

In 'cognition and culture' circles, it is almost a matter of common wisdom, it seems, to claim that religious belief is natural, whereas atheism, physicalism and other forms of unbelief are unnatural (see for example [this paper](#) by Robert McCauley). Sociologist Rodney Stark has announced the death of secularism, and the thesis that religious belief is gradually making way for an age of reason, originally proposed by the architects of the Enlightenment, has been laid to rest as a case of wishful thinking and of old-fashioned cultural evolutionism. Religion is a panhuman cultural phenomenon, which can be materially attested in the form of burials and representations of supernatural agents since least 50 000 years ago. Cognitive scientists of religion argue that religious beliefs are natural: modes of reasoning that are characteristic of religious belief appear spontaneously in young children, without explicit instruction. Examples include an intuitive mind/body dualism (the fact that we have different inference systems about minds and bodies, proposed by Paul Bloom); intuitive afterlife beliefs (the intuition that minds continue to exist after the physical death of the person, due to Jesse Bering) and intuitive creationism (understanding the world in teleological terms and as a product of intentional design, proposed by Deborah Kelemen).

However, the persistence and relatively wide cultural spread of atheism and other forms of unbelief may present a challenge to this received picture of the naturalness of religion. In many secular nations, the number of people who denote themselves as without religious affiliation is on the rise. A recent mathematical model published online on [ArXiv](#) indicates that, if current trends continue, religion will soon go extinct in several of these nations. Of course, being without religious affiliation does not always equate with unbelief, but it does seem to suggest a trend of decreased religiosity.

Last year, in a special issue of *Religion*, Justin Barrett argued that atheism does not defeat the "naturalness of religion" thesis...

He attributes it to natural variations in the human population: "The naturalness thesis in CSR [cognitive science of religion] is not deterministic and it is perfectly compatible with CSR that occasional naturalists appear in the historical record." Yet, a bit further, he acknowledges that "Widespread rejection of any and all supernaturalism and religion and what appears to be a historically recent swell in localized atheism does demand an explanation." His own explanation for this phenomenon is that the rejection of the supernatural can only occur under special contingent, cultural conditions, including specialized institutions (such as scientific institutions) combined with sustained cognitive efforts. Geertz and Markusson disagree with Barrett, and argue that atheism is not the recent, highly contingent product of post-industrialized western culture that Barrett takes it to be. Rather, diverse brands of atheism (such as the ancient Indian materialist school of thought) can be traced back to antiquity. They conclude "The habit of atheism may need more scaffolding to be acquired, and its religious counterpart may need more effort to kick, but even so, that does not, ipso facto, make the latter more natural than the former."

To assess whether unbelief challenges the naturalness of religious belief, one needs to be more explicit about the relationship between religion and cognition. There are several ways in which this relationship is fleshed out

Adaptationist models see religion as a cultural or psychological adaptation, one that enhances

cooperation through costly signaling (Richard Sosis) or through the threat of supernatural punishment (Jesse Bering). In this view, atheism is not necessarily unnatural, as in some conditions secular institutions can be quite successful in achieving levels of cooperation that are similar to religious belief. Norenzayan and Shariff for instance, wrote in a 2008 Science paper that "Although religions continue to be powerful facilitators of prosociality in large groups, they are not the only ones. The cultural spread of reliable secular institutions, such as courts, policing authorities, and effective contract-enforcing mechanisms, although historically recent, has changed the course of human prosociality". Epidemiological models explain the transmission of cultural representations in terms of their fit to human cognitive capacities. According to Pascal Boyer, religious beliefs are culturally widespread because they provide minimal deviations to our intuitive ontological expectations. They violate some of those expectations, but are in agreement with many others, thus providing a cognitive optimum (being both interesting but not too demanding). Boyer does acknowledge the cultural success of religious beliefs that are not cognitively optimal, such as the concept of the Trinity, which won out over many competing, more intuitive models that are now considered to be heresies. Recent, largely unpublished work in cognitive science of religion that I saw presented at a conference on cognitive science of religion at the [University of Oxford last year](#) indicates that minimally counterintuitive concepts do require considerable cognitive effort to be maintained, and that older people do less well remembering and transmitting counterintuitive concepts than intuitive ones (with young people the situation is reversed). It is not at all evident how characterizing religious beliefs as minimally counterintuitive makes those beliefs natural, or how this would say that unbelief is unnatural. As reviewed above, some evolutionary models of religious belief see particular aspects of religious belief, including afterlife beliefs, intuitive dualism, or intuitive creationism as naturally arising from evolved propensities of the human cognitive system. Some of these models have been challenged, as for example, the strong form of mind/body dualism that Bloom proposes has been called into question by Mitch Hodge.

Such arguments notwithstanding, it seems to me that models from the latter category are the strongest arguments for claiming the naturalness for religion, and it is for those models that unbelief does present a challenge. For instance, suppose that we assume that dualism in some form underlies natural understanding of the world, then it seems sensible to say that monism is unnatural with respect to this. The challenge then is to understand how monism in its various forms, be it ancient Greek atomism, Indian materialism, or present-day physicalism arose and could be culturally successful.

Extensive cultural scaffolding seems to be an essential ingredient in this picture. Cultural scaffolding could explain, for example, why unbelief is more prevalent among scientists and the highly educated. But cultural scaffolding also occurs in support of more natural modes of reasoning, often extensively so. For example, there are good reasons to assume that reasoning about numerosities is natural, given what we know about numerical skills in infants and nonhuman animals. Yet, numerical systems are often subject to high degrees of cultural scaffolding (e.g., number words, numerical symbols, diagrams, tallies,...) Similarly, while intuitive dualism might be cognitively natural, historical beliefs about bodies and souls are highly complex, institutionalized and canonized in texts, paintings and other cultural media, as Mitch Hodge has pointed out. In a paper forthcoming in Cognitive Science, Edward Slingerland and co-authors argue that dualism in China evolved as "a semantic shift toward a shared cognitive bias in response to a vast and rapid expansion of literacy". Here, it is clear that literacy (as a form of cultural scaffolding) actually helped, not hindered intuitive modes of reasoning.

Enhanced cognitive effort might be another way to pin down what might make unbelief unnatural. But here again, we can see that many religious modes of reasoning would also fall under this category, because they do not mesh well with our cognitive architecture (this is what Boyer termed "the tragedy of the theologian"). Also, as Blaise Pascal remarked in his *Pensées*, some people "seem

so made that [they] cannot believe". For those people, religious belief requires a constant cognitive effort. If we do not assume (as Alvin Plantinga seems to do) that such people are cognitively deficient, the unnaturalness of unbelief remains unsupported.

References

Justin Barrett (2010), The relative unnaturalness of atheism: On why Geertz and Markusson are both right and wrong. *Religion* 40, 169-172.

Jesse M. Bering (2006), The folk psychology of souls. *Behavioral and Brain Sciences* 29, 453-462.

Paul Bloom (2004), *Descartes' baby: how the science of child development explains what makes us human*. London: Arrow Books.

Pascal Boyer (2002), *Religion explained. The evolutionary origins of religious thought*. London: Vintage.

Armin Geertz & Guðmundur Ingi Markusson (2010), Religion is natural, atheism is not: On why everybody is both right and wrong. *Religion* 40, 152-165.

Deborah Kelemen (2004), Are children "intuitive theists"? *Psychological Science* 15, 295-301.

Robert N. McCauley (2000), The naturalness of religion and the unnaturalness of science. In F. C. Keil & R. A. Wilson (Eds.), *Explanation and cognition* (pp. 61-85). Cambridge, MA: MIT Press.[\(here\)](#)

Ara Norenzayan and Azim Shariff (2008) The origin and evolution of religious prosociality. *Science* 322, 58-62.

Alvin Plantinga (2000), *Warranted Christian belief*. New York: Oxford University Press.

Edward Slingerland et al. (forthcoming) "The Prevalence of Mind-Body Dualism in Early China", *Cognitive Science*.

Rodney Stark, (1999). Secularization, RIP. *Sociology of Religion*, 60, 249-273.