

Survival of Bodily Death

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Near-Death Experiences

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Bruce Greyson led the discussion of this field. The irony of the relationship of the question of survival to NDE research is that people assume that survival is what NDE research is all about. In actuality, most efforts focus on "respectable" topics like the aftereffects of NDEs or physiological underpinnings and have not done with the survival question. The logic in the field is, "Why spend more time on subjective experiences that can't be validated?"

Cultural and individual beliefs do indeed seem to influence NDEs. For instance, Mormon church fathers in the 1800's had NDEs which they wrote up in dozens of books, all of which describe a very regimented afterlife with strict roles to play, very much like the life of their incarnate world. Bruce is not sure that NDEs provide great evidence for survival, but there is useful material. Two major areas that bear on the survival question:

1. Visions of an afterlife or of deceased people.
2. Parts of NDEs that suggest that the mind is functioning without the brain or body.

An interesting line of evidence involves near-death visions of previously deceased people. Karlis Osis and Erlendur Haraldsson (1977) have done work with death-bed visions and contrasted them with those of intoxicated subjects. People who are delirious or hallucinating do not generally hallucinate dead people; they hallucinate living people, a fact which has now been shown in many studies.

In related work, Jim Whinnery (1997), a navy surgeon, is doing research with giant centrifuges and fighter pilots. The pilots normally black out due to lack of oxygen to the brain as the centrifuges accelerate into high-G forces. The experimental situation thus models the hypoxic state, which various critics have claimed is the true cause of NDEs. Many things Whinnery reports correspond loosely to NDEs: being out of the body, a sense of going through a tunnel as peripheral vision is lost, a feeling of euphoria. The knocked-out pilots have little dreams, more like dreamlets, but these almost always involve living people, which is distinctly different from real death-bed visions, although perhaps the difference could be attributed to psychological expectations. Whinnery's work is helpful in sorting out what about NDEs might be triggered by lack of oxygen and what might not be. For example, his fighter pilots never report life reviews, paranormal abilities like ESP, experiences of light or beings of light, or clarity in their thinking. Critics like Susan Blackmore (1993) have pounced on Whinnery's work and insist that it explains away the NDE, a rather premature leap given the obvious differences.

More impressive evidence for survival comes from the cases in which a subject sees someone he or she did not know was dead. Maggie Callanan (1993) wrote about a case in which an elderly Chinese woman had an NDE in which she saw her deceased husband and her sister. She was puzzled since her sister wasn't dead, or so she thought. In actuality, her family had hid her sister's recent death from her for fear of upsetting her already fragile health. This case might be explained by psi since the family knew, but there are cases where nobody in proximity knew. Ian Stevenson (1959) published such a case: a man's cousin in England had died without the knowledge of anyone in the U.S., and during this man's NDE, he saw his cousin. Only later did he receive the telegram announcing his cousin's death. There are also cases of children who see figures they do not recognize. When they describe them to their parents, the descriptions correspond to a deceased relative the child never knew. Melvin Morse has some of these cases, and Elisabeth Kubler-Ross published some as well. Emily Kelly told the story of a case in which a man saw unrecognized figures during his NDE. Later, when he married, he saw photographs of his wife's deceased father and claimed that he had seen the man in his NDE before he had even met his bride. These anecdotes are intriguing but difficult to work into experimental form.

The other main strand of evidence that bears upon survival are those cases which show the mind is operating independently of the body, including veridical OBEs in which the near-death experiencer sees things he should not be able to see. When Michael Sabom, a cardiologist, published his first book on the subject in 1982, he described six cases in which patients reported NDEs and relayed considerable detail about the surgical scene, including settings on dials. He was skeptical of this, so he asked some of his other patients to imagine what it would have been like to have been watching from above. They could not come up with accurate details.

Karlis Osis (1977) has done extensive work designing targets to identify while out of the body, targets which do not exist in any one place. In one experimental protocol, he had a projector that would select one of five pictures to project onto one of four quadrants on a rotating disc, a design that includes three random processes. One could only see this by looking through a hole at the end of a box. Another paradigm involved a darkened room with pieces of an image spaced at intervals such that one could only see the complete image by standing at the end. These do not totally rule out superpsi but make it much less credible. Though they have not yet been used successfully in OBEs, they are available as research tools.

The most famous veridical OBE experience involved Maria's shoe. Kim Clark Sharp (1995) was a social worker in Harborview Hospital in Seattle when Maria was brought in unconscious from cardiac arrest. Sharp visited her the following day in a hospital room at which point Maria described leaving her body and floating above the hospital. Among other things, she described a tennis shoe on the ledge outside the window on the far side of the hospital, which could only be seen from a vantage point outside. She also described minute details of the shoe. Sharp checked the ledge on the entire floor by pressing her face against the sealed windows and eventually found a shoe that matched in all the details Maria had related. Ken Ring (1993) published an article with three similar cases in which there was veridical evidence for an OBE, two of which, oddly enough, involved shoes. (A shoe conspiracy?)

There have been attempts to study this in a more systematic way, all of which go back to Charles Tart's (1968) protocol of placing a target on a shelf facing upwards well above eye level. Janice Holden (1990) did research in her hospital, but had a hard time because the cleaning staff at the hospital kept taking her target down. The target was problematic in that it was not emotionally meaningful for subjects, and the chaplain of the hospital was strongly opposed to the experiment, neither of which helped her research effort. Madeline Lawrence did a more sophisticated study at Hartford Hospital with a scrolling LED display spelling out a nonsense phrase. She was working in the electrophysiology clinic where, in order to heal severe arrhythmias, they stop people's hearts and then resuscitate them, a situation artificially productive of NDEs. No one on the hospital staff knew what the LED device was displaying. Unfortunately, Lawrence's position as head nurse was eliminated after about six months of this, which ended the project without any results. However, the creator of the targets is eager to construct them for others who attempt similar research.

Another approach to NDEs and OBEs is to attempt to detect whatever it is that leaves the body such as via weighing the body at death, using temperature sensors around the body, or utilizing human or animal indicators of discarnate presence. "Blue" Harary attempted to validate his OBEs by having his cat in a remote room on a grid while Bob Morris (1974), the principal investigator, monitored the experiment. When "out" of his body, Blue would go to the cat's room where researchers measured the cat's activity level. The cat was indeed more active during those times he reported OBEs. The experimenters at the site were blind to the condition.

One of the best studies now is Kenneth Ring's (1999) study of blind people, covered in his upcoming book. He has about thirty people, many of whom are blind from birth, who have had either NDEs or OBEs in which they were able to see. They vary in detail, but some are quite impressive. In one case, a birth-blind subject had received a tie from a friend without his friend describing it. After his OBE, he was able to accurately describe the tie and its colors. Ring did not conclude that these people were actually seeing; he posited an extracorporeal sense of which we are not normally aware. This relates to yogic lore that claims that seeing is a function of the mind rather than the brain and eyes, which only act as filters. The real source of perception, this lore reports, is through subtle bodies. If this were true, though, Aaron DeGlanville pointed out, we would expect to see cases where people blind from birth had dreams in which they could see. Bruce Greyson related a relevant story from his practice in which a client attempted suicide and changed his mind after taking an overdose. He went to dial 911 but was distracted by hallucinations of little people. He then experienced himself leaving his body and watching his corporeal self, which was still paralyzed by hallucinations. His out-of-body vision, however, was unaffected by hallucinations: from inside his body he was hallucinating, while from outside he was perceiving accurately.

Stories of flat EEGs abound in the NDE lore, but only recently has Bruce actually heard of a verified one, and it is one of the best cases he has ever heard for survival evidence (Sabom, 1998). A team in Phoenix specializes in an extreme form of neurosurgery called hypothermic cardiac arrest that has been created to allow operation on aneurysms deep in the brain. A 35-year-old woman undertook this surgery. Her eyes were taped shut to prevent them from drying out. They put electrodes in the auditory section of the brainstem and put molded speakers in her ears which played a constant beep, a setup designed to gauge responsiveness in the brainstem. These speakers prevented her from hearing anything in the room besides the beeps. They cooled her body to 60 degrees, which lowered her metabolic rate enough so that the surgeons could operate for a long time deep in the brain. They then rerouted her blood from a femoral artery into a heart-pump, though they had to switch legs because the first vessel was too small, thereby prolonging the surgery. When the EEG was flat and the brainstem stopped responding, she was by most standard medical criteria dead. Blood flowed out into the heart-pump and back into the body. Next they shut off the pump and tilted the table up so that all the blood drained out of her brain. Only then was it safe to open her skull to clip off the aneurysm. The time of anesthetization in this procedure is about 90 minutes.

The woman reported leaving her body and hearing a D-natural buzzing sound. She watched the surgery and was puzzled by what appeared to be an electric toothbrush which one member of the team was using on her head. She also reported hearing the woman doctor say, "These vessels are too small. We can't use them for the pump." At that point, she got distracted, saw the light, went through a tunnel, saw a deceased grandmother and a few other deceased relatives who told her she had to go back. As she was coming out of the surgery, she had a cardiac arrest and they had to shock her twice to get her back. When the procedure was all over, she described to the neurosurgeon everything she saw, including the strange electric toothbrush and the box that it came in with several different attachable heads. It turned out she had accurately described a Midas Rex saw, which is used only for this procedure, and which makes a buzzing sound. So, with this case we have an example of someone who was visually and auditorially isolated, had a flat EEG, and should not have been able to think, and yet she commented that she had never thought so clearly in her life. This is powerful evidence that the mind can function while the brain is not functioning. The conferees agreed that patients who undertake this surgical procedure would be a very, very good group to follow. The surgical group in Phoenix has done about 40 such procedures and a few other groups do it as well. This also represents a way to take a proactive stance to the pool of research subjects.

Physiological explanations for NDEs are somewhat plausible but often rest upon a chain of reactions that skeptics feel might happen in the near-death state, none of which have been established. They are all speculations. Charles Tart loves the ones that posit a chemical that is more powerful than LSD, comes on within a few seconds and disappears with no residue. Karl Jansen (1997) has written extensively about the NMDA-receptor hypothesis and ketamine. Ketamine is a dissociative anesthetic that can produce NDE-like experiences in some people, although they are not identical. Interestingly enough, Jansen has modified his brain-only stance to one of openness to the idea that the brain state produced by ketamine might be thought of as a kind of gateway to states that exist in some sense independently of the CNS. He reportedly changed his mind based on personal experience. Melvin Morse (1990) has done some work along this line, placing the locus of NDEs in the right temporal lobe along the fissure of Sylvius. He is not a reductionist but is interested in exploring a biochemical substratum. Michael Persinger (1994) has explored along these lines as well, taking a more reductionistic stance. Some favor the serotonin model, others favor the ketamine model; Charles Tart commented that many of these researchers are eager to jump to conclusions rather than admitting that it is a very complex phenomenon. Michael Grosso also pointed out that most of these researchers confuse correlation with causation. Proving that a biochemical process is correlated does not mean that it is causative.

Ed Kelly feels that the neurobiological work is actually very promising for it does not force a commitment to the filter or production hypothesis of consciousness. Much of what is done in refuting the idea of survival is merely bad neuroscience. He feels that Jansen's work is the most promising. First, Jansen has had both near-death and ketamine experiences. He is also a serious neuroscientist who has contributed to scientific understanding of the NMDA receptor, which is preferentially distributed in the upper layers of gray matter structures. The fundamental thrust of Jansen's argument is that NMDA receptor activity might explain how we can get into NDEs from so many directions (including mere fear). All routes lead into a final common pathway, a flood of excitatory neurotransmission, which is actually dangerous to neurons. The NMDA receptor sits in a place in the cortex which controls lateral interactions. Most cortical neurons receive 95% of their stimuli from other parts of the cortex, which creates much of the functional power of the brain. When we cut out the NMDA receptor's role, we begin dismantling the connective apparatus in an interesting way. He thinks Jansen has found something fundamental which might lead to the possibility of experimental induction of NDEs; the use of ketamine might be a portal to existence independent of the brain.

Conferees reflected on the nature of resistance to this research, some of which relates to fundamentalism, both of the religious and scientific variety, and appears to be emotionally driven. Michael Grosso commented that Lucretius and Epicurus, the ancient philosophers, latched onto materialism as a view that liberated them from the fear of hell; in those days, they were viewed as saviors. What is the nature of our own motives as conferees? We cannot pretend complete objectivity either. Some conferees merely want to know for themselves, others like the challenge, others focus on the therapeutic benefits. Sukie Miller worried that our need for validation or consensus in the greater scientific community might be our own stumbling block.

Emily Kelly spoke briefly on death-bed visions, though there is little research in the field except that done by Osis and Haraldsson (1977). The primary point is that people approaching death report visions of people who are already deceased in contradistinction to the hallucinations of people in other states of altered consciousness. There are two major interpretations of death-bed visions: they might be indications of a life to come, or they are the product of hallucinations produced by various psychological or pathological conditions. Osis and Haraldsson made predictions based upon these two hypotheses and found that drugs actually seemed to suppress deathbed visions. Emily and Bruce Greyson are planning a hospice study, which is outlined in the future research section. There are also a few cases in which death-bed visions have been reported by other people at the dying person's bedside. A more impressive experience has been reported by loved ones near a dying person who have a NDE by proxy: they go through the tunnel, see the light, have experiences, etc. Raymond Moody is collecting these. Sukie Miller commented that there is a whole occult tradition of people who act as guides into the afterlife. Michael Taylor told a remarkable story in which a friend of his named Duncan Basmore, a tough-minded philosopher at Humboldt State, attended a friend's funeral during which more than a dozen people all witnessed an apparition of the deceased individual.

A final comment on prevalence. Ken Ring and Michael Sabom have both written that approximately 33% of people report NDEs when they come close to death. However, in a recently completed survey of people who went through cardiac arrest, the rate was closer to 10% (Greyson, 1998). Does this reflect improvement in measurement or has there perhaps been an actual decline, as is the case with so many robust phenomena in parapsychology? Another interesting shift has been in the reports of hellish NDEs that leave people frightened; these were virtually unheard of for the first ten or fifteen years of research and have recently become far more common. Were they unreported in the beginning because of people's fears of revealing that experience? All of this statistical data might be confounded by the increased use of anesthetics which produce retrograde amnesia, thereby lowering the rates of NDEs.

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