

in sociology behaviorism was remarkably cognitive in nature, as illustrated by the extended analysis of the exchange of advice for approval in *Social Behavior* by George C. Homans (1974). Influenced by Homans, later sociologists developed the exchange theory or rational choice explanation of religion: Humans seek many rewards that are not available, following cognitive explanations that become progressively supernatural in nature as the humans continually fail to attain the deeply desired reward. If the recent cognitive theories of religion lack an essential ingredient, it is the motivation that drives people to act upon religious cognitions, and to build complex and costly religious institutions. Sociological exchange theory often makes use of artificial intelligence computer simulation. This methodology has been applied profitably to religion, and one direct reinforcement neural net program showed that deprivation can cause an agent to develop minimally counterintuitive beliefs (Bainbridge 2006).

Phenomenological sociology and its cousin ethnomethodology are among the least rigorous approaches, but they still may have something to contribute. Bering's reports about how people conceptualize death are reminiscent of the insightful early work by theorist Alfred Schutz about the phenomenology of time. Schutz is especially famous for his work on multiple realities, which can be distinguished because their subjective flow of time is different, and religious experiences are a case in point (Schutz 1971). Less well known is his theory that humans conceptualize the future as a kind of past, seen as if it had already occurred (Schutz 1967), a contradiction not unlike that when people conceptualize a dead person: Dead is to alive as future is to past.

Potentially relevant empirical research in sociology is of many kinds, including historical accounts of the thoughts of religious leaders, ethnographies of religious movements, and a very well developed tradition of questionnaire research. Bering discusses suicide, and official statistics have been analyzed in ways relevant to cognition, suggesting that the power of faith to deter suicide is declining in advanced societies (Bainbridge, in press). Given Bering's emphasis on death, it is worth noting that the General Social Survey contains several questions about how people conceptualize the afterlife, and that the same questions have been administered to members of radical religious groups, allowing comparisons of such beliefs as how erotic the afterlife is (Bainbridge 2002).

Bering talks about morality, but does not introduce the extensive quantitative research on how religious faith does or does not shape behavior. Especially relevant is the research on juvenile delinquency. Consider the phenomenon I call the *Stark effect*, because Rodney Stark discovered it: "Religious individuals will be less likely than those who are not religious to commit delinquent acts, but only in communities where the majority of people are actively religious" (Stark 1996, p. 164). That is, in primarily secular communities, adolescents who believe in supernatural sanctions for misbehavior are just as likely as their irreligious peers to steal or vandalize property. In communities where the majority of adolescents are religious, the beliefs of the individual child are indeed predictive. Thus, cognition alone may not deter antisocial behavior.

A further complication is that many studies show that the Stark effect does not apply to hedonistic behaviors, and religious adolescents are less likely to use drugs or engage in sexual experimentation even in very secular areas. Perhaps religion serves an advisory function, helping to guide the adolescent's cognitive deliberations away from danger (Bainbridge 1992). This research area is still unsettled, and studies by cognitive scientists would be especially welcome.

NOTE

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Parenting, not religion, makes us into moral agents

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Abstract: The universal early experience of all humans, which means being totally dependent on caretakers who attempt to inculcate impulse control, should be considered as the psychological framework for the creation of significant supernatural agents. The same early experiences put us at the center of a moral universe, but there is no necessary connection between the two processes. We do not need disgruntled ancestors to make us behave; disgruntled parents will do.

"What came into existence beside the dead body of the loved one was not only the doctrine of the soul, the belief in immortality and a powerful source of man's sense of guilt, but also the earliest ethical commandments" (Freud 1915, p. 295). Bering, like Freud, ties religion to death and morality, and makes the startling theoretical claim that we should regard religion as an evolutionary adaptation, because it supports viewing the self as a moral agent. The universal tendency to tie misfortune (and blessings) to supernatural agents buttresses group cooperation and thus has great evolutionary value. One problem with this notion is theoretical, and has to do with cooperation and reputation effects. According to Ohtsuki et al. (2006), cooperation is a fundamental aspect of all biological systems, and among humans it can evolve even in the absence of reputation effects, but Henrich (2006), points out that the reputation effect may act to stabilize maladaptive and immoral behaviors.

Accounting for the parallel development of morality and religion should involve both panhuman experiences and innate tendencies. Both innate architecture and panhuman socialization processes lead to the universal perception of the self as moral agent. Evolved architecture leads, indeed, to an innate readiness to over-detect causality and intentionality. The three kinds of behavior described here – supernatural agents, ghosts, and magical thinking ("Princess Alice") – can all be accounted for by the general hyperactive agency detection mechanism, which operates to detect not just biological processes, or activity, but another consciousness or another mind. The survival value of detecting, and negotiating with other minds is so great that it accounts for this hyper-vigilance. Friend-foe identification enables us to be cared for and then take care of others.

Our early experience of our own consciousness and that of other conscious beings leads to our belief in the enormous power of the mind, our eternal soul. It was William James who already stated: "Religion, in fact, for the great majority of our own race, means immortality and nothing else" (James 1902, 1961, p. 406). Souls are important because they give us more information about promised immortality. The supernatural premise is fleshed out, so to speak, by enumerating the entities in the spirit world, most of whom must be human souls before birth and after death.

Some dead agents are psychologically important because we have known them and interacted with them; they informally join the pantheon outside the official hierarchy. The author's analysis of the role of the souls of the ancestors ignores the fact that dead ancestors were once live parents.

Our innate architecture also produces egocentrism, attachment-seeking, and the panhuman process of socialization. The human baby is hard-wired to seek a caretaker and find security as soon as it comes out of the womb (Bowlby 1973). The baby's helplessness is matched by the caretaker's readiness to create it in her own image. Socialization of the young aims at impulse control. They are asked to reduce their egocentrism and impulsivity in return for parental love. Whatever we call morality is tied to powerful bonds developed between children and caretakers. In all cultures, love is finite and conditional, and punishments and the withdrawal of love are frequent and swift.

Children are made into moral agents easily through socialization and social control mechanisms, as they are assigned blame and learn to blame others and especially themselves. The panhuman experience is that parents are the carriers of morality, as they convey to their children a fantasy of a world ordered into right and wrong, reward and punishment. The moral universe we all inhabit was developed in early childhood in our private consciousness, and it may be projected on the universe.

Do we need religion to support behavioral inhibition, as Bering claims? The basic pattern of socialization precedes the use of religious ideation. We are afraid of mother and father because they punish us, long before they become the souls of the ancestors. References to divine authority are sometimes used by parents to bolster their authority in disciplining children. Thus, the parents become allied with divine authority. Examples can be found in all cultures (Geertz 1960). Nunn (1964) found that this "coalition" with divinity was prevalent among parents who were ineffectual and powerless.

Bering correctly points out that the connection between morality and religion is rarely addressed in the behavioral literature. But this is true not only for cognitive science or psychology, but also for history, anthropology, and sociology, and with good reason. Showing that religion has any consequences in prosocial behavior has not been easy.

The four-dimensional model of religiosity (ideological, ritualistic, experiential, and intellectual) so often used, originally had a fifth dimension – the consequential – designed to measure the effects of religiosity on conduct in other spheres. It was dropped because consequences in nonreligious behavior could not be found (Beit-Hallahmi & Argyle 1997). Modern findings indicate that religion does have a considerable effect on secular behavior in two areas: sex and the use of illicit drugs. Generalizing beyond these specific areas has been difficult (Beit-Hallahmi & Argyle 1997). We should note that not only has the academic study of religion ignored morality, but the academic study of moral development has largely ignored religion, with no apparent damage or deficits.

The global secularization process means that we no longer interpret misfortune as caused by supernatural agents. Some misfortunes (earthquakes) result from inanimate natural forces, and are viewed as unrelated to any moral agents (Neiman 2004). What can be morally condemned is human action. We can condemn human cruelty, and we do. Moreover, the Enlightenment has led to a new, totally secular, public discourse about morality, focusing on justice, rights, equality, and human welfare, and marginalizing the impulse control discourse. This sea change in our moral outlook is evident in the Universal Declaration of Human Rights (1948) and in such secular groups as Amnesty International and Médecins sans Frontières. Lifelong atheists have been found to be well-socialized, law-abiding, and nonviolent (Beit-Hallahmi 2006). They obviously go through blaming themselves, and others, and feel guilty. They may anthropomorphize their diseases and inclement weather. They have have gotten all that from their evolved architecture and early experience, without the help of any functional religious illusions.

Religion and morality: An anthropological comment

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Abstract: This commentary criticises Bering on two counts. First, because we do not know what he attributes to natural selection and

what he sees as derived representations. Second, Bering's ethnography of religion is inadequate. People who practise ancestor worship are not concerned with their own survival but with that of others. Many supernatural beings are not thought of as morally motivated.

Jesse Bering's article is nothing if not ambitious. It starts with an experiment showing that young children attributed psychological functions to a recently dead mouse and ends up with a proposal that amounts to saying that religion, especially religion of a kind which is strikingly similar to what Harold Bloom has called "American Religion" (Bloom 1992), is innate, since it is the product of natural selection. That is a long way to go, especially because, as far as I am aware, most religious systems are not much concerned with the survival of the souls of rodents.

The connecting links in the argument are that humans are natural dualists because they inevitably have a belief in the survival of some elements of agency on the part of the dead, who consequently are attributed with mental states; that this leads to similar beliefs about other supernatural beings such as God; that the existence of supernatural agents give meaning to the individual self in the world; that these beliefs make people behave morally; and that this is good for them and their inclusive fitness because a reputation for morality leads others to treat you and your offspring well.

I react to this proposal in two ways: first, as a critic of the general theoretical issues raised by Bering; second, as a traditional anthropologist who wants to test the theory against the ethnographic record.

Bering claims to give us an evolutionary account that, in certain respects, is critical of theories such as those of Boyer, Sperber, and Atran because these seem to make religion the product of an unfortunate malfunction of our cognitive apparatus. This indeed seems odd for such a central feature of human culture, and I too have been critical of these writers for linked reasons (Bloch 2002). Nonetheless, Boyer and those others seem to me to have an advantage over Bering in an important respect, that is, they are very clear as to what they are claiming. I do not find such clarity in Bering. Following such writers as Tooby and Cosmides, he tells us that natural selection has led to the evolution of certain necessarily innate characteristics, which, as dispositions, have affected the history of culture. Such a proposal requires a strict division between that which is claimed to be innate, the product of natural selection, and the cultural phenomena that have been affected by such innate dispositions – inevitably together with many other factors. It is precisely this distinction between exactly what it is claimed natural selection has bred in us and the derived factors that are affected by these inherited mechanisms which is missing. Is it the morality/religion complex that has been selected for in the distant past of the species? Or is it merely the belief in the survival of the dead? I am not sure. For example, Bering tells us, *inter alia*, that "people naturally endow their lives with a hidden purpose." What does "naturally" mean here? Does that mean that natural selection has made us into beings that "naturally" think in this way? Are we to understand that certain other dispositions inevitably, but indirectly, lead us to see our lives in this way? I do not feel I know.

Now let us turn to more ethnographic matters. At least two key elements in the argument are to me unacceptable. One concerns the characterisation of ancestors, the other concerns the characterisation of supernatural beings in general.

Even if we accept that it is frequent to believe in some aspect of the continuing functionality of the psyche of dead people, this does not mean that these are regularly represented as concerned with morality. However, it is this involvement which, for Bering, would explain the selective advantage of such a representation and therefore its frequent recurrence. For example, the Trobrianders famously described by Malinowski have elaborate beliefs in various forms of life after death, but they do not believe for all that, that the dead enforce the morality of the living (Malinowski 1916). There are many other examples of such moral indifference, as in the case of ancient Greece as described in *The Iliad*. Even in Catholic Christianity dead souls