

Brain Science and Religious Experience



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Have you ever had a religious experience? If so, what do you think was going on in your brain at the time? If scientists could tell us what brain processes are involved in religious experience, would that mean that the experience wasn't valid? Many people seem to think that knowing what brain processes are involved will show that religious experiences are simply thrown up by neurons in the brain. But it won't show that at all.

The brain is involved in every experience we have, for example, when scientists are making discoveries. But the scientific discoveries are no less valid for knowing what went on in the brains of the scientists who made them. But, you might say, isn't religion different? We usually assume that religious experiences come from outside ourselves, from God. Couldn't they just be thrown up by the brain instead? Yes, they could be—but not necessarily. Knowing how the brain is involved in religious experience doesn't settle things one way or the other.

But shouldn't we always go for the simplest explanation when we can? If you can explain religious experience just in terms of brain processes, isn't that better than invoking God? Again, not necessarily. In physics, the elegant, simple theory often turns out to be right. Not with human beings. We are so complex that simple theories about us usually turn out to be wrong. If the truth is complex, you need a complex theory.

Is there any reason at all to think that God might be behind religious experience? The rational attraction of belief in God is that it makes plausible sense of a broad range of different things. It offers a single unifying explanation for, say, the astonishing fruitfulness of the universe, the claims of religious leaders like Jesus, and for powerful religious experiences. That isn't a knockdown argument, but it is at least a rational way of looking at things.

The current favorite theory of the role of the brain in religious experi-

ence links it with epilepsy. Some people have claimed that the part of the “temporal lobes” responsible for epilepsy is also the “God spot.” It is a fashionable theory, but the evidence for it is weak.

One claim is that religious experiences are rather like epileptic seizure experiences. Yes, there are some similarities, such as the idea that the everyday world is not quite “real.” However, there are also big differences. For example, seizure experiences are generally slightly alarming, whereas religious experiences bring a sense of tranquillity and purpose that often stays with people for life. The other pillar of the epilepsy theory is that people who suffer from epilepsy are supposed to be unusually mystical. It once looked as though that was true, but more careful research hasn’t supported it.

Despite the lack of evidence for it, the epilepsy theory is slow to die. It has came up again in a new book, *Phantoms of the Brain*, by the American brain scientist, V. S. Ramachandran. It caught the headlines, but his only new evidence is that two patients who had both epilepsy and religious preoccupations showed strong physiological responses to religious words. That finding doesn’t prove anything.

The epilepsy theory of religious experience looks like being a false trail. At best, it will be just a part of a much bigger theory. However, the problems of this one particular theory don’t mean that we won’t get a better one.

Another theory has been developed by a brain scientist in Pennsylvania, Eugene D’Aquili, who died recently. He was not looking for a single God spot in the brain. He thought that different parts of the brain are involved in different aspects of religion. For example, one part of the brain is involved in the sense of “unity” that is common in religious experience. A different one is involved in seeing God at work in the world.

Religious experiences are very different from one another. Some are striking, memorable experiences that stay with people for life. Recent surveys show that about a third of the population have that kind of religious experience. However, a lot of “religious” experiences are much more mundane. In fact, we can experience anything at all in a religious way. In that sense, all the experiences of a deeply religious person would be religious experiences. The fact that religious experiences are so different from one another means that the brain processes involved will be very different. No simple theory of a God spot in the brain can be adequate.

D’Aquili’s theory is different from the epilepsy theory in another way. He thinks that the parts of the brain involved in religion are also involved in normal processes. For example, he suggests that seeing that one thing is caused by another depends on the same part of the brain as seeing God at work in the world. That is very different from saying that religion arises from the same kind of malfunctioning of the brain as epilepsy.

How the brain is involved in religion is a topic at the frontiers of science. It is linked to the problem of how the brain gives rise to any kind of consciousness, which is perhaps one of the biggest mysteries left for science to solve. Progress with that general problem will help us to understand how the brain is involved in religious experience.



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