

## **Etiological challenges to religious practices**

Helen De Cruz

This is a non-copy edited draft of a paper that has appeared in *American Philosophical Quarterly*, 55, 329–340. Please see here for the final version: [http://apq.press.uillinois.edu/55/4/de\\_cruz.html](http://apq.press.uillinois.edu/55/4/de_cruz.html)

### **Abstract**

There is a common assumption that evolutionary explanations of religion undermine religious beliefs. Do etiological accounts similarly affect the rationality of religious practices? To answer this question, this paper looks at two influential evolutionary accounts of ritual, the hazard-precaution model and costly signaling theory. It examines whether Cuneo's account of ritual knowledge as knowing to engage God can be maintained in the light of these evolutionary accounts. While the evolutionary accounts under consideration are not metaphysically incompatible with the idea that religious rituals engage God, they cast doubt on whether many, if not all, rituals can do this successfully.

### **1. Introduction**

A large part of analytic philosophy of religion is concerned with religious beliefs, more specifically, with their epistemic standing. Discussion has centered on whether religious beliefs might be unwarranted, unjustified, or unreasonable. Some contemporary challenges to religious beliefs draw on evolutionary etiological accounts, proposing that evolutionary explanations of religious beliefs diminish their epistemic standing (e.g., Wilkins and Griffiths 2013). Other authors have sought to defend religious beliefs in the light of their evolutionary origins, arguing that they are not irrational in the light of such accounts (e.g., Thurow 2013).

Recently, the focus on belief in analytic philosophy of religion has come under

scrutiny. Cuneo (2014, 2016), Coakley (2013), and Wettstein (2012) have argued that philosophers of religion emphasize religious belief at the expense of practices, which are at least as important for religious faith as beliefs are. People of faith engage in actions, often in a standardized and ritualized form, such as praying, giving up things for lent, keeping kosher, wearing a hijab, and participating in liturgies. Such actions are an integral part of their religious self-identification. Philosophers are no exception: in a recent survey among academic philosophers (De Cruz 2017), those who self-identify as theists regularly attend religious services, with 43.1% attending weekly, and 22.3% more than weekly. Still, few philosophers of religion probe the epistemic significance of the practices they frequently engage in. As a result, we do not know whether or how religious rituals can provide one with knowledge, or, as Coakley (2013, 131) puts it, “how, if at all, can liturgy be ‘true?’”

The cognitive science of religion (CSR) has the potential to challenge the belief-centered focus in philosophy of religion. CSR is the interdisciplinary study of religious beliefs and practices through the examination of cognitive processes that underlie them. In sharp contrast to the focus on theism and the rationality of belief in philosophical discourse, many religious practices fall within CSR’s ambit, including ancestor-worship, episodes of spirit possession, and fire-walking rituals. This paper examines evolutionary explanations of religious practice, focusing on two accounts: the hazard-precaution model for the origin of rituals, and costly signaling theory. I take Cuneo’s (2014, 2016, chapter 8) account of the Eastern Orthodox liturgy as an exemplar of an epistemic account of religious practices, and I then assess whether evolutionary accounts challenge the rationality of such practices. I argue that the etiology of rituals undermines our justified beliefs about whether rituals can successfully engage God.

There are many ways in which a practice can be rational. If rationality is understood purely in terms of practical rationality, it is rational to engage in rituals if they help to fulfill non-doxastic aims, such as cultivating a sense of awe or providing aesthetic experiences. Wettstein (2012), for example, argues that a full participation in Jewish rituals is compatible with a skeptical or even naturalistic attitude. In discussions

on CSR and rationality, the most common ways to flesh out rationality is in terms of justification. Can we be justified in believing – given the evidence we have – that religious practices help us gain religious knowledge of some sort? I will be using the concept of rationality in this justificatory sense. In developing my argument, I will assume an Anselmian concept of God, who is omnipotent, omniscient, and omnibenevolent.

## **2. Can evolutionary debunking arguments be applied to religious practices?**

There is an enduring debate on whether etiological accounts of religious beliefs should undermine confidence in their veracity. Hume (1757) argued that belief in God finds its origin in anxiety and ignorance about causation of everyday events, such as floods and storms. Prompted by an inability to influence these events, humans anthropomorphize their environment into “intelligent, voluntary agents, like ourselves; only somewhat superior in power and wisdom” (section V). This makes their surroundings more explicable, more familiar, and offers the illusion of control, as gods can be appeased and bribed (see Kail 2007, for discussion). Hume’s account, like later ones by Feuerbach, Marx, and Freud, was purely speculative and thus its skeptical force remains limited. Only if one assumes that the etiological account provides some approximation of what actually happened in the evolution of religious beliefs, is it incumbent on philosophers of religion to consider the epistemic consequences of these accounts<sup>1</sup>.

Since the emergence of CSR in the 1980s, we have some empirical footing on which to formulate etiological accounts. To give an example, cross-cultural correlational studies, as well as controlled experiments, indicate a connection between moral norms and religious beliefs: believing in morally concerned supernatural beings who have the power to punish increases cooperative behavior and discourages freeriding or cheating. Participants primed with religious concepts are more generous in experimental situations (Shariff and Norenzayan 2007), and naturalistic observations found a “Sunday effect”, an increase in prosocial behavior on Sundays in Christians (Malhotra 2010).

Large-scale societies, which have less interpersonal social control than small-scale societies, exhibit a higher incidence of belief in morally concerned, powerful gods than small-scale societies. The prevalence of belief in the Abrahamic god and similar beings can be explained as a result of humans organizing in large-scale societies, and adopting beliefs that help instill cooperation and discourage self-interest (see Norenzayan 2013, for an extended treatment of this literature, but see Watts et al. 2015, for an argument that supernatural punishment by a variety of moral agents, not just high gods, is effective in instilling cooperation). Although findings like these are still tentative, they should be of interest to naturalistically-inclined philosophers, as they provide an empirical angle on long-standing philosophical debates, for instance, about the relationship between morality and religion.

Recently, the anthropologists Sosis and Kiper (2014) have proposed that a focus on religious practices can deflect some debunking challenges to religion. Practices such as prayer and ritual are crucial elements of religion. Religion is a complex adaptive phenomenon, in which beliefs are important, but not the only (or often even the main) elements worthy of consideration. Most ordinary religious believers do not rely on reasoning to uphold their beliefs. Rather, their faith is sustained by rituals, prayer, and other deliberate actions. Since debunking arguments against religion are usually only leveled against its doxastic aspects, Sosis and Kiper (2014, 257) contend that evolutionary explanations do not, on the whole, challenge the rationality of religious faith, which encompasses both beliefs and practices: “[W]e suggest that if religion is indeed a complex adaptive system that consists of recurring and interacting elements, then the veracity of or warrant for religious beliefs is not challenged by the evolutionary science of religion.”

Sosis and Kiper (2014) do not mean to argue that religious systems are immune to all debunking arguments, but rather, that because religion is more than belief, attacks on religion are inherently incomplete<sup>2</sup>. However, their discussion leaves open the question of whether religious practices could resist debunking arguments. Recent empirical and theoretical work in CSR on the etiology of religious practices is relevant for

this question. I will examine the philosophical implications of this work, taking Cuneo's recent account of ritual knowledge as a point of focus.

### **3. Religious practices as knowing-how**

Terence Cuneo (2014, 2016, chapter 8) offers a detailed account of ritual knowledge, where he puts the Eastern Orthodox liturgy forward as a skillful form of knowing-how. He aims to reinstate the role of human agency in philosophical accounts of faith. In his view, religious practices are a way of engaging with God: "Christianity is ... a way of life that is thoroughly practical. It is dedicated to engaging God in various ways by doing such things as blessing, petitioning, and thanking God" (Cuneo 2014, p. 368). In this way, one's knowledge of God is much richer and broader than how epistemologists typically conceive of knowledge. Rituals provide a way to be in rapport with God, knowing how to engage with this being, and responding to what God cares about. In brief, in Cuneo's account "the dictum that knowing God is a species of practical knowledge is the claim that knowing God ... consists in (although is not exhausted by) knowing how to engage God" (p. 369). Eastern Orthodox rituals are thoroughly embodied: they consist of carefully scripted actions, such as uttering blessings, eating together, kissing a copy of the Gospel, and chanting Psalms. Each of these events has multiple dimensions; for instance, in the liturgy kissing is simultaneously an act of greeting, adoring, blessing, and thanking.

How can we evaluate the epistemological import of such practices? There is a continued debate on whether knowledge-how can be reduced to a form of knowledge-that (the view that this is the case is termed intellectualism, its opposite anti-intellectualism, see Stanley and Williamson 2001, for a defense of the intellectualist position). Cuneo favors a moderate anti-intellectualist stance, but for the purposes of this paper it is not required to take a position in this debate. Even under the assumption that intellectualism is true, it is plausible (as, e.g., Brogaard 2012, has argued) that knowing-how has different justificatory grounds than knowing-that. The justificatory grounds of knowledge-that include cognitive states, whereas the justificatory grounds of

knowledge-how involve practical abilities. This can explain why knowledge-that is more sensitive to luck conditions than knowledge-how<sup>3</sup> (Cath 2012). Take, for instance (building on Cuneo and Cath), Dan, the amateur lutenist, who forms a justified belief that the sheet music he has just bought contains the accurate tablature of Dowland's *Melancholy Galliard*. His belief is justified because the tablature's publisher generally takes care to reproduce music carefully, using the most accurate early versions. Unbeknownst to Dan, all versions of this particular piece contain key mistakes because they perpetuate a seventeenth-century printing error. It just so happens that the version Dan has bought has a few new printing errors (not in character with the publisher) so that, by lucky coincidence, the score he bought really is an accurate rendition of *Melancholy Galliard* as Dowland wrote it. When Dan masters the piece, it seems he really knows how to play *Melancholy Galliard*, even though he is lucky in having an accurate version. By contrast, his propositional belief that the piece is *Melancholy Galliard* does not seem to be knowledge.

Cuneo highlights two elements of the Eastern Orthodox liturgy and other ritual practices: they have expressive content and fittingness. The competent performance of these practices expresses something, such as thanking or honoring. Their expressive content can be evaluated according to their fittingness. Fittingness is not just a matter of fitting the mental state of the agent, but of fitting the situation. For example, someone might feel resentful while writing a thank you note to a family member, an activity she resolved to do every year. Although the expressive content (thankfulness) does not fit the mental state (resentment), it is still an appropriate response because it flows from the resolve of thanking the family member yearly (it is fitting).

Ancient philosophers such as Aristotle drew a close connection between virtue and practical skills (*technē*), an integration that is largely lacking in current accounts of skillful knowing-how (Annas 2012). In Cuneo's account, however, the virtues and skills of worshippers are closely tied together, a natural consequence of the God-directedness of the Eastern Orthodox liturgy. The blessings and other actions of the liturgy hone one's sensibilities "in such a way that one begins to view, experience, and treat matter

differently than one would in one's day-to-day life" (Cuneo 2014, p. 381). Wettstein (2012) offers an analogous account of Jewish ritualized practices, such that reading the Talmud or uttering blessings help to cultivate a sense of awe, thus contributing to human flourishing.

According to Cuneo, the successful performance of the Eastern Orthodox liturgy allows one to engage God, and thus attain knowledge of God that is more than just propositional, but involves a deep, personal, relational knowledge. As we have seen, the justificatory grounds for knowing-how are practical: if Sophia knows how to engage God, she has the practical ability (through liturgical actions) to do so. At this point, evolutionary accounts of religious practices become relevant. Does the evolutionary origin of liturgical actions cast doubt on one's ability to successfully engage God through liturgy? In the next sections, I will argue that they do cast doubt on the rationality of these practices. For all we know, the Eastern Orthodox liturgy helps its practitioners to engage God and may thus confer knowledge of God. But the evolutionary accounts of ritual undermine one's reasons for thinking that these rituals in fact engage God, and thus that they confer knowledge.

#### **4. Two evolutionary accounts of religious practices**

I will now present two influential evolutionary accounts of religious practices from the recent CSR literature. Both aim to explain the prevalence of religious rituals across cultures in terms of human cognitive dispositions. I am putting them forward as exemplars of evolutionary explanations, and will not assess their plausibility. Rather, I will examine what the consequences are for the rationality of ritual religious practices if these evolutionary explanations are correct.

##### **4.1 The hazard-precaution model**

Pascal Boyer and Pierre Liénard (Boyer and Liénard 2006, Liénard and Boyer 2006) have developed the hazard-precaution model, a detailed cognitive account to explain the

prevalence of ritualized behaviors across cultures. Its explanatory scope is significantly broader than religion, encompassing, for instance, rituals in sports as well. However, their primary interest is to account for puzzling, cross-culturally recurring features of religious rituals. Ritual acts are meaningless (e.g., ritually rinsing utensils that are already clean), rigid, follow a tight script, and often involve repetition (e.g., walking thrice around a sacrificial ox counterclockwise). This repetitiveness is not explicitly motivated (e.g., why thrice and not twice?), but is believed to be efficacious. Rituals typically take place in a specially delineated space, such as a sacred circle or church building. What accounts for these features of religious rituals (and ritualized behavior more generally), and their pervasive cultural success?

According to the hazard-precaution model, the cultural prevalence of ritualized actions can be explained by the fact that they seem to subdue, at least temporarily, human fears for potential hazards. The model proposes that ritualized actions (like counting and ordering) flood working memory, thereby temporarily appeasing our worries and fears, especially about events that are causally opaque. In persons with obsessive compulsive disorder (OCD), this strategy goes awry, but neurotypical people also engage in OCD-like behavior to assuage their trepidations. For example, many athletes will don their lucky socks before a competition.

The hypothesized hazard-precaution system is a biological neural network specialized in foreseeing hazards, always on the lookout for potential dangers (not immediate dangers, which are handled by other parts of the brain), such as a sharp knife lying near a playing toddler. Some dangers cannot be immediately resolved, for instance, droughts are potentially catastrophic and can cost lives, but people are unable to remedy the situation. When people are confronted with such intractable potential dangers, they engage in ritualized actions that are ostensibly aimed at solving these problems. Through their complex structure, rituals engage working memory, detracting from the worries at hand, and thereby have a soothing effect. This relief is at best temporary, and an over-reliance on rituals might even have the opposite long-term effect and increase anxiety: since ritual systems often stipulate that incorrectly carrying



out rituals has great costs, they can become a new source of worries.

Because of the way they strongly resonate with the hazard-precaution system, rituals—including religious rituals—become appealing to individuals and are culturally successful. The hazard-precaution model is thus not an adaptationist account of religious rituals, since Boyer and Liénard (2006) do not think that religious rituals solve adaptive problems. Rather, theirs is a byproduct account where religious rituals are actually maladaptive, but they are culturally successful because of the way the hazard-precaution system responds to them. Indeed, according to Boyer and Liénard (2006), rituals do not seem effective at placating worries in the long term but merely offer temporary solace.

#### **4.2 Religious rituals as costly signals**

According to Joseph Bulbulia (2004) and Richard Sosis (e.g., Sosis and Alcorta 2003), religious practices are honest, costly signals of commitment to a cooperative group. Large-scale human societies are faced with the problem of subversion from within—on the whole, everyone does better if each behaves altruistically toward fellow group members, but each individual member is better off freeriding and reaping the benefits of other cooperators without contributing anything. As believing that one is being watched increases prosocial behavior (see e.g., Bateson, Nettle and Roberts 2006), belief in watchful gods can make groups more cooperative, providing group-level adaptive benefits.

To deter potential cheaters (who do not share the relevant religious beliefs) from joining religious groups, membership requires time- and energy-consuming signals of religious commitment: “By producing and detecting hard-to-fake signals of religious commitment, the god-fearing can certify authentic exchange partners, sifting impious outlaws from the devout” (Bulbulia 2004, p. 668). Such signals could include abstaining from alcohol and other foods (especially meats), refraining from pleasurable activities such as recreational sex or dancing, participating in time-consuming activities such as religious services and public prayer, or wearing clothes that mark one as a member of

the community in question, and that can potentially make one a target of ridicule or hate.

The costly signaling hypothesis is corroborated by a study of religious communes in the United States in the nineteenth century, which consistently enjoyed higher longevity than communes based on secular principles. At any given time, religious communes were four times more likely to survive than secular ones (Sosis and Bressler 2003). Since a common cause for a commune's dissolution is high rates of freeriding, this suggests that religious communes are more successful at deterring potential freeriders. This observation is in line with the economic viability of religious kibbutzim in Israel, which is higher than that of secular kibbutzim of comparable size. Sosis and Ruffle (2007) used a controlled experimental situation to further test this hypothesis—an economic game where commune members could freely donate an amount of money received from the experimenter to a fellow commune member. They found that religious kibbutzim members were more generous towards fellow members than secular kibbutzim members.

In costly signaling theory, the signal works because it is easier to display for someone who is honest than for the dishonest signaler (e.g., a peacock's tail works as a costly signal for quality as a mate, because a fitter individual has fewer problems with the cumbersome appendage, including fewer parasites, better ability to outrun a predator, than an unfit male). In the case of religious rituals, people who are committed to a religious faith are more willing and able to engage in costly displays to signal their commitment, and thus it is less costly to them to display group membership than it is for a non-believer.

While religious rituals improve group cohesion, they also contribute to increased hostility toward outgroup members, which manifests itself in a bias by religious believers against atheists and people from other denominations (see Gervais 2013, for review), and a positive correlation between church affiliation and racism in the US (Hall, Matz and Wood 2010). Acts of terrorism, especially suicide terrorism, are in a sense the ultimate costly signal toward one's religious group (Atran 2002).

## 5. Articulating the etiological challenge to religious rituals

An evolutionary debunking challenge to religious rituals could go as follows:

1. If ritual religious practices (RRPs) are successful, they are forms of knowing-how to engage God.
2. Evolutionary accounts of RRP suggest that the original functions of many (if not all) RRP are anxiety-relief or promotion of group cohesion.
3. If the original functions of many (if not all) RRP are anxiety-relief or promotion of group cohesion, then they are unlikely to be successful ways to engage God.
4. If many (if not all) RRP are unlikely to be successful ways to engage God, then they are unlikely to be forms of knowing-how to engage God.
5. Conclusion (by modus tollens): Given what the evolutionary accounts of RRP suggest, many (if not all) RRP are unlikely to be forms of knowing-how to engage God.

Premise 1 is based on Cuneo's (2014, 2016) account of ritual knowledge. Premise 2 is based on the evolutionary accounts outlined in section 4. Premise 3 seems problematic, given that several practices that are now regarded as successful arose serendipitously.

As noted earlier, knowledge-how is less susceptible to luck conditions than knowledge-that. Consider the practices that led to the empirical discovery of the cosmic microwave background radiation (CMB). In 1964, Arno Penzias and Robert Woodrow Wilson were experimenting with a highly sensitive horn antenna, built to detect radio waves. They found an inexplicable, low noise, seemingly evenly spread over the sky. They first thought this was caused by defects or interference in the measurements (e.g., pigeon droppings), but soon realized they had empirically confirmed the theoretical prediction that the Big Bang had left traces in the universe. While the current aims of CMB detection deviate from the original aims, this does not cast doubt on the efficacy and success of the current and improved CMB detection. Similarly, even if rituals

originally functioned to relieve anxiety or improve group cohesion, they could, upon reevaluation, be repurposed—in this case, for engaging God.

In Cuneo's account, the function of the Eastern Orthodox liturgy is to engage God, to get an intimate knowledge of God that cannot be acquired by disengaged reasoning alone. More specifically, Cuneo holds that the liturgy helps to bridge the epistemic distance between humans and God that is caused by sin. The debunker could challenge this alleged function by claiming that the best evolutionary explanations of RRP's do not invoke God and original sin, but rather, the cultural evolution of practices that bring individual short-term solace (Boyer and Liénard) or that help people to cooperate better (Sosis, Bulbulia). Premise 3 can be revised in the following way:

3\*. The evolutionary explanations of many (if not all) RRP's on offer (anxiety-relief or promotion of group cohesion) are explanatorily sufficient.

There are two difficulties with this revised premise. First, CSR has a methodologically naturalistic framework, so it assumes from the outset that religious phenomena, such as rituals and religious experiences, have naturalistic explanations. While one can argue that methodological naturalism implies philosophical naturalism, this is not a straightforward or uncontroversial inference, but I will not go into this here. Second, current theoretical and empirical work in CSR is nowhere near offering an exhaustive account of RRP's. But even if CSR had such an account on offer, it would still be coherent to argue that religious rituals have these evolved origins and yet are *also* ways of engaging God successfully. Put differently, the defender of RRP's can easily resist a revised premise 4:

4\*. If the evolutionary explanations for many (if not all) RRP's are explanatorily sufficient, then RRP's are unlikely to be successful ways to engage God.

If the rituals engage God, then Eastern Orthodox Christians do know how to

engage God, even while being aware of this argument. Orthodox believers would then be like Dan, the amateur lutenist. Even if he knew that all copies contain printing errors (but did not know his copy was error-free), he would know how to play *Melancholy Galliard*<sup>4</sup>. In this way, knowing-how seems to escape debunking challenges.

However, under some circumstances etiological accounts do seem to cast doubt on the religious practices that result from them. Consider the practice of selling indulgences at hefty prices in the Roman Catholic Church. Early Protestant authors criticized this practice because it lined the pockets of the clergy. It is metaphysically possible, and in line with Roman Catholic doctrine, that indulgences really help to shorten the time a deceased person has to spend in purgatory. But seeing how rich the Roman Catholic Church became as a result of the practice casts doubt on its legitimacy. The explanation in monetary terms makes it highly doubtful that this practice succeeds in its purported aim of shortening the punishment of deceased family members and friends. As a second example, consider Cargo cults in Melanesia, Oceania. Cargo cults arose during the nineteenth and early twentieth century, and especially during the Second World War, when the local populations were first confronted with western airplanes bringing material goods (such as weapons and food) to the military personnel stationed on the islands. Unaware of the origins of these objects, practitioners of cargo cults believed them to be bestowed by ancestors. They engaged in ritualistic actions, including installing mock airstrips and paddles to signal airplanes to land and offload their cargo. In this situation, it would seem that the origin of the practice (contact of Melanesian people with airplanes and misinterpreting them as being sent by the ancestors) invalidates the practices of cargo cults. It might still be possible that there are Melanesian ancestors who use planes in this way to provide their descendants with material goods, but it seems unlikely.

The cargo cult example illustrates that at least under some conditions learning the origins of a practice can undermine our justification in believing that this practice will be successful in what it purports to do, in this case, communicating with the ancestors. One could argue that the cargo cult members happen to be lucky that the etiology of their

practice helps them contact the ancestors, or perhaps even that the ancestors engineered the events in the Pacific during the Second World War so that their descendants would come to connect with them in this way. Still, this explanation seems contrived.

While individual examples are helpful, a more principled account of when the etiology of a practice casts doubt on its rationality is in order. For the etiology of beliefs, Vavova (2018, 145) argues for the following principle:

*Good Independent Reason Principle (GIRP).* To the extent that you have good independent reason to think that you are mistaken with respect to *p*, you must revise your confidence in *p* accordingly—insofar as you can.

So, for example, suppose one becomes aware that one's belief was formed as a result of a subconscious prime in a psychological experiment, then one has good independent reasons to think that the belief is mistaken, since priming is not generally a good way of forming beliefs. GIRP can be applied to practices. If the etiology of a practice suggests that it is unlikely that the practice will accomplish what it sets out to do, we have good independent reasons to doubt that the practice is successful in its (epistemic and other) aims. I will term etiological explanations for practices that give one good independent reason to think the practice is unsuccessful "sinister," and neutral or positive explanations "benign"<sup>5</sup>. This provides the correct intuitions for the indulgences, cargo cults, and CMB detection. Indulgences have poor scriptural support but conveniently line pockets, so we have good independent reason to doubt that the practice shortens time spent in purgatory. The etiology of cargo cults is likewise sinister, as it provides good independent reason to doubt that ancestors are trying to connect with practitioners of the cargo cults. By contrast, there is nothing about the history of CMB detection that prompts us to doubt that this practice really detects traces of the Big Bang. Indeed, when Penzias and Wilson were experimenting with their super-sensitive radio antenna to detect radio waves, it is unsurprising they detected CMB,

since it emits a similar signal to what they set out to detect, so this etiology is benign.

Debunking challenges tend to involve sinister factors. For instance, Hume's (1757) account of the origins of theism presents a challenge to the rationality of theistic beliefs because the psychological mechanisms that are involved, anxiety, uncertainty, and wishful thinking, are sinister. They are sinister because in general trying to counter ignorance through ad hoc explanations and wishful thinking are poor ways to form beliefs. They give us good independent reason to doubt the resulting beliefs. The revised premise 3 then becomes:

3\*\*. The evolutionary explanations of RRP's on offer (anxiety-relief or promotion of group cohesion) often involve sinister factors.

The new fourth premise reads:

4\*\*. If the evolutionary explanations of RRP's involve sinister factors, then many (if not all) RRP's are unlikely to be successful ways to engage God.

Are premise 3\*\* and 4\*\* plausible? They are, when we assume an Anselmian concept of God. Both the hazard-precaution model and the cooperation model raise doubts that an omnibenevolent, omniscient, and omnipotent God would choose to engage with people through these evolutionary routes.

The hazard-precaution model suggests rituals relieve anxiety. On the face of it, anxiety-relief is a good thing. However, rituals do not directly address the source of the worries they are supposed to appease. Moreover, Boyer and Liénard (2006) think that rituals are not even particularly effective at alleviating them. In the long run, rituals do not provide a genuine solution for the anxieties they are designed to appease and may even create new problems (e.g., worries arising from incorrect performances of rituals, or neglecting to perform rituals). Analogously, psychological treatments of OCD typically involve cognitive behavioral therapy, such as gradually facing one's fears, which should

lead to a decrease of the compulsive behaviors (e.g., excessive hand washing).

The cooperation model fares slightly better as it predicts benefits, such as ingroup solidarity and cohesion, to social groups that engage in RRP. But problematically, it also predicts that RRP give rise to (or at any rate help consolidate) hostility to outgroup members that can, in extremis, culminate in acts of warfare, pogroms, and terrorism. Atran and Ginges (2012) identified religious rituals both as a great source of ingroup solidarity and of outgroup hostility, giving rise to intergroup conflicts that are difficult to resolve with standard negotiation techniques. On the other hand, Cuneo (2016, chapter 6) has argued that RRP need not have these pernicious effects. He argues that the Eastern Orthodox liturgy both promotes an ethic of proximity—attending to those near and dear to us—and an ethic of outwardness, helping outgroup members. Still, historical records indicate that Eastern Orthodox churches did not escape the problem of ingroup-based hostility: examples include the iconoclastic periods and the torture of the Eastern Orthodox theologian Maximus Confessor (whose tongue was ripped out and right hand cut off), who was perceived as a heretic because he did not accept monothelism, the view that Jesus Christ has two natures but only one will. An explanation for why theological minutiae about pictures and the nature of Christ can give rise to violence is that religious practices increase ingroup cohesion at the expense of outgroup cohesion (see e.g., Teehan 2003). Even though the Eastern Orthodox church has liturgical texts that exhort their congregants to pray for outgroup members, such as the poor and strangers, the RRP themselves create a sense of ingroup cohesion and hostility toward others.

Under the assumption that God is omnibenevolent, it is peculiar that God would engage with us, using these particular mechanisms. Why would God use mechanisms that result in outgroup hostility, warfare, and terrorism? Of course, there are limits to using psychology in trying to infer what an Anselmian God would do to interact with humans. Rea (2016), for instance, has argued that proponents of the hiddenness argument draw too strongly on a parent analogy in their assumption that God must always be seeking out an active, loving relationship. However, even without explicit



appeal to divine psychology, it would seem surprising—all things being equal—that RRP would have these sinister features, whereas this observation is less surprising under a naturalistic, deistic, or other view that does not assume God's omnibenevolence and active intervention.

Thus, while the etiology of RRP does not rule out that humans would connect with God through rituals, the etiological accounts outlined here (which are the main CSR accounts about rituals on offer) make this doubtful<sup>6</sup>. They give us good independent reason to think that the practice is not successful in engaging God.

## **6. Conclusion**

This paper has examined whether a shift in emphasis from beliefs to practices might provide a way to elude etiological challenges to religion. Taking Cuneo's (2014, 2016) model of ritual knowledge as a point of focus, I have shown that one can raise evolutionary debunking challenges to religious rituals as well. Religious ritual practices are not immune to etiological challenges, since they have purported doxastic aims (e.g., knowing God), and evolutionary considerations can be used to assess whether the practices are likely to be successful in these aims. Two influential evolutionary accounts of religious ritual, the hazard-precaution model and costly signaling theory, are not metaphysically incompatible with the idea that religious ritual practices engage God, but cast doubt on whether such practices would successfully engage God.

*Oxford Brookes University*

## **Acknowledgments**

The author wishes to thank Matthew Benton, Laura Callahan, John Hawthorne, Hans Van Eyghen, Johan De Smedt, Richard Sosis, Jordan Kiper, and two anonymous reviewers for comments on an earlier version of this paper.

## Notes

(1) In that respect, it is peculiar that many philosophers of religion (e.g., Plantinga 2000) engage with Feuerbach, Marx, and Freud, rather than with more recent, scientifically-grounded etiological accounts.

(2) With thanks to Richard Sosis and Jordan Kiper for making their position explicit in a personal communication.

(3) This is not to say that knowledge-how is not sensitive to luck conditions at all. For instance, someone who makes some random tweaks in her broken dishwasher, and happens to fix it that way, does not know how to repair dishwashers.

(4) With thanks to an anonymous reviewer for pressing me on this point.

(5) I owe the terms “sinister” and “benign” to John Hawthorne and Laura Callahan, respectively.

(6) Teehan (2016, p. 49) makes a related point in his discussion of the problem of evil and theodicy in the light of CSR. He argues that, under CSR explanations, “the establishment of a moral bias against other groups is a design feature of our moral minds,” which makes God responsible for moral evil.

## References

Annas, Julia. 2012. “Practical Expertise,” in Knowing How: Essays on Knowledge, Mind, and Action, eds. John Bengson and Marc A. Moffett (Oxford: Oxford University Press), pp. 101-112.

Atran, Scott. 2002. In Gods We Trust. The Evolutionary Landscape of Religion (Oxford:

Oxford University Press.)

Atran, Scott, and Jeremy Ginges. 2012. "Religious and Sacred Imperatives in Human Conflict," Science, vol. 336, no. 6083, pp. 855-857.

Bateson, Melissa, Daniel Nettle, and Gilbert Roberts. 2006. "Cues of Being Watched Enhance Cooperation in a Real-World Setting," Biology Letters, vol. 2, pp. 412-414.

Boyer, Pascal, and Pierre Liénard. 2006. "Why Ritualized Behavior? Precaution Systems and Action Parsing in Developmental, Pathological and Cultural Rituals," Behavioral and Brain Sciences, vol. 29, no. 6, pp. 595-650.

Brogaard, Berit. 2012. "Knowledge-How: A Unified Account," in Knowing How: Essays on Knowledge, Mind, and Action, eds. John Bengson and Marc A. Moffett (Oxford: Oxford University Press), pp. 136-160.

Bulbulia, Joseph. 2004. "The Cognitive and Evolutionary Psychology of Religion," Biology and Philosophy, vol. 19, no. 5, pp. 655-686.

Cath, Yuri. 2012. "Knowing How Without Knowing That," in Knowing How: Essays on Knowledge, Mind, and Action, eds. John Bengson and Marc A. Moffett (Oxford: Oxford University Press), pp. 113-135.

Coakley, Sarah. 2013. "Beyond 'Belief': Liturgy and the Cognitive Apprehension of God," in The Vocation of Theology Today. A Festschrift for David Ford, eds. Tom Greggs, Rachel Muers, and Simeon Zahl (Eugene: Wipf and Stock), pp. 131-145.

Cuneo, Terence. 2014. "Ritual Knowledge," Faith and Philosophy, vol. 31, no. 4, pp. 365-385.

-----, Terence. 2016. Ritualized Faith: Essays on the Philosophy of Liturgy (Oxford: Oxford University Press).

De Cruz, Helen. 2017. "Religious Disagreement: An Empirical Study among Academic Philosophers," Episteme, vol 14, pp. 71 - 87.

Gervais, Will M. 2013. "In Godlessness we Distrust: Using Social Psychology to Solve the Puzzle of Anti-Atheist Prejudice," Social and Personality Psychology Compass, vol. 7, no. 6, pp. 366-377.

Hall, Deborah L., David C. Matz, and Wendy Wood. 2010. "Why Don't We Practice What We Preach? A Meta-analytic Review of Religious Racism," Personality and Social Psychology Review, vol. 14, no. 1, pp. 126-139.

Hume, David. 1757. "The Natural History of Religion," in A Dissertation on the Passions. The Natural History of Religion. A Critical Edition, ed. Tom Beauchamp (Oxford: Clarendon Press, 2007), pp. 30-87.

Kail, Peter. 2007. "Understanding Hume's Natural History of Religion," Philosophical Quarterly, vol. 57, no. 227, pp. 190-211.

Liénard, Pierre, and Pascal Boyer. 2006. Whence Collective Rituals? A Cultural Selection Model of Ritualized Behavior," American Anthropologist, vol. 108, no. 4, pp. 814-827.

Malhotra, Deepak. 2010. "When are Religious People Nicer? Religious Salience and the "Sunday Effect" on Pro-Social Behavior," Judgment and Decision Making, vol. 5, no. 2, pp. 138-143.

Norenzayan, Ara. 2013. Big Gods. How Religion Transformed Cooperation and Conflict. (Princeton, NJ: Princeton University Press).

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

Rea, Michael C. 2016. "Hiddenness and Transcendence", in Hidden Divinity and Religious Belief, eds. Adam Green and Eleonore Stump (Cambridge: Cambridge University Press), pp. 210-225.

Shariff, Azim F., and Ara Norenzayan. 2007. "God is Watching: Priming God Concepts Increases Prosocial Behavior in an Anonymous Economic Game," Psychological Science, vol. 18, no. 9, pp. 803-809.

Sosis, Richard, and Candace Alcorta. 2003. "Signaling, Solidarity, and the Sacred: The Evolution of Religious Behavior," Evolutionary Anthropology, vol. 12, no., 6, pp. 264-274.

Sosis, Richard, and Eric R. Bressler. 2003. "Cooperation and Commune Longevity: A Test of the Costly Signaling Theory of Religion," Cross-Cultural Research, vol. 37, no. 2, pp. 211-239.

Sosis, Richard, and Jordan Kiper. 2014. "Religion is More than Belief: What Evolutionary Theories of Religion Tell Us about Religious Commitments," in Challenges to Moral and Religious Belief. Disagreement and Evolution, eds. Michael Bergmann and Patrick Kain (Oxford: Oxford University Press), pp. 256-276.

Sosis, R., and Bradley J. Ruffle. 2007. "Religious Ritual and Cooperation: Testing for a Relationship on Israeli Religious and Secular Kibbutzim," Current Anthropology, vol. 44, no. 5, pp. 713-722.

Stanley, Jason, and Timothy Williamson. 2001. "Knowing How," Journal of Philosophy, vol. 98, no. 8, pp. 411-444.

Teehan, John. 2003. In the Name of God. The Evolutionary Origins of Religious Ethics and Violence (Chichester: Wiley-Blackwell).

-----, John. 2016. "Cognitive Science, Evil and God," In Advances in Religion, Cognitive Science, and Experimental Philosophy, eds. Helen De Cruz and Ryan Nichols (London: Bloomsbury Academic), pp. 39-60.

Thurrow, Joshua C. 2013. "Does Cognitive Science Show Belief in God to be Irrational? The Epistemic Consequences of the Cognitive Science of Religion," International Journal for Philosophy of Religion, vol. 74, no. 1, pp. 77-98.

Vavova, Katya. 2018. "Irrelevant Influences," Philosophy and Phenomenological Research, vol. 96, no. 1, 134-152.

Watts, Joseph, Simon J. Greenhill, Quentin D. Atkinson, Thomas E. Currie, Joseph Bulbulia, and Russell D. Gray. 2015. "Broad supernatural punishment but not moralizing high gods precede the evolution of political complexity in Austronesia," Proceedings of the Royal Society B, vol. 282, no. 1804, pp. 20142556.

Wettstein, Howard. 2012. The Significance of Religious Experience. (Oxford: Oxford University Press).

Wilkins, John S., and Paul E. Griffiths. 2013. "Evolutionary Debunking Arguments in Three Domains: Fact, Value and Religion," in A New Science of Religion, eds. Greg W. Dawes and James Maclaurin (New York: Routledge), pp. 133-146.