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Out-of-Body and Near-Death Experiences: Brain-State Phenomena or Glimpses of Immortality? by Michael N. Marsh, New York, NY: Oxford University Press, 2010, 309 + xxv pp., \$110 hc (ISBN 978-0199571505); \$62.69 Kindle ed. e-book.

When Ryan Foster, this Journal's Assistant Editor for Media Review, asked if I would be willing to review Michael N. Marsh's book, Out-of-Body and Near-Death Experiences: Brain-state Phenomena or Glimpses of Immortality?, I agreed. Foster also asked me to provide some background about myself and why I am qualified to review this book. Marsh's book was an outgrowth of his doctoral thesis on neurophysiological and theological approaches to phenomena of near-death and out-of-body experiences. I have a Ph.D. from Case Western Reserve University where I majored in Medical Sociology with a minor in Statistics. After teaching for over 30 years, I retired in 2003. At Northern Arizona University I created and taught one of the first, if not the first, course on Death, Grief, and Bereavement. While teaching this course, I became aware of the writings of Raymond Moody, George Ritchie, and others. These books dealt with accounts of people who had been clinically dead but returned to life and reported on their experiences. I had lost my father not long before, and near-death experiences (NDEs), as they came to be known, resonated with me. I began to search out various sources, including books, diaries, and journal articles, that related to the topic. I now have in my personal collection over 375 books and thousands of reports of NDEs.

At one point, my colleague, Craig Lundahl, Ph.D., asked me to write a chapter for a book he was going to publish called *A Collection of Near-Death Research Readings*. My contribution was entitled *Near-*

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Death Experiences and the Unscientific Scientist (Widdison, 1982). Not long after that undertaking, we co-chaired a session at a conference of the International Association of Near-Death Studies in St Louis. At the session, we had standing room only and some people in attendance suggested that we write a book on the subject. We decided to do so, and our book, The Eternal Journey: How Near-Death Experiences Illuminate Our Earthly Lives, was published in 1997. In 2004, my second book on the subject, Trailing Clouds of Glory: First Person Glimpses into Premortality, was published.

Marsh began his book with an example of an NDE and then said that

there exists the burgeoning field of phenomena known popularly as out-of-body (OB) and near-death experiences (NDE). While certain experiences succeed bereavement, depression or severe loneliness, the majority result [sic] from acute medical crises which directly, or indirectly, substantially embarrass cerebral activity. It is the latter phenomenology with which this book is concerned. (p. xvi)

He then stated that he would examine eight key texts that bear witness to an afterlife, a non-bodily existence. He wrote that he had adopted two approaches: one neurophysiological and the other theological.

From the neurophysiological perspective, the argument developed is that out-of-body and near-death experiences, referred to hereafter with my terminology 'extra-corporeal experiences' or ECE in short, are likely to be generated by metabolically disturbed brains especially during the period when they are regaining functional competence. (p. xvi)

Marsh wrote that his theological approach comprised three strands:

First, I offer a critique of the prevailing view that ECE have to be conceived as quasi-heavenly or religious events . . . Second I consider the question whether ECE are capable of being ascribed a credible spiritual, or even revelatory, dimension . . . Third, I have exposed a failure on the part of the authors whose texts I evaluate to deal adequately and systematically with the post-experiential subject. (p. xvii)

Marsh divided his work into 13 chapters:

• Chapters 1–3 cover the five authors and their eight books that Marsh evaluated and attempted to show their inadequacies in proving that NDEs exist and, if they do, what their correct etiology is, plus the degree to which subjects' NDE narratives have been edited and possibly reinterpreted. He critically evaluated the interpretations offered by

these five authors of the narrative accounts of the NDEs reported in their books.

- In Chapter 4, Marsh presented his theory/hypothesis that all OBEs/ NDEs occur as the individual is regaining full consciousness/awareness and that the NDE is triggered during the few seconds that the individual is regaining consciousness.
- In Chapter 5, Marsh discussed the degree to which people's day-to-day environments are created by their brains and suggested that the content of much consciousness/awareness is illusory.
- Chapter 6 provides an account of the neurophysiological mechanisms concerned with body image and its perturbations.
- In Chapter 7, Marsh examined features of NDEs and suggested that the experience is analogous to dreaming.
- In Chapter 8, Marsh addressed the temporal lobe and the role it plays in NDEs.
- In Chapter 9, Marsh considered a number of factors that might contribute to NDE phenomena.
- Chapter 10 addressed NDE reports of an afterlife in light of biblical and Christian conceptualizations of afterlife.
- In Chapter 11, Marsh examined whether NDEs are truly spiritual events involving communication with the divine.
- Chapter 12 is where Marsh considered how experiencers interpret their NDEs and how they change in their aftermaths.
- · Chapter 13 is an overview and summary of the book.

Marsh concluded his introduction with the statement that "ECE do not offer paradigms which amplify our understandings of the theology of mankind, of death, or of resurrection since they emanate from hallucinatory events generated by brains recovering from antecedent ischaemic or allied metabolic insults" (p. xxv). In other words, Marsh's position from the outset was that NDEs are entirely the result of physical aberration and, therefore, have no validity.

As I read this book I was confronted with a number of problems, some serious and others not so much. These included his style of writing, excessive use of abbreviations, unprofessional assessment of NDE researchers and experiencers, discounting of thousands of NDE reports, analysis of NDEs that was very limited and based on outdated data, confusing NDE inconsistency with invalidity, assumption without proof that the brain is the source of memory, discounting resurrection and revelation, and major conclusions that have already been discounted by other researchers. I will discuss each of these problems below.

Style of Writing

I found Marsh's style of writing to be pedantic and technical; thus, it was not clear to me who his target audience was. I suspect that it was the members of his dissertation committee and, in this regard, he was apparently successful, as he did obtain his degree. His style of writing, not to mention the \$110 cost of the book, would rule out 99% of the potential purchasers for books on this subject because they would be hard pressed to afford it and then would have great difficulty wading through it. Consider, for example, the following excerpt that is not an isolated example:

They arise through mismatched integrations between incoming (afferent) sensory information: visual, proprioceptive (joint position), haptic (tactile), and from the vestibular organs of 'balance' sited within the inner ear and which together contribute to each person's sense of body-image. These afferent sensory systems are integrated in the cortical areas of the temporo-parietal junction (TPJ). Disturbances in personal body-image (egocentric) and its relationship to the subject's near environment (paracentric body-image) may accompany bouts of migraine due to local reductions in cerebral blood flow, temporal lobe epileptic discharges and vascular insults of brainstem such as arterial thrombosis, embolization or haemorrhage. In addition, physiological perturbations occasioned by tendon vibration, zero gravity conditions, and the use of mirrors in obviating problems associated with phantom limbs, engender erroneous illusions of subjects' perceptions of body-in-space. (p. xx-xxi)

Excessive Use of Abbreviations

Marsh started off the book with over a page of abbreviations for terms that he used in the book. Examples are BIS for bispectral analysis, ECE for extra-corporeal experience, LXX for Septuagint, Pa for 'pressure' of a dissolved gas in arterial (a) blood, and VTA for ventral tegmental area (pp. xii and xiii).

Marsh did, on occasion, spell out the abbreviations in the body of the text—but not always. Thus, I found it necessary to keep referring back to the definitions—a process I found particularly cumbersome and distracting considering his already-dense writing style.

Unprofessional Assessment of NDE Researchers and Experiencers

When referring to researchers of NDEs or those reporting their NDEs, Marsh used very demeaning and derogatory terminology. As I read the book, I noted on the back page of the book the number and types of derogatory comments and observations. Examples include: illusions, hallucinatory episodes, exceptionally poor research, absurd, simplistic naivety, bizarreness, illogical, banality, silly, incredible, spurious, trivial—and these were far from all such terminology. Before I quit, I counted over 50 such term usages. It would seem to me that such language has no place in a scholarly book, and scholarly formatting guides, such as the *Publication Manual of the American Psychological Association*, are explicit on this point (American Psychological Association, 2009).

On the other end of the continuum, Marsh lauded the writings of researchers that supported his version of the brain as being the repository of memory and the self no matter how limited in scope those writings were. Furthermore, a review of the 29 pages comprising all 593 references listed for this book reveals that the vast majority are from the physical, biological, medical, and chemical literature with only a small percentage—by my count 31 authors and 57 books or articles for a total of 9%—from the actual field of near-death studies.

Discounting of Thousands of NDE Reports

When Marsh referred to the literature on NDEs, he made observations such as, "what we have are thousands of OBE reports throughout the literature, but still no piece of convincing data . . ." (p. 125). Not only did he discount thousands of cases, but when he cited one that supported his hypotheses, he referred to it as "significant." At one point, he quoted a colleague about how, in one NDE case, "thousands of memories suddenly crowded into the patient's mind" (p. 156) and then used this single report to account completely for the "so-called" life-review. Also, making reference to the use of "blinding" in scientific research whereby an evaluator is unaware of—figuratively "blind" to—the source of the material one is evaluating, Marsh referred to "striking accounts of patients with temporal lobe pathology, that, if these narratives were subjected to analysis by a 'blinded' judge, there might be difficulty in critically distinguishing them from the narra-

tives recalled by people undergoing an OBE or NDE" (p. 115). These are examples of how I consider Marsh to have discounted extensive data and, instead, to have used highly selective data and speculation to support his views.

Following are some of the statements and observations Marsh made concerning NDEs:

- He noted that OBEs—which he contended are not justifiably distinguished from NDEs—can be reproduced by electrical stimulation of the brain or various drugs. So if something was *possible*, then he considered it a viable explanation (p. 52). And he again failed to address literature that challenged his perspective (Holden, Long, & MacLurg, 2006).
- He proposed an NDE research design that I consider impossible to implement (pp. 63–64).
- He expressed concern that for over 100 years there has been nothing developed to prove the true nature of NDEs, implying that there will never be (p. 65).
- He reported that some dreams have NDE-like qualities (p. 77), implying the elementary logical fallacy that what is similar must necessarily be identical.
- He noted the lack of consistency in NDE reports, which he claimed demonstrates their invalidity (p. 81).
- He wrote that the differences in crisis events and non-crisis events raise significant questions about NDEs (p. 115).
- He put the onus of proof on NDE researchers, not dissenters (p. 127), rather than the more objective stance of all parties sharing the burden of proof.
- He used one case as proof that NDEs are physiologically based (p. 156).

Analysis of NDEs Very Limited and Based on Outdated Data

In the first chapter, Marsh stated that "the foundations for my book are thus based on the assessment of eight previous books on ECE phenomenology written by five authors, and incorporating a total series of freely offered accounts by more than 700 subjects" (p. 9). These books were Raymond Moody's Life after Life (1975) and Reflections on Life after Life (1997), Kenneth Ring's Life at Death (1980) and Heading Towards Omega (1985), Michael Sabom's Recollections of Death (1982) and Light and Death (1998), Margot Grey's Return from Death (1985), and Peter and Elizabeth Fenwick's Truth in the Light (1998).

Marsh spent considerable space in his first three chapters pointing out the limitations, deficiencies, and conclusions of each of these works. In his defense, this collection includes all books describing retrospective and prospective studies of NDEs as of about 2008 when Marsh presumably would have begun work on his dissertation. However, not only were the studies he evaluated published 12-34 years before his 2010 book, but the 700 cases those studies encompassed are a mere fraction of what is available in the professional literature. In addition, from the perspective of good scholarship, peer-reviewed literature in scholarly journals is held in higher regard than book literature, so I find it hard to understand how Marsh could have defended a dissertation that excluded reference to important studies such as Penny Sartori's (2005; Sartori, Badham, & Fenwick, 2006). A great deal has happened in the field of near-death studies in the more-thandecade since the last of those eight books was published, but Marsh referenced very little of it. Therefore, I found his analysis and critique to have been based on outdated and incomplete data.

Confuses NDE Inconsistency With Invalidity

Marsh's critique of the "continuous narrative"—that is, what happens starting at the time of death until resuscitation—demonstrates that he didn't really understand what an NDE is. He argued that if NDEs are real, all experiencers should have identical reports and, because they do not, the accounts are unreliable and invalid. The continuous narrative to which he was referring is a scale Ring (1980) developed for his book Life at Death: A Scientific Investigation of the Near-Death Experience to classify the types and depths of NDEs as reported by various individuals. It was Ring's preliminary effort to study NDEs, and it does have its limitations. I have examined over 4,000 NDE reports personally and can attest to the fact that individuals report multiple varieties of experiences during their NDEs. The interested reader can get a sense of NDEs in all their permutations by going to Jeffrey and Jody Long's Near Death Experience Research Foundation website (www.nderf.org) where over 3,000 accounts were recorded and/or the International Association for Near-Death Studies website (www.iands.org) where over 1,000 accounts were recorded as of late July 2012.

For readers unfamiliar with NDEs, following is a composite prototype I've developed from my study of NDEs. The experience usually occurs during some major event such as, say, an accident or a heart at-

tack. The first thing the individual generally is aware of is that something unusual is happening to him/her. The person hears someone saying something such as "We are losing her/him," or that "Her heart has stopped," or that "He is dead." Many reported NDEs do not go any further. Of those individuals who proceed to find their consciousness functioning outside their physical bodies, some are very surprised because they have tended to define themselves in terms of their physical bodies—which is also one of Marsh's contentions. Many of these individuals find themselves in an elevated position looking down on their bodies. Some try to get back into their bodies but cannot. Some try to communicate with living people around their bodies but are unable to. Some, but not all, sense the presence of beings like themselves without bodies and discover that these presences are there to welcome them and to serve as guides. Then these individuals leave the area of their bodies. Some are alone, whereas others are with a guide. Most ascend up into the space "above" them. Some—about 25%—find themselves entering a tunnel or tunnel-like place. The majority do not report any tunnel but find themselves moving toward a light. Children in general are not likely to report any tunnel or tunnel-like transition; they just find themselves in a place of light. Once in the light some individuals report being in a beautiful pastoral-like place with flowers, trees, spacious lawns, lakes, streams, and ponds. Some experiencers are greeted by family members who preceded them in death. Those who do not experience a welcoming committee often will do a bit of exploring of the place they find themselves in. This is as far as most go. But some can see a city of light in the distance. Some individuals are taken to the gates of the city where some will enter but most will not. Those who say they have entered the city struggle to find words to describe its incredible beauty.

A very few are taken to a Being that emanates a brilliant light that strangely does not obscure their vision in any way. Those who meet this impressive Being of Light usually believe that it/he is God. In some cases, the Being asks them a question that stimulates reflection often followed by a life review. Some report the review as being like a huge montage, others like a video recording that spins backwards so that they review their entire lives. In every scene they witness, they are interacting with others. In some they are helping, and in others they are hurting. What is unique is that they not only see themselves and what they did but they also *feel* the pain or pleasure their actions caused. When the review is completed, most realize they need to return to their bodies to accomplish some specific purpose. For some the

trip back is instantaneous; others report retracing the route travelled to the place. Still others are accompanied back to their physical bodies. And some just wake up in their bodies filled with great pain.

Nowhere in Marsh's book did he present this prototypic NDE or anything similar to it. Rather, throughout the book, he attended to isolated features of NDEs with the intention to discredit their potential validity.

Assumes Without Proof That the Mind and Brain are Inseparably Connected

Throughout Marsh's book, he seemed totally convinced that the mind and brain are the same thing and that the mind is inseparably connected to the body; he cited a number of notable and prestigious scientists and medical doctors to support his view. He made the argument repeatedly that when the brain dies, it is the end of that individual. He strongly contended that any individual who has an NDE was never actually dead because the "dead" brain cannot pick up new information and a "dead" brain, therefore, could not possibly remember what had occurred while it was dead, that is, an NDE.

Although Marsh argued in a number of places that the mind and the brain are one and the same, other scholars have pointed out that this argument has not been proven. I personally would define the mind as the basic essence of an individual that is not physical in nature and the brain as the mechanism by which the physical body operates. And although the brain may die, how can one be sure that the non-physical mind does not survive physical death or that it did not exist before conception? From the perspective of this possibility, the NDE would be a perfectly logical and likely phenomenon.

Retired cardiologist Pim van Lommel, in his book, *Consciousness Beyond Life: The Science of the Near-Death Experience* (2010), cited several studies that raise some serious questions about what the brain can and cannot do. For example, no one has been able to identify where memory is located in the brain or whether, in fact, it is even stored in the brain. Researchers have performed a number of studies in which sizable portions of rats' brains have been removed without any reduction in the rats' capacity to do complex tasks they had previously learned (van Lommel, 2010, p. 196). In another case, to save the life of a three-year-old child, half of the child's brain was removed, yet the child was not affected mentally (van Lommel, 2010, p. 198). In

addition, a university graduate and mathematician with an IQ of 126 underwent a routine medical procedure during which he was discovered to have a severe case of hydrocephalus: Cerebrospinal fluid filled 95% of his skull, his cerebral cortex measured only about two millimeters thick, and the weight of his remaining brain was estimated at 100 grams as compared to a normal brain weight of 1,500 grams (van Lommel, 2010, p. 197). The studies on which van Lommel made his observations pre-existed Marsh's book, so they were available to Marsh, but he did not reference them.

van Lommel (2010) also asked the question,

Where does sudden scientific insight come from? How do radically new insights enter the consciousness? . . . How could someone like Mozart write his beautiful compositions at such a young age? Mozart said, as did Brahms, that he heard the music in his head and that all he had to do was to transcribe it. (p. 304)

One possible explanation comes from NDE accounts in which experiencers learned of their own pre-mortal existences. Considering this possibility, it could be that musical geniuses had developed a love for music during pre-mortal existence. Similarly, some near-death experiencers who suffered from serious handicaps or disabilities learned from their NDEs that, prior to birth, they themselves had selected their particular disabilities for what the disabilities would teach them in earthly life. However, never did Marsh consider alternative hypotheses to his assumption that brain produces mind.

Claims Without Proof That the Brain is the Source of Memory

Marsh and many of his colleagues in the physical, biological, and medical sciences work from the perspective that the brain is the source of memory. They accept this assumption as a fact, not a hypothesis. In the book, *The Structure of Scientific Revolutions*, Thomas Kuhn (1962) noted that most typical scientists are not objective and independent thinkers. They accept what they have been taught and apply their knowledge to solving problems that their theories dictate. All research results that cannot be explained by current scientific theories are labeled "anomalies" because they threaten the existing paradigm and challenge the expectations raised by such paradigms (Kuhn, 1962, p. 247).

The NDEs of young children are particularly revealing in this regard because they have few memories to bias their accounts. Many of them report that they were met during their NDEs by individuals they did not know but that after returning to mortal life they discovered that those individuals were deceased grandparents or other relatives whom they later identified from photographs. Some children have even met dead siblings they had not been told they had. Other children met as-yet unborn siblings who would be joining their families in the near future. Memory could not possibly have revealed this information to them (Widdison, 2004).

In other words, at the present time there is no empirical evidence that memory is a product of the brain. Rather, NDE and NDE-like experiences add a new dimension to the brain-body scenario. Marsh never once alluded to this matter.

Discounts Resurrection and Revelation

According to the pre-mortal existence hypothesis, the essence that makes up each individual begins not at conception but far earlier. When it joins with the physical body it brings some memories with it and then begins to develop new memories. As Marsh is a Christian theologian, I found it interesting that he brought theology into his book in only the limited ways he defined and excluded some typical theological references. The Bible, for example, clearly supports the idea of a pre-mortal existence:

- God asked Job where he was when the foundations of the earth were laid, when the morning stars sang together and all the sons of God shouted for joy. (Job 38:4,7; Authorized King James Version)
- In Jeremiah 1:5, God told Jeremiah that he (God) knew him (Jeremiah) before he was born.
- Genesis 2:4,5 says, "These are the generations of the heavens and of the earth when they were created, in the day that the Lord God made the earth and the heavens, And every plant of the field before it was in the earth, and every herb of the field before it grew. . . ." In other words, according to the Bible, everything on earth was created spiritually before it was created physically.

In these verses and others it is quite clear that from a theological perspective, human existence commenced not at conception but, rather, at a time long before manifestation of the physical body.

In the beginning of his book, Marsh stated that he intended to ex-

amine the theological component of NDEs. In a number of places he made the point that many near-death experiencers claim to have seen heaven but that the fact that they have not described exactly the same things demonstrates that they could not possibly have done so. In my view, however, the fact that people provided differing reports of what they saw during their NDEs doesn't prove anything. I live in Northern Arizona and only 90 miles from the Grand Canyon. Marsh's objections to near-death experiencers' inability to report consistent views of heaven could be made regarding visitors' inability to report consistent views of the Grand Canyon. Many people have been heard to say that it took their breath away or that there are no words that can adequately describe what they saw. Depending on several factors including particular location in or around the Canyon, time of day, weather conditions, and especially clouds, visitors might report very different views. One day a photographer set his camera on a tripod at a particular point and snapped a picture once every hour while it was daylight. When his pictures were developed and printed, the images were so different from one another that they did not even look like the same place. I have done a lot of hiking in and around the Grand Canyon and have even taken a couple of raft trips through it. Besides finding it difficult to capture what I saw, experienced, and felt, words do not exist for me to help others to share my experience. It is easy to see why near-death experiencers would provide disparate descriptions of their NDE locales.

For example, when in the Grand Canyon, my geology cohorts focus on the strata of the canyon walls from the top of the canyon to the river at its bottom, whereas my botany colleagues get caught up with the differences in vegetation on both sides of the canyon and the change from the top to the bottom. It appeared to me that the same problems showed up in the reports of what various near-death experiencers saw while in the City of Light. An architect noticed the buildings, their construction, composition, and the layout of the city. A clothing designer reported in some depth about the texture, color, and style of the garments that people were wearing. An agronomist noted the trees their types and placement in the gardens and parks-and commented on the flowers—their types and indescribable colors. Some individuals were so caught up in the people they saw that they never mentioned anything else. That did not mean that there was nothing else to see, only that people reported what caught their attention or what was most important to them. Similarly, even when my wife and I have visited a place together, our journal entries describing the place are quite

different. So, for me, it is no surprise and has no bearing on the reality of NDEs that experiencers' reports are different.

Marsh also noted that the God or Jesus who met different experiencers is not described the same way, so the accounts are not of the same being. Maybe they weren't. Plus, eyewitnesses are known to be notoriously unreliable. Depending on where they were when a particular person was observed, eye witness accounts can and do result in very different descriptions of the individual seen—clothing, height, weight, hair color, race, or ethnicity. But when the witnesses get together and share their observations, consensus begins to occur. For most neardeath experiencers, the Being they meet does not usually announce who it/he is. Rare is the experiencer who reports that the Being communicated explicitly that it/he was Jesus or God. In most cases, the experiencer deduces the Being's identity on the assumption that only God would be radiating such beautiful light, love, and compassion. Several individuals I have interviewed who reported that they were privileged to visit the City of Light said that all the residents radiated light. However, when they actually met the Being they assumed was God or Jesus Christ, the light radiated by that Being made the light of the other beings pale in comparison. However, there is no way to know if it actually was God or Jesus that experiencers met, at least not unless they were told so, which didn't happen in very many cases. And if the Being of Light was a different being for different people, the discrepancies in description could be perfectly legitimate. Marsh, however, argued that any discrepancies in accounts makes them questionable or, more likely, proof that the experiences are illusions.

Marsh pointed out that references to heaven in NDEs differ across cultures. There are indeed differences, but I believe that a good part of these differences may result from differing linguistic tools that individuals from different cultures have to work with. Again, Marsh's conclusion seemed to me to be not the only viable possibility.

In Chapter 10, Marsh discussed the resurrection or rising from the dead of Jesus Christ as described in the Bible. If Jesus did rise from the dead on the third day after his death as it says in the Bible, this would be definite proof that the physical body lives on after death. Marsh did his best to reinterpret the biblical account. He noted, for example, that something other than a literal resurrection took place when Christ came out of the tomb. He argued that the body of the resurrected Christ was different from the body of the mortal Christ, although in what way or ways he does not specify. For evidence, he pointed out that Mary, who knew Jesus intimately, did not recognize

him when he appeared to her at the tomb. He also argued that Jesus's physical body could not have passed through the walls of the room where he appeared to his disciples. Further, he considered it significant that the disciples did not recognize him until he spoke—and even then, they thought that he was a spirit. Jesus invited them to touch him "for a spirit hath not have flesh and bones, as ye see me have" (Luke 24:39). Marsh argued that had Christ had the same body, both Mary and his disciples would have immediately recognized him. However, Marsh did not address a point I consider significant: that when Jesus spoke to Mary and his disciples, they recognized his voice. As to why they hadn't recognized him immediately, I think that it had to do with their expectations. Up until this time, death was the end of a person. I can see that during their intense grief, his disciples would not have expected him to come into a closed room and appear to them. But his voice, the voice they had heard while in close association with him for three years, they were much more able to recognize. My point is that the issue of Jesus's intimates not recognizing him immediately is open to interpretations other than the one Marsh put forth.

In his research, Marsh tried to demonstrate that the physical brain is the source of people's humanity, being, and memories and that the dead brain cannot restore itself. However the Bible states that Jesus was not the only one to be resurrected. Matthew 27:52 says that at the time of Christ's resurrection "the graves were opened; and many bodies of the saints which slept arose." Further, verse 53 goes on to say that they "appeared unto many." Yet Marsh stated that, "a general resurrection could not take place on earth nor in some other locus of the universe as currently conceived" (p. 207). Perhaps the problem is that Marsh was unable to conceive of a universe other than the one with which he was familiar. Or perhaps it is another situation where Marsh carefully selected materials that supported his thesis and ignored or discounted those that did not.

Marsh evidently did believe in a resurrection, just not a literal resurrection of the kind described above. He wrote, "what shape the new resurrection body will take we cannot know, since the achievement of resurrection may entail the loss of many of our worldly ties, mental and physical, as we assume the New Creation, our unique resurrection 'self." (p. 267). But by Marsh's ignoring the vast literature associated with NDEs, he denied a lot of information that could address some of what the next aspect of that existence might very well be.

The last significant factor that Marsh addressed in Chapter 11 is about revelation and its failure to be a useful explanatory variable in

NDEs. Here he was not using revelation in the larger religious meaning but was focusing on revelation as to what people believed they learned during their NDEs. For example, he noted that

If revelation is understood to be the impartation of a 'message', then neurophysiologically it is unlikely that there is a specific centre, chosen to be the site of 'implantation' of a divine word in order to effect a necessary outcome. The varied pathologies of schizophrenia, migraine or temporal lobe epilepsy make that clear. (p. 220)

Whereas this may be the case, it also holds true for the brain and the location of memory. He then noted "many accounts of dreamers believing, through these means, to have been in receipt of a message from God" (p. 221). He said that when many of the so-called revelations are evaluated, "much of this aberrant phenomenology, within the general population, often does not involve God, Jesus or apparent insights into the structural terrain of the afterlife" (p. 227). He then suggested that "NDE recollections are far more dream-like (hypnopompic) in their recalled content in comparison with the many mystical encounters recorded . . ." (p. 232). He argued that "the perceptual disturbances could have arisen from severe depressive illness, despair and acute loneliness" (p. 236). He went on to state, "In the light of this cumulative evidence, we must surely conclude that the weight of probability lies on the side of ECEs being caused by solely internal causes in a (temporarily) abnormal brain state" (p. 237). He concluded this chapter by noting that "the most economic explanation is that ECEs are neurophysiologically grounded phenomena arising from brains metabolically recovering from various antecedent clinical crises" (p. 241). It was his argument that near-death experiencers do not have an experience that reveals anything to the individual about any spiritual truths, insights from God, or insights from heaven but that NDEs are nothing more than misinterpreted signals from a traumatized brain. But he provided no empirical evidence that this contention is true, only his line of reasoning that I found to be influenced heavily by personal bias.

Conclusions Have Already Been Discounted by Other Researchers

All of Marsh's arguments have been empirically rejected by a number of researchers in both the scientific and medical fields. Some recent books on this subject are van Lommel's (2010) Consciousness Beyond Life, William Joseph Bray's (2012) Quantum Physics, Near Death Experiences, Eternal Consciousness, Religion, and the Human Soul, and Chris Carter's (2010) Science and the Near-Death Experience.

Summary

In summary, I found this book not to be an objective examination of NDEs but rather an attack on them. Marsh did his best to discredit not only NDEs but also any author or researcher who attempted to study them. Furthermore, in doing so, Marsh did not use the most up-to-date research and information as the basis for his critique. He was very selective in his research, using primarily those studies that supported his preconceived perception of NDEs. He used a result from one study to support his thesis that NDEs are not real while ignoring thousands of cases of veridical perception—in which what NDErs perceived should not have been perceivable based on the condition and position of their bodies yet were later verified to be accurate—that indicate they very well may be real. I consider him to be one of the scientists that Thomas Kuhn described who can't deal with evidence that threatens the dominant worldview.

Marsh has collected a vast array of articles and hypotheses about the brain being the repository of the mind/consciousness/self. But what I found lacking was any systematic attempt to tie them all together. He also neglected studies that suggest that some aspect of the brain when stimulated by a shock, a drug, heightened temperature, severe anxiety, fear, complications associated with medical treatments, disease, and so on, cannot, either in part or in combination, account for an in-depth NDE. Being able to account for a piece of the puzzle does not complete the entire puzzle. Marsh placed a lot of importance on each of the pieces but did not, to my satisfaction, integrate them into a whole. For him, a piece in and of itself was evidently proof enough. He was also very selective in what he considered fact. He selected bits and pieces that supported his views and appears to have ignored anything that did not fit.

Marsh treated a number of hypotheses as if they were facts. A theory/hypothesis should guide the efforts of a researcher. When the model/theory does not fit, it should then be discarded and the theory/hypothesis modified so that it will cover the evidence better. Marsh was totally convinced that the brain is the source of the self, that is, that the brain is the locus of memory and that memory cannot persist

after brain death. He seemed to consider any evidence in disagreement with this assumption to be wrong by definition. He went to extraordinary lengths to try and prove his point. To strengthen his position, he ridiculed proponents of an alternative position—proponents of NDEs as potentially real phenomena that provide data supporting a paradigm different than the prevailing one. He did not impartially examine their position but discarded it out of hand. By resorting to studies done more than a decade earlier, he failed to comprehensively examine the current, most mature literature in the field of near-death studies. He even imposed his personal beliefs over what the Bible reports about human origins, death, and resurrection.

In conclusion, I did not find this book to be an informative read—just the opposite. All of Marsh's major premises have already been addressed and discounted in the near-death literature. I found neither compelling nor useful his attempt to explain away NDEs as an artifact from the few moments when the brain is recovering from a significant assault. I know of no evidence that the mind and brain are inseparably connected or that they are even the same thing. No one has been able to prove that consciousness is restricted to the brain. Conversely, I have seen considerable data suggesting that the unique aspect of an individual neither commences when the individual is conceived or born nor ceases at the individual's death—data that Marsh failed to consider in his extensive work.

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