

The phenomenological properties and transformative power of NDEs are totally different, and, in many ways, the opposite of dream content.

Toward a More Comprehensive Scientific Paradigm

"I maintain that the human mystery is incredibly demeaned by scientific reductionism, with its claim in promissory materialism to account eventually for all of the spiritual world in terms of patterns of neuronal activity. This belief must be classed as a superstition. . . . we have to recognize that we are spiritual beings with souls existing in a spiritual world as well as material beings with bodies and brains existing in a material world."

 — Sir John C. Eccles, PhD (1903 – 1997), neurophysiologist, Nobel Prize in Medicine and Physiology, 1963

Any evaluation of reports of near-death experiences must involve a mindset that is suitable to the task. These experiences challenge our understanding about the fundamental nature of consciousness, indeed of all of existence, at the most basic of levels, and if the mindset is too limited, we compromise our ability to approach the grander truth underlying our observations and attempts to understand them. The more broadly we can open our minds to the possibilities, the more readily we will come to a deeper understanding.

Kevin Nelson, MD's article in *Missouri Medicine*'s series on near-death experiences (NDEs) demonstrates the hazards of approaching near-death experiences with too limited a view of the possible explanations (Editor's note: Neuroscience Perspectives on Near-Death Experiences, 2015; 112(2:92-98) The danger lies in missing the forest for the trees, for being too myopic in scope and thus falling woefully short of the mark. This is an inherent problem when one is shackled, as is Dr. Nelson, within the narrow confines of the physicalist world view (i.e. that the physical world is all that exists; that consciousness is an epiphenomenon of the workings of the physical constituents of the brain following natural laws). By accepting the unproven assumption that the physical brain creates consciousness, his approach is doomed from the start. The brain is clearly related to consciousness — the fallacy is in believing the brain creates consciousness out of purely physical matter.



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Spiritually transformative experiences of all sorts, including NDEs, are usually described as much more real than our daily reality in the physical realm.

Entitled "Neuroscience Perspectives on Near-Death Experiences," Dr. Nelson's paper demonstrates many of the difficulties inherent in the scientific investigation of something as profoundly complex as near-death experiences when one's starting (physicalist) assumptions are false. The fog of confusion overwhelms his efforts to make sense of such deep experiences limited entirely to the confines of the physical brain, from a purely physicalist point of view.

In the teaser for his article, Dr. Nelson purports to "explore near-death experiences through the lens of science and discovers that near-death fits within the conventional neuroscience as securely as the Germ Theory of Disease and Evolution stand in other branches of science."

This teaser, and his ensuing article, address NDEs through a most distorted lens, indeed. First and foremost, Dr. Nelson seems to believe that conventional neuroscience has a firm enough understanding of the mechanism of consciousness to weigh in on all of the facets of near-death experiences. In fact, the "neuroscience of consciousness" is an oxymoron - no such entity exists. No neuroscientist on earth, nor philosopher of mind, can offer even a few sentences in an effort to describe in broad strokes the mechanism by which the human brain might create consciousness - not even vague hand-waving. No one has a clue, and yet the mantra of conventional physicalist proponents like Nelson is that the brain creates consciousness, said with the conviction that it is such a well-established fact as to be beyond the necessity for any evidence.

Part of the unfathomable enigma of the relationship between brain and mind is reflected in what is known in scientific and philosophical circles as the "Hard Problem of Consciousness" (HPC), and many believe it is the most profound enigma in all of human thought. The HPC was defined by David Chalmers PhD as the challenge to physicalism in explaining "qualia," or the phenomenological aspects of human perceptions, and their integration into consciousness as a whole.¹ From a scientific perspective, it is challenging to even entertain possible questions that might lead towards experiments to better elucidate the mechanism of consciousness. The problem becomes less "hard" when one abandons the simplistic falsehoods of physicalism (i.e. that the brain creates consciousness). I believe that addressing the issue of consciousness more fully, as we do in this kind of discussion about near-death experiences, will lead us into fruitful territory in our understanding of the nature of reality and of humanity's place in it.

The conventional neuroscientific assertion that the brain creates the "illusion" of consciousness through the physical action of the subatomic particles, atoms, molecules and cells of the brain, so fundamental to Dr. Nelson's point of view, is, as the Australian neurophysiologist and Nobel Laureate Sir John C. Eccles (quoted at beginning of article) famously said, "a superstition." Dr. Nelson and other physicalists are incapable of meeting the empirical challenges posed by the empirical data from NDEs, outof body experiences (OBEs) and all manner of related mystical experiences. They neglect or deliberately ignore these "inconvenient" empirical facts, or attempt to explain away the basic rudiments through simplistic elementary explanations that cannot even begin to elucidate the rich landscape of the actual experiences.

As astrophysicist Paul Willard Merrill, PhD, wrote in his book on long-period variable stars, when faced with facts that contradict one's expectations, "if discordant values be omitted the others agree very well."² This humorous observation of science gone awry applies well to the approach of members of the conventional scientific community (like Nelson) who dismiss and deny any data from NDEs that do not fit rigidly into the conventional brain-creates-consciousness (physicalist) model.

A common error in this standard physicalist reasoning results from observing that some aspect x of NDEs (or OBEs) has some similarities to neurological condition y; therefore, explaining y explains those aspects x of NDEs, OBEs or other mystical experiences. This kind of oversimplification is guaranteed to lead to gross misinterpretation of the experiences.

Debunkers like Dr. Nelson don't acknowledge the differences between true OBEs and illusions of leaving

the body. They then claim that explaining the illusions explains the real experiences. Most of the sources Nelson cites as explaining OBEs in fact explain a variety of somatic illusions that have nothing to do with OBEs, but are simply distortions of bodily perception that do not involve perception from an out-of-body perspective, to say nothing of cases of veridical perception from an out-of-body perspective.

"If all you have is a hammer, everything looks like a nail" also applies to modern neuroscience. Dr. Nelson has taken the physiology he feels he understands and applied it to these other phenomena, offering generic explanations based on weak analogies. One's tools and methodologies can confine one's ability to elucidate the underlying truth. It is better to stay focused on explaining the full experience as much as possible, remaining cognizant of the limitations of our tools and methodologies.

Nelson also ignores much of the relevant literature, including a voluminous amount of research on psi phenomena, the entire literature on survival of the soul after bodily death, the argument about deep general anesthesia presented in Irreducible Mind, the copious literature on cardiac arrest cases, and the transformative power of NDEs. ³ In addition, Nelson's discussion of OBEs focuses on illusory experiences, with no mention of the large literature on veridical OBEs. ⁴ The reasoning often implies that one non-veridical case means they all are.

In his discussion of how near-death is "often a misnomer," Dr. Nelson argues that in assessing the experiences in a mixed group of those who were medically near death and others who were not, that the experiences were quite similar between the two groups.⁵ His interpretation misses the main point of that paper: the more dramatic changes in mentation occurred in patients who were medically closer to death, which directly confronts the notion that "brain creates mind." Nelson then tries to explain all NDEs as due to decreased cerebral blood flow. This shotgun approach is typical among the debunker/ denier pseudo-skeptics — he can't have it both ways.

Nelson's claim that syncope produces features indistinguishable from an NDE reveals a fundamental misunderstanding of what an NDE actually is. I would compare this to claiming that the experience of viewing a partial eclipse of the sun is similar to that of viewing a total solar eclipse. Anyone who has witnessed the latter will understand what folly it is to assume that one can extrapolate the experience of a total eclipse from having viewed a partial eclipse.

Nelson's discussion of the mystical sense of Oneness

(the "transcendent" aspect being the main contributor to an NDE's depth according to the Greyson scale) as being completely explicable through understanding the serotonin-2a receptor function in the brain is another example of how extreme oversimplification leads to erroneous conclusions. Correlation does not equal causality. If one is able to demonstrate changes in the brain through imaging with functional MRI, pharmacologic blockade or similar means of evaluating brain function that occur during a specific phenomenal experience, that observation of putative correlation does not necessarily imply causality. Nelson's attempt to conflate fear and mystical experience is also erroneous and artificial.

Dr. Nelson claims that "much of the neuroscience behind mystical experience is understood" — a pretty bold claim, when in fact no neuroscientist on earth can offer even the most rudimentary statement about the neuroscience of consciousness, i.e. the mechanism by which the physical brain might give rise to consciousness.

The Inadequacy of REM Intrusion

Serious challenges to Dr. Nelson's proposed role of REM Intrusion in explaining the phenomena of NDEs have been pointed out by Bruce Greyson, MD and Jeffrey P. Long, MD.⁶

- Volunteers who share their NDEs on the internet, which comprise Nelson's study population, are probably more likely than most NDE experiencers in their willingness to publicly discuss unusual experiences
- Nelson's control group, comprised of medical center personnel and their contacts, would have reservations about endorsing pathologic symptoms such as hallucinations, diminishing their value as a true control group (note their endorsement rate of only 7% for hypnagogic hallucinations, approximately one-fourth the rate in the general population).
- Specific features such as fear, which is quite typical in sleep paralysis but rare in NDEs, as well as the occurrence of typical NDEs under general anesthesia and other drugs that inhibit REM, rule against any explanation of NDEs through REM intrusion.
- The etiology of phenomena as complex as NDE is likely multi-factorial, making it unlikely that a single, simple physiologic explanation such as REM intrusion will suffice.

The phenomenological properties and transformative power of NDEs are totally different, and, in many ways, the opposite of dream content. Spiritually transformative experiences of all sorts, including NDEs, are usually described as much more real than our daily reality in the physical realm. They are also life-altering, and much more persistent than the memories of dreams or hallucinations. To equate NDEs and dreams in the REM intrusion hypothesis is once again indicative of how one's prejudices and biases can lead one far astray.

Physicalism is Inadequate for the Task

In his comments about my coma experience, ⁷ Dr. Nelson incorrectly states that I "provided no answer to the question about when" in my coma the experience occurred. In fact, such an analysis was a crucial part of my investigation (as those who have actually read my book realize), and the clues within my odyssey revealed it all had to have occurred between days one and five of my seven-day coma, a period during which my neurologic examinations, imaging studies and laboratory values all revealed my neocortex to be incapacitated by my meningitis.

Nelson concludes that "the influence of near-death experience can be powerful enough to conflate faith and science even in the mind of a neurosurgeon." In fact, the experience was powerful enough for this neurosurgeon to realize the brain does not create consciousness, to see the failure of pure physicalism as a worldview, to realize that mind or consciousness is primary (not brain or the physical realm), and to see the emergence of a natural synthesis of science and spirituality. It is our science that must expand its boundaries beyond the simplistic falsehoods of physicalism to more fully grasp the extreme mystery of consciousness as revealed through NDEs and similar experiences.

Nelson also claims this neurosurgeon to be "antiscientific," then erroneously pits me against the "sage words of a brilliant Canadian neurosurgeon from the mid-20th century," Wilder Penfield, MD.⁸ Dr. Nelson appears to have also completely misinterpreted Dr. Penfield's book and message, which, in fact, are closely aligned with my own view that the brain does not create the mind:

- "But to expect the highest brain-mechanism or any set of reflexes, however complicated, to carry out what the mind does, and thus perform all the functions of the mind, is quite absurd." Penfield, p. 79
- "And yet the mind seems to act independently of the brain in the same sense that a programmer acts independently of his computer, however much he

may depend upon the action of that computer for certain purposes." Penfield, p. 79

- "Taken either way, the nature of the mind presents the fundamental problem, perhaps the most difficult and most important of all problems. For myself, after a professional lifetime spent in trying to discover how the brain accounts for mind, it comes as a surprise now to discover, during this final examination of the evidence, that the dualist hypothesis seems the more reasonable of the two possible explanations." Penfield, p. 85 [i.e. that brain does not create mind, and the two should be considered as existing in their own right]
- "What a thrill it is, then, to discover that the scientist, too, can legitimately believe in the existence of the spirit!" Penfield, p. 85
- "The mind conditions the brain." Penfield, p. 86
- "It is an observation relevant to any inquiry into the nature of man's being, and in conformity with the proposition that the mind has a separate existence. It might even be taken as an argument for the feasibility and the possibility of immortality!" Penfield, p. 87
- "What is the reasonable hypothesis in regard to this matter, considering the physiological evidence? Only this: the brain has not explained mind fully." Penfield, p. 88
- "I worked as a scientist trying to prove that the brain accounted for the mind and demonstrating as many brain-mechanisms as possible hoping to show how the brain did so.... In the end I conclude that there is no good evidence, in spite of new methods, such as the employment of stimulating electrodes, the study of conscious patients and the analysis of epileptic attacks that the brain alone can carry out the work that the mind does. I conclude that it is easier to rationalize man's being on the basis of two elements than on the basis of one." (Penfield, pp. 113-114)

Of note, Christof Koch, PhD, Chief Scientific Officer at the Allen Institute for Brain Science (Seattle) long a very determined physicalist neuroscientist, has recently followed Penfield in explicitly abandoning any hope of explaining consciousness as a product of brain processes. ⁹

Nelson claims that "a central tenet of neuroscience holds that all human experience arises from the brain," which he erroneously concludes is aligned with the views of Penfield, whereas Penfield's (and my) position is exactly "What a thrill it is, then, to discover that the scientist, too, can legitimately believe in the existence of the spirit!"

the opposite. Nelson claims that "a plausible neuroscience explanation has always been found in 'unexplained' cases" (especially of consciousness outside, or independent of, the brain) — another patently false assertion.

If one reads Dr. Penfield's book, and mine, they find we are congruent in many ways - certainly in stating that the brain does not create consciousness (the exact point Nelson is erroneously trying to contradict with his quote). Dr. Penfield's main limitations from that point, in my opinion, were not knowing enough about the implications of the measurement problem in quantum mechanics (not to mention the current experimental evidence supporting the "weirdness" of quantum reality, such as the recent "delayed choice quantum eraser" and related experiments ^{10,11}), that it is information and not energy that is "conserved," and the fact that the current controversies in physics about the nature of causality that call into question our very notions of time itself ^{12,13} had not yet emerged when Penfield wrote his insightful book in 1975.

Nelson demonstrates just how crippling blind faith in physicalism, the notion that "brain creates consciousness," can be. Others like him who widely trumpet this claim are guilty of an unsupported faith-based belief system, and of being willfully ignorant when they deny the data concerning the rich tapestry of mystical experiences, including NDEs.

In fact, the challenge of understanding NDEs from this brain-based perspective becomes even greater when one considers the realm of shared death experiences (SDEs), first described by Raymond Moody, MD, PhD, and Paul Perry in their fascinating book, Glimpses of Eternity. ¹⁴ The experiential aspects of SDEs closely resemble those of NDEs, but they occur in physiologically normal people. SDEs occur when the soul of a completely healthy bystander at the bedside of a dying patient is drawn along on the journey with the soul of the dying patient, even to the point of witnessing a full-blown life review of the departing soul, before the bystander soul returns to the earthly realm. In the hundreds of talks I give on these topics, I encounter numerous people who share their own stories of NDEs and after-death communications. A small but significant percentage of the stories I hear from the general public are actually of SDEs — they are not rare.

Rejection of the Data Results in Willful Ignorance

Dr. Nelson is a neurologist who professes an interest in spiritual experiences. As such, one might expect him to demonstrate interest in the case of a neurosurgeon who was driven into coma over three hours due to gramnegative bacterial meningitis as severe as that which I reported in Proof of Heaven,⁷ spent seven days in coma to the point where doctors had abandoned hope and were recommending termination of antibiotics, returned to this world with his mental faculties devastated, but then went on to a full recovery over eight weeks — to the point where he could participate in this deeply intellectual discussion about NDEs in Missouri Medicine. Yet Nelson's accusation that my book ⁷ "falls into a slick and clever literary genre," was based not on his having read the book, but on a book review article in the New York Review of Books by a literary critic (R Gottlieb) who was completely ignorant of the relevant scientific issues.¹⁵ This reveals Nelson's unwillingness, or inability, to consider the relevant data, and to actually participate in this very deep discussion about the nature of consciousness and of all reality as revealed through NDEs and similar spiritually-transformative experiences. Such willful ignorance is rampant among the debunkers and deniers of the physicalist camp, which renders their contribution to this deeper dialogue to be largely irrelevant.

Nelson also does not appear to be familiar with the Handbook of NDEs ⁴ Irreducible Mind,³ or any other such books that responsibly address the full constellation of features found in NDEs, and in fact present a far more robust discussion of consciousness, and notably of nonlocal consciousness (i.e. consciousness independent of the here-and-now of the physical brain and body's immediate environs), than are found in any of the physicalist sources. It is crucial to realize that the only thing any human being has ever experienced is the inside of his or her own consciousness, a model created within mind, but not external "objective" reality itself.

Part of the problem is that this is not simply a discussion about a few interesting and unusual phenomena that paradoxically appear around the time of death or near-death. Given that we are all essentially prisoners within our own consciousness, this discussion is actually about the very nature of all existence — a fundamental investigation into the nature of reality. A more comprehensive, top-down approach, one that takes all of the relevant data into account, and addresses the profound mystery of our conscious existence itself might lead to a deeper understanding. Seeking answers is no small task: any significant progress will influence not only the realms of neuroscience and philosophy of mind, but the entire scientific community (notably physics and cosmology), and all of humanity.

Science Beyond Physicalism

If one is too confined by physicalist prejudices, e.g. believing at the outset that one is trying to fit the empirical observations into one's model of reality (i.e. that the brain creates the mind), they risk completely missing the deeper lessons of the journey. As with any attempt to gain a deeper understanding of something as fundamental as "consciousness," any partitioning of the subject matter is guaranteed to lead to confusion and misinterpretation. The problem is in our mindset, and is an inherent problem with the conventional scientific approach of reductive materialism.

The brain is clearly related to consciousness — the fallacy is in believing the brain creates consciousness out of purely physical matter. The emerging scientific view, far more powerful in its explanatory potential, relates to the notion of the brain as a reducing valve, or filter that limits primordial (infinite?) consciousness down to the minuscule trickle of the apparent here-and-now of our physical human existence. This idea (filter theory) enables the possibility that the soul survives bodily death, and is attributed to the brilliant masters of the human psyche who worked mainly in the late 19th and early 20th centuries, notably Frederic W.H. Myers and William James.³

Physicalism and atomism (the idea of the separation of objects within the universe) often go hand in hand - and both introduce distortions in trying to understand how humans fit into the universe as a whole. The act of separating parts of the universe from the whole is artificial and detracts from approaching the deeper truth of reality. This is one of the fundamental problems with our predominant scientific model of reductive materialism that relies largely on such false separations.

In spite of the wonders the world has seen from the advances of modern science and technology, there is a dark underbelly related to that progress in the form of the destruction of our planetary ecosystems, modern warfare, thoughtless homicide and suicide, etc. — much of it due to the artificial removal of human spirit from the predominant physicalist worldview.

The false conclusion of physicalist science that consciousness is manufactured by physiological processes occurring in the brain, that we are nothing more than "meat computers," automatons or zombies, that free will itself is a complete illusion, are vastly destructive as a predominant worldview. The emerging scientific view of consciousness as fundamental in the universe also incorporates the Oneness of all consciousness,¹⁶ and the importance of appreciating the connectedness of all elements of the universe in reaching fundamental truth. I foresee this top-down approach to understanding as being much more fruitful.

For those with a serious interest in understanding the emerging science, I recommend especially the book Beyond Physicalism: Toward Reconciliation of Science and Spirituality (February 2015), edited by Edward F. Kelly, Adam Crabtree and Paul Marshall, et alia from the Esalen Institute and the Division of Perceptual Studies at the University of Virginia. ¹⁷ This landmark opus, from the same group that published the world-changing Irreducible Mind: Toward a Psychology for the 21st Century, ³ offers a theoretical framework that will "hopefully contribute to blowing away the fog of ignorance and confusion that materialists have imposed on the scientific community and humanity at large," as stated by one of the prominent endorsers of the book, B. Alan Wallace, physicist, Buddhism scholar and teacher, and the president of the Santa Barbara Institute for Consciousness Studies. I agree wholeheartedly

with Dr. Wallace's endorsement, which goes on to opine that Beyond Physicalism might allow us to "free ourselves from the ideological straitjacket of physicalism so that modern civilization can emerge from the dark age of ignorance and delusion about consciousness and return to the true spirit of open-minded empiricism that heralded the rise of modern science."

It is this open-minded empiricism to which I aspire, and which I encourage other scientific investigators to pursue. That is the spirit of this NDE series in Missouri Medicine — thus I felt compelled to respond to Dr. Nelson's article so that the physicalist/materialist camp was not claiming the final "scientific" word in this forum.

As much as Dr. Nelson claims to be holding up the light of science and reason, his physicalist view simply supports the "dark age of ignorance and delusion about consciousness," when true light and understanding are available — we must maintain an open mind and address all of the empirical data, not just that which we feel fits our dominant theoretical model. NDEs are just the tip of the iceberg in this evolving scientific view of the phenomena of non-local consciousness (proving the reality of phenomena such as near-death experiences, after-death communications, shared death experiences, telepathy, remote viewing, precognition, déjà vu, past-life memories in children indicative of reincarnation, psychokinesis, etc.). ^{3, 17}

A Masterful Illusion

It is crucial to realize that the only thing any human being has ever experienced is the inside of his or her own consciousness, a model created within mind, but not external "objective" reality itself. Increasingly refined experiments in quantum mechanics suggest that there is no underlying objective reality ---- that all experience depends fundamentally on consciousness to allow its manifestation. ^{10,11} There is no "clockwork universe" unfolding through pure natural laws, the object of natural science's attention during the Scientific Revolution (which began centuries ago, when they were less likely to tread on the sacred ground of mind and consciousness claimed by the powerful church, lest they be burned at the stake). All that is must be observed by mind in order to exist. As much as this defies our everyday assumptions, and the intentions of four centuries' of increasingly powerful probing by those pursuing investigations in the natural sciences, this is the way the universe works according to the most proven theory in the history of science (quantum mechanics). This is not some form of dogma, but in fact what is revealed in the most sophisticated efforts to probe the workings of the world, the very fabric of reality, at a subatomic level, through quantum physics.

The human brain and mind elaborate an astonishingly masterful illusion: every speck of our human experience and memory since before our birth has been our witnessing of an internal construct, of our mind's model of "reality," but not of reality itself. The profound consequences of this trick can lead us into a simplistic, unquestioning acceptance of the physicalist perspective, i.e. that only material stuff exists.

Given that our human perspective is always from within "mind," the greatest difficulty with assessing phenomena associated with near-death experiences is not having a broad enough field of view to get the full picture. The discussion rapidly converges around the fundamental nature of consciousness itself. This is the Mind-Body debate, an earnest and rigorous discussion that has been ongoing for ages, and formally for at least 2,600 years (since the likes of Plato, Aristotle and Democritus weighed in with their often astonishingly prescient views). It is not surprising that over a hundred generations of human beings have mused over the deep issues involved, but I find it astonishing that so little progress has been made. I also believe that that is about to change, and will involve a synthesis of the greatest wisdom from Eastern and Western spiritual traditions over millennia and the very frontiers of our current investigations in physics and cosmology.

In fact, the discussion goes far beyond the purview of just neuroscience and philosophy of mind — given that all of us are witnesses to our own mind only, it is about the fundamental nature of all reality and of our universe. All of physics and cosmology will participate in the emerging revelations from this discussion.

Pondering the Unknown

"Try and penetrate with our limited means the secrets of nature and you will find that, behind all the discernible concatenations, there remains something subtle, intangible and inexplicable. Veneration for this force beyond anything that we can comprehend is my religion. To that extent I am, in point of fact, religious." — Albert Einstein (1879 – 1955)

The only safe assumption about the unknown is that it is infinite. Scientific inquiry over the last few centuries has proven that everyday human experience is often misleading in our effort to understand the true nature of reality. Proposing a "theory of everything" is a guaranteed source of embarrassment for the person foolish enough to believe they are close to such knowledge. Given that our modern society places scientists in such high esteem as the arbiters of truth, it is incumbent on scientists to fully admit the scope of the unknown in their endeavors. The human pursuit of such deep understanding requires opening our minds broadly to explain all of our empirical observations. As Carl Sagan, PhD so wisely pointed out, we are "not smart enough to know which pieces of knowledge are permissible" — thus scientists, first and foremost, should not suppress any knowledge, yet in the current discussion around NDEs the formal scientific community often actively denies and debunks everything that doesn't fit the very narrow physicalist model of "brain-createsmind." Their unwarranted assumption that the brain creates consciousness renders their contribution to any meaningful discussion of NDEs as woefully impotent.

Much of our knowledge about the nature of reality must derive from all of human experience, not just the limited flow from strict application of the scientific method in a controlled environment. Anecdotes provide a rich source of understanding, if they are carefully scrutinized and combined with other knowledge. In fact, all of scientific discovery has involved anecdotes and individual experience as the seed from which knowledge emerges.

The good news is that many scientists around the world fully appreciate the depth of the profound mystery of consciousness and how NDEs and similar mystical experiences offer profound clues in approaching a deeper understanding of the underlying reality. ¹⁸ This dialog sows the seeds for the destruction of the purely physicalist model of the universe. Likewise, the profound enigma of the measurement problem in quantum mechanics, which suggests that consciousness is primordial in the universe, calls for a fundamental reworking of our worldview. ¹⁰ Current scientific understanding must be greatly expanded to fully incorporate the unfathomably deep mystery of consciousness itself, and its role in manifesting all of emergent reality.

Nelson closes his article with: "Medical professionals who tout spiritual shortcuts by forsaking science seriously risk debasing near-death experiences in the minds of many who hold science in esteem... Clinicians have an ethical responsibility to clearly differentiate the domains of science and faith." In fact, Nelson is the one guilty of "forsaking science." The emerging scientific view will be one that fully embraces these extraordinary conscious experiences and provides a far more realistic model of the universe than the paltry and barren fiction provided by lame physicalism.

I believe that medical professionals like Nelson who claim to have purely materialist explanations of phenomena that are far beyond the ken of those simplistic "scientific" physicalist assumptions do great damage in pretending they know things they do not, such as the mechanism of consciousness itself — therein lies the real damage that can be done in the interaction between medical professionals and their patients who report these amazing journeys.

We ought rather to foster an environment where these stories are widely shared and discussed — they are gems that reward us with great riches in a deeper understanding of all of existence. The expanding boundaries of this emerging science will fully embrace our spirituality and allow medical professionals who are more enlightened to offer greater healing than the purely physicalist mindset ever allowed.

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