

Guest Editorial: A Theory of Death

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Dying is considered by most people to be a gradual process. Charles II apologized for taking an unconscionable time over it, whereas he probably thought death itself would be instantaneous, like the snuffing out of a candle.

But death is also a process, which commonly starts with cardiac arrest. Some minutes elapse before stoppage of the circulation becomes lethal to the brain. The mind can remain alert until the brain stem, into which are packed the control mechanisms for speech, sight, and hearing, ceases to function. What takes place in the mind during that interval is crucial. A considerable body of evidence has been assembled indicating that a unique experience is in fact in progress.

Certain stages of this near-death experience (NDE) can be aligned with corresponding physical events. For example, the thump that accompanies the return to the body in many autoscopic NDEs appears to coincide with the heart being restarted by a successful resuscitation procedure (Sabom, 1982, pp. 56-58).

To align the failure of every individual system or component within the dying brain with a corresponding stage in the deterioration of personality is beyond the scope of an enquiry such as this. Nevertheless, it is possible to focus on certain stages of loss of function in the brain and infer the corresponding perceptions in the conscious mind.

The most significant event is the irreversible loss of the capacity for consciousness that is the inevitable effect of death of the brain stem. A distinction must be made here between the *capacity* for consciousness,

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which is a function of the brain stem, and the *content* of consciousness, which resides in the cerebral hemispheres. The survival of the former is essential for activation of the latter.

From the evidence of the NDE, it is clear that during the minutes that elapse between cardiac arrest and death of the brain stem, the mind experiences vivid and various images. These, I suggest, lead into a final experience that totally resolves all personal conflicts, all unanswered questions, all emotional loose ends, all guilt, remorse, and sorrow, as the consciousness enters a state of warmth, joy, and release from pain, characterized by NDErs as being overwhelmingly suffused with love.

Another universal feature of NDEs is the disappearance of all sense of time. The logical extension of this is the atemporal sense of being that, I suggest, achieves ascendancy at the moment of death. This is not the same as a "hereafter," but is rather a permanent "here-and-now." The "after" in "life after death" or "hereafter" is an outcome of the sequential habit of thinking derived during this life, which has always colored our consideration of the next.

To reinforce this assertion, it is worth pointing out that from birth the human organism is programmed in the "And then . . . and then . . ." mode, the "What happens next?" perspective. But if this imperative ceases to govern one's perceptions, as NDErs suggest, such a question ceases to formulate itself. Eternity becomes infinite in both past and future durations, having neither beginning nor end, outside of "time" in its restricted sense of duration measured by the succession of physical phenomena. In a very real sense, timelessness will be all-pervasive.

Does Something Leave the Body?

Perhaps the most powerful impression noted by NDErs is the reality of the NDE. There is every reason to accept that it was "realer than here, really," as one of Michael Sabom's subjects put it (Sabom, 1982, p. 33). But accepting this impression is not the same as accepting that the events related in the NDE, particularly in the autoscopic NDE, actually happened. Because they were experienced as real does not mean that they were actual.

As indicated above, the NDE may be an altered state of consciousness, and I will shortly examine the consequences of that. But first it is important to investigate the notion that the autoscopic NDE can add

substance to the idea that a "soul" leaves the body at death and has some independent existence.

Those who have undergone an autoscopic NDE have reported being able to watch the activities of the medical team at work on their bodies, typically from a point near the ceiling. For this actually to occur, the retina of an eye would have to record the relevant images and pass them via the optic nerve to the visual cortex. The requisite organs, together with their support systems of veins, arteries, glands, and the like, must therefore be in place. Such a disembodied assemblage has never been recorded by anyone present in such a setting; the very process of enumerating them in this way serves to highlight the absurdity of the notion.

But the intention here is not to devalue such accounts; quite the reverse. As noted above, such testimony is overwhelmingly suffused with the reality of what was experienced. What both NDErs and researchers fail to acknowledge is that what took place in their minds was also produced there.

Such an assertion appears to dismiss the subsequently corroborated testimony of subjects who observed instrumental readings, or accurately reported the conversations of relatives located elsewhere in the hospital. I will address this aspect later, but first I must establish that the NDE, like other out-of-body experiences, is a product of the mind.

The Altered State of Consciousness

Most of the surroundings that are taken for granted during our waking hours are in fact the constructs of our mental processes. We unconsciously and continuously create a model of the world around us, a model that constitutes reality. This model comprises self-image, body image, and an input-driven model of the external world (Blackmore, 1984, 1988a, 1988b). It can be instructive to specify one's reality model, listing which phenomena have been selected for notice, and which have been filtered out.

In the activity of writing, for example, the mind blots out such irrelevant input as the pressure of the chair, the hum of a fan, the sound of traffic passing, and the image of physical objects that impinge on the writer's peripheral vision. The sequence of thoughts and correlated impulses that initiate the muscular contractions needed to propel a pen across the paper in a series of meaningful squiggles is what remains after the conscious mind has experienced and discarded all

background noise. A person's model of the real world comprises both this deliberately selected material, and a range of richly varied, though irrelevant, input from the external world. Sense data are entered into one's model of reality from the bottom up, so to speak: from peripheral sensory receptors to the cerebral cortex.

In the everyday situations in one's waking life, the conscious mind experiences a stable model of reality: a combination of sensory input together with mental constructs derived from habit and memory. But there are times when this stable model is displaced by an alternative model; for example, in dreams, drug-induced states, and out-of-body experiences. All such states involve worlds of truly imaginary, that is, imaged in the mind, origin, which seem as real, and often more real, than one's waking life.

In effect, the model of reality fueled by sensory inputs has been challenged and superseded by a model derived from images and memory, and constructed from the top down (Blackmore, 1984, 1988a, 1988b). The conscious model of reality is dislocated so radically that the mind seeks something to put in its place; the model based on memory and experience becomes dominant over the bottom-up reality model as sensory input becomes weaker and less definite. In a dream this dominance may be temporary and transient, so that we forget not only what we dreamed, but if we dreamed at all.

But some dreams remain in the mind for longer. In others, known as lucid dreams, one is aware that one is dreaming, and may choose between staying in the dream or returning to the bottom-up reality model.

It is clear, then, that models vary in their degree of dominance. Most of the time a bottom-up reality model is in control, but in a reverie a memory-based model may hold sway for a while.

Under anesthetic, however, it is possible that the mind responds to physical sensations originating from surgery by displacing them onto a mental construct, specifically an image of the surgeon at work on the subject's body. In other words, the personality adopts the survival strategy of combining sensory input, dulled by anesthetic, with memory and previous knowledge of medical procedures. From these sources it constructs a model of what is happening to the body. This becomes dominant in the out-of-body experience, during which patients report observing the activities of the medical team from a point near the ceiling.

This explanation can be applied in the case of autoscopic NDEs reported by patients undergoing surgery. But in six cases of resuscitation from cardiac arrest reported by Sabom (1982, pp. 123-157), sub-

jects confirmed details recorded on medical instruments and conversations of waiting relatives that could only have been perceived from a position outside the body. The altered-state-of-consciousness theory cannot account for these phenomena, unless it is modified to allow for extrasensory perception.

There are other situations in which it is generally accepted that the mind adapts to unmanageable physical situations by shifting from one state of consciousness to another. Faced with an inevitable car crash or similar accident situation, people frequently report experiencing a vivid replay of their lives. "My whole life seemed to flash before my eyes" is a typical formulation of what has been termed "depersonalization in the face of life-threatening danger" (Noyes & Kletti, 1976).

The onset of death presents the mind with its most extreme condition of sensory deprivation, as the sense organs lose their functions and the brain is denied sensory stimuli. But there is one significant compensation: in its weakened state of anoxia, the brain is no longer called upon to initiate motor functions or muscular contractions. Nevertheless, the brain stem is still alive, and able to orchestrate the activity of the cortex.

It seems fair to suggest that the preconditions for an altered state of consciousness are then met. Sensory input has ceased, so the mind searches for a model to replace the fading bottom-up reality model. It can only build one from the top down, that is, using memory, images, and experience in a totally unfettered way. Having labored since birth in the service of the organism, the mind can now give complete precedence to the uprush of images and feelings stored away over the years. Relieved of the necessity to monitor, filter, and suppress external perceptions, the mind is freed to experience totally the joys, sorrows, loves, hates, pleasures, and pains that make up this flood.

Whatever form the experience takes, it will be unique for each individual, based entirely on his or her biography, and hence not part of some universal or shared other world. But the universal factor in the situation is that it will not be subject to limits of duration. It will be outside time, having no beginning or end, conspiring to convince the spirit that its condition is unique, personal, and eternal.

Whether this interpretation convinces or not, three points need to be made about the brain as an organ. First, it is capable of immense amounts of activity over a very short time. Second in death it is in a unique situation, untrammelled by any sensory input or requirement to originate output, so that all its dwindling resources can be devoted to receiving images and experiencing emotions. And third, it has great recuperative power when damaged.

Beyond Scientific Enquiry?

What I have said so far is neither particularly novel nor controversial, and most of the evidence is in the public domain. The assumption that the irreversible loss of function of the brain stem coincides with the transition from the near-death state to a state of euphoria or ecstasy for that individual is not susceptible to scientific proof, but the evidence supports such an interpretation.

Further enquiry raises methodological issues. The problem of obtaining evidence from a dead brain stem is insurmountable: such evidence must necessarily disqualify itself, since its very existence would depend on a functioning, and therefore not irreversibly damaged, brain stem.

In such circumstances I feel justified in adopting a pragmatic approach, that leads to the following proposition: where two or more items of evidence and experience combine to establish an unshakable belief, that belief attains the status of proof *for the person holding it*.

In my own case, the items concerned happened to be something I read and something I experienced, which confirmed each other, and became a certainty. The particular items that combine to afford such a significant perception must be unique to each individual, so the above proposition can never attain the status of a universal law, or established theory based on replicable experiment. But if each individual finds correspondences between, say, the research findings of others and his or her own personal experiences in real life, then in a limited sense the proposition tends toward universality.

I will describe the items of evidence I encountered as an example of how the above formulation may apply. The first item was a dream experienced a few years ago, the details of which have faded. However, it was very pleasant and I remember wanting very much to remain in it. But awareness that I was going to have to wake up gradually asserted itself.

At that point it was borne in on me, almost as if to compensate for my disappointment, that eventually—which, to me, meant at death—I would receive complete satisfaction. The phrase “so *that’s* how it is!” came into my mind, triggered by the central message of the dream, which was that during the concluding moments of life the perception of time gets transformed. No longer is it a linear sequence in which minute follows minute, hour follows hour, and day follows day. Instead, the mind stands outside time, and experiences a resolution of all conflicts, all emotional loose ends, all guilt, remorse, and sorrow, and enters a state of warmth, joy, and freedom from pain.

In short, the experience makes sense of one's life. It may be regarded as a final flowering of the mind, a fulfillment of all dreams, a resolution of all regrets. Numerous reports of NDEs suggest it is all these and more. But the crucial point is that the main parameter of life—time present, past, and future—is cancelled out, made null.

The logic behind such a marked change is very clear: the continuance of life, for any animal, hinges on its acquiring sufficient nourishment to continue living. The basic question posed by life is "Where is the next meal coming from?" This puts mankind into the "And then . . . and then . . ." mode referred to earlier. But in death the only parameter is the present. Time past and to come fall out of the picture.

The idea that all this, the resolution of all regrets and fears in some personal paradise, can be a creation of the isolated mind in its dying moments may seem implausible. But again there is a logic behind it. Once out of the womb, the child embarks on a life centered on others; everything thereafter is increasingly social, in a context of other-directed and frequently dependent relationships.

But death is a total reversion to the singular. The dimensions of both time and a responsive world are displaced by a state of timelessness and solitariness—not, however, loneliness, since the interior world of death is peopled with those who have meant most to us in life, and reportedly such encounters, though imaginary, are profoundly significant.

I derived this conclusion from relating the message of my dream described above to the written testimony of those who have approached death. Combining the evidence of the two convinced me that on the mind of the dead individual there is imprinted an indelible state of "nowness," which is so complete and all-embracing that it totally displaces the life-derived preoccupation with filling time's unforgiving minutes.

English does not have a vocabulary comprehensive enough for most NDErs to explain satisfactorily what the experience of death was like for them. I am similarly constrained in my attempts to convey the idea of the end-state. But my dream convinced me of three things: (1) that nothing leaves the body at death; everything that is experienced takes place within the brain of the dying person; (2) in those dying seconds, as the brain finally succumbs to the dislocation of its fuel supply, the conscious mind undergoes a uniquely vivid experience of happiness, combined with a resolution of all stress, tension, guilt, and remorse; and (3) as the life force ceases, this experience is indelibly imprinted on the consciousness; it lasts forever in this world's terms, but for the dying person it is literally timeless. The first statement is hard to

disprove; the second and third on the other hand are impossible to substantiate, though one can make a case for them.

“Just” Imagination?

The notion that such an intense and powerful experience might originate entirely from resources lodged in the mind may seem inadequate. But it is worth remembering that our species is very logical in its behavior. Death confronts us with a completely novel set of circumstances that cause us to reorder our priorities and adopt a radically different strategy.

Paradoxically, at the point of death, survival is no longer an issue, as most NDErs will confirm. Therefore, the brain is not constrained to engage and operate survival mechanisms. All the promptings and schemings that go with attaining the next meal, even the muscular contractions required to draw the next breath, become superfluous. In any case, all sense data will have been cut off, freeing the brain to concentrate exclusively on interior activity.

The majority of NDEs suggest that the subject turns inward, advancing to meet dead loved ones rather than striving to rejoin the living; the only exceptions being those who feel some of the living still have a call on them, in which case a conscious decision is made to return, thus aborting the death process.

For those who have not experienced an NDE, it may be hard to accept that the product of the mind at such a time will be so unique and exceptional. Our experience of the brain's capacity in this regard is not very encouraging. If we try to dredge up some happy childhood memories, friends' faces, good holidays, and the like, we may conclude that the raw material is not that promising.

Similarly, if we consciously seek to conjure up a picture of the joys and pleasures that paradise might comprise, we do not get very far. But that may be because we make the attempt from within a context that is neither relevant nor propitious: that is, the dominant reality model of our waking hours.

As a result, the potential performance of the human mind at the point of death has long been seriously undervalued. Susan Blackmore, in noting that many people dismiss out-of-body experiences as “just imagination,” commented (1983, p. 149):

Imagination is far too vast and exciting a word to be denigrated with the word “just”. . . . It [the OBE] is imagination, and that may be quite the most exciting thing it could be.

I suggest that the potential of the imagination is commonly discounted because we conceive of it only from the context of real life, where its activities are subordinated, except when permitted brief diversion as in dreaming, to creative thinking and activity necessary for the survival of the organism. But from being just an instrumental adjunct to survival in life, it becomes the totally dominant core of a person's being in the process of dying, his or her very self. The experience is more all-embracing, intense, and totally fulfilling than we, from our perspective in this life, can possibly envisage.

The central conundrum, then, can be reexpressed in the following form: Nothing leaves the body at death, yet we do experience a personal heaven. This experience occupies only a moment of time, yet creates an eternity in death, at which point the dimension of time is totally erased.

I accord the imagination, or whatever function of the mind comes into play uniquely at death, the status of a slumbering giant: its potential, while only dimly apprehended, is clearly enormous.

Conclusion

The second element, which was combined with my dream to establish an unshakeable belief, is the body of testimony about NDEs collected by many researchers. Such evidence, however, is secondary material, whereas my dream was, to me, primary. However, the written evidence reinforced the full significance and implications of that dream and provided intellectual underpinning to my argument for the NDE as precursor of the final experience. Since conditions at the moment of death preclude many conventional research techniques, I propose that each individual should seek his or her own corroborative evidence, whether in the research findings of others or the events and experiences of his or her own life, which may resonate with or echo the findings of others.

Opportunities for speculation in the area of near-death studies are many and varied. Let me therefore conclude by restating my assumptions. An important initial premise is that nothing leaves the body. There can therefore be no surviving entity to inhabit some other dimension or plane. On the other hand, the NDE can be taken as fact, even though the evidence is by its nature not amenable to scientific testing. It is impossible to verify any theory concerning the complete death process. The solution I offer is as firmly based and objective as is possible under the circumstances.

The brain's behavior at death is the proper concern of neurologists,

and the patterns of the conscious mind can be further analyzed by psychologists. But for individuals it may be their own responses that provide the surest guide, so long as they can be ratified by what science is able to tell us about the last frontier.

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