# Letters to the Editor

# "Real" and "Unreal" NDEs

#### To the Editor:

In many discussions of near-death experiences (NDEs), accounts that seem contradictory or unbelievable sometimes lead people either to reject completely all NDEs or to try to find forced explanations for stories they would like to believe. I believe that we must distinguish real from unreal NDEs.

Melvin Morse (Morse and Perry, 1990, 1992) referred to the work of Wilder Penfield, and recent television shows have highlighted the work of Michael Persinger. Penfield and Persinger have demonstrated that special kinds of stimulation can identify specific areas of the brain where NDEs take place.

Other researchers have shown that stimulating different parts of the brain can induce, for example, feelings of hunger without actually being hungry, feelings of anger without being mad, and so on. These experiences are not "real." This is also the case if, for example, lack of oxygen stimulates the parts of the brain where NDEs take place: the induced experiences are not "real," even if the persons who have them feel that they are.

All real experiences must take place somewhere in the brain to render them understandable, and that includes real NDEs. But with real NDEs, the parts of the brain in which NDEs take place are being used for their intended purpose, just as when I am "really" hungry and the hunger center in my brain leads me to experience feelings of hunger.

True NDEs probably differ from unreal experiences in the tremendous intensity of the experience, for example, the enormous feeling of love and the strange communication with the Light. Examples of unreal NDEs might include a life review unaccompanied by any comment or deduction; a sensation of being outside the body, accompanied by visual perceptions that do not accord with reality; or seeing loved ones who are still living on earth.

Perhaps unreal NDEs sometimes intermingle with real ones. "False" stimuli such as lack of oxygen might influence the brain at the same time as "true" stimuli as one loses consciousness near death. In such cases, some parts of the NDE account may be incorrect because of the confusion between experiences brought about by "true" and "false" stimuli. If this is true, then NDE accounts with contradictions may be easier to accept and understand.

I believe that the parts of the brain in which NDErs take place have a purpose. But I find it hardly likely that nature would develop a scenario in which, for example, a cardiac patient first experiences a serious agony of death when a heart attack occurs, then while unconscious "awakens" to an "unreal" experience of life continuing with God that is only an artifact of the brain, only to go eventually into eternal darkness. I find it more likely that the parts of the brain in which NDEs occur are there to make "real" NDEs and other spiritual experiences easier to understand.

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## **Forgiveness and the Near-Death Experience**

To the Editor:

Because of the near-death experience (NDE), we now have the opportunity to ground our concepts of the afterlife in a large body of empirical data. Studying NDEs and teaching about them to my students has had, and is having, a profound effect on me as well as on my students. I wish to share with readers of the Journal one such effect.

It is probably impossible to be human without accumulating over the years a number of resentments and grudges against those who we feel have hurt us or wronged us in some way. Whenever I have asked myself what it would take for me to release and let go of my resentments, so that I could feel at least emotionally clear if not loving towards those who have harmed me, the answer always takes the following form: To reach a state of forgiveness I need first, some acknowledgment from the other that his or her actions have in fact been hurtful to me, and second, some sense from the other that he or she knows, understands, and empathizes with how I felt as a consequence of his or her behavior. And I believe this is generally the case with other people. Indeed, even in extreme cases, the lust for revenge—to do unto others what others have done unto you—is simply a desire to make the transgressors *feel* what it felt like to have been at the receiving end of their offending behavior.

But this is exactly what happens in the life review component of the NDE. NDErs report experiencing in the life review not only everything they did and felt, but also the effects their actions had on others; and, most importantly, they experience these effects in the first person, as if what they did to another was really done to themselves. Not only do the NDErs come to know *that* their actions have harmed another, they *experience* that harm directly.

So when I think of those who have harmed me or, to put it more positively, those who have helped me grow in ways that were subjectively very unpleasant at the time, I now know that eventually they *will* know and feel in detail all the pain they caused me. Thus the two conditions for forgiveness listed above will in fact be satisfied, albeit in the future. This leaves me with a choice: I can either hold on to my resentments until those who have harmed me (or I) have had a life review, or use my knowledge of what those who have hurt me will certainly experience to help me release the resentments now.

The more I read and think about NDEs, the more I experience the accumulation of resentments and grudges leaving me now. At the level of feeling and emotion, the NDE has reinforced my belief that God is taking care of these things, and hence there is no need for me to burden myself by keeping a record of life's hurts. And indeed, sometimes when I think about those who have hurt me and what lies ahead for them, I feel not only the absence of resentment but also the presence of compassion.

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## Did NDEs Play a Seminal Role in the Formulation of Einstein's Theory of Relativity?

To the Editor:

The most important scientific revolution of the 20th century was Albert Einstein's theory of relativity. There is clear evidence that neardeath experiences (NDEs) not only contributed to but actually were seminal in the development of Einstein's ideas that eventually led to his discovery of the theory of relativity.

Albert von St. Gallen Heim was a distinguished Zurich professor of geology in the late 19th and early 20th century. Heim had fallen while climbing in the Alps and experienced an NDE. Following his own experience, over a 25 year period he collected numerous similar accounts from people who had fallen or had similar accidents. He presented his findings before the Uto Section of the Swiss Alpine Club in February, 1892, and published them in German that same year. In so doing, Heim became the first person in modern history to publish a collection of what would later be referred to as NDEs. (His paper was later translated into English by Russell Noyes and Roy Kletti [1972].)

Among a number of interesting aspects reported by Heim himself, as well as many people he interviewed, was that as his body fell toward the ground below, "Time became greatly expanded" (Heim, quoted in Noyes and Kletti, 1972, p. 47). Said slightly differently, what Heim discovered was that people often reported that as they fell from a great height, time seemed to slow down or stop completely.

This is supported by modern research into NDEs. Kenneth Ring (1980) found that when asked about their sense of time during an NDE, only 2 percent of respondents experienced it as normal. Six percent said time seemed "extended," and an overwhelming majority, 65 percent, said they experienced no sense of time at all during the episode.

A little known fact is that this same Heim happened to be one of Einstein's professors. Biographer Ronald Clark described Einstein's course work at the Zurich Polytechnic Institute: "To these compulsory subjects Einstein added an odd ragbag of optionals which included not only gnomic projection and exterior ballistics, both of which might have been expected, but also anthropology and *the geology of mountains under the famous Albert Heim*" (Clark, 1971, p. 54, italics added). Another Einstein biographer, Albrecht Folsing, pointed out that Einstein chose to take more than the compulsory number of optionals, and often at times that were not convenient:

All students had to attend at least one class each year outside of their special field....Einstein in fact enrolled for considerably more of these lectures than the mandatory minimum, covering a wide spectrum of subjects, such as "Man's Prehistory" and "Geology of Mountain Ranges," both given by Albert Heim, who started at seven in the morning and always had a crowded lecture room. (Folsing, 1997, p. 66)

In 1952, two years before his death, Einstein wrote a letter to an Arnold Heim, recalling Albert Heim's lectures as "magical" (Folsing, 1997, p. 66).

Einstein had arrived in Zurich in the autumn of 1895, at the age of 16. He failed his entrance exam on the first try, but passed it the following year and was admitted to the polytechnic school. That would have made him a student of Heim's in the years immediately following Heim's presentation and the publication of his paper. Few professors fail to find some time to discuss areas of personal interest, and it takes little imagination to suggest that Heim may have described these experiences to his students. Einstein may also have taken the time to read Heim's published account of his study, and surely the application of Heim's findings to physics in general would have not been lost on him. As an object hurtles through space, time becomes relative, depending on motion. This raises a fascinating question: Could Heim's accounts of NDEs have first suggested to Einstein that time and space were not fixed and constant, as physicists assumed at the time, but were actually relative to each other?

This idea is central to Einstein's revolutionary insights, described in a series of three papers published in 1905, just ten years after his arrival in Zurich. Physicist Stephen Hawking explained the impact of Einstein's insights on the field of physics: "[Einstein's theory] required abandoning the idea that there is a universal quantity called time that all clocks measure. Instead, everyone would have his own personal time. *The clocks of two people would agree if they were at rest with respect to each other but not if they were moving*" (Hawking, 1999, p. 67, italics added).

To this point, my argument rests on a great deal of speculation. But there is another anecdote that appears to nail down the issue rather conclusively, simply because it came directly from Einstein. Asked in a *New York Times* interview how he came to start work on the theory of relativity, Einstein related the idea to a near-death event he had witnessed: "He had been triggered off...by seeing a man falling from a Berlin rooftop. The man had survived with little injury. Einstein had run from his house. The man said that he had not felt the effects of gravity—a pronouncement that led to a new view of the universe" (Clark, 1971, p. 303).

And so we have the direct personal testimony of Einstein himself. The seminal inspiration for his ideas that would soon revolutionize physics came directly from Einstein's impromptu interview with an NDEr. I suggest that hearing this account made Einstein more aware of the significance of Heim's work, which might explain why he chose to take more than the required elective courses from Heim, some of which had little to do with his main field of interest, which was, of course, physics.

Of course, the field of near-death studies has played a major part in what I believe to be the next revolution in science: the understanding that our true nature is not physical, but spiritual. But there is substantial evidence that the experience and study of NDEs have played a seminal role in what has, to this point, been the most important revolution in the physical sciences.

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