Special Issue Introduction:
Religious Diversity and the Cognitive Science of Religion:
New Experimental and Fieldwork Approaches

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The cognitive science of religion (CSR) developed from the recognition that universal features of the human mind could explain the cross-cultural ubiquity of religion, as well as the many similarities between religions across space and time. Emerging in the early 1990s, initial work in CSR was highly theoretical (Boyer 1994; Guthrie 1993; Lawson and McCauley 1990), and when scholars drew upon evolutionary theory they tended to do so in reference to theories in evolutionary psychology (Lawson and McCauley 1990). Early empirical evidence was drawn from reanalyses of existing cross-cultural work (e.g., Boyer 1994) and specific case studies (e.g., Whitehouse 1995), but CSR scholars stressed the need for more experimental work that could test the key predictions emerging from initial CSR theories (Barrett 2005; Lawson and McCauley 1990;

Whitehouse and Laidlaw 2007). As the field of CSR continued to mature, it became more experimentally focused (e.g., Barrett and Nyhof 2001; Bering, McLeod, and Shackelford 2005; Piazza, Bering, and Ingram 2011) and developed an interdisciplinary character (Boyer and Ramble 2001; Whitehouse and Laidlaw 2007; Whitehouse and Martin 2004). Now, research in the field has grown even more interdisciplinary and become better informed by evolutionary theory as perspectives from behavioral ecology and cultural evolution have been incorporated (e.g., Bulbulia et al. 2013; Henrich 2009; Norenzayan et al. 2016; Purzycki et al. 2016; Shaver et al. 2019; Sosis, Kres, and Boster 2007; Watts et al. 2016; Whitehouse et al. 2017, 2019). There is now a greater array of methodologies (e.g., Power 2018; Watts et al. 2016) and theoretical approaches represented in the field, although calls for more empirical tests remain (e.g., Jong 2014; Martin and Wiebe 2017).

The contributors to this special issue represent another ongoing development in the CSR field, one that involves a significant shift in orientation. Many researchers in CSR have begun to change their focus from documenting universal features of cognition and how they relate to religion worldwide, to investigating the *interaction* between shared cognitive features and diverse socio-ecologies, and how this can lead to systematic differences across religions. Differences between religions are not expected to be entirely the result of the vagaries of culturally constituted worlds, but rather, are assumed to have systematic elements. Instead of expecting a non-functional utility of religions in contemporary environments, as is often the case in evolutionary psychological investigations, CSR scholars are now increasingly investigating whether religions may afford their members material benefits in specific environments. The contributors to this volume, in different ways, all reflect this shift in focus from the identification of universal features of religion, to explaining variation in the features of religions as systematic responses to diverse socio-ecologies.

Rita McNamara's article, 'Weathering the Storm: Supernatural Belief and Cooperation in an Insecure World', represents a cultural evolutionary approach to the study of how indigenous and introduced religious beliefs, and reminders of these beliefs, among *iTaukei* Fijians can affect cooperation with distant others. McNamara employs qualitative and experimental techniques, and hypothesizes that not only will these supernatural systems differ in terms of their contribution to cooperation, but that these effects will also be subject to a person's perceptions of resource scarcity. McNamara's field experiments provide some support for her hypotheses, and her qualitative data and ethnographic work help to contextualize her findings. This article illustrates not only the importance

of mixed methods approaches, but also highlights the necessity of testing theories among communities that are often overlooked by Western researchers (Henrich, Heine, and Norenzayan 2010).

In 'The Systemics of Violent Religious Nationalism: A Case Study of the Yugoslav Wars', Kiper and Sosis make use of extensive ethnographic data, collected in the Balkans, to test predictions about how the same features of human cognition can give rise to both violent religious nationalism and the rejection of such violence. The authors approach religions as adaptive systems—systems which include belief, ritual, myth, taboo, and other features—and expect that religions will consistently respond to environmental changes, or else die out. Kiper and Sosis argue that, over time in the Balkans, changes to health and other community threats have altered the incentives for religiously motivated violence, and eventually, the rejection of such violence. This article is important because it moves beyond focusing solely on isolated components of religions to attempting to understand how these components function as a part of an interrelated *system*. This approach is also combined with an ethnographic methodology. Kiper and Sosis in this study, therefore, help to address longstanding criticisms that CSR approaches have a tendency to be reductionistic.

Purzycki et al.'s article, 'Breaches of Trust Change the Content and Structure of Religious Appeals', reports the results of an experiment that sought to test aspects of ecological theories of religion which posit that cross-cultural variation in beliefs and practices is in large part the result of adaptive responses to varying socioecological pressures and threats to resources. They conducted an online study that used an economic game (Trust Game) to model different social environments, and investigated whether this intervention influenced the types of items that participants listed as angering God in a free-list task. Their results indicated that the items listed as angering God did vary, with greed being more commonly mentioned when participants invested in others and received no return. The findings of Purzycki and colleagues suggest that religious cognition (i.e., what gods care about) can flexibly respond to social breaches and other threats to cooperation. The authors work is significant because it offers empirical evidence that features of religious cognition flexibly, and systematically, respond in real time to environmental signals theorized to be important.

Stockly et al.'s article, 'Women-Centered Rituals and Levels of Domestic Violence: A Cross-Cultural Examination of Ritual as a Signaling and Solidarity-Building Strategy', describes their analysis of cross-cultural data to investigate whether women-centered rituals are more likely to occur among societies in which domestic violence is more

prevalent. The authors expect that such rituals among women may be a response to environmental variation in violence influenced by differences in post-marital residence. They found that some women-centered rituals are associated with lower levels of violence towards women, but found little support for the notion that these rituals were more common in post-marital systems that are organized around men. This article is unique in applying an evolutionary perspective to address a topic that is more typically of concern to sociology and gender studies. Moreover, Stockly et al.'s development of a novel cross-cultural ethnographic database to test their hypotheses also reflects the continued development of CSR as an interdisciplinary and empirical endeavor.

The next article by Burdett et al., titled 'Children's Developing Understanding of the Cognitive Abilities of Supernatural and Natural Minds: Evidence from Three Cultures', outlines a cross-cultural experimental study on children's perceptions of supernatural minds. Their results highlight the existence of both cross-cultural differences and continuities in how young infants understand the minds of natural and supernatural agents. Their findings provide preliminary evidence that while reasoning about human mental capacities displays distinct cultural differences, the mental capacities attributed to God appear largely consistent across sites. Burdett and colleagues suggest this may be indicative of a shared cognitive pattern that can be reliably found in cultures that possess a High God concept. This study is a good illustration of experimental efforts in the CSR field and their growing emphasis on cross-cultural tests. Notable also is that the article avoids drawing grand conclusions, and instead acknowledges relevant limitations and outlines clear future tests that are necessary to draw any wider conclusions.

Finally, Kavanagh and Jong, in 'Is Japan Religious?', use Japan as a case study that can help to address longstanding debates over whether the category of religion is meaningful to apply outside of Abrahamic or Western cultural contexts. In the first half of the paper, they provide a review critically evaluating a variety of arguments for and against whether 'religion' is a suitable category in the Japanese context, including views from both critical theorists and CSR researchers. Then in the second half they move on to examine results from an online survey of a thousand Japanese people and use it to reinforce the need for scholars to adopt a more multifaceted approach to examine religious beliefs and practices. Their primary conclusions are that the Japanese religious context illustrates that scholars wishing to explore religion cross-culturally need to pay greater attention to practice-focused 'orthopraxic' cultural contexts and distinguish clearly between doctrinal 'theocentric'

beliefs and broader supernatural beliefs. The article of Kavanagh and Jong is noteworthy in that it contributes to longstanding debates in religious studies, and also does so with reference to both theory and empirical results from a large-scale survey.

Collectively, the articles in this special issue are reflective of the diversity of approaches in the modern CSR field and illustrate how this work has become more empirically grounded and gives greater consideration to cultural and environmental diversity. With a recognition of the importance of culture and the environment in shaping religions, and drawing from theories, topics, and methods from across the natural and social sciences, the contributions of this volume attest to how the field of CSR continues to become more nuanced, sophisticated, and careful. They also reflect how scholars are increasingly willing to acknowledge null results and grapple with the implications, as per most of the social sciences in the wake of the concerns raised by the 'replication crisis' (Levy Paluck 2018; Open Science Collaboration 2012, 2015; Simmons, Nelson, and Simonsohn 2011).

Finally, the special issue includes four book reviews relevant to scholars interested in CSR. Hans Van Eyghen reviews *Philosophical Foundations of the Cognitive Science of Religion* by two of the founders of CSR, McCauley and Lawson. *The Emergence and Evolution of Religion: By Means of Natural Selection* is reviewed by Eva Kundtová Klocová, while Mary Bugbee reviews *God Is Watching You: How the Fear of God Makes Us Human*, by Dominic Johnson. Finally, Rohan Kapitány responds to James Cresswell's critiques of CSR laid out in his book, *Culture and the Cognitive Science of Religion*.

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