Understanding God's Mind - Detailed description

Opening a new line of research within the cognitive science of religion, our team aims to investigate whether the way people see and understand the mind of their deity affects how they engage with the world around them, and specifically how it influences their tendency to cooperate with other people in their community. Mind perception has been theorised to be a necessary condition for perceiving God's mind (Guthrie 1993). Previous work has shown that differences in individuals' capacities for "theory of mind", or the ability to infer the mental states of others, have been linked to belief in the Christian God among North Americans (Norenzayan, Gervais, & Trzesniewski n.d.). Although basic mind perception is clearly involved, the perception of certain deities' minds extends far beyond what our mind perception capacities evolved to accomplish. While human minds are capable of thoughts, desires and even false beliefs, some deities may be perceived as possessing extraordinarily powerful minds. These powers include access to all actions and thoughts of believers, making this supernatural mind capable of rewarding or punishing even secret behaviours (Norenzyan & Shariff 2008). Much work in psychology among Western populations now indicates that belief in these deities both increases prosociality and reduces cheating (Shariff & Norenzayan 2007; Randolph-Seng & Nielson 2007). However, historical and anthropological evidence suggests that this is not the only way a deity's mind can be perceived. In fact, Armstrong (1993) suggests that while the nature of deified minds varies across geography and throughout human history, most conceptions largely fall into two categories: human-like beings with super-human powers; or transcendental hyper-agents with immeasurable mental power, goals and desires that go beyond everyday human concerns. Meanwhile, other religious traditions appear to have developed different supernatural monitoring systems altogether, such as those based on karma (Nadkarni 2007). We aim to examine how different individuals and different populations perceive their deities' minds, and how the differing perceptions of supernatural minds, as well as how non-mental supernatural forces like karma, influence the psychological and motivational processes underpinning individuals' willingness to act for the welfare of others.

Previous work has focused on Western Christians, who tend to see God as a highly transcendent being – though this varies among individual believers. The mind of God is far more powerful than any human mind, and may approach a non-physical and purely intellectual mind (H. M. Gray et al. 2007). One psychological result of this belief is the sense that God is always watching and knows the believer's every action (Norenzayan & Shariff 2008). This creates a cultural device for maintaining cooperation with unknown others. As noted, previous work has demonstrated how this 'supernatural watcher' can help sustain mutually beneficial interactions among strangers, a feature that characterizes the large-scale human societies that have emerged in the last ten millennia (Norenzayan & Shariff 2008). This perception of the uber-mind gives God a perspective far beyond a limited human, making God a moral authority and a potential source of personal growth and wellbeing. Though much work has now explored this supernatural watcher hypothesis, virtually no work has looked at the role more bounded deities have in maintaining social norms and cooperation. How people perceive the mind of god may have an important impact on how religious beliefs affect cooperation. We focus on this new direction.

In our framework, a deity with a highly human-like mind is limited in its powers of knowing. Consequently, humans will engage in a more transactional relationship with these deities. Using the logic of interpreting human mental states and actions, human-like supernatural beings can become an explanation for both bad and good fortune, having physical and emotional

reactions as well as vindictive or punishing actions. This opens up possibilities that are less available to a more transcendent deity: people can trick or bribe the human-like god. Although these deities still know things beyond what humans know, this is due to having a different perspective on the world than having hyper-agency. Interactions with this type of deity include sacrifices to get some favour or appeasements when bad things happen. These kinds of human-god interactions are often associated with traditional beliefs in small-scale societies (Boyer 2001), as well as in the historical development of some contemporary religions (Wright 2009).

To most starkly reveal any differences in people's conception of their deities' minds, and any downstream consequences, we draw on research indicating that experiencing cues of material insecurity cause people to adhere more rigidly to their culturally-acquired norms and belief systems, including religion (Laurin et. al. 2008; Norris & Inglehart 2004). We surmise that inducing ephemeral feelings of insecurity will allow us to more sharply distinguish the differences between more human-like deities from transcendent gods. For example, will individuals seek to bargain with their deity or beg for spiritual guidance? We expect that within a tradition, material insecurity should cause people to react more stereotypically within their religious belief system, relying more rigidly on the norms or rules of their particular religion, in hopes of gaining a greater sense of control from their beliefs. Because human-like deities can be tricked and bribed, we expect their ability to regulate the moral realm should be more limited vis-à-vis transcended deities. We, however, expect to both variation within religious traditions and between different traditions.

Research Methods

Participants in diverse religious traditions likely tend to view their gods along a spectrum – from more embodied and human-like to more hyper-intellectual and transcendent. However, we suspect that the rituals and practices of different traditions will tend create average differences among populations. To explore whether such differences exist, and what their import might be, we will compare five populations, two in Vancouver (Hindus and Christians) and three in Fiji (Hindus, Muslims and Christians). In Fiji, we will study Indo-Fijians, who are descendants of indentured servants brought to Fiji from India. Indo-Fijians practice both Islam and various forms of Hinduism. These groups live alongside indigenous Fijians, who practice a syncretic blend of Christianity and traditional Fijian religious beliefs (ancestor worship). The inclusion of the both Hindu and Muslim Indo-Fijians will allow for a relatively controlled comparison of two non-Christian groups who live in close proximity and interact frequently, but one of which emerges from a deep Hindu cultural tradition that is non-monotheistic. Research with this group can help determine if transcendent deities are likely to be a general feature of religion with a history in large-scale societies, or if this is a particular trait of some traditions. Additionally, the Hindu concept of karma as a non-deified force serves as an important comparison point. Karma is of interest because it theologically is considered a supernatural force that is not imbued with mind – does such a god-like force generate behaviours similar to agentic deities? What kind of psychological differences might come along with perception of such a force? How might this impact the ways karma believers interact with other people, at different social distances?

Indigenous Fijians, including those living in the same town as the Indo-Fijians (above) and villagers from an outer island (where contact with Indo-Fijians is rare), will provide a unique set of additional comparisons. First, native Fijian religion includes active belief in traditional ancestor gods and spirits alongside dedicated Christian practices introduced by missionaries several generations ago. By differentially evoking either the Christian beliefs or the ancestor god

beliefs, we can directly compare the effects human-like gods of the ancestral beliefs vs. the more transcendent god of Christianity in the same individuals or population. Second, the ancestor gods' powers are thought to be place-based. Comparing indigenous Fijians from the town to those from the villages will permit us to examine what happens when believers are removed from the location of a deity's power (ancestor gods are tied to villages) – thus allowing us to test if merely perceiving an unseen mind is enough to produce the hypothesized prosocial effects, or if that mind must be able to see the believer. We will include villagers who are visiting town.

The first stages of this project will involve in-depth structured interviews, using anthropological approaches. Our interview questions will ask about an individual's religious belief system(s), beliefs in various supernatural beings, and the specific thoughts, desires, emotions, etc. applied to these beings. We will also ask about demographic topics including material insecurity, community relationships, and cooperation. We will look at how often individuals interact with out-groups and the value they place on cooperating with both in-group and out-group members. Additionally, we will assess individual differences in the cognitive capacities of theory of mind and empathy, which should be precursors to mind perception.

Next, we deploy a set of experimental studies designed to explore how the perception of a deity's mind influences believers' behaviour. Our first set examines how environmental factors interact with the conception of divine minds. In this framework we will make participants think about either transcendent or human-like traits as well as either a secure or insecure world. We will read participants a vignette that cues either stability or instability in participant's environment (e.g., earthquakes are expected or unlikely). Participants will then be given a culturally relevant target deity with either transcendent or human-like traits. Human targets and a neutral condition will be included as controls. Participants will be asked a series of questions to demonstrate how they would interact with the target deity given the situation. Follow up questions will be asked to determine how much responsibility is assigned to the deity. When transcendent, intellect-only aspects are emphasized, the deity should be seen as generally responsible for everything. However, the deity should be seen as blame or praiseworthy only when human-like aspects are made salient. We expect that in the insecurity manipulation, participants in the human-like deity condition should be more likely to bargain with the deity, where in the transcendent deity condition, they should be more likely to seek guidance. Additionally we will measure perceptions of insecurity in the lives of our participants, and use interview information to determine their supernatural beliefs. This will give us a baseline comparison for experimental results, and allow us to examine this relationship in the real world.

A variation of this study will be conducted to address Karma. The same vignettes will be used, but participants will be probed to determine the role of Karma in these situations. Further, they will be asked whether retributions can be made to prevent such occurrences, or if Karma is more of a post hoc explanation for events for which people cannot control. This set of studies will allow us to compare the human-like deity, the transcendent deity, and the non-mental force across a set of identical situations without introducing extra confounds of vastly different cultures and environments normally found in cross cultural research.

In our second set of experiments, we plan to induce participants to reflect on different types of deities that fit within their religious tradition or on a neutral topic. Participants will then be asked to play an economic game with an anonymous other. This anonymous recipient can be someone from the participant's local community or from another place entirely. This methodology will allow us to assess whether religious devotion facilitates cooperation across all

types of deities, or if this is specific to how the deity is viewed by the participant. Economic games have been widely used to measure cooperation within the study of religion (Shariff & Norenzayan, 2007; 2007; Sosis & Ruffle, 2004), and have been used with previous success in Fiji (J. Henrich et al., 2006; 2010a). This will allow us to extend previous work conducted in our lab to include non-Western samples and different perspectives on the divine. We expect that the more deities are perceived as transcendental hyper-agents, the more they will facilitate cooperation with others who are further away from the immediate in-group. We will extend this research further by including a Karma condition for Hindu participants. This will allow us to assess if cooperation can also be facilitated by a non-mental, yet supernatural, regulatory force.

This project offers a unique opportunity for training psychology graduate students for the challenges currently confronting the field (e.g., Henrich, Heine, & Norenzayan 2010). The students involved in this project will get hands-on experience with anthropological methods, including ethnographic interviewing and participant observation, as well as the in the application of psychological methods in diverse populations outside the university environment. This training will enhance their career opportunities and provide them with a rare skill set. The project will also provide opportunities for these students to cross-train with anthropologists, both students and professors, from UCLA in Fiji. We believe the opportunity to work with teammates from other disciplines can enrich both fields. This grant will specifically fund work by UBC psychology graduate students Rita McNamara (MA student) and Aiyana Willard (PhD student). The UCLA team is funded separately.

Anticipated Outcomes

This research will significantly expand the psychological study of religion and religious cooperation beyond the usual Western, Judeo-Christian samples by including a diversity of supernatural belief systems. It will also expand anthropological understandings by incorporating insights from cognitive science on how basic psychological processes influence and constrain cultural forms. Further, this will illuminate how elements of inferring others' mental states, a proposed key cognitive underpinning of religious belief, relates to the ways people engage with various deities across different traditions and communities. This in turn may inform our understanding of the developmental trajectories observed in different religions over the course of human history. These findings will be published in journals in Anthropology, Psychology and Cognitive Science. The PI and co-PIs have a track record of publishing in all of these disciplines.

Methodologically, by combining methods from anthropology (ethnographic interviews) with experimental tools from psychology (e.g., "priming"), we aim to enrich both disciplines by combining contextual depth (ethnographic interviewing) with systematic, comparative measurement (experiments). The PI has a substantial record of integrating tools from diverse disciplines, including social networks (Henrich & Broesch 2011), the Implicit Association Task (Tracy, Shariff, Zhao, & Henrich n.d.), and economic games (Henrich & McElreath 2002), with comparative ethnography across diverse societies (Henrich et al. 2006).

For the PI, the grant will take his research in new directions in two ways. First, while he has been running a field project in Fiji for nine years (Henrich & Broesch 2011; J. Henrich et al. 2010a; 2006), this work has focused on indigenous Fijians, and has not sought to compare these populations with the large Indo-Fijian population. This grant is the first step in developing a comparative project. Second, the work develops and integrates newly emerging work on biases in mind perception into an understanding religious variation. The PI has not done empirical work on religion previously, though he has contributed occasionally to theoretical debates.

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