

Anthropology News



Evolutionary Anthropological Approaches to the Study of Religion

Evolutionary Anthropology and Religion

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Historically, evolutionary anthropologists have allocated the majority of our attention to topics like subsistence strategies, parental investment, warfare, etc. One topic that has been given only minimal space is religion. We have seen an increase in the exploration into evolutionary explanations for religious behavior and religious affiliation in the evolutionary and human behavioral ecological literature over the last few years. Some scholars, like [Richard Sosis](#), [Joseph Heinrich](#) and EAS member [William Irons](#), have been focusing on the evolutionary origins of religion. Others, like [Benjamin Purzycki](#), [Scott Atran](#) and former EAS president [Frank Marlowe](#), have been examining the contribution of religion to the evolution of increasing population size and societal complexity. Finally, scholars such as Richard Sosis and EAS member [Eleanor Power](#) have tested specific predictions that have emerged from evolutionary theory regarding the individual benefits of engaging in religious behavior. This recent focus has also shed new light on the importance of further empirical and theoretical exploration into all aspects of religious behavior and motivations from an evolutionary perspective.



Photo courtesy Eleanor Power

Religion poses a problem for evolutionary anthropologists. Many of us are interested in explaining how particular behaviors allow individual humans to adapt to their surrounding environments in ways that increase their own survival and reproduction, and it isn't immediately clear that participation in religious behaviors should directly influence either survival or reproduction. Participation in religious ritual can be very costly for an individual in terms of time, money or even physical pain or bodily harm and the question – from an evolutionary perspective – is why would an individual engage in this costly behavior when there is no obvious reproductive benefit that results?

Using costly signaling theory, some have argued that religion is one way to honestly signal one's commitment to prosociality within the community. And if prosociality is considered important to that community, one may gain reputational benefits that would afford him or her future survival or reproductive benefits. Sosis and others have shown evidence for the honesty of the signal: religious signalers across societies are, on average, more prosocial than those who do not signal their commitment to the group via religious ritual. However, in order to complete the circle and apply the reputational benefits to the appropriate actor,

the honest signal must be received by community members. In her 2015 EAS talk and her [2016 paper](#), Power describes two modes of religious practice among Hindu and Christian residents living in two villages in rural South India. First, individuals may engage in behaviors that are quite dramatic, but only costly in the short-term, such as piercing their skin with spears, walking across hot coals and becoming possessed by a deity. Second, they can engage in behaviors that are more subtle but also are costly over a longer period of time, such as worshiping at a church or temple each week. Power showed that community members were perceiving different signals from different modes of practice. Those who perform greater and costlier acts in the short-term are more likely to be perceived as physically strong and hard-working, while those performing subtle, long-term investment behaviors are more likely to be seen as more devout and more prosocial by their peers.

But, here we bump up against yet another potential problem for evolutionary anthropologists. Why should prosociality matter to other community members? And what does this have to do with religion? Researchers focused on a group-level explanation of the role of religion in the evolution of human behavior suggest that an individual might participate in costly behavior because he or she benefits through benefiting the group at large. Specifically, within-group prosociality and cooperation are useful for coordinating in subsistence work or warfare – making sure everyone in the group is fed and safe. Therefore, an individual's costly contribution to the group cooperative effort may be seen as beneficial to all and people with such a reputation may gain individual benefits.



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A primary focus for the group-level study of evolution and religion has been on 'moralistic gods.' Hervey Peoples and Frank Marlowe (2012) found a positive association between the size and social complexity of a society and belief in a moralistic god or gods (meaning the society has perceptions that gods are increasingly knowledgeable of one's thoughts and actions and that they are increasingly likely to punish violators of social norms). In their [recent Nature paper](#), Purzycki and his colleagues also show a positive association between the perception of a moralistic god(s) and societal complexity, as well as prosocial tendencies of individuals. They suggest that this association may be partially responsible for the evolution of social complexity in that religion served as a mechanism through which people were motivated to act in a prosocial way towards

others they weren't related to or didn't know and that through this cooperation, group sizes could expand with minimal conflict. This may be why religions with moralistic gods (e.g. Christianity, Islam) are spread so far and wide around the world and why large-scale societies and prosociality are as well. The authors also suggest that these results may help understand the evolution of the wide-ranging cooperation found in large-scale societies.

In a discussion with Purzycki, he suggested the path forward for the study of religion by evolutionary anthropologists can serve two critical purposes. Currently much of the focus on the study of religion more broadly is centered around Abrahamic religions, though Purzycki says, "We know that not all societies are complex, not all religions are Abrahamic, and not all gods are concerned with morality." We just don't have a good sense about the variation that exists across cultures, therefore the first step for anthropologists should be describing that variation. Next, in order to have a better grasp on how and for what purposes religion evolved, we need to explain the variation. As Purzycki suggests, the study of religion seems to be at a critical point and as evolutionary anthropologists, we have particular skills we can bring to bear on the development of scholarship going forward.

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