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## The Cognitive Science of Religion (Book Review)

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## The Journal of Religion

VAN SLYKE, JAMES A. *The Cognitive Science of Religion*. Ashgate Science and Religion Series. Farnham: Ashgate, 2011. 178 pp. \$89.95 (cloth).

Here are three propositions: human beings are physical creatures whose lives depend on the successful functioning of their various bodily subsystems; human beings evolved into their current state pretty much along familiar Darwinian lines; the congeries of beliefs and practices that make up what we call religions are products of human beings, for human beings. If you do not believe at least these three propositions, you are not in a position to talk thoughtfully about religion and the sciences. How you talk about them, of course, is another matter. Theologians, at least since Hugh of St. Victor in the twelfth century, have often pointed out “that it takes nothing away from the Creator’s omnipotence if one says that he brought his work to completion across intervals of time” (M.-D. Chenu, *Nature, Man, and Society in the Twelfth Century* [Chicago: University of Chicago Press, 1968], 18). Antitheologians, at least since the eighteenth century, have argued in various ways that the religions of proposition three can be fully explained in terms of the physical, psychological, and social responses to those bodily subsystems, making them candidates for elimination from serious discussion going forward. As James van Slyke puts it, “the standard model in the cognitive science of religion defines religion as a by-product of cognitive adaptations that occurred during the evolution of the human species” (5). His goal is to illustrate that the cognitive science of religion, while providing many insights into the nature of religion, does not, of itself, show that religion is a mere by-product of evolution.

There are various approaches to cognitive science, but most of them run something like this. By 250,000 years ago, *Homo sapiens* was established as a distinct species, which interacted with its environment through senses not unlike our own. Sense experience triggers cascades of hormones, generated by the endocrine system, which interact with the nervous system, sending signals to the brain. The brain processes those signals and, in its turn, sends further signals to the various parts of the body, which represent strategies for dealing with the environment. Those strategies that work increase the probability of survival, which increases the probability that those strategies will be retained and institutionalized in subsequent generations of the species. At some point, the predecessors of *Homo sapiens* developed something we would call consciousness, perhaps in conjunction with something we would call language, which vastly expanded the possible repertoire of strategies. Understanding human behavior, on this model, requires bringing together the findings of archaeology, anthropology, artificial intelligence, neuroscience, and the like to identify the adaptive paths that lead from the cellular basis of our experience to current social and individual practices and beliefs.

Similarly, the cognitive study of religion takes many forms, but it will be most useful to give a simplified composite example. At some point in our adaptive history we developed a “Hyperactive agency detection device (HADD),” which facilitated avoiding potential predators (7). At some point, according to the “counterintuitive hypothesis,” our evolutionary need to identify agency led to the creation of “religious concepts,” which “are a combination of intuitive ontological categories about everyday objects in the environment and some *violation* of those categories, which contributes to their memorability” (8). Ritual, in one way or another, then codifies, internalizes, and further raises the probability of transmitting these concepts across generations. By focusing on universal cognitive and evolutionary features of human development, the standard model assigns the content of religious beliefs and practices to mere local variation and in doing so “circumvents all the disagreement over

method in the study of religion and the postmodern critique of meaning and explanation” (11).

There are many ways to respond to the standard model, but van Slyke’s is an irenic one, admitting the importance of cognitive methods in the study of religion but rejecting its reductionism in favor of “emergent cognition,” which requires attention not only to the initial conditions determined by our biological hardware but to two other essential determinants: the specifics of our embodied status and the social environment in which our cognitive practices emerge. All three are fundamental because “human cognition is very ‘leaky’ in that it is difficult to draw a hard distinction between internal vs. external factors in the formation of human cognition” (43). If, for example, human groups are at least as complex as ant colonies, then our neural functions will be constantly adapting on the basis of unpredictable environmental experiences, which provide feedback, forming new configurations of behavior that will, in turn, be modified by future encounters (47–50). Once environmental and social factors are brought back into play reduction, in any serious sense, is off the table. Understanding a given tradition will require attention to what a community believes, why they believe it, and the reasons they are inclined to give for the truth of their beliefs. This will return to center stage the full panoply of “folk psychological” terms—intentions, desires, beliefs, preferences, and so on—that cognitive scientists hoped to dispense with.

Some of us, I suspect, are likely to follow Donald Davidson in doubting both the philosophical credibility and the explanatory value of the cognitive approach to human behavior. Van Slyke, however, embraces the “neural Darwinism” of Gerald Edelman as a basis for a more complex account of the brain, which resists not only reductionism but the simplified analogy with computer programs. In the second half of his book, van Slyke elaborates a nonreductive view of the cognitive science of religion that combines the “bottom up” processing of sense experience with the “top down” work of beliefs and expectations (65). In so doing, he does not so much develop a theory of religion as illustrate the potential ways in which this version of cognitive science can illuminate some issues in the study of religion. One by-product of this will be something of a litmus test for the presence of pseudo-scientific ideologues. Those who continue to insist on the naturalistic reduction of religion to a disposable by-product of evolution are probably not looking for truth, just victory.

In the meantime, van Slyke’s volume provides a handy guide to a variety of cognitive approaches and their limits. One note of caution: he uses the vocabulary of neurobiology freely and without much background explanation. There is not even a basic map of the brain. Therefore, I recommend Edelman’s *Wider Than the Sky* (New Haven, CT: Yale University Press, 2005) as companion reading. It has lots of figures, including a brain map, and a very helpful glossary.

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