

## BOOKS: PSYCHOLOGY

# Is God All in the Mind?

Michael Shermer

About ten years ago, when I began to research why people believe in God, I asked a colleague in a religious studies program to recommend the latest path-breaking scientific work in this area. "William James's 1890 *Varieties of Religious Experience*," he responded sardonically. In his opinion, he explained, the field was largely moribund.

That perception was an exaggeration, of course, but his point was that with the exception of a handful of psychologists teaching at theological seminaries, mainstream social and cognitive scientists had largely ignored the question. The situation has changed dramatically in the past decade, as the renewed debate on the relation between science and religion has exploded onto the cultural landscape and scientists from a variety of fields have entered the fray. *Why God Won't Go Away* presents an interpretation developed by Andrew Newberg and Eugene D'Aquili, physicians at the University of Pennsylvania. Newberg holds joint appointments in radiology and religious studies, and D'Aquili, now deceased, was a professor of psychiatry. Co-author Vince Rause is a free-lance writer. Their breezy and speculative book was written for general readers, but it provides enough new material, especially on the neurophysiology of mystical experiences, to hold the interest of professional scientists.

God won't go away, the authors argue, because the religious impulse is rooted in the biology of the brain. When Buddhist monks meditate and Franciscan nuns pray, for example, single photon emission computed tomography scans of their brains indicate strikingly low activity in the posterior superior parietal lobe. The authors dub this bundle of neurons the orientation association area (OAA). The area's primary function is to orient the body in physical space; people with damage to this area have a hard time negotiating their way around their surroundings. When the OAA is up and running smoothly, there is a sharp distinction between self and non-

self. When the OAA is in sleep mode—as in deep meditation and prayer—that division breaks down and, consequently, the lines between reality and fantasy are blurred. Is this what happens to monks who feel a oneness with the universe or with nuns who feel the presence of God?

Yes, say the authors. They claim to have "uncovered solid evidence that the mystical experiences of [their] subjects—the altered states of mind they described as the absorption of the self into something larger—were not the result of emotional mistakes

or simple wishful thinking, but were associated instead with a series of observable neurological events." Although this is an odd distinction to make, the authors maintain it throughout the book. They recognize that a skeptic might explain "all spiritual longings and experiences, including the universal human yearning to connect with something divine," as delusions that stem from misfiring brain cells. Indeed, I am

one such skeptic, but I fail to see the difference (outside a minor linguistic distinction) between a delusion and a decrease in

glimpse the ultimate realness of something that is truly divine." Thankfully they are honest enough to admit that this conclusion "is a terrifically unscientific idea" and that to accept it "we must second-guess all our assumptions about material reality." In the book's final chapters they do just that.

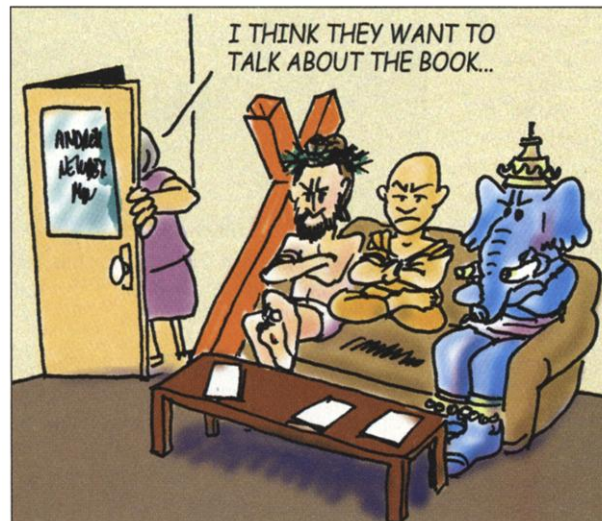
The strength of *Why God Won't Go Away* lies in the authors' original research and the brain correlates of mystical states that they have identified. Together these go a long way toward explicating the experiences of religious mystics. For the billions of believers who have never had a mystical experience, however, explanations for their faith are more likely grounded in the psychology and sociology of belief. For example, the number one predictor of anyone's religious faith is the faith of their parents, and this predilection is modified by siblings and peer groups, mentors, education, age, gender, cultural experiences, and other variables. These factors do not undermine the authors' principal observations, because they focused their attention on the neurological correlates of belief.

Nonetheless, the book unravels when the authors seek an evolutionary origin for religion. As compelling as evolutionary explanations can be—and surely our evolutionary history must be where the ultimate reason for belief lies—much of the authors' case depends on the just-so storytelling mode. Critics of sociobiology will find much fodder for their cannons here. We are told, for example, that religion alleviated the "existential gloom" facing our paleolithic ancestors: "The promises of religion protected early humans from...self-defeating fatalism, and allowed them to struggle tirelessly but optimistically for survival." It's an interesting hypothesis, but how could one prove it?

The authors also fall into the trap of thinking of human evolution as almost entirely centered around men on the hunt. That paradigm was abandoned decades ago in favor of more sophisticated models of social evolution that stress the importance of relationships, hierarchy, dominance, cooperation, reciprocal altruism, and various forms of social exchange. It is by considering the complex relations and developing psycho-social models that a fuller explanation for why God won't go away will be found.

**Why God Won't Go Away**  
Brain Science and the Biology of Belief  
by Andrew Newberg,  
Eugene D'Aquili,  
and Vince Rause

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44033-1.



OAA activity. Delusion is simply a description of what happens when the OAA shuts down and the brain loses the ability to distinguish self from non-self. It's still all in the brain. Unless, of course, one believes these neurologically triggered mystical experiences actually serve as a conduit to a real spiritual world where God (or what the authors call "Absolute Unitary Being") resides. That is, in fact, what they believe: "our research has left us no choice but to conclude that the mystics may be on to something, that the mind's machinery of transcendence may in fact be a window through which we can

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