiencers and control subjects corroborates previous reports that those factors do not influence the occurrence of a near-death experience (Gallup and Proctor 1982; Ring 1980; Sabom 1982).

The finding that sudden and unexpected brushes with death produce more cognitive features than do anticipated near-death events confirms prior suggestions that time distortion, thought acceleration, and the life review may be functions of the unexpectedness of the event rather than of the proximity to death per se (Greyson 1985; Stevenson and Greyson 1979).

Surrender to the process of dying and to the possibility of death appears to be strongly associated with the near-death experiences and their affective and transcendental components. This relinquishing of control by the ego may be an important step, not only in permitting the subjective experience to unfold, but also in producing some of the therapeutic effects of the experience (Greyson 1991).

Cardiac arrest also appears to be highly correlated with the near-death experience itself and of its affective, paranormal, and transcendental components. This finding supports Owens, Cook, and Stevenson's (1990) conclusion that subjects whose proximity to death is verified report more profound experiences than those whose belief that they were near death cannot be corroborated.

This study suggests that, contrary to the unitary concept of the near-death experience, different circumstances of the close brush with death may foster different kinds of experience. The cognitive changes often reported by near-death experiencers may not be an integral part of the experience, but simply a common correlate dependent on the suddenness of the near-death event: Cognitive features, in addition to being preferentially associated with unexpected brushes with death, also appear unrelated to cardiac arrest and to surrender to the experience, in contrast to the other components and the near-death experience itself. Furthermore, although affective and transcendental features seem to be associated with surrender of ego control, that does not appear to be true of the apparent paranormal features of the near-death experience.

These data must be interpreted with caution for two reasons. First, the study sample were volunteers recruited from an organization to promote near-death research and may differ from a random sample of individuals who have come close to death. Second, judgments as to the presence of independent variables such as documented cardiac arrest were dependent on respondents' own reports rendered, in most cases, years after the event. Thus these results are better regarded as hy-

pothesis generating rather than hypothesis confirming, and should be corroborated by prospective studies using medical records of unselected individuals coming close to death.

With those warnings in mind, these findings support the notion that how an individual comes close to death does influence the occurrence and type of near-death experience, casting doubt on a unitary approach to the experience and suggesting that future near-death research focus on a specific type of close brush with death rather than treat all near-death events as equivalent. The experiences of individuals suffering cardiac arrest differ in circumstance, content, and recall from those of accident victims. The clinical importance of these distinctions should be assessed by study of the long-term effects of differing types of near-death experience.

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