

The Science of Near-Death Experiences

by John C Hagan III, MD, Editor

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University of Missouri Press Hardcover. 169 pp. ISBN 978-0-8262-2103-2

Interest in near-death experiences (NDEs) stems primarily from the hope that there is a welcoming afterlife. The possibility that science can be rallied in support of that hope is an appealing one. The "Science" in the title of this book refers to the taxonomy of NDE

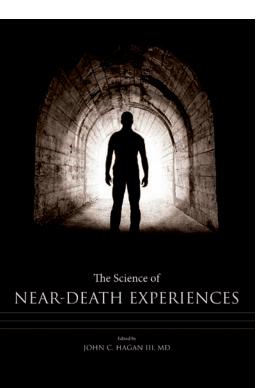
perceptions and the attempts to compare NDE reports to our current understanding of neurophysiology

John C. Hagan, III, MD, has recruited the modern founder of NDE investigation, Raymond A. Moody, MD, PhD, to make his case in Chapter 1. Dr. Moody lays out the dominant themes for the rest of the book: reports of NDEs have a long pedigree; reported experiences shared by people of diverse backgrounds and ages bear remarkable similarities; and people who report NDEs believe it changed their lives for the better and no longer fear death.

In Chapter 2, Bruce Greyson, MD, summarizes some explanatory models for NDEs and his counterarguments, the reported effects—positive and

negative—of NDEs on those who experience them, and the challenges that NDEs pose to our current understanding of neurophysiology and psychology.

Chapter 3, by Dean Radin, PhD, is a digression. Its topic is telepathy, for which Dr. Radin is a champion. The point appears to be that telepathic phenomena, like NDEs, provide evidence that our minds are more than the sum of our brain parts. The Ganzfield Experiments, which Radin regards as a gold standard of telepathy research, have been challenged by several authors whose work Radin fails to cite (e.g., Hyman 1985; Milton and Wiseman, 1999; Blackmore 2001). The evidence for telepathy remains in doubt, and this chapter doesn't advance the scientific case for NSEs. One observation used as grounds to question the localization of consciousness in the brain is cited by Pim von



Lommel, MD, in chapter 4 (p. 45): "... even blind people have described veridical [verifiable information which they could not have obtained by any normal means] perceptions during out-of-body experiences at the time of their NDEs." This claim is cited to the 1999 book "Mindsight:

near-Death and Out-of-Body Experiences in the Blind" in which they discuss 21 NDE experiences in the blind who reported accurately things that could only have been perceived through vision, and whose reports were supported by witnesses. This is hard to reconcile with the known difficulty of those who gain sight for the first time or after a long period of blindness to comprehend visual images. In her book "Dying to Live: Near-Death Experiences," Susan Blackmore summarizes her investigation of the evidence: " . . . these claims present no real challenge to a scientific account of the NDE."

Chapters 5 and 6 provide luminous first-hand accounts of NDEs with out-of-body experiences from physicians. Both authors found their lives

after their experiences transformed in a positive and lasting way, and write movingly.

Chapter 7, by Jeffrey Long, MD, presents the argument that accounts of NDEs and their consequences are physical phenomena and not illusions of a dying brain. He adduces nine lines of evidence in support of his argument, only the last of which—after-effects of NDEs—can be independently verified by a neutral observer.

In chapter 8, Janice Miner Holden, EdD, takes a deep dive into the topic of veridical (verified or truthful) perception reports associated with NDEs. Importantly, she considers controlled experiment to scientifically test claims of paranormal verdicality. The paradigm involves the placement of remote visual targets "in the corners of hospital rooms in which near-death episodes were most

likely to occur . . . in such a way as to be visible only from a vantage point of looking down from the ceiling. No living person was to know the exact content of the stimuli, thus rendering the design double-blind. Once the patient was resuscitated from a near-death episode in one of the "marked" rooms, knowledge of the content of the visual stimulus would be assessed." Dr. Holden describes several intermittent and small-scale tests, with no evidence for NDEs yet emerging from these studies. Dr. Holden explains this failure as a consequence an inadequate sample size and/ or the tendency of the NDErs to focus on observations that have personal salience.

The special case of childhood NDEs is discussed by Penny Sartori, PhD, in Chapter 9. Dr. Sartori recounts several moving anecdotes to document that such reports can come from developing minds, and she underscores the importance of a compassionate hearing for such children to support healthy development to adulthood.

Dr. Greyson returns with Nancy Evans Bush, MA, in chapter 10, to address the dark side of NDEs. While most NDE accounts range from neutral to ecstatic, some NDErs report sadness, emptiness or horror. Reactions to such experiences range from religious conversion to haunting to dismissal. What distinguishes euphoric from traumatic NDEs is unknown, although the authors offer some tentative speculation. The guidance for the physician here, as with all patients reporting NDEs, is non-judgmental listening.

Chapter 11 begins with the autobiographical NDE of the author, Eban Alexander III, MD, replete with the sort of clinical detail that an academic neurosurgeon can supply. He brings similar detail to his kaleidoscopic NDE associated with a seven-day coma brought on by bacterial meningioencephalitis. His NDE had a strong religious coloration and featured the vision of a mysterious young woman, later discovered to be a sister he had never met. Dr. Alexander grapples here with the limits of our current understanding of physiological consciousness and concludes that the brain does not create consciousness.

In contrast, Kevin Nelson, MD, reaches the opposite conclusion in chapter 12. Here, he attempts to answer the claims of the other authors that our current understanding of brain physiology cannot explain NDEs. Indeed, he points out that patients have reported many of the same phenomena under conditions that are nowhere near death. He bluntly challenges the assertions that NDEs occur at a time when all brain activity ceases and concludes that "... the narratives of NDEs fit securely within the framework of conventional neuroscience."

In Chapter 13, Dr. Alexander is given the opportunity to rebut the arguments made by Dr. Nelson. The tone of his approach is set in the first paragraph: "Any evaluation of reports of near-death experiences must involve a mind-set that is suitable to the task . . . and if the mindset is too limited, we compromise our ability to approach the grander truth underlying our observations and attempts to understand them." He goes on to refer to "the simplistic falsehoods of physicalism." The chapter continues with similar unfortunate ad hominems and arguments from authority that are outside of scientific discourse.

All but two of the chapters are reprinted from articles published in *Missouri Medicine*. As with many books comprised of chapters by different authors, there is significant redundancy between the chapters in describing NDE episodes. I didn't find the redundancy distracting.

For the health care provider, the clear message to be able to recognize a NDE; know how to "treat" NDEs, which is essentially with validation, sympathetic listening and referrals to reading and groups that support NDErs. To do that, they need to know what a 'typical" and 'atypical" NDE is and the differential diagnosis to rule out organic disease (e.g., delirium tremens, psychosis, drug reaction, metabolic abnormalities, Charles-Bonnet Syndrome in poorly sighted people).

For a reductionist reader who has never had a NDE of the sort described in this book, the burden of proof for an extra-organic basis for NDE rests with those who argue for that assertion. Three aphorisms apply in evaluating the case made for a science of NDEs:

- 1. The plural of anecdote is not data. The fact that many people report a similar experience is not grounds to reach for paranormal explanations. As a species, our neurological wiring is similar, so it would be unsurprising to find that our brains react similarly to NDEs and that they would experience near-death in a common archetypal language. What passes for data in NDE research is the acceptance of anecdotes as absolute and literal truth. Science demands independent verification and reproducibility.
- 2. Extraordinary claims require extraordinary evidence. In this case, the extraordinary claim is that the physiological laws that operate in the human brain cannot be sufficient to account for reports of NDEs. While many remarkable stories are told in these pages, detailed investigation of NDE claims by Keith Augustine and others tell a less compelling tale (https://infidels.org/library/modern/keith_augustine/HNDEs.html). As noted by Augustine (2007), NDE reports are often taken years after the event, and the interviewer