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PSYCHOLOGICAL SCIENTIFIC PERSPECTIVES ON OUT-OF-BODY AND NEAR-DEATH EXPERIENCES, edited by Craig D. Murray. New York, NY: Nova Science Publishers, 2009. Pp xiii + 240. \$79.00 (hardcover). ISBN 978-1-60741-705-7.

Sir William Lawrence Bragg said, "The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them" (Koestler & Smythies, 1969, p. 182). Out-of-body and near-death experiences (OBEs and NDEs) provide clues to a novel way of understanding consciousness, but as Susan Blackmore notes in this book:

One of the things that depressed me most in my decades of research is the tendency for people (and the media) to divide theories of OBEs and NDEs into two black-and-white types. On the one hand are the “good” (or “spiritual”) theories—OBEs mean the spirit can leave the body, NDEs are a glimpse of life after death. On the other hand are the “bad” (or “boring,” or “reductionist”) theories—OBEs and NDEs don’t exist or are “just hallucinations.” (p. 55)

Blackmore states that brain research has changed this situation by linking OBEs to measurable processes in the brain, thereby showing that OBEs are real and that our concept of ourselves may be the true illusion. Although I agree that the research is useful, it has not resolved the debate. People with reductionist views regard these correlations as support for their view that OBEs and NDEs are just a function of our brains’ ability to trick us. However, these studies are a sign that academia is lowering its resistance to considering these phenomena as legitimate areas of study.

Another indication is Craig Murray’s book, which presents data and perspectives from the fields of medicine, neuropsychology, neuroscience, parapsychology, psychology and sociology. Not surprisingly, the disciplines’ different epistemological theories about OBEs and NDEs have led them to interpret the same data differently and/or ignore irreconcilable data when constructing their theories.

The Pam Reynolds case is an excellent example of data that are variously interpreted. The experiment was set up very carefully by Dr. Sabom, because the major argument against the survival of consciousness after death was that none of the NDEs had occurred under controlled laboratory conditions. This case is often presented as incontrovertible proof, because she had an NDE while undergoing an operation for a brain aneurysm. Her EEG was flat-line, which is used as the clinical definition of brain death. She also had her blood drained from her brain, was cooled to 60° F, and her eyes and ears were tightly covered. She experienced a classical NDE, the timing of which was nailed down because she simultaneously experienced the actions and conversations occurring in the operating room.

John Palmer’s chapter presents some of the controversy about the Reynolds case. One criticism is that part of the NDE occurred prior to the flat-line EEG. Sabom’s rebuttal was that the “principal part of her NDE (seemed to) occur later, when her EEG was flat” (p. 167). Another argument has been that a flat-line EEG doesn’t truly represent a brain that is no longer functioning. Since the EEG primarily measures electrical activity at the surface of the brain, it is unclear what is going on electrically at a deeper level of the brain. This is true, but it would be a more valid point if she didn’t also have the blood drained from her brain and her temperature lowered to 60° F. Even if she had some minor electrical activity under these conditions, to say that the brain created the NDE seems analogous to saying

that one can cook a meal with only the stove's pilot light on. And even if this were possible, it would still require a revamping of the mainstream view of consciousness and the brain.

Carlos S. Alvarado's chapter reviews the psychological approaches to OBEs since the 19th century. He found that most explanations of OBEs assume that they are either hallucinations or a form of depersonalization. Although there are a small percentage of OBEs in which the experiencer sees remote information that is later verified as accurate (veridical information), most psychological theories discount that aspect of these cases because of an inherent skepticism.

Susan Blackmore's theory explains OBEs in terms of "models of reality." She postulates that we usually "choose" a model of reality based upon sensory information, but we can switch models when there is a lack of sensory input. She believes that we can construct a bird's eye view from memory. This poses the question of whether or not people who have OBEs have better visual-spatial skills. Indeed, Blackmore found that OBEers have greater visual imagery skills than non-OBEers, and Cook and Irwin found that OBEers were better than others at imagining a scene from different viewpoints.

Hypnotic suggestibility can also play a role in OBEs. In their chapter, Devin Terhune and Etzel Cardeña review the advantages and limitations of the use of hypnosis as a means of producing OBEs.

Harvey Irwin theorizes that OBEs are due to a disassociation between the sense of self and the processing of somatic events. He also states that "because dissociation is psi conducive it is possible that the out-of-body imagery could incorporate extra sensory information and thereby feature a degree of veridicality not expected of mere fantasy" (p. 47).

Jane Aspell and Olaf Blanke write about the neuroscientific perspective of OBEs, which have been associated with localized brain damage in people with epilepsy, traumatic injury, strokes, and migraines. The brains of people who have had OBEs were compared with those who have had autoscopic hallucinations, or the perception of seeing one's body in extra-personal space. These hallucinations differ from OBEs in that the people do not feel that their sense of self resides in the extracorporeal body. The brain area repeatedly damaged in OBEers is the temporo-parietal junction, a region associated with integration of sensory information from the body. The information includes proprioception and vestibular input, both of which play a role in our bodies' sense of orientation in space. In contrast, autoscopic hallucinations are correlated with damage to the temporo-occipital and parietal-occipital cortex, areas associated with visual processing, but lacking the vestibular input that could create a sensation that one is floating in space.

The research by Blanke and his colleagues corroborates that an OBE differs from a visual hallucination. It also shows the potential value of creating homogeneous categories for NDEs and OBEs. For example,

research on NDEs often includes people who did not die or even come close to dying, as opposed to just those who have died and were resuscitated. Separating them according to phenomenological differences could aid the legitimization of their study, because it makes it easier to draw inferences from the data.

The book also discusses how OBEs and NDEs can have profound effects on people's lives. Pim van Lommel, a recently retired Dutch cardiologist, observed that people appear to acquire enhanced intuitive feelings, a strong sense of connectedness with others and nature, and sometimes paranormal gifts after an NDE. Craig Murray, David Wild, and Joanne Murray present the personal and social influences on OBEs and how the experiences are later psychologically integrated.

Other chapters show how NDEs are influenced by our cultural expectations. Tachibana found that Japanese people report "almost crossing a Sanzu River to go to the world after the death" as opposed to the Christian experience of approaching the "light," which is associated with "God" (p. 122). Murphy found that "hell and torture" are common themes in Thai NDEs.

In summary, OBEs and NDEs provide windows into the understanding of consciousness that can no longer be ignored. There is sufficient evidence that we need to follow Bragg's directive and explore novel ways to think about: (a) the brain and its relationship to consciousness, and (b) our sense of self and its embodiment. Murray's academic book leaves it to readers to decide for themselves which arguments are the most compelling. The book's main point is not to convince the reader of a particular theory, but rather to convince researchers that anomalous phenomena have much to contribute to our understanding of the full range of human experience.

REFERENCES

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