A scientific study of religion was first proposed by the comparative philologist Max Müller, widely considered to be one of the founders of the modern academic study of religion. The philosopher of religion Donald Wiebe has argued, correctly I think, that the "new spirit of inquiry," which Müller proposed for this study (Müller 1881: xii), was—despite his personal religious commitments—nevertheless fully engaged with the scientific impulse that swept Europe at the end of the nineteenth century. Wiebe concludes that "the explicit agenda adopted by ...[Müller—and by other] founders of Religious Studies as an academic (university) concern committed the enterprise to the detached, scientific understanding of religion wholly uninfected by any sentiment of religiosity" (Wiebe 1999: 155). As Müller had written in his Introduction to the Science of Religion [1870]:

A comparison of all the religions of the world in which none can claim a privileged position will no doubt seem to many dangerous and reprehensible because ignoring that peculiar reverence which everybody, down to the mere fetish worshipper, feels for his own religion and for his own God.

"Let me say then at once," Müller concluded:

I myself have shared these misgivings, but that I have tried to overcome them, because I would not and could not allow myself to surrender either what I hold to be the truth or what I hold still dearer than the truth, the right tests of truth. (Müller 1893: 8)

Wiebe argues that this late nineteenth-century scientific impulse, out of which Müller and others were first motivated to propose a scientific study of religion, was subsequently subverted by an enduring, if covert, religio-theological pursuit within this new academic field of study. This "crypto-

Wiebe contends, "becoming more overt" and is "actually being touted as the only proper method for the study of religion" (Wiebe 1999: 155–6). Wiebe has characterized the continuing religious character of such study in modern research universities, as a "failure of nerve" (Wiebe 1999: 141–62). He borrowed this characterization from the classicist Gilbert Murray who had judged as such a failure the shift from the classical Greek confidence in normal human effort and the enlightened mind to a "loss of self-confidence" and a subsequent intensification "of certain spiritual emotions" during the Hellenistic period (Murray 1955: 119).

The Cambridge classicist Jane Harrison was one of the last of the early scholars to propose a scientific study of religion and in many ways the most modern. Like Murray, Harrison was associated with the circle of Cambridge ritualists who had sought to apply scientific findings to the study of Greek religion. In her contribution to a volume commemorating the fiftieth anniversary of the publication of Darwin's Origin of the Species, Harrison suggested that a view of religion that focused on the evolution of "each mental capacity" for "specific religious ideas and practices" might provide a scientific basis for the study of religion (Harrison 1909: 497). This prescient proposal precisely articulates the contemporary agenda for a cognitive science of religion.

The Uses of Cognitive Science in Research on Religion

Like any life form, Homo sapiens is an evolved species. This means that humans share certain behavioral and cognitive biases that have been selected for over evolutionary time. These evolved biases make up a system of adaptive "defaults" against which much subsequent human behavior and thought can be analyzed and understood. The explanations for these phenotypical biases are biological, that is, they are explainable in natural—and non-dualistic—terms of the neural, elec-
trical, and chemical activities of the brain. Such explanations are currently being explored by cognitive scientists, a broad, interdisciplinary group of scholars that includes biologists, neuroscientists, ethnologists, evolutionary psychologists, anthropologists, philosophers, computer scientists, memory experts, historians, including historians of religion, etc. These cognitive scientists seek to explain not only the kinds of behaviors and mental representations allowed by the capacities of and constraints upon brain functions but the processes by which they are stored in memory and are recalled, the ways by which some but by no means all of these become transmitted and received, publicly shared and transformed, and the relationships among them—including those specific relationships among ordinary evolved behaviors and representations that are generally viewed as “religious.” Because of this shared evolutionary history, the cognitive paradigm can offer a theoretical basis for explaining recurring patterns among the data of human (religious) expressions as well as an explanatory metric for more precisely identifying and understanding their historical and cultural differences.

Despite early attempts to establish scientific grounds for its study, religious scholars have largely shunned any theoretical approach to their own work in which a research project is formulated in terms of clearly stated hypotheses that might be publicly, empirically, and critically assessed. Simply to cite the conclusions of theoretically oriented researchers from another field of study, from Durkheim, for example, or from Weber, does not itself constitute a theoretical stance. As the philosopher Daniel Dennett has argued, it seems as though religion is enchanted by some sort of spell protecting it from scientific inquiry—a situation that simply doesn’t exist in any other academic field of study (Dennett 2006). Consequently, a field of religious studies has never developed in which scholars working in different historical or ethnographic specializations might share a common disciplinary discourse and make valid generalizations about a common theoretical object, “religion.” In fact, after more than a century of a growing field of religious studies in modern research universities, it is difficult to find scholars in the field who are able to agree—beyond their historical or ethnographic specialization—exactly what their subject matter is.

Efforts by some scholars of religion to employ the cognitive sciences—and their theoretical frame of Darwinian evolution—towards establishing a shared research paradigm for the study of religion is not a unique endeavor. Such efforts are under way in virtually all areas of humanistic and social scientific study, e.g., art, classics, cultural studies, theatre, ethics, gender studies, law, music, political science, psychology, sociology. Perhaps of most interest for those religious scholars who focus on textual traditions or on the history of religions is the evolutionary/cognitive oriented theorizing by literary critics (e.g., Felsch) and by historians (e.g., Smail 2008), and for those who focus on non-literary traditions, that by anthropologists (e.g., Cohen 2007) and archaeologists (e.g., Mithen 1996). While a cognitive study of religion is not unique among the humanities and the social sciences, it does occupy a certain pride of place since a few scholars of religion have been actively involved in theorizing a cognitive science of religion since 1980 (e.g., Guthrie 1980, Lawson-McCauley 1990, and Whitehouse 1995). More recently, a growing number of religious scholars have begun to employ evolutionary and cognitive theorizing in their own research and, in turn, draw upon work in their areas of specialization to assess these theories on the basis of the enormous wealth of historical and ethnographic data they control, as well as upon the results of experimental protocols they design—a real departure for humanists. The participation of religious scholars in the interdisciplinary theorizing and research projects of the cognitive sciences may be the first time in the history of the field when scholars of religion have actively contributed to shaping and developing a scientific research paradigm rather than being simply parasitic on those of others.

The Uses of Cognitive Science in Teaching about Religion

One of the tenets of the modern research university is that the most innovative and significant teaching grows out of the research of its faculty and, conversely, that much research is stimulated by issues raised from teaching—even from instruction in the ubiquitous undergraduate introductory course. What, then, is the place of research conclusions by cognitive scientists of religion in undergraduate instruction?

Most undergraduate students of religion are presented with an enormous amount of data—from world religions surveys, to broad overviews of particular religious traditions, to specialized treatments of specific topics or issues that reflect the instructor’s own research interests. As fascinating as is all of this exotic material and as competently as it is usually presented, students are rarely offered any theoretical framework(s) whereby they might integrate this data, much less so as they go from one instructor’s course to another. Rather than more data, and the idiosyncratic interpretations that generally accompany them, what seems requisite—especially in the undergraduate context of an education in the arts and sciences—are theories that might explain human actions and their representations across the artificial boundaries of disciplinary practices.

Apart from the insightful if now dated efforts of some nineteenth-century social scientists, few recent explanatory theories have been proposed for the study of religion. Two among these dominate the field—insofar as explanatory theorizing in the study of religion can be said to have any dominion. The first is an economic modeling of religion, most well-known to scholars of religion from proponents of rational choice theory. The second is the cognitive sciences—which have challenged rational choice theory by demonstrating that humans do not, in fact, generally act so rationally. (The incorporation of cognitive research into economics has resulted more recently in the field of behavioral economics, an interesting approach yet to be incorporated into the study of religion.)

In my own teaching at the undergraduate level, I have found students eager to explore explanatory theories of religion—they are, after all, being presented with explanatory theorizing in most of their other courses. Such theorizing, many of them come to understand, forms a basis that will allow them to explore new areas and novel materials not covered in most (small) departments of religion—and even to make sense of the data presented in their other courses. And I find that when theory is emphasized, even in the introductory courses when these explanatory possibilities must be presented in a rudimentary way, many students respond more favorably to that aspect of the course than to the data sur-
The Abuses of Cognitive Science in the Study of Religion

The cognitive science of religion is—like any science—abused if it becomes employed for ideological/theological ends rather than for those of scientific knowledge. Theologians have always drawn upon what is considered cutting-edge knowledge to articulate—and to legitimate—their ideational religious practices. Until the nineteenth century, that knowledge was primarily philosophical. So, for example, we have theological articulations that exploit Greek logos philosophy (e.g., John 1:1), Plato (Augustine), Aristotle (Aquinas), Enlightenment thought (Deism), existential-phenomenology (Tillich), etc. With the Darwinian turn in the mid-nineteenth century, however, theologians increasingly began to use the burgeoning corpus of scientific knowledge to articulate their views—and ironically, in their attempts to defend their religious positions against that very same knowledge (e.g., arguments for Creation Science or for Intelligent Design). The problem with the derivative character of theological knowledge is that while it may be philosophical it has never produced innovative philosophy, and while scientific, it most certainly isn’t science. Nevertheless, there is today increasing interest in research and teaching in the area of “religion and science” that seeks to further a religious (or “spiritual”) agenda. And a significant amount of funding is available today from agencies with religious agendas to support such accommodationist research and teaching. It would seem, in other words, that even as past attempts at establishing a scientific study of religion suffered “a failure of nerve” and reverted to religious agendas, the cognitive science of religion is in danger of falling prey to the same capture.

Conclusion

It remains to be seen if cognitive science will finally become established as a shared and productive paradigm for scientific research in the study of religion. This possibility is suggested, however, by the increase in the number of research and graduate degree programs in religion that incorporate the cognitive sciences, for example, at the universities of Aarhus, Helsinki, Oxford, Queen’s University Belfast, University of California, Santa Barbara, and Emory University. Further, there has been a significant increase in recent years in the number of panels devoted to discussions of this paradigm at meetings of various professional associations, for example, the North American Association for the Study of Religion, the American Academy of Religion, the Society for Biblical Literature, the Society for the Scientific Study of Religion, the American Anthropological Association, and the International Association for the History of Religions. And the results of cognitive anthropological, historical, and experimental studies of religious behaviors, ideas, and even specific religious traditions and rites have begun to be widely published, discussed and assessed. Most recently, the International Association for the Cognitive Science of Religion was founded to coordinate these activities (see www.iacsr.com).

Whether or not one agrees with Wiebe’s rather “harsh and judgmental” assessment of modern religious studies, I think few would disagree with Müller’s own assessment that the “very title of the Science of Religion will jar … on the ears of many persons” (Müller 1893: 8)—and, I might add, continues to do so. As one colleague recently assessed the situation, she had hoped at first that this whole proposal for a cognitive science of religion might simply go away; when it didn’t, she hoped that she might nevertheless be able to continue her traditional history of religions research without engaging it; finally, she had to concede that its potential significance and growing import were such that—for better or worse—it could no longer simply be ignored or discounted. This conclusion concerning the nascent cognitive science of religion seems fairly to reflect the current state of affairs in the study of religion generally. I invite you, therefore, to engage this scientific approach in your own work, to assess its utility, evaluate its validity, and then draw your own conclusions.

References


The performance of rituals explicitly aimed to change certain features of the surrounding world is a human practice that has always intrigued scholars of religion. Designated by the concept of “magic,” attempts to understand such practices have played a pivotal role in theoretical developments and controversies and they have inspired fieldworkers and textual historians alike into a search for common features. Ever since its instigation as a scholarly concept in the middle of the nineteenth century, magic has played a pivotal role in controversies and debates concerning rationality, symbolism, psychoanalysis, performance theory, and different modes of thought. A strong incentive for this central role was the underlying assumption that magical practices were somehow confined to, or perhaps even a defining feature of, a primitive “Other.” As a type of practices “left behind” by a technologically advanced western civilization, magic was understood as a key to understanding both our own primitive past as well as the customs of people found in far off countries still unspoiled by modern civilization—as something exotic, strange, and mysterious.

In a sense this very exoticness is surprising as many rituals the world over are explicitly motivated or legitimized by claims to objective efficacy. If magic is more the rule than the exception, why did it become an exotica of anthropology and the history of religions? One answer could be that these practices are attention-demanding, disregarding the cultural and educational background of the observer (cf. Boyer 2001). Another, more historically informed answer, is the tendency to make skewed comparisons. Thus, beliefs and practices of “ordinary” people were compared to the reflective beliefs of the educated elite, creating a picture of different mentalities based on cultural differences (cf. Lévy-Bruhl 1985). Theological interpretations of ritual practices were seen as representative of how rituals are understood and motivated by ritual participants in the western world. Seen in this light, Christian, and in particular Protestant, skepticism towards rituals as something “superficial” that should be “interpreted” in order to extract its proper “meaning” were understood as representative of Western religiosity. In contrast, non-western rituals were understood as deeply embedded in a local pragmatic context that characterized their “purpose” and “efficacy.” The distinction between representations of ritual “purpose” and ritual “meaning” has its merits, but it cannot be equated with particular cultures, mentalities, or particular stages of socio-cultural evolution.

The misrepresentations presented above have led to a natural skepticism towards the utility of the concept of magic (e.g., Pocock 1972). However, abandoning the concept brings us nowhere in itself, and we are better served with attending to the important question: why do people in all cultures and apparently all historical times perform rituals represented as able to change certain features of the surrounding world? I propose to understand magic as a synthetic concept that brings together a restricted number of human behavioral traits under a common heading. This means that the concept has no explanatory power in itself and describing something as “magic” tells us very little. In order to explain, we need to fragment the concept into a number of features, each explicable by distinct cognitive and social mechanisms. In the following I will provide a short discussion of a number of these (see Sørensen 2007a for a comprehensive discussion).

Magical Thinking

Already James Frazer pointed to the fact that underlying observable magical practices, we are able to discern a number of universal principles of thought (Frazer 1911). Frazer distinguished two such principles, contagion and similarity, and he argued that these are quite ordinary modes of thought used in everyday reasoning. In magic, however, they are misapplied, resulting in flawed technical behavior. Thus Frazer operated with a normative view of cognition, according to which “civilized people,” in contrast to primitives, have reached a developmental stage prompting the proper use of rules of logic. Rectifying this view, modern cognitive science has revealed that humans are not rational machines following rules of formal logic. Rather, human thinking is more precisely described as an assembly of heuristics, i.e. mental processes whose out-
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