

**Maria's Near-Death Experience:
Waiting for the Other Shoe to Drop.**

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**I'm not afraid to die; I just don't
want to be there when it happens.**

Woody Allen.

Skeptics enter most debates at a disadvantage because they are usually forced to cast doubt upon comforting beliefs. The idea that so-called "near-death experiences," NDEs for short, could count as evidence for survival of the soul is perhaps the most comforting belief of all. Since Raymond Moody (1975) coined the term "near-death experience" to describe a reasonably consistent set of experiences recalled by about a third of those who are resuscitated after near-fatal incidents, such descriptions have been welcomed with enthusiasm by a large segment of the public. The NDE typically begins with a sense of serenity and relief, followed by a feeling that the self is leaving the body (the "out-of-body experience," or OBE). From this vantage point, the disembodied self sometimes feels that it is observing attempts to revive its lifeless body. A subset of those who reach the OBE stage further reports being propelled through a spiral tunnel toward a bright light. For some, the light eventually resolves into a significant religious figure, deceased relative or friend, vista of paradise, etc. As rescue procedures begin to take effect, these patients often report feeling great reluctance at being pulled back into the painful, uncertain everyday world.

Virtually every new book retelling this now-familiar story achieves instant best-seller status and reaps a fortune for its author. James Alcock (1981) provided several insights into the motivations underlying this fervent longing for "proof" of an afterlife. He also suggested an explanation for why the will to believe so readily overcomes the desire to examine the evidence critically:

"Intellectually capable of foreseeing that they will one day die, yet emotionally too frail to accept that physical death may indeed be the end of their existence, human beings have long clung to the idea that life continues beyond the grave" (Alcock 1981, p. 65).

As Alcock reminds us, survival beyond death lies at the core of almost all formal religions and protecting this hope was also a major impetus for the founding of the modern

discipline of parapsychology. He was referring, of course, to the eminent group of British scholars and statesmen who in the last century banded together to form the Society for Psychical Research. Disturbed by the implications of modern science for their Christian worldview, these members of the intelligentsia adopted as their avowed goal the establishment of *scientific* proof for the existence of an immortal soul.

Reports of NDEs have a much longer pedigree, however. One of the earliest accounts is that of a soldier's supposed return from death, found in Plato's *Republic*. The Bible too is replete with stories of people raised from the dead, as are the sacred texts of most other faiths. Although reports of NDEs have accumulated over the centuries, the rate seems to have increased dramatically in recent times. This is likely due to vast improvements in emergency medicine, coupled with a resurgence of religious fundamentalism worldwide. The spiritual interpretation of NDEs is reinforced by the mass media which prosper by pandering to public longings of all sorts.

The concept of personal immortality is, in the final analysis, a metaphysical proposition that can only be accepted or rejected on faith (Edwards 1992). While faith alone used to be sufficient to bolster such convictions, the growing prestige of science has left many more sophisticated believers uneasy in the absence of more solid proof of an afterlife. In response, a field known as "near-death studies" has emerged with the thinly veiled agenda of providing a scientific gloss for religious views of an afterlife. About the same time, there emerged another field known as "anomalous psychology" (Reed 1988; Zusne and Jones 1989; Neher, 1990). It accepts that experiences such as NDEs and OBEs can seem exceedingly real to those who have them, but offers many reasons to doubt their reality outside the mind of the percipient (Blackmore 1993). Anomalous psychology seeks naturalistic explanations for various seemingly supernatural states of consciousness based on sound psychological and neurophysiological research (Beyerstein 1987, 1988).

To accept notions such as survival after death, disembodied minds, and a host of other parapsychological phenomena, one must also adopt some form of the philosophical doctrine known as dualism (Beyerstein 1987). Dualism asserts that mind is fundamentally different from the physical body, essentially equivalent to the religious concept of an immaterial soul. If dualism is correct, it is possible, some say, for mind or consciousness to disengage temporarily from the body but still retain self-awareness and the ability to gather information and interact physically with the environment. Many dualists also believe that their spiritual selves are immortal and that they will eventually abandon their physical bodies and assume a separate existence in some other realm. All of this is impossible from the standpoint of material monists who assert that mind is equivalent to and inseparable from the functioning of individual brains.

Not surprisingly, NDE accounts are welcomed by many occultists because they appear to be a major impediment to the materialist worldview they find so distasteful. Likewise, in fundamentalist circles, NDEs are hailed as a vindication for various spiritual teachings. Materialists readily concede that the subjective experiences of the NDE *feel*

compellingly real. Indeed, they contend that NDEs helped suggest the concept of an immortal soul to our ancestors in the first place. Despite the subjective realness of the NDE, however, modern neuroscience offers not only a wealth of reasons to doubt the possibility of disembodied minds but it also provides much evidence that the compelling subjective phenomena of the NDE can be generated by known brain mechanisms (Beyerstein 1988, Blackmore 1991, 1993). Believers counter that the NDE seems too real to have been a dream or hallucination, but they forget that what we *mean* by the term "hallucination" is an internally-generated experience so detailed, emotional, and believable that it is indistinguishable from ordinary perceptions of reality (Siegel 1992; Beyerstein, in press).

It is also important to note that NDEs are always reported by people who have not really died. Cardiopulmonary arrest (CPA)--i.e., stoppage of the heart and lungs--was once an adequate definition of death. With the advent of modern resuscitation techniques, however, it became possible in some cases to restore breathing and pulse, often as long as several minutes after they have ceased. During CPA, the brain undergoes several biochemical and physiological changes, but by relying on its limited back-ups of stored oxygen and metabolic fuels, certain aspects of consciousness can be sustained, albeit in a somewhat degraded fashion. Thus if the resuscitation is successful, it is not surprising that there might be some residual memories from the time that one was dying, but not yet dead.

That there should be some overlap in the recollections of the minority of revived CPA patients who recall anything from the interval tells us more about how the brain ordinarily creates our sense of self and the feeling that there is an external reality than it does about the possibility of an afterlife. Much can be learned from studying the orderly fashion in which these internally-constructed models shut down when the brain is traumatized, but because those who have been revived did not reach the irreversible state of brain death, any experiences they recall cannot be said to have come from "the other side."

Furthermore, the subjective contents of the NDE are anything but unique to the onset of death. The basic elements of the NDE are common to hallucinations of various sorts. E.g., they are also found in psychedelic drug states, psychoses, and migraine and epileptic attacks (Siegel 1992; Blackmore 1991, 1993; Beyerstein, in press). Similar experiences have even been reported in a surprisingly high proportion of those who panic during natural disasters, when they are psychologically traumatized but in no real physical danger (Cardeña and Spiegel 1993).

If, as is indeed the case, the components of the NDE have plausible roots in brain physiology, this undermines the argument that they are a glimpse of the afterlife rather than a rich and very believable hallucination. It is for this reason that accounts of NDEs that contain elements that are logically incompatible with the hallucination hypothesis assume special importance. One attempt to gather objective evidence of this sort, rather

than the usual anecdotal, after-the-fact accounts, has been initiated by the British psychiatrist, Peter Fenwick (personal communication). He has had messages placed on ledges, above eye level, in the operating theaters of the hospital where he works. If a surgical patient should have an NDE/OBE, then his or her free-floating mind should be able to read the otherwise inaccessible message and recall it upon re-awakening. As yet, no one has been able to provide this kind of objective evidence, which would admittedly create serious problems for the materialist view of mind. In the absence of such strong proof, the spiritually-inclined must fall back on the next best thing: those cases where it seems highly unlikely that the revived person could have known certain things unless his or her fully-conscious spiritual self had been observing from outside the body.

Ray Hyman has long urged his fellow skeptics to concentrate on the cases that supporters of paranormal claims put forth as their very best. For if these examples fall short, logically or empirically, the remainder must be at least as vulnerable. In the area of near-death studies, the widely-cited story of the Seattle heart patient known as "Maria" occupies such a place of pride (Clark 1984, Wilson 1987, Rogo 1989, Blackmore 1993, Ring and Lawrence 1993). This account is held in such high regard primarily for two reasons. First, many of its proponents have some professional standing, and more importantly, it is claimed that, during her NDE, Maria became aware of things, including an oddly positioned shoe, that were impossible for her to have known unless her spirit had literally departed and returned to her body. In throwing down the gauntlet to disbelievers, the prominent NDE researchers Ring and Lawrence say this about the case:

... [A]ssuming the authenticity of the account, which we have no reason to doubt, the facts of the case seem incontestable. Maria's inexplicable detection of that inexplicable shoe is a strange and strangely beguiling sighting of the sort that has the power to arrest the skeptic's argument in mid-sentence, if only by virtue of its indisputable improbability. (Ring and Lawrence 1993, p. 223)

It is because Maria's story was frequently recommended to us as their "best case" by those who believe NDEs are more than complex hallucinations, that we decided to conduct our own investigation. In 1994, the first two authors (H.E. and S.M.) traveled to Seattle three times. They visited the sites where the events transpired and had several conversations with Kimberly Clark who first reported the incident (Clark 1984). They also attended a meeting of the support group Clark founded for NDE experiencers. Despite repeated efforts, including contacting media people who publicised the event, they were unable to locate Maria herself or anyone other than Clark who claimed to have had any direct contact with her. Given the seriousness of the medical condition that led to her NDE and the time that has since elapsed, we assume Maria is no longer living. The following description of Maria's NDE is constructed from Clark's (1984) original report and from telephone and face-to-face conversations the authors were able to have with her.

Maria's NDE.

In April of 1977, Maria, a migrant worker from the Yakima area of Washington

state, was visiting friends in Seattle when she suffered a severe heart attack. She was taken, at night, by paramedics to Harborview Medical Center where she was admitted to the coronary care unit. Kimberly Clark, a social worker, was routinely assigned to Maria to provide assistance with social and financial problems arising from her illness. Clark says she spent a considerable amount of time with Maria and was with her when, three days after her admission to the hospital, she suffered a cardiac arrest. Because Maria was being monitored closely, she was resuscitated quickly and her condition stabilized.

Later the same day, Clark returned to see Maria and found her quite distressed about what she had experienced during the recent emergency. Maria told Clark, "The strangest thing happened when the doctors and nurses were working on me. I found myself looking down from the ceiling at them working on my body." Clark was not immediately impressed by this for she realized that, like most people who have been exposed to TV, movies, novels, and magazines, Maria could be expected to have known what would be happening during such a procedure. Maria had also been in the cardiac facility long enough to become familiar with its staff, equipment, and emergency routines. And, because hearing is one of the last senses to drop out as someone loses consciousness, she could have heard much that she seemed to know about her resuscitation when she later described the scene to Clark. Thus Clark initially leaned toward our position that Maria's account was a sincere recollection of visual images that welled up from her memory during her cardiac arrest. However, as Maria elaborated further, Clark began to doubt her initial assessment.

Clark began to be impressed when Maria told her of seeing chart paper streaming from the machines monitoring her vital signs, even though no one had talked about it while reviving her. More dramatically, Maria also said that she became distracted by something over the emergency room driveway and suddenly found herself outside the building, as if she had just "thought herself" there. Maria also described the area around the emergency entrance, relating details such as that the doors opened inward, that they are reached by a one-way road, and that the road had a curve in it.

These details piqued Clark's interest because she knew Maria had arrived after dark and she thought it unlikely that she would have absorbed much knowledge of the approaches to the emergency area. Initially, Clark considered the possibility that, because the room Maria was assigned is above the emergency entrance, she might have looked out the window sometime in the three days prior to her NDE, and noticed the layout of the area below. However, Clark told us when we discussed it with her that she came to believe that these prosaic explanations were unlikely. She believes that Maria could not have seen the driveway area from her window because it is obscured by a canopy over the entrance (see Figure 2). And furthermore, Clark asserted, Maria had been restrained by various leads attaching her to the physiological monitors, making it doubtful she could have been able to look out the window.

Maria went on to describe being distracted again, this time by something on a third

floor window ledge at the north side of the hospital. Maria said she "thought her way" up to the object and discovered that it was a shoe. She described it as a large tennis shoe that was worn at the toe and sitting with a lace tucked under its heel. Maria then asked Clark to search for the shoe as a way of verifying that her spirit had really been out of her body.

Clark went outside to see if she could make out the shoe from ground level, but said she couldn't see anything unusual in the suggested direction. She then returned inside, went upstairs in that wing, and began going through various patients' rooms, looking out the windows. She recalls the windows as being so narrow that she had to press her face against the glass, just to see the ledge at all. Eventually, by pressing her face tightly against the glass of one of the windows, Clark says, she was able to look down and see a tennis shoe. It was on a third floor window ledge of a patient's room on the west side of the hospital's north wing. The wing faces toward Puget Sound and a local landmark known as the Smith Tower (Figure 1). People at the NDE support group the authors attended embellished the story, claiming that the shoe was positioned such that one would have to have been in the Smith Tower, miles away, to be at the right angle to see it; and then, of course, it would have been much too small to recognize from that distance.

Although she had been able, with difficulty, to see the shoe from inside, Clark believed her view of it had differed from Maria's. That is because for Maria to have noticed that the side of the shoe next to the small toe was worn and that a lace was tucked under the heel, she would need to have viewed it from the opposite direction; i.e., looking toward the building rather than out of it. Clark is adamant that these details of the shoe could not have been visible from inside the hospital. She then proceeded to retrieve the shoe, convinced that it offered irrefutable proof that Maria's spirit had indeed left her body and floated outside of the hospital during her CPA.

Do the facts require a spiritual interpretation?

On the surface, certain aspects of Maria's story seem to defy naturalistic explanation. The leading NDE researchers, Ring and Lawrence, quoted above, accept Clark's spiritualistic interpretation wholeheartedly, although they do admit that not everyone would agree. There are, of course, other plausible explanations for the key points that distinguish this case. Closer examination reveals that the story is much less impressive than it seems at first blush.

Clark was impressed by the fact that Maria recalled seeing that the monitoring apparatus was streaming out chart paper while she was supposedly out of her body. But, as she herself admits, Maria could have been familiar with the hospital equipment and procedures. So, like other parts of typical NDEs, it is quite possible that this was merely a visual memory incorporated into the hallucinatory world that is often formed by a sensory-deprived and oxygen-starved brain. We know that the brain frequently tries to construct a substitute image of external reality from memory when traumatic changes temporarily

deprive it of its normal sensory inputs (Blackmore 1993; Beyerstein, in press). Because this memory-derived imagery is the most complete and stable construct the brain can muster under the circumstances, it is accepted as reality for the moment.

Maria's description of the emergency entrance and driveway area may also seem extraordinary at first glance, but a bit of reflection upon standard hospital design suggests that Maria reported nothing more than what common sense would dictate. It would strike most people as logical that the doors of a hospital emergency room would open inwards as it would be awkward for paramedics to have to negotiate doors that opened towards them as they rush stretchers, wheelchairs, etc., into the clinic. In addition, Maria may have picked up more direct knowledge of the scene than she was aware of, for she had been brought into the hospital through this very entrance.

The same weaknesses are apparent when we consider Maria's knowledge of the driveway. Concerning the approaches to the emergency room, although it was after dark when Maria arrived, the area is well-lit. Even if she hadn't been sufficiently conscious to observe the scene as she was trundled through it (no one would confirm or deny Maria's state of consciousness upon arrival), it only makes sense to require one-way traffic in such areas to facilitate the safe and orderly entrance and exit of speeding emergency vehicles. And recall that the room Maria occupied for three days prior to her NDE was immediately above the emergency entrance (see Figure 2). Giving Clark the benefit of the doubt when she suggests that never once did Maria catch a glimpse of the entrance area beneath her window, it is still not far-fetched to assume that she could have gained some sense of the traffic flow from the sounds of the ambulances coming and going. At night, reflections of vehicle lights could also supply similar clues, even to a bedridden patient.

While most parts of Maria's account are neither unique nor convincing, her sighting of the tennis shoe seems problematic for those who would explain her NDE as a hallucination. Clark has long maintained that the shoe was undetectable except from a vantage point outside and above the third floor of the building. As part of our investigation, H.E. and S.M. visited Harborview Medical Center to determine for themselves just how difficult it would be to notice a shoe on one of its third-floor window ledges. They placed a running shoe of their own at the place Clark described and then then went outside to observe what was visible from ground level. They were astonished at the ease with which they could see and identify the shoe (see Figure 3). Clark's claim that it would have been invisible is all the more incredible because the investigators' viewpoint was considerably inferior to what hers would have been seventeen years earlier. That is because, in 1994, there was new construction under way beneath the window in question and this forced the present investigators to view the shoe from a much greater distance than would have been necessary for Clark. Figure 4 shows one of the authors (S.M.) in front of the construction fence that prevents the much closer access that would have been possible in 1977. It is from this position that the photo in Figure 3 was taken.

The construction site had been, until earlier in 1994, a carpark and patient

recreation area. Thus, back in 1977, many people in this high-traffic area would have had the opportunity to get a better view of a shoe on the ledge than we did. If we could see our shoe with such ease from a greater distance, it seems reasonable that many people who used the parking lot and recreation facilities would have noticed one as well. When H.E. and S.M. returned to Seattle one week later, the shoe they left behind had been removed from the ledge, proving that it was also discernible to someone not specifically looking for it.

It is not far-fetched to assume that many who might have noticed the shoe back in 1977 would have commented on it because of the novelty and whimsicality of its location. Thus, during the three days prior to her NDE, Maria could have overheard such a conversation among any of the doctors, nurses, patients, visitors, or other hospital staff who frequented this busy area. Memory researchers are well aware that people can hear snippets of conversations outside their focal awareness and recall the contents in various forms, including visual images, even though they honestly believe they never encountered the information before. This is known as "cryptomnesia" (Zusne and Jones 1992, p. 138).

Let us suppose, for the moment, that no one actually saw the original shoe on the ledge from outside the hospital. Would that rule out non-spiritualistic explanations for the contents of Maria's NDE? Not necessarily. According to Clark, it was nigh impossible to see the shoe from inside the building. She emphasized how difficult it was to find the shoe when Maria asked her to search for it: "I went up to the third floor and began going in and out of patients' rooms and looking out their windows, which were so narrow that I had to press my face to the screen, just to see the ledge at all." When H.E. and S.M. visited the third-floor wards at Harborview, they did not find this to be the case at all. They easily placed their running shoe on the ledge from inside one of the rooms and it was clearly visible from various points within the room. There was no need whatsoever for anyone to press his or her face up against the glass to see the shoe. In fact, one needed only to take a few steps into the room to be able to see it clearly. To make matters worse for Clark, a patient would not even need to strain to see it from his or her bed in the room. So it is apparent that many people inside as well as outside the hospital would have had the opportunity to notice the now-famous shoe, making it even more likely that Maria could have overheard some mention of it. The peculiarity of its position would almost certainly invite speculations about what kind of prankster or bungler could have been responsible.

Those who prefer the spiritualistic explanation of Maria's NDE also stress a number of details in her description of the shoe. Clark has repeatedly declared that the only way Maria could have known about the worn spots and position of the shoelace was if she had been hovering outside the window--allegedly these details were undetectable from anywhere else. Having visited the scene ourselves, we are less impressed by this hyperbole. As already mentioned, one did not need to be pressed against the glass to see the shoe, but we did find that by assuming that position it would have been easy to discern the additional details that so impressed Clark. Looking down from that angle at the shoe we placed on the ledge, we had no difficulty in seeing its supposedly hidden outer side.

Thus we have shown that it would not have been as difficult as Clark claims for Maria to have become aware of the shoe prior to her NDE. It would have been visible, both inside and outside the hospital, to numerous people who could have come into contact with her. It also seems likely that some of them might have mentioned it within earshot. But even if we assume that none of this occurred, there are other considerations that make this less than the airtight case its proponents believe it is.

Memory and interpretive biases.

Kimberly Clark is not a trained investigator and she did not publicly report the details of Maria's NDE until seven years after it occurred. It is quite possible that during this interval some parts of the story were forgotten and some additions may have been subtly interpolated. As Clark has not produced original notes or recordings from the initial interviews, we have no way of knowing what leading questions Maria may have been asked, nor of telling what else Maria might have "recalled" that was wrong and has since dropped out of the record. Research shows that we all have a confirmatory bias that leads us to recall and embellish information that supports our beliefs and to forget parts that complicate the picture. This is true both for the original parties to the event and for their partisans, especially when the contents of an oral account become the subject of controversy and there is a need to defend one's credibility and point of view. Memory researchers refer to this tendency for stories to improve over time as "sharpening and levelling." Supportive points assume greater prominence and things that might make the story less convincing tend to fade from the narrative.

In reflecting on her NDE, Maria could have unintentionally filled in, by inference, additional details to flesh out the story. Pressed for details by someone in a position of authority, this woman of modest status could easily have succumbed to what psychologists call "demand characteristics" and, quite innocently, filled in more than she really knew. Research shows that human cognition edits and shapes memories in order to achieve a comprehensible and satisfying account of past events. Once Maria had reported a shoe sitting on an outside ledge, it would be plausible to infer it was an old shoe--otherwise wouldn't the owner have taken the trouble to retrieve it? From this, it is only a small step to assume a worn toe, not unusual in an old shoe. That the lace was tucked under the shoe may also have been a later addition to a story that, as we have seen, is marked with memory distortions on Clark's part. As far as we were able to ascertain, Clark never photographed the shoe before removing it. And, more troubling, when H.E. and S.M. asked about the current whereabouts of the shoe, Clark breezily replied that she probably had it around somewhere, maybe in her garage, but that it would be too much trouble to look for it. This cavalier attitude toward the most important artifact in the field of near-death studies struck us as odd, given the almost mythic status this humble piece of footwear has been accorded.

Perhaps in her excitement at discovering the shoe, and in her haste to retrieve it, Clark did not spend sufficient time analyzing and recording details of the situation, and now honestly mis-remembers how closely the facts matched Maria's account. Note, for example, that her assertions about the invisibility of the shoe are clearly exaggerated in her memory. The motivation to defend cherished or self-serving beliefs makes it easy for unintentional embellishments creep into key accounts as they are re-told. In our discussions with her, Clark exhibited obvious emotional commitment to the spiritual interpretation of Maria's story. She has become a minor celebrity because of her involvement with it and is writing yet another, potentially profitable, book on the subject. When H.E. and S.M. attended meetings of the support group Clark runs (which bills itself as devoted to scientific research of NDEs), they were struck by the revival-meeting atmosphere. The participants exhibited a conspicuous lack of scientific knowledge and low levels of critical thinking skills. They seemed quite unaware of how to mount a proper investigation of such incidents. The appeal throughout was strictly to faith. The few mildly critical questions the visitors raised were decidedly unwelcome.

Conclusion.

Our investigation cannot prove that Maria's spirit did not leave her body and return, nor that Kimberly Clark's recollections and interpretations are wrong. It does, however, show that this case, often touted as the best in the area of near-death studies, is far from unassailable, as its proponents assert. We have shown several factual discrepancies and plausible ways that the Maria's supposedly unobtainable knowledge could have been gained by quite ordinary means. On delving into this incident, we were first disappointed, then amused, that such a weak case should have achieved the importance it has been accorded. Ring and Lawrence (1993) certainly must have spoken in haste when they issued their challenge; for rather than "...arrest[ing] the skeptic's argument in mid-sentence,...", investigation of Maria's story merely reveals the naivete and the power of wishful thinking in the the supposedly scientific area known as "near-death studies." Once again, it is apparent why Demosthenes cautioned, over 2000 years ago, "Nothing is easier than self-deceit, for what each man wishes, that he also believes to be true."

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