

"Is it possible for the mind to transcend the physical boundaries of the brain?

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to present scientific assumptions about the brain-mind relationship."

-Dean Radin, PhD

WITH THIS ISSUE Missouri Medicine is concluding the most comprehensive, in-depth presentation and examination of near-death experiences (NDE) in the world's literature. The contributing authors are world famous and range from Raymond Moody, MD, who in 1975 introduced the new term 'near-death experience' for an event known for millennia to Eben Alexander III, MD, whose own NDE is arguably the most familiar in the world to the general public.



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My own interest in NDE began several years ago when at a party I asked a friend and college fraternity brother what he was reading. "Evidence of the Afterlife: The Science of Near-Death Experiences by Dr. Jeffrey Long," he said, "You should read it when I'm done. It's very thought provoking. I think they are for real." After reading more than a dozen books on the subject, I concluded a multi-article scientific review of NDE by physicians and other scientists would be a tremendous precedent-setting achievement for *Missouri Medicine*. Of course questions and contemplation of death, the mystery of the terminal process of dying and fear/faith/fatalism about the nature or existence of an after-life are hard-wired in our DNA since the beginning of sentience.

In September/October 2013, Raymond Moody, MD, PhD - the Father of NDE and the author of books that have sold over 20 million copies - described how historical records dating to ancient Greece contain descriptions congruous with the

modern concept of a NDE. Moody's book "Life After Life" (1975, HarperOne) presented an initial collection of over 150 contemporary NDEs. The NDE typically includes many of the following: the mind leaving the body and travelling upward; passing from dark to a brilliant light often within a tunnel. The light which is often interpreted to be God or the Supreme Being is ineffable and transmits joy, peace, love, comfort. They meet with deceased loved ones, friends, relatives that welcome them. They have a life review in which they understand the meaning of their life and how they have lived it and how it affected others. They never wish to leave this unity with the light source of love. They return to our mortal life they say reluctantly to help those needing them on earth or sometimes involuntarily because "your time has not yet come." Upon returning to their earthly body most live a more purposeful, love-filled life. Thereafter the fear of death is largely absent.

Bruce Greyson, MD, Professor at the University of Virginia School of Medicine and a Co-Founder of the International Association of Near-Death Studies (IANDS) in November/December 2013 reviewed postulated scientific explanations of NDE including: expectancy, birth memories, altered blood gasses, REM intrusion, toxic and/or metabolic hallucinations,

neurochemistry and neuroanatomy phenomena without finding a definitive explanation for NDE. In addition to the positive aspects during and after a NDE he was the first to point out "distressing NDEs" which are disturbing, even terrifying to those that experience them. He also noted that most people that have NDEs are mentally healthy and that NDEs must not be confused or equated with depersonalization, dissociation, post-traumatic stress disorder or pathologic conditions such as Charles-Bonnet Syndrome.

Dean Radin, PhD, one of the foremost experts in using evidence and laboratory based science to study NDE, reported these conclusions in January/February 2014, "With one exception, NDEs may be interpreted as unusual forms of hallucinations associated with the injured or dying brain. The exception involves perceptions described from vantage points outside the body that are later confirmed to be correct and could not have been inferred. Over a century of laboratory studies have investigated whether it is possible in principle for the mind to transcend the physical boundaries of the brain. The cumulative experimental database strongly indicates that it can. It is not clear that this implies the mind is separate from the brain but it does suggest that a comprehensive explanation for NDEs will require revisions to present scientific assumptions about the brain-mind relationship."

Pim van Lommel, MD, an eminent Dutch cardiologist has conducted prospective studies on patients having cardiac arrests during hospitalizations. In 18% of 344 successfully resuscitated patients they report typical NDEs. He also reports four other similarly designed prospective studies that found between 10 and 20% of 562 patients report NDEs. Greyson states over nine million people in the U.S. have reported NDEs. Van Lommel is the first in our series to raise the subject of nonlocal consciousness as a necessity to scientifically explain many of the

"My understanding of near-death experiences has made me a better doctor.

I face life with more courage and confidence.
I believe near-death experiencers really do bring back a piece of the afterlife.

When they share their remarkable experiences, I believe a piece of the afterlife, in some mysterious way, becomes available to us all."

-Jeffrey Long, MD, Radiation Oncologist & Founder NDEF

"A central tenet of neuroscience holds that all human experience arises from the brain, akin to the Germ Theory of Disease and the Theory of Evolution in other branches of science. So far, the narratives of NDE fit securely within the framework of conventional neuroscience."

-Kevin Nelson, MD Professor of Neurology, University of Kentucky

presently puzzling phenomena of NDE. Non-local consciousness is thought-provoking and the subject of his book "Consciousness Beyond Life." (2001, HarperOne).

Jean Hausheer, MD, is a widely respected ophthalmologist who previously taught at University of Missouri - Kansas City and now is Clinical Professor at the University of Oklahoma School of Medicine. In May/June 2014 she describes for the first time her own NDE at Independence Regional Hospital. In July/August 2014 Tony Cicoria, MD, Assistant Professor SUNY Upstate School of Medicine, wrote about his much publicized NDE that occurred in 1994 when he was struck by lightning. Post-NDE he had an obsession with learning to play the piano and write original music. He succeeded in both. View the video at https://www.youtube.com/ watch?v=tDtYkxSCV18. Both physicians describe their NDE as a positive, life-changing event that is enriching their lives, re-affirming their belief in God and that removed any fear of death.

Jeffrey Long, MD, a Louisiana radiation oncologist, established the nonprofit Near Death Experience Research Foundation for collection, international reporting, and study from NDE people worldwide. Please visit their website www.nderf. org to understand how universal and cross-cultural the NDE experience is. In the September/October 2014 issue Long elaborates on nine lines of evidence that converge on the explanation that NDE cannot be scientifically explained at this time. Among the most impressive of these nine are factual reports of events that have occurred in the past, or did happen in the future, or that transpired during the person's NDE that were physically remote and otherwise unknowable by the person. Other unaccountable events: totally blind individuals describing accurately vivid visual events during their resuscitation and also precise accounts from individuals that were having hypothermic surgery in which they had no pulse, no heart activity, no blood pressure and a flat EEG. Ninety-six percent of NDE reporting patients to NDERF, many highly educated and scientifically trained, call their experience "definitely real."

Nancy Evans Bush, MA, Previous President of IANDS and Bruce Greyson, MD, Director of the Division of Perceptual Studies University of Virginia, in November/December 2014 skillfully present the little discussed "distressing near-death experience (DNDE)." Their review of over 30 years of NDE

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literature concludes that DNDE may occur as often as one in five cases and that there are both external and internal barriers to reporting them that make them under-reported. The DNDE has negative connotations to hallmark events of the positive NDE. The context of the DNDE is a "void" with feelings of aloneness, isolation, emptiness, even a sense of annihilation. Lastly the 'heavenly and redemption' theme of most NDEs is replaced by a 'hellish and damnation' experience. Much time and effort is required by these individuals to work

through the debilitation and negative residua of the DNDE. Three mechanisms often employed include: "I needed that" in which the individual seeks to make amends in their life and become a better person. Movement to a dogmatic religious group is common. A second methodology is reductionism in which the DNDE is explained away or repudiated as a

hallucination or adverse drug reaction. A third group struggle for years trying to comprehend why the DNDE happened to them and why they cannot shake off its negative aftereffects. They often commit to long-term psychotherapy which is usually ineffective. Neither NDE nor DNDE are pre-conditioned by the conduct of an individual's life - a saintly person may still have a DNDE while felons and misanthropes may experience pleasant, redemption-giving NDEs.

Eben Alexander, III, MD, former Harvard neurosurgeon, is the best-selling author of "Proof of Heaven: A Neurosurgeons Journal into the Afterlife" (2012) and a comprehensive sequel "The Map of Heaven: How Science, Religion and Ordinary People are Proving the Afterlife." (2014, Simon & Schuster both) In the January/February 2015 issue he recounts his own miraculous full recovery from a virtually always fatal case of E. Coli meningo-encephalitis and the complex NDE he experienced while in a septic coma. Drs. Radin, Van Lommel, Alexander, and pioneering neurosurgeon Wilder Penfield, MD, all deny that the complexity of the

brain can account for the existence of consciousness. Alexander writes, "The truth is that the more we come to understand the physical workings of the brain, the more we realize it does not create consciousness at all. We are conscious in spite of our brain! The brain serves more as a reducing valve or filter, limiting preexisting consciousness down to the trickle of the illusory 'here-now' in which we find ourselves in this physical realm." He continues, "The NDE community, as well as related spiritually-transformative experiences of all

> stripes, provides compelling evidence that consciousness is fundamental in the universe."

In this March/April 2015 issue Kevin Nelson, MD, Professor of Neurology, University of Kentucky School of Medicine and author of several books including "The Spiritual Doorway in the Brain" (Plume, 2012), provides what

he feels is a 'brain-based' explanation for near-death experiences emphasizing rapid eye movement intrusion and altered neuro-physiology. Whether you believe in some, all or none of the interpretations and explanations of NDE offered by previous NDE authors as physicians believing in the scientific method it is mandatory to read Nelson's

theory of their causation.

This NDE theme has been one of the most commented on series of articles in my 15 year tenure as Editor. During the recent White Coat Tort Reform Day in Jefferson City a physician sought me out and told me of his NDE (which I hope he will share in a Letter to the Editor). As I have become more knowledgeable and comfortable with NDE, I have asked patients that have had cardiac arrests or who were unconscious and almost died about what it was like. Several have described typical NDE without prompting. No question but some of our patients and a few of our colleagues experience what is currently called near-death experiences. It is a clinical syndrome you need to recognize and be able to appropriately respond to. MM

