



## *Big Gods* in review: introducing Ara Norenzayan and his critics

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## Introductory Essay

# ***Big Gods* in review: introducing Ara Norenzayan and his critics**

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**ABSTRACT** This essay introduces a review symposium on Ara Norenzayan's book *Big Gods* (2013). The essay reviews Norenzayan's earlier publications on religion, sums up the main points of criticism that have been put forward by the contributors, and raises some concerns about the questions to be asked about 'religion.'

**KEY WORDS** cultural evolution; gods; Ara Norenzayan; priming and religion; psychology of religion

Cognitive science and evolutionary theory have been major players in the academic world during the past decades and eventually began to make inroads into remote corners of the academy such as the study of religion's. Even though the first publications on religion with a cognitive label started to appear in the 1980s and 1990s, the publication in 2001 of anthropologist Pascal Boyer's popular book *Religion Explained* was something of a watershed event, since it attracted major attention to this emerging field. As of 2014, the field has consolidated. There is a specialized scholarly association (the International Association for the Cognitive Science of Religion, founded in 2006) and there now are two specialized academic journals (*Religion, Brain and Behavior*, est. 2011) and *Journal for the Cognitive Science of Religion*, est. 2013) in addition to the more wide-ranging *Journal of Cognition and Culture* (est. 2001). There are regular conferences, workshops, book series, etc. Even though Robert Bellah was dismissive of much of the scholarship emerging from these venues, the 2011 publication of his *Religion in Human Evolution* and its wide reception gave a new impetus to the relevance of evolutionary thinking to the study of religion's also among mainstream scholars and audiences (Stausberg 2014). While individual scholars working in this field can be found in many places, some universities have established centers. One of them is The Center for Human Evolution, Cognition, and Culture at the University of British Columbia (Vancouver,

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Canada) that is running a major six-year project on 'The Evolution of Religion and Morality,' bringing together a group of some 50 international scholars. The management committee consists of Joseph Henrich, Ara Norenzayan, and Edward Slingerland. Because of his work on Chinese culture and religion, the latter is probably best known among scholars of religion.

Cognitive and evolutionary approaches to studying religion have challenged some widely shared assumptions in the study of religion, raised different research questions, and suggested new interpretations and explanations of a variety of aspects of religion. In addition, they have contributed significantly to the recent rejuvenation of theories of religion (Stausberg 2009). Gods are one of the aspects of religion that cognitive and evolutionary studies of religion have once again put in the limelight. While an earlier generation of historians of religions, with Raffaele Pettazzoni (1883–1959) as the towering figure, discussed the broader historical development of notions of the divine (Pettazzoni 1922) and its attributes, such as omniscience (Pettazzoni 1956), later studies have mainly debated issues related to monotheism and polytheism. The question of God has also remained a main topic in the philosophy of religion. Cognitive and evolutionary theorists such as Scott Atran, Justin Barrett, Pascal Boyer, and Ilkka Pyysiäinen have, in their extensive publications, put greater emphasis on gods or superhuman agency, and papers on gods are published in Cognitive Science journals (Purzycki 2013). In the meantime, two mainstream religious-studies journals have followed suit by devoting thematic issues to the topic (*Din: tidsskrift for religion og kultur* 2012/2 and 2013/1: 'guder' (gods); *Numen* 60/1 [2013]: 'The Gods as Role Models in Western Traditions').<sup>1</sup>

Ara Norenzayan's *Big Gods: How Religion Transformed Cooperation and Conflict* (Norenzayan 2013) builds on this new agenda but proposes a new angle. Taking the cognitive and evolutionary origins of notions of 'gods' as a starting point, Norenzayan puts forward a strong thesis, namely that a certain type of 'gods' – a variant in cultural evolution, namely Big Gods<sup>2</sup>, which demand loyalty and hard-to-fake public displays of commitment, resulting in the emergence of morality-focused or prosocial religion – have functioned to provide powerful cognitive pressures and resources for the development of cooperation in the transition to larger scales of social organization (big groups). To put it strongly, big groups, or cooperation-based communities of strangers, might not have, or not as successfully or 'as readily' (145), developed without the existence of Big Gods; in the long run, in a process of cultural (rather than genetic) evolution, religions that endorse prosociality by successfully suppressing selfishness and increasing social cohesion, have

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<sup>1</sup>See Ahn (2012) for a recent textbook example of a historical/hermeneutical approach to the category 'gods' with the avoidance of ethnocentrism as its main concern (and no reception of cognitive and evolutionary theories). See Versnel (2011) for a fascinating in-depth engagement with the topic in ancient Greek religion.

<sup>2</sup>The way this attention-grabbing category has been created remains unclear; it seems to have been extrapolated from certain experiments (summarized below) and with some vague prototypes such as the Christian god in mind. The main features of Big Gods are that they are interventionist and morally concerned, that they monitor and watch people's social behavior, demand hard-to-fake loyalty displays (Norenzayan 2013, 8) and that they are ascribed an elevated spatial position as high up rather than down below (29). These gods are treated as person-like beings (their abstract attributes notwithstanding); in their watching they particularly look at some kind of things, namely morally relevant actions (26–27).

outcompeted other variants of religion. This narrative – which carries with it discussions on the development, logic, and structure of rituals, on different effects of different types of beliefs, on the relationship between different types of groups and different types of religion, on the increasing intertwining of religion and morality, on the competition between religious groups, on the differential success of different types of religion, and on the relationship between religion and secular institutions – makes the book seem eminently relevant even for historians of religions.

Ara Norenzayan, however, is not a historian of religions, nor an anthropologist with fieldwork experience of lived religion, but a trained social psychologist. Over the past decade, Norenzayan has published a series of articles dealing with religion. Many readers of this journal might not have heard much of Norenzayan before (even though he was published here [Gervais et al. 2011]), but his research is disseminated in popular-science magazines and the international media, and his work is widely cited so that his h-index – a prominent bibliometric index for scholarly impact – is higher than that of the most reputed living scholars in the study of religion\s.<sup>3</sup> It might thus be useful to retrace a selection of his main contributions, in particular his work on religion leading to *Big Gods*, to provide some background. In this issue, Wiebe (2014) provides a fairly detailed summary of the book's argument.

Norenzayan received his Ph.D. in psychology from the University of Michigan, ranked as one of the top programs in the USA, in 1999. Norenzayan's name first caught my attention as co-author of work published by some well-known senior psychologists. With Norbert Schwarz (who now teaches at the University of Southern California) he published a paper in which they show that participants in surveys adapted their responses to questionnaires in line with their inferences on the goals and interests of the scholar conducting the survey. In their case study, American students' answers on causal attributions about mass-murder cases varied when the researcher was identified as a social scientist or a personality psychologist respectively, leading Norenzayan and Schwarz to assume that the source of causal attribution was situational rather than dispositional (Norenzayan and Schwarz 1999). This insight is still reflected in one of the main principles of *Big Gods*: 'Religion is more in the situation than in the person' (Norenzayan 2013, xiii). This statement resonates with experiences of scholars doing fieldwork among religious groups, yet is all too often ignored when attitudes and behaviors are ascribed to people typically based on essentialized and unhistoric notions of religious ideologies and identities. In addition, the study by Schwarz and Norenzayan has obvious implications for the assessment of the quality of responses to surveys that are explicitly identified to deal with religion, where respondents might to a greater extent adjust their responses to fit their views of Religious Studies.

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<sup>3</sup>On 8 August, GoogleScholar gave Norenzayan's h-index as 34. Here are the numbers for some prominent scholars of religion (compiled by Steven Engler) according to the same source on the same day (GoogleScholar): Jonathan Z. Smith (30), Wendy Doniger (28), Bruce Lincoln (22), Ivan Strenski (16), Wouter Hanegraaff (15), Robert Segal (14), Gustavo Benavides (13), Gregory Alles (12), Olav Hammer (7). This selection illustrates the uneven significance of such indices across the disciplines; for a general discussion of the limitations and value of bibliometrics for the study of religion\s see Engler (2014).

In the same year, Norenzayan appeared as a co-author of a widely quoted article (745 citations according to GoogleScholar and 365 per Web of Science [as per 29 June 2014]), with Incheol Choi and his doctoral supervisor Richard E. Nisbett. The latter is a cultural psychologist who is known for his work on the 'geography of thought' (Nisbett 2003), a theory that relates societal, social, and cognitive patterns of American and Asian cultures respectively. This article picks up the theme of 'dispositionism,' i.e., the generally held belief that behaviors result from dispositions, which lies behind the so-called correspondence bias – the tendency to explain behavior in terms of internal dispositions rather than by external factors. Their study shows that even though dispositionism is cross-culturally widespread, Koreans (and East Asians more generally) show a greater tendency than Americans to regard dispositions as malleable and to emphasize situational constraints on behavior (Choi, Nisbett, and Norenzayan 1999). Another even more widely quoted article (2097/834 citations) by this team of co-authors addresses more fundamental cognitive differences between East Asians and Americans, arguing that Westerners have a more analytical and Easterners a more holistic style of thought (Nisbett et al. 2001). As far as I can see, the study of religion's has not really engaged with these and similar findings of cultural (or cross-cultural) psychology, which to many of our disciplinary fold might probably at the outset smack of essentialism, other than finding that Eastern religions have a wide appeal on contemporary Westerners because of their perceived holistic outlook. Even the Cognitive Science of Religion has devoted scarce attention to culture-dependent forms of thinking.<sup>4</sup>

Almost a decade later, a widely cited target article in *Behavioral and Brain Sciences* (1175/457 citations), co-authored with Joseph Henrich and Steven J. Heine, turns this agenda of cross-cultural psychology into a critical challenge to work in mainstream psychology. The authors find a catchy title for the kind of population that most publications in major behavioral science journals draw upon, namely Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies (Henrich, Heine, and Norenzayan 2010). This acronym seems justified because subjects from these societies seem to be quite unusual along several important dimensions of psychology and behavior. Samples from WEIRD societies may even 'represent the worst population on which to base our understanding of *Homo sapiens*' (Henrich, Heine, and Norenzayan 2010, 82). Given that some studies suggest that Americans are exceptional even within WEIRD societies and that contemporary Americans may be psychologically unusual compared to earlier generations of Americans, research based on samples of a cross-culturally unrepresentative sample such as American undergraduates does not instill confidence when it generalizes from the behavior and thinking of this sample to in general. While this paper does not address any explicitly religious features, this warning has obvious relevance for research on religion and in fact resonates with a shared consensus in the study of religion's, namely that scholarly work on religion should not be limited to studies of Western Christianities, nor to contemporary Western forms of religion.

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<sup>4</sup>Note that Norenzayan has also explored the other end of the spectrum, namely ways of conceptualizing psychological universals (Norenzayan and Heine 2005). In Norenzayan (2010, 68) he analyzes religion as 'a species-specific human universal'.

From the University of Michigan, Norenzayan went to the Center de Recherche en Épistémologie Appliquée (CREA) at the École Polytechnique, Paris, for postdoctoral research with the versatile anthropologist, cognitive scientist, and evolutionary psychologist Scott Atran, who in 2002 published his book *In Gods We Trust: the Evolutionary Landscape of Religion* (see Bulbulia 2009 for an assessment). Atran interested Norenzayan in religion and evolutionary theory. In 2004, Norenzayan and Atran published a target article on religion's evolutionary landscape in the journal *Behavioral and Brain Sciences*, which closely builds on Atran's book. In this widely cited article (450/147 citations) – which, in line with the organization of that journal, is followed by extensive open peer commentary by some 20 scholars – they outline a psychological and evolutionary theory of religion which suggests 'psychological building blocks of religion, which then are culturally exploited in distinct but converging paths' (Atran and Norenzayan 2004a, 715). The authors are reflective on the limits of the category, though, and speak of approximations of 'what most scholars consider religion' (Atran and Norenzayan 2004a, 715). In their response, they 'accept the cautionary note that religion is not a well-circumscribed thing but a fuzzily bounded network of interrelated phenomena' (Atran and Norenzayan 2004b, 763), but they argue that these phenomena are interrelated in a specific way, which they seek to explain by the evolutionary landscape that canalizes human mental and behavioral activities into religious paths. However, they hold that religion is not an adaptation. The main building blocks in the proposed theory of religion are '[w]idespread counterfactual and counterintuitive beliefs in supernatural agents (gods, ghosts, goblins, etc.)' (Atran and Norenzayan 2004a, 713). This has turned out to be a leitmotiv of Norenzayan's further work of the past decade, culminating in *Big Gods* (Norenzayan 2013), even though his more recent thinking on religion has leaned more toward the adaptationist view.

In their study, Atran and Norenzayan argue that one of the effects of religious beliefs is their support in easing 'existential anxieties such as death and deception' (Atran and Norenzayan 2004a, 726). Norenzayan's subsequent publication on religion was an article co-authored with his student Ian G. Hansen that draws on Terror Management Theory (TMT), a psychological theory inspired by Ernest Becker's *The Denial of Death* (Becker 1973). TMT claims that shared meaning systems, which also may convey explicit notions of immortality, serve as powerful buffers against the human awareness of death; for the individual, participation in and appropriation of such cultural worldviews comes with self-esteem. Inversely, artificial implicit or mild reminders of death or mortality by experimentally creating so-called Mortality Salience (MS), which heightens the perception of death (for example by relating a story involving incidental death or asking respondents to write what they think will happen when they die), can be expected to increase the need to mobilize the worldviews as defense mechanisms. As an experimental design paradigm MS has been used in hundreds of studies on a variety of issues (Burke, Martens, and Faucher 2010), including some studies dealing with religion. For religion, TMT scholars have mostly directed their attention at one particular aspect or form of religion, namely explicit notions of the overcoming of death or the creation of 'literal immortality' (see, e.g., Vail et al. 2010; Jong 2014 for a general review). Instead, Norenzayan and Hansen studied the effect of MS on beliefs in superhuman agency. Their experimental studies conducted among American and Canadian students showed that, for these people, MS resulted in stronger (self-assessed) religiosity and stronger self-assessed belief in god, and it increased

the belief in the efficacy of divine intervention. Interestingly, their experiments also showed that among the participants MS resulted in an increase in belief in divine or supernatural agents even when these agents came from different religious traditions, such as the Buddha or ancestral spirits. The latter effects, however, mainly occurred among respondents with self-asserted religiosity, predominantly Christians. Whereas previous TMT scholarship had found that MS resulted in out-group derogation (for example by strengthening nationalism, racism, and xenophobia, but also in experiments involving religion), it seems that for believers superhuman agents do not pose a threat but a positive resource, contrary to other groups that 'carry no positive information about our own potential for immortality (or meaning or other existential need)' (Norenzayan and Hansen 2006, 184). The nature of the sample provides an important caveat against overgeneralizing any of these findings since MS effects on worldview defense seem to be significantly more pronounced among American samples compared to other peoples (Henrich, Heine, and Norenzayan 2010, 75).

Norenzayan continued his TMT-related work in a later publication (Norenzayan et al. 2009). While the earlier article had used examples (the Buddha, ancestral spirits, Shamanism) that posed no direct threat to dominant cultural worldviews, the later studies constructed a different scenario, where the worldview of Canadian students is threatened by reading an essay hostile to Western civilization presented as having been written by a radical Muslim. It turned out that Mortality Salience (MS) had the predicted effect on (self-assessed) non-religious participants but that (self-assessed) religious participants who had been primed by MS did not evaluate the author and the essay less favorably than religious participants who were not in the MS condition. The more religious participants even showed slightly more positive evaluations of the essay and its author in the MS condition. Norenzayan and colleagues argue that 'the best interpretation of our findings is that religious individuals, unlike the non-religious, engage the awareness of death with competing worldviews' (Norenzayan et al. 2009, 111).<sup>5</sup> In their article, Norenzayan and his colleagues also acknowledged that "'worldviews" as defined by TMT are constructed of ... competing and often inconsistent attitudes, beliefs, and coalitional [sic] identities' (Norenzayan et al. 2009, 110). This, of course, is also relevant for religions, which are often misrepresented as congruent, coherent, consistent systems (Chaves 2010; Stausberg 2001). A recent cross-cultural TMT publication based on studies among fundamentalist American and Iranian students has tried to operationalize such contradictions by combining MS conditions with exposure to religious or non-religious statements that emphasize different values. These studies showed that MS does not necessarily increase support for extreme military measures, but that such effects can even be reversed, resulting in lower support for such measures, when respondents are reminded of compassionate values as part of the textual repertoire of their religious traditions (Rothschild, Abdollahi, and Pyszczynski 2009). These authors also emphasize the importance of situational factors. Norenzayan briefly touches upon the importance of religion for relieving existential anxieties in the final part of *Big Gods* (Norenzayan 2013, 186–188).

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<sup>5</sup>Another potential explanation could be that also Western religions engage in a critique of modern civilization that may resonate with some themes in this fictive essay.

A paper that gained Norenzayan wide attention (473/196 citations) even far beyond the walls of the academy was published in 2007 in one of the most prestigious psychology journals, *Psychological Science*. This paper (co-authored with his student Azim F. Shariff) uses the methodological tools of experimental economics<sup>6</sup> to investigate the causal (rather than merely correlational) links between religion and costly cooperative behavior among unrelated strangers (prosociality) by measuring the amount of money given by 50 Canadian students and 78 non-student city residents respectively to anonymous strangers (in the so-called Dictator Game). In Study 1 it turned out that students who were primed with religious words (*spirit, divine, God, sacred, prophet*) in a grammatical exercise (the so-called scrambled sentence paradigm) gave away nearly double the amount than those in the control condition (who made the grammatical exercise with neutral terms) and that a higher proportion of those in the religious prime condition behaved fairly; the effect occurred both for theists and atheists and self-reported belief in god was no good predictor for the behavior of those in the control condition.<sup>7</sup> In Study 2, which was conducted with city residents, the effects of the unnoticed religious cues (primes) on sharing behavior was replicated, at least among theists, but almost the same effect was measured for participants who received a secular prime, i.e., that they had to construct sentences using the words *civic, jury, court, police, and contract* (Shariff and Norenzayan 2007). A quasi-replication of the first study has been done among Chilean undergraduate science students, most of them Catholics (Ahmed and Salas 2011). In this experiment, students in the prime condition (where the scrambled sentences used the words *spiritual, divine, benediction, holy, Jerusalem, god, Jesus, and prophet*) passed on a significantly higher amount of money than those in the control condition. The effect was observed for (self-assessed) religious and nonreligious participants, and even though religious participants passed on slightly more money than nonreligious participants, the effect of this dispositional factor was statistically negligible.<sup>8</sup>

A general discussion of the potential explanations of these findings carry Shariff and Norenzayan on the path leading to *Big Gods*; some main arguments of the book are anticipated in this article in a nutshell, which is why it requires some attention. The proposed explanation favored by Shariff and Norenzayan is ‘that the religious

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<sup>6</sup>See Hoffmann (2013) for a review of experimental economics of religion.

<sup>7</sup>In an article published simultaneously in *The International Journal for the Psychology of Religion*, Randolph-Seng and Nielsen (2007) arrive at the same conclusions for cheating behavior: American students who had received a religious prime cheated to a significantly lesser degree irrespective of their religious orientation; in addition to the scrambled sentence test (Study 1) these authors also used a subliminal priming strategy, the so-called vigilance task (Study 2), to rule out the potential awareness of the religious prime. The authors interpret their findings as confirming the automatic (ideomotor) effect of representations on behavior. Even though this article has interesting results and a somewhat more advanced research design, it received much less attention (139 citations on GoogleScholar, none in Web of Science) than the article by Shariff and Norenzayan.

<sup>8</sup>I am told by Uffe Schjødtt (oral communication, April 2014) that an attempted replication of the Shariff/Norenzayan experiments in Denmark failed. But see Xygalatas (2013) for a bargaining experiment among Sanatanist Hindus in Mauritius; instead of the laboratory the experiment was conducted in natural settings, namely in a Hindu temple and a restaurant. Participants who played inside the temple acted significantly more prosocial compared to those playing in the restaurant; degrees of self-reported religiosity did not affect the outcome. (Note that the sample only included Hindus). See Norenzayan, Henrich, and Slingerland (2013) and Preston, Salomon, and Ritter (2014) for general reviews of the prosociality–religion link.

prime aroused an imagined presence of supernatural watchers, and that this perception then increased prosocial behavior' (Shariff and Norenzayan 2007, 807) in the context of sensitivity to reputation. This explanation, which they came to call the supernatural monitoring hypothesis, is surprising for at least two reasons. First, it only explains the effect of the religious prime, but not the almost equally strong effect of the secular cues (see Randolph-Seng and Nielsen 2008, who also discuss some methodological flaws in the priming experiments). Second, contrary to some other experimental designs (in particular the experiments conducted by Jesse Bering), the nature of the priming stimulus, namely the scrambled sentence exercise, where participants have to construct five-word sentences by dropping an extraneous word, does not provide any direct clue to the supernatural watching which is invoked in the title of the paper ('God is Watching You') as if that speculative link had been established as a causal factor. But in a later publication (69/15 citations), Norenzayan and his student Will M. Gervais set out to test the hypothesis 'that thinking of God triggers the same psychological responses as perceived social surveillance' (Gervais and Norenzayan 2012, 298). In three correlational studies with a WEIRD sample of Canadian undergraduates it turned out that participants whose minds had performed priming tasks relating to god in fact showed an increased public and private self-awareness or increased social-desirability features. In two of these studies, however, this effect could mainly be observed among participants who expressed a relatively high belief in god. Those who did not declare a strong belief did not perceive themselves to be under social observance after that they had to busy their minds with thoughts of god. This finding is somewhat inconsistent with other studies that report no influence of self-assessed belief (see above).

In the priming exercise of the 'God is Watching You' research, words such as *sacred* or *prophet* used in the priming exercise do not carry any implicit watcher qualities, so that the stipulated experience of being watched was not activated by the words.<sup>9</sup> This raises some methodological concerns. To begin with, the ecological validity of the at-best dyadic decision structures in the economic games used in these experimental studies seems fairly limited, given that decisions in real-life situations involve far more complex situations, especially in larger cooperative groups; this ecological limitation is particularly problematic for a theory claiming a relevance of the observed effects precisely for the emergence and formation of complex societies.<sup>10</sup> Moreover, given the cross-cultural differences in economic decision-making (Henrich, Heine, and Norenzayan 2010, 65), one should be careful not to draw too far-ranging generalizations from such experiments – a caveat not really addressed by Shariff and Norenzayan here nor in any subsequent publication. Similarly, one might suspect that for Canadians religion implicitly

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<sup>9</sup>As far as I can see, potentially different outcomes of different sets of religious vocabulary in scrambled sentence exercises have not been tested. Ritter and Preston (2013) also warn against conflating different kinds of religious terms to a single 'religious cognition' variable. Based on studies of American/WEIRD laypersons subjective judgments, they propose distinguishing between three categories of religious words, namely religious agents, spiritual/abstract religious concepts, and institutional/concrete religious concepts. (I would rephrase as agents, concepts, and practices.) They also warn against treating 'god' as a single construct (Ritter and Preston 2013, 505).

<sup>10</sup>Ironically Shariff, Norenzayan, and Henrich (2010, 128) explicitly acknowledge this problem in their discussion of a rival theory, but its relevance for their own theory is ignored.

carries a moral dimension, so that religious primes in less- or non-moralistic religious traditions might yield different results. The closest one comes to testing this is a Trust Game study conducted by two economists in Burkina Faso, where micro-entrepreneurs who self-identified mainly as Muslims or Catholics but who were also fluent in elements of traditional or popular religion showed more prosocial behavior by sending a greater share of allotted money to an anonymous receiver after having participated in a priming interview on their experiences with charms, mystical powers, witch doctors, and ancestral rites (taken to be features of traditional religion); the observed effects were independent of age, gender, religious affiliation, or wealth (Hadnes and Schumacher 2012). More generally, the results of these experiments endorse situational rather than dispositional effects of religion, but the boundaries of the situation remain unclear; in other words, the temporal range of the observed priming effects have not been tested. Given that religiosity, as a self-assessed disposition, in these experiments seems to have no effect on prosocial behavior, for religion to be a relevant societal factor, the continuous cognitive presence of religious cues would need to be assured, but even if this were the case, one would need to test whether such continuous cognitive signals continue to have any effect or whether they wear off if activated over longer periods of time. In sum, any conclusions on effects of religion on prosociality based on such experiments seem highly speculative.

In another widely cited (377/148 citations) follow-up article published a year later in *Science* – on ‘The Origin and Function of Religious Prosociality’ – Norenzayan and Shariff (2008) develop their general argument; here, the phrase Big Gods makes its appearance. Norenzayan and Shariff argue that ‘religious prosociality’ is

a bounded phenomenon. Religion’s association with prosociality is most evident when the situation calls for maintaining a favorable social reputation within the ingroup. When thoughts of morally concerned deities are cognitively salient, an objectively anonymous situation becomes nonanonymous and, therefore, reputationally relevant, or alternatively, such thoughts activate prosocial tendencies because of a prior mental association. This could occur when such thoughts are induced experimentally or in naturalistic religious situations, such as when people attend religious services or engage in ritual performance. (Norenzayan and Shariff 2008, 62)

The positive effects of religion, or religious primes, on prosociality do not imply any ethical evaluation of religion; the association of religion with prosociality does not make religion ‘good’ and is, in my reading, not part of any pro-religious agenda on Norenzayan’s part. In another article published in *Psychological Science* in 2009, Jeremy Ginges, Hansen, and Norenzayan investigated the support for suicide attacks among Palestinians and Israelis in relation to prayer and ritual participation. In two interview studies with Palestinian Muslims (conducted in 1999 and 2006 respectively) it turned out that ‘frequency of mosque attendance positively predicted support for suicide attacks...but prayer did not’ (Ginges, Hansen, and Norenzayan 2009, 227). An experimental priming study with Israeli Jews living in the West Bank and Gaza showed that those who had been asked (primed) about their frequency of synagogue attendance regarded a suicide attack conducted by a Jew in 1994 as marginally more heroic than those who had been asked (primed) about the frequency of their prayers to God and more likely to hold such a view than those who had not received any prime. Different

types of religious behavior (prayer vs. participation) showed a consistently different effect on attitudes. This was also confirmed by an analysis of data from multinational and cross-religious surveys, where ingroup-commitment and outgroup-hostility dubbed as ‘parochial altruism’ were positively correlated with attendance at religious services at mosques, temples, or churches whereas there was a negative correlation with prayer in at least some sections of some groups (Ginges, Hansen, and Norenzayan 2009). While the direct effect of attendance or participation was not measured, the very mental representation of this information was enough to change attitudes. A methodological take-home point, it seems to me, is that one should hesitate to collate information on different aspects, dimensions, or forms of religious behavior into one single category (see also footnote 9 above).

Another experimental laboratory study on cheating behavior, made with an undergraduate sample, published by Shariff and Norenzayan in *The International Journal for the Psychology of Religion* in 2011 (47/15 citations) illustrates this point. There were no differences in cheating behavior among self-described believers and non-believers, nor had levels of religiosity any effect on behavior, but the attributes participants made on the supernatural agents did: in both studies more punishing views of god predicted significantly lower levels of cheating – and this was the only statistically relevant variable (Shariff and Norenzayan 2011).<sup>11</sup> A variable centering on an unqualified notion of ‘god’ may therefore be unreliable.

The two experimental studies of the ‘God is Watching You’ research varied in the behavior of atheist participants: while the prime had the same effect on theists and atheists in the student sample, for atheists from the non-student sample the effect was nonsignificant (Shariff and Norenzayan 2007). Atheists, atheism, and religious disbelief have become a focus of Norenzayan’s recent research. One line of work looked into the possibility of diminishing religious beliefs as a result of being exposed to arguments like those of Dawkins (Shariff, Cohen, and Norenzayan 2008 [3 citations on GoogleScholar/none on Web of Science]) and the cognitive processes, in particular analytic thinking, which (may) promote the reduction of religious belief (Gervais and Norenzayan 2012 [53/24 citations]). Another line of work has paid attention to distrust against atheists (Gervais, Shariff, and Norenzayan 2011) and priming effects that might lower such distrust (Gervais and Norenzayan 2012).

In sum, during the past decade Ara Norenzayan has developed a strong and widely noticed body of work on religion. This work is summarized and developed in *Big Gods* in an accessible form. The originality and wide reception of his ongoing work on religion is one reason for this review symposium. The other reason is the overwhelming praise *Big Gods* has earned so far. In addition to endorsements by several prominent scholars, a review published in the *Journal for the Cognitive Science of Religion* calls the book ‘a major milestone in the evolutionary study of religion’ (Shaver 2013, 2). *Big Gods* therefore seemed to call for a more extensive discussion.

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<sup>11</sup>Negative views of god as a wrathful agent can also have deleterious consequences for mental health (Liu, Koenig, and Wei 2012, 59). See now Shariff and Atkin (2014) for the differential aspects of beliefs in heaven and hell respectively; both cross-national survey data and an experimental study with Americans ‘showed that, controlling for each other, Hell beliefs were associated with lower well-being at the national and individual level, whereas Heaven beliefs were associated with higher well-being’ (7). ‘Hell is stronger than heaven’ is one of the eight principles defended in *Big Gods*.

To join this discussion, I invited colleagues from a variety of backgrounds, some of whom have been active players within the cognitive and/or evolutionary study of religion (Geertz, Lienard, Pyysiäinen, Taves) or have been critical but sympathetic participants in the debate on CSR (Levy, Martin, Wiebe). In addition, ‘traditional’ historians of religion (Rüpke, Thomassen) and a scholar who works on Buddhism and philosophical issues (Schlieter) have joined the conversation. Unfortunately, Ara Norenzayan decided not to prioritize a response to this set of critics ahead of his ongoing research work.<sup>12</sup>

The kind of comments, which are here briefly summarized, varies with the scholarly profile of the commentators. Ann Taves (2014) anticipates that the scope of Norenzayan’s argument and his heavy reliance on some types of data ‘is bound to leave many scholars of religion uneasy’ – and this is exactly what we find in this symposium. Her contribution expresses the most favorable view of the book – she finds it ‘a major advance in discussions of the role of religion in human evolution’ (Taves 2014) – and compares it to Bellah’s *Religion in Human Evolution*, pointing to alternative evolutionary and psychological mechanisms. Taves suggests supplementary perspectives and ways Norenzayan’s argument could be refined: from her own historical work, she points to other watcher mechanisms or roles in addition to Big Gods and suggests that there might have been more intrinsically motivated commitment mechanisms than the extrinsic mechanisms featured in *Big Gods*. Ilkka Pyysiäinen (2014) rephrases Norenzayan’s work in terms of his own research within CSR, addresses some general problems and caveats with respect to theory and data and adds some nuance to Norenzayan’s argument, for example by reminding readers that prosocial religion can also be an obstacle to cooperation.

There is also more general criticism from within CSR quarters. Pierre Lienard (an anthropologist), Michael Moncrieff and Matthew Martinez take issue with Norenzayan’s endorsement of Henrich’s model of CREDs (Credibility Enhancing Displays). Their critique builds on Norenzayan’s key example and unfolds as a philosophical argument, given the ambiguous and vague nature of religious propositional attitudes, implying that ‘observing the behavior does not *ever* guarantee that the acting agent holds the associated belief.’ Their argument in turn endorses the alternative costly signaling model and they hypothesize the importance of ‘entrepreneurial agents’ that thrive on the situation of underdetermination of the stipulated behavior in ritual contexts. In Norenzayan’s theory they perceive the risk of ‘obliterating the very diversity it tries to explain’ (Lienard, Moncrieff, and Martinez 2014).

Armin Geertz expresses an ambivalent reaction to *Big Gods*. On the one hand, he finds it ‘a thoroughly enjoyable read,’ but at the same time he finds it ‘too closely allied to the style of CSR of which I am skeptical’ (Geertz 2014). He points to some inconsistencies in Norenzayan’s ascription of causality, and argues that Norenzayan fails to acknowledge broader selection pressures such as warfare, urbanization, agriculture etc., as more likely candidates for evolutionary causal factors than Big Gods. (It is interesting that a scholar of religion should be more skeptical of the causality of religious concepts than a social psychologist.) Moreover, in many

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<sup>12</sup>Norenzayan responded to another set of critics in a parallel review symposium organized simultaneously by *Religion, Brain & Behavior* (2014, online).

cultures ancestors rather than deities are concerned with moral issues. Geertz challenges Norenzayan's interpretation of atheism and irreligion, which might be the default position rather than a historical novelty. Finally, as a scholar of religion Geertz expresses disappointment regarding Norenzayan's blatant neglect of modern scholarship in comparative religion.

Luther Martin, who over the years has defended and promoted CSR as a promising and robust approach to the study of religion's, likewise laments that experimentalists continue to be 'unfamiliar with the 150-year literature in Western scholarship about the vagaries and ambiguities associated with the category and study of "religion," or about the theoretical and methodological issues of historiography with which these scholars have struggled' (Martin 2014). Martin exhorts CSR scholars to more actively seek collaboration with 'traditional' scholars (if this is a legitimate category, given the diversity of approaches and epistemologies, for some of which the type of philosophy of science as endorsed by CSR appears highly 'traditional'). He also complains that alternative theories are not properly discussed by Norenzayan. Martin finds many problems with *Big Gods*. The main hypothesis seems 'simply incredulous' from a historical perspective, both with regard to contemporary and ancient societies. It is a long way from laboratory games to the complexities of 'real world' history. Like Geertz, Martin holds that other factors are more likely to explain the expansion of human cooperation and societies than Big Gods and he doubts that 'religion' at all can figure as independent variable. Last but not least, for Martin, Norenzayan's work exemplifies the problems of theorizing cultural evolution, which is treated as an opaque explanation where it is historical change that needs to be explained. For Martin, the evolutionary status of 'religion' is inconsistently conceptualized by Norenzayan. In his summary of the book's argument Donald Wiebe (2014) perceives several inconsistencies and tensions. He argues that religious prosociality does not extend to strangers but is purely an ingroup phenomenon. Like Martin, Wiebe finds that the historical evidence does not support Norenzayan's Big Gods thesis and he suggests that alternative theories are more plausible; he also expresses his surprise that Norenzayan fails to discuss a rival theory recently published by a close colleague of his.

Jörg Rüpke and Einar Thomassen are very explicit in addressing the historical shortcomings of the book. Monitoring human behavior is not a prominent aspect of most deities and the historical evidence produced by Norenzayan turns out to be inadequate (Thomassen 2014).<sup>13</sup> The available evidence does not seem to endorse the idea that 'prosocial' religions have been more effective; in the case of European Christianity its official adoption was even followed by societal

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<sup>13</sup>In the case of Zoroastrianism, which is not addressed in *Big Gods*, at least two prominent deities have moral watcher qualities. In the earliest sources, the *Gāthās*, Ahura Mazda, whose name points to his quality of knowledge ('The All-Knowing Lord' or 'The Lord who Puts Knowledge'), has an exalted view overlooking everything with truth; this attribute is invoked following a mention of sin and atonement (Y. 31.13); his later Avestan epithets (enumerated in Yt. 1) include 'all seeing,' 'seer of much,' 'the best seer of much,' 'far-observing,' 'farthest-observing,' 'watcher.' Even though his creative powers are more prominent, there is little doubt that Ahura Mazda behaves morally. The other relevant deity is Mithra, the surveyor of contracts (his name also means contract), who in Yt. 10 is ascribed 'thousand ears,' 'ten thousand eyes,' 'ten thousand spies;' Mithra is also a punishing god operating from above. Interestingly, in the context of Norenzayan's argument, Ahura Mazda and later also Mithra are invoked by Achaemenian kings in their propagandistic inscriptions.

disintegration. Thomassen also reminds the reader that ‘secular’ institutions were well in place in ancient societies, where they achieved the sustaining of large-scale societies, without the contribution of monitoring moral Big Gods. Moreover, he finds that concepts such as ‘groups’ and ‘monitoring’ remain vague in Norenzayan’s account. Rüpke (2014) finds the historical argument sketchy and not satisfactory. He also complains that it is modeled mainly on the Judaic-Christian-Islamic traditions.

Yet Gabriel Levy (2014), who finds the book to ‘make a persuasive case,’ points to the irony that religious art in Judaism and Islam rarely depicts their god in a human form, so that the monitoring Big God is effectively prohibited from doing the watching. Levy also takes issue with Norenzayan’s vague concepts of religion, religious prime, and belief, and he raises some methodological concerns about the quality of the data used in the book. Like Rüpke he is unsatisfied with Norenzayan’s chronology and he disagrees with his interpretation of Durkheim. Like Martin, Schlieter (2014) points to the case of Buddhism and other Eastern religions, which are prosocial (whatever that may mean as a classifier for a complex religion) but are not dominated by Big Gods. Schlieter and Thomassen recall the Buddhist symbolism of certain Nepalese *stūpas* that have eyes painted on all four sides; rather than symbolizing a watchful deity, as Norenzayan wants to have it, the Buddhist interpretation sees in these ‘wisdom-eyes’ the Buddha’s awakening and compassion for the suffering beings (which does not exclude, to be sure, that other psychological mechanisms might be triggered among onlookers – we simply don’t know). In addition, Schlieter raises a series of fundamental methodological concerns and like Martin he suspects there to be a normative, pro-religious subtext in the book.

To conclude, Norenzayan’s *Big Gods* has failed to convince a majority of the invited readers. Some critics might tend to see the perceived lack of persuasiveness of the book as evidence of a more fundamental flaw of the entire evolutionary approach, while others regard *Big Gods* as a bad example of the best paradigm. Any modern theory of anything cannot ultimately afford to ignore evolutionary constraints, and human culture is an evolutionary fact, so that a cultural phenomenon being evolutionary does not amount to it being in the genes; yet, there is a long way from stating the meta-theoretical fact that anything, even religion, is ultimately subject to evolutionary processes to showing that cultural evolution is a fruitful research program, and it seems that *Big Gods* has not made this program any more plausible (at least not to non-insiders). The historians of religion writing in this issue, in particular, make it clear that the proposed thesis does not live up to the historical evidence as understood by professionals. Minimally, the kind of evidence that Norenzayan has constructed by means of experiments, mainly on WEIRD samples, and that serves as starting points for his evolutionary theorizing is not compatible with the kind of evidence required to make a historical argument: there is a methodological abyss dividing historical and experimental work and so far it seems impossible to replicate the experimental findings on historical data. This makes a theory that needs to substantiate its claims in terms of history seem speculative from the outset. Historically minded scholars are not willing to subsume their evidence under potential macro-schemes, which threaten to hand evolutionary theory back to models of evolutionism. Norenzayan’s work may not be entirely free from the sort of unilinear models that divide historical development into few relatively neat stages, when he speaks of the transition

from 'small groups' to 'big groups' or from *Gemeinschaft* (in the sense of tight-knit groups) to *Gesellschaft* (in the sense of anonymous societies) – and, in some societies, from Big Gods to Big Societies.

Several commentators point to inconsistencies and vagueness also at the level of theory. The most apparent example (in addition to 'big gods'), of course, is 'religion.' As the above review of his previous work has made clear, Norenzayan has helped to advance a cultural-package theory of religion (see his work with Atran). On this view, as he puts it at one point in *Big Gods*: "“Religion” is best seen as a complex amalgam of traits and inclinations, grounded in recurrent, ordinary intuitions and packaged together by cultural evolution over historical time" (158). This, of course, raises the question of the ontological status of cultural evolution, which here is discursively cast into the role of an agent (not as the watchmaker but as the packager); yet, if evolution is not a physical or biological (natural or genetic) force but a theoretical model that subsumes diverse processes, then such a model risks being problematic. This resonates with the ambiguous epistemological status in which such a rhetorical or theoretical strategy casts 'religion.' This makes Norenzayan's work appear inconsistent. For on the one hand, the above quotation is followed by a disclaimer that it 'makes little sense to ask, then, "does religion cause intolerance and violent conflict?" A much more precise scientific question would be, what part of "religion" is implicated in conflict and intolerance, and why' (158)? This statement is a methodological consequence of a strictly fractionizing approach to 'religion.' Yet, just some pages further one finds the following sentence: 'Religion appears to be both a maker and an unmaker of conflict' (160). This is no exception; in fact, the book abounds with statements speaking of religion in this way, starting with the subtitle: *How Religion Transformed Cooperation and Conflict*. Benevolent interpreters might see this as a concession to the broader audience or to the sales strategy of the publisher, which might have required some degree of simplification. But precisely this kind of discursive or rhetorical inflation of 'religion' should be avoided and indeed counteracted by reflexive scholars of religion. The price paid for the avoidance and even opposition to this type of discourse, for refraining from this kind of claim-making, poses a publicity and legitimacy disadvantage for the study of religion's compared to other branches of academia, which in their methods and theories may not at all be less advanced and as self-critical, but that from time to time might sacrifice some of their insights to meet popular demand. Scholars of religion's whose work is primarily ethnographic or historical would never dare to pose questions such as whether 'religion,' or some aspects or factors held to be part of this conceptual package, might have contributed to the scaling-up of human cooperation, for the simple reason that such a question will not be answerable with the help of their extant concepts, data and methods. That gap may even seem wider after *Big Gods* since the book poses no clearly identifiable alternative 'evolutionary' methodology (such as mathematical modeling, which is elsewhere prominent in theories of cultural evolution). Progress will probably lie not in posing ever-bolder questions, but in finding research questions that are relevant within evolutionary theory but which can still speak to historical and ethnographic research.

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