Does Religion Make People Moral?

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Abstract

I address three common empirical questions about the connection between religion and morality: 1) Do religious beliefs and practices shape moral behavior? 2) Do all religions universally concern themselves with moral behavior? 3) Is religion necessary for morality? I draw on recent empirical research on religious prosociality to reach several conclusions. First, awareness of supernatural monitoring and other mechanisms found in religions encourage prosociality towards strangers, and in that regard, religions have come to influence moral behavior. Second, religion's connection with morality is culturally variable; this link is weak or absent in small-scale groups, and solidifies as group size and societal complexity increase over time and across societies. Third, moral sentiments that encourage prosociality evolved independently of religion, and secular institutions can serve social monitoring functions; therefore religion is not necessary for morality. Supernatural monitoring and related cultural practices build social solidarity and extend moral concern to strangers as a result of a cultural evolutionary process.

Does Religion make People Moral?

Religion and morality are popular, complex and intensely controversial topics. So the intersection of the two is a hotly debated topic. Arguments about what, if anything, religion has to do with morality, have been raging for a long time. The idea that religions facilitate acts that benefit others at a personal cost has a long intellectual history in the social sciences (e.g., Durkheim, 1912/1995; Darwin, 1860/1859) and is a central idea in debates about the evolutionary origins of religions (Wilson 2002; Sosis & Alcorta, 2003; Norenzayan & Shariff, 2008; Atran and Henrich, 2010; Bering, 2011). However, this idea remains controversial, and has been critiqued by both opponents of religion (e.g., Dawkins, 2006; Dennett, 2006) as well as by behavioral scientists interested in the roots of morality as well as religion (e.g., de Waal, 2013; Baumard & Boyer, 2013).

There are several key empirical claims underlying this debate that are being actively investigated in the fast-moving evolutionary studies of religion. In this brief article, I bring together findings from experimental social psychology, cultural anthropology, behavioral economics, and history, and address three related but distinct questions about religion and morality that are at the core of this debate. These three questions are: 1) do religious beliefs and practices have any causal impact on moral behavior? 2) Do all religions universally prescribe moral behavior? 3) Is religion necessary for morality?

I examine these three questions in light of the empirical evidence. In doing so, I present a theory that explains the connection between religion and prosocial behavior (a key aspect of morality) as the outcome of an autocatalytic historical process that is shaped by cultural evolution – non-genetic, socially transmitted changes in beliefs and

behaviors. I start with a brief summary of this argument. The specific details, as well as the wide-ranging evidence that this argument rests on, can be found elsewhere (Norenzayan, 2013; Norenzayan & Shariff, 2008; Atran & Henrich, 2010; Slingerland, Henrich, & Norenzayan, in press). Then I outline the implications of this argument for the above three questions, while being mindful that other related, but distinct perspectives on the evolutionary origins of religion may have different takes on the religion and morality debate (e.g., Bering, 2011; Bloom, 2012; Baumard & Boyer, 2013; Bulbulia & Sosis, 2011; Schloss & Murray, 2011).

The starting point is that religious beliefs and practices emerged as cognitive side-effects of a set of cognitive biases rooted in mental architecture, such as the intuition that minds can operate separate from bodies (mind-body dualism), and that people and events exist for a purpose (teleology). Once intuitions about supernatural beings and ritual-behavior complexes were in place, rapid cultural evolution facilitated a process of coevolution between societal size and complexity on one hand, and devotional practices to Big Gods on the other -- increasingly powerful, interventionist, and morally concerned supernatural monitors of the expanding group who demand unwavering commitment and loyalty. Over historical time in the last ten-to-twelve millenia, this led to – in some places but not others – the gradual linking up of religious beliefs and practices with prosocial tendencies, or *religious prosociality* (Norenzayan & Shariff, 2008; Norenzayan, 2013). In turn, belief in these moralizing deities and related social commitment devices cascaded around the world with these ever-expanding, culturally spreading groups.

In this way, religious prosociality helps explain the scientific puzzle of large-scale cooperation in humans. This is a puzzle for three reasons. Despite the fact that for most of

their evolutionary history human beings lived in small bands of foragers (who had in turn descended from primate troops), today, the vast majority of humans live in large, anonymous, yet intensely cooperative societies (Seabright, 2004). Second, this change happened rapidly and very recently, that is, in the last 12,000 years. Third, while human beings share with their primate relatives many cooperative instincts (de Waal, 2008), the scope and intensity of large-scale cooperation in humans are unknown in other species (Richerson & Boyd, 2005).

The central idea, then, is that the spread of prosocial religions in the last twelve millenia has been an important shaper of large-scale societies where anonymous interactions are essential to the social fabric. Importantly, it is not, and has not been, the only force leading to the scaling up of the cooperative sphere. Cultural norms for cooperation with strangers, as well institutions that enforce trust and cooperation, by for example, introducing third-party punishment (Herrmann, Thöni, & Gächter, 2008) also have broadened the moral sphere. However, institutions such as courts, police, and other contract-enforcing mechanisms are not always effective, have developed rather recently and only in some places. In the developing world, these institutions lack credibility, and therefore in the majority of the world, religion continues to thrive as an important source of cooperation and trust among strangers (e.g., Norris & Inglehart, 2004). But when they have succeeded, these institutions have replaced the community-building functions of prosocial religions. Effectively, these secular societies, guided by secular mechanisms for norm-enforcement, have climbed the ladder of religion and then kicked it away.

Religious prosociality binds unrelated strangers together, but, contrary to many theological teachings, there is little reason to expect that this prosociality is actually

extended without limits to everyone. The same forces that cement and expand social solidarity within the group also have the potential to feed the flames of intolerance and conflict between rival religious communities, particularly when one's group is seen to be under threat by these groups or by nonbelievers. The precise boundaries of religious prosociality, and its role in fueling conflict, are important open questions for scientific study. But the seeming paradox that religion is both the handmaiden of cooperation within groups, and conflict and prejudice between groups, can be explained by the same psychological mechanisms that religions exploit to create social solidarity (Norenzayan, 2013; see also Haidt, 2012, Bloom, 2012).

Before we begin, two further clarifications are in order about the two loaded terms that are at the center of this debate: "religion" and "morality." Let's begin with "religion" first. The theoretical argument I offer here about religion combines two powerful ideas: first, that the intuitions that underlie religious beliefs and practices, such as commitment to supernatural beings, the sacred, and ritual behaviors, are natural byproducts of built-in cognitive tendencies that are likely to have innate components (e.g., Boyer, 2001; Barrett, 2004; Atran & Norenzayan, 2004); second, that once religious intuitions or templates are in place and produce a constrained but diverse set of beliefs, their content undergoes rapid cultural evolution such that some cultural variants spread at the expense of others (Richerson & Boyd, 2005; Norenzayan, 2013).

Taken together, these two ideas sharpen the debate about what religion is and how it can be studied scientifically. In the humanities, there is a long tradition of debating (apparently without any clear resolution) the definition of the term "religion" (see for example, Clarke & Byrne, 1993; Stausberg, 2010). However, in the evolutionary

perspective that motivates the argument presented here, and in agreement with much of the cognitive science approach to religion, it becomes clear that "religion" is not a natural kind category or a definable concept, therefore semantic debates about how to define religion are not scientifically productive. Rather, the term "religion" is more accurately seen as a convenient label, pointing towards a package of (precisely operationalized) beliefs and behaviors. This package is assembled over historical time, taking on different shapes in different cultural and historical contexts. From a cultural evolutionary perspective, then, the scientific project of explaining religion is not only to account for the universal features of religion found in every human society, but to also explain the often dramatic cultural changes that we see in the "religious package" found in the historical and ethnographic record (e.g., Swanson, 1964; Roes & Raymond, 2003).

Similar to "religion," "morality" is also a hotly debated concept, and there are many important and unresolved issues (Doris, Harman, Nichols, Prinz, Sinnott-Armstrong, & Stich, in press). However, once again, for the purposes of the discussion here, we need not agree on the clear demarcation (necessary and sufficient conditions) of what constitutes morality. Even if such conditions existed and were similar across cultures -- an important but separate issue-- we can proceed by being precise about the components of beliefs and behaviors that are under investigation and that fall under the rubric of morality. Taking into account these considerations, the evolutionary perspective presented here sees human moral psychology – as well as religion -- as a natural phenomenon that is the converging product of genetic and cultural inheritance. At the broadest level, then, morality can be conceptualized as "*...interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological*

mechanisms that work together to suppress or regulate self-interest and make cooperative societies possible" (Haidt, 2012, p. 270). From an evolutionary standpoint, morality is therefore intimately linked to the problem of how large, anonymous, but cooperative societies solve the problem of free riding.

Question 1: Do Religious Beliefs and Practices Encourage Moral Behavior?

Does religion encourage prosocial behavior? Here I discuss and highlight evidence drawn from three different social science literatures based on different methods that address this question. As is the case for any empirical science on an important question, the conclusions from each of these literatures has its limitations, and is best considered in combination with other evidence using other approaches to reach firm conclusions.

One traditional approach to answer this question is based on sociological surveys. American survey respondents who frequently pray and attend religious services (regardless of religious denomination) reliably report more prosocial behavior, such as more charitable donations and volunteerism (Brooks, 2006). Brooks reports, for example, that in the United States, 91% of people who attend religious services weekly or more often report donating money to charities, compared to only 66% those who attend religious services a few times a year or less. However, surveys, as useful as they are, suffer from methodological limitations and are open to alternative interpretations (for a critique, see Norenzayan & Shariff, 2008). One serious limitation, for example, is that people often exaggerate socially desirable behaviors (such as how much they volunteer or give to charity). This is particularly an issue here since religiosity itself increases social desirability concerns (Gervais & Norenzayan, 2012a). Therefore, the gap found in these surveys between believers and non-believers may not reflect "doing good" as much as it

may reflect “appearing good.”

A second approach has assessed whether self-reports of religiosity predict actual prosocial behavior measured under controlled conditions. These studies have reported mixed findings. Some studies have found no associations between religious involvement and prosocial tendencies; others have found that religious involvement does predict more prosocial behavior, but only when the prosocial act could promote a positive image for the participant, either in their own eyes or in the eyes of observers (Batson, Schoenrade, & Ventis, 1993). Other studies, conducted outside of North America and Europe, have found a reliable association between intensity of religious participation or involvement, and willingness to cooperate or contribute to a common pool (e.g., Sosis & Ruffle, 2003; Soler, 2012; Henrich et al, 2010).

A third approach has gone beyond survey and correlational methods and has taken advantage of combining two techniques; one, cognitive priming from experimental psychology to activate religious thoughts, and two, economic games from behavioral economics, where actual prosocial behavior with monetary incentives can be measured in controlled conditions. If religious thinking has a causal effect on prosocial tendencies, then experimentally-induced religious reminders should increase prosocial behavior in controlled conditions. If so, subtle religious reminders may reduce cheating, curb selfish behavior, and increase generosity towards strangers. This hypothesis is gaining increasing support (for a summary, see Norenzayan, Henrich, & Slingerland, in press; see also Norenzayan & Shariff, 2008). In one experiment (Shariff & Norenzayan 2007, see Figure 1), adult non-student participants were randomly assigned to three groups: participants in the religious prime group unscrambled sentences that contained words such as *God*,

divine, and *spirit*; the secular prime group unscrambled sentences with words such as *civic*, *jury*, *police*; and the control group unscrambled sentences with entirely neutral content. Each participant subsequently played an anonymous double-blind one-shot Dictator Game. (Post-experimental debriefing showed that participants showed no awareness of the priming concepts, or awareness of the hypothesis of the study). Compared to the control group, nearly twice as much money was offered by subjects in the religious prime group. Of particular interest, the secular prime group showed the same pattern as the religious prime group, suggesting that secular mechanisms, when they are available, can also encourage generosity. Religious primes also reduce cheating among students in North America (Randolph-Seng and Nielsen 2007), as well as in children (Piazza, Bering, and Ingram, 2011). McKay et al. (2011) found that subliminal religious priming increased third-party costly punishment of unfair behavior in a Swiss religious sample (see also Laurin et al. 2012). In these studies, individual differences in religious involvement or belief were unrelated to prosocial behavior.

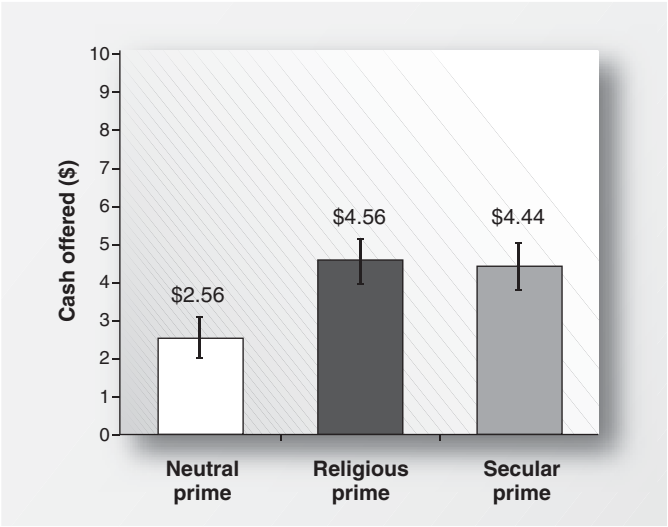

Figure 1. Priming religious concepts increased offers in the Dictator Game among Canadian adults; priming secular concepts had a comparable effect. The results showed not only a quantitative increase in generosity, but also a qualitative shift in giving norms. In the control group, the modal response was selfishness, a plurality of players pocketed all $10. In the religious and secular priming conditions, the mode shifted to fairness, a plurality of players split the money evenly (N = 75). Figure from Norenzayan & Shariff, 2008.

Pooling all known studies together (N=26), a recent meta-analysis was conducted to assess the extent to which these effects are replicable (Shariff, Willard, Andersen, & Norenzayan, 2013). Overall, religious priming was found to increase prosocial behavior, with a moderate average effect size of $d = 0.28$. The effect remained robust after estimating and accounting for the file-drawer effect or publication bias in psychology (that is, the possibility that some studies that failed to find any effects were not published). Further analyses showed that religious priming effects are reliable and large for strong believers, but are non-significant for nonbelievers. This is important, because, if religious belief matters in whether or not people are responsive to religious primes, it suggests that these effects are, to an important degree, culturally conditioned. It also suggests that there is variability among nonbelievers as to whether they are responsive to religious cues.

Experimental studies indicate that one important mechanism behind these effects is supernatural monitoring, or cues of being under social surveillance by a supernatural watcher (e.g., Gervais & Norenzayan, 2012a). Growing evidence shows that being under supernatural monitoring, coupled by the threat of divine punishment, deters free-riding (for discussions, see Norenzayan, 2013; Schloss & Murray, 2011). Supernatural monitoring is likely rooted in ancient evolutionary adaptations in humans – an intensely cultural species whose social life is governed by elaborate community norms -- to be

sensitive to cues of social monitoring, to attend to public observation, and to anticipate punishment for norm-violations (Henrich & Henrich, 2007). As the saying goes, "watched people are nice people." A wide range of laboratory and field studies shows that social surveillance, or the expectation of monitoring and accountability increases prosocial tendencies (see for example, Bateson, Nettle, & Roberts, 2006; Fehr & Fischbacher, 2003).

Therefore, even when no one is watching, believers are more likely to act nicely towards strangers when they feel that a Big God is watching. It is also likely that there are additional independent mechanisms underlying religious prosociality that converge with supernatural monitoring. Other candidate mechanisms that are being investigated include participation in intense rituals (Xygalatas et al, in press), and synchronous movement and music (Wiltermuth & Heath, 2009: but see Cohen, Mundry, & Kirschner, in press).

Importantly for debates about religion and morality, these studies show that when religious reminders are absent, believers and non-believers – especially those from societies with strong rule of law -- are equally prosocial towards strangers. Other studies that rely on situational priming bolster this conclusion. Xygalatas (in press) randomly assigned Hindu participants in Mauritius to play a common pool resource game either in a religious setting (a temple) or in a secular setting (a restaurant). Participants preserved the shared pool of money more when they played the game in the temple compared to when they played in the restaurant. Individual differences in the intensity of religiosity were unrelated to sharing. Malhotra (2008) took advantage of the fact that for Christians, reminders of religion are more salient on Sundays than on other days of the week. He measured responsiveness to an online charity drive over a period of several weeks.

Christians and non-believers were equally likely to give to charity except on Sundays, when Christians were three times more likely to give. These results suggest that religious prosociality is context-specific; in other words, the "religious situation" is stronger than the "religious disposition."

In summary, this experimental literature, complements other evidence, allowing researchers to test a set of more specific hypotheses about religious prosociality, and with more experimental rigor that allows for causal inference. The evidence increasingly shows that there is an arrow of causality that goes from religion to a variety of prosocial behaviors, including generosity, honesty, cooperation, and altruistic punishment (Norenzayan et al, in press; Norenzayan & Shariff, 2008). Despite these important insights, the experimental priming literature is limited in that it is mostly based on samples from Western industrialized societies. These studies limit inferences about the cultural generalizability of these effects, an issue that is addressed next.

Question 2: Are All Religions About Morality?

It is believed by many that supernatural agents specifically, and all religions more broadly, are inherently about morality – that all religions concern themselves with regulating moral affairs within a community. Particularly for those immersed in the Abrahamic traditions – believers and nonbelievers alike -- there is a powerful intuitive appeal to this idea. After all, in these cultures, as well as in other world religions such as Buddhism and Hinduism, religion *is* intensely about regulating human morality. However, the ethnographic and historical record contradicts the claim that this linkage is a cultural universal. One of the early pioneers of the comparative study of religion, Guy Swanson (1964 p. 153) concluded, "The people of modern Western nations are so

steeped in these beliefs which bind religion and morality, that they find it hard to conceive of societies which separate the two. Yet most anthropologists see such a separation as prevailing in primitive societies."

In small-scale societies, people must tackle an extensive variety of cooperative challenges, and therefore they are guided by a sophisticated set of local moral norms that apply to a wide range of domains, including food sharing, caring of offspring, kinship relations, marriage, leveling of risk, and mutual defense. Moreover, these groups vary in important ways, such as in population size and density, technology, and sedentary lifestyle (Kelly, 1995; Powell, Shennan, & Thomas, 2009). While recognizing these important complexities, ethnographic observations support Swanson's claim – they show that in these small-scale societies, religion's moral scope, if any, is minimal; the gods tend to have limited omniscience and limited moral concern; they may want rituals and sacrifices, but care little about how people treat each other (Swanson 1964; Boyer, 2001; Marlowe, 2010; Purzycki, 2011). Purzycki (2011), for example, reports that for pastoralists in Tuva culture in Siberia, local "spirit masters" known as *Cher eezi*, are pleased by ritual offerings, and are angered by overexploitation of resources, but only the ones that they directly oversee. They exert their powers in designated areas found in ritual cairns known as *ovaa*. *Cher eezi* do not see far and cannot intervene in distant places. While the *Cher eezi* have some powers and care about some things, in foraging societies, typically the gods are even more distant and indifferent. Anthropologist Frank Marlowe (2010), who has lived with Hadza foragers of Tanzania, describes Hadza religion this way:

I think one can say that the Hadza do have a religion, certainly a cosmology

> *anyway, but it bears little resemblance to what most of us in complex societies (with Christianity, Islam, Hinduism, etc.) think of as religion. There are no churches, preachers, leaders, or religious guardians, no idols or images of gods, no regular organized meetings, no religious morality, no belief in an afterlife—theirs is nothing like the major religions.*

These observations are important – if religious prosociality was a pan-human genetic adaptation, it should be found everywhere, especially among foraging societies that give us the best (though imperfect) clues we have of ancestral human conditions. But the ethnographic record further shows that, although all known societies have gods and spirits, there is a cultural gradient in the degree to which they are 1) omniscient, 2) interventionist, and 3) morally concerned. Stark (2001), for example, found that less than a quarter of the cultures in one ethnographic database of the world's cultures have a Big God who is involved in human affairs and cares about human morality. But this cultural variability is non-random; it covaries systematically with societal size and complexity (Roes & Raymond, 2003; Johnson, 2005). As group size increases, the odds increase of the existence of one or several Big Gods --omniscient, all-powerful, morally concerned deities who directly regulate moral behavior and dole out punishments and rewards.

In the cultural evolutionary perspective, these observations make sense. In small-scale societies, where face-to-face interactions are typical, people build cooperative communities based psychological mechanisms that draw on kin altruism, reciprocity, and a rich repertoire of local cultural norms -- without needing to lean on watchful gods. But as societies scale up and groups get too large, anonymity rapidly invades interactions; otherwise cooperative human behaviors begin to erode (e.g., Henrich & Henrich, 2007).

It is precisely in these anonymous societies that, widespread belief in watchful gods, if adopted, could contribute to maintaining large-scale cooperation. The direct implication of this fact, which begs for scientific explanation, is that despite starting off as a rare cultural variant, belief in these Big Gods spread so successfully that the vast majority of the world's believers belong to religions with such gods (Norenzayan, 2013). The linking up of religion with morality, then, is a cultural development that emerged over historical time in some places. Cultural variants of gods that contributed to the creation and expansion of social solidarity were more likely to proliferate. Although aspects of both what we call "religion" and "morality" have innate components (see below), the linking of the two appears to be a cultural shift, not a fixed part of humanity's genetic inheritance.

There is further cross cultural, archeological, and historical evidence supporting this cultural evolutionary hypothesis of religious prosociality driven by passionate devotion to Big Gods. In a wide-ranging investigation spanning 15 societies of pastoralists and horticulturalists, Henrich et al. (2010) specifically tested the idea that participation in prosocial religions with Big Gods encourages more prosocial behavior compared to participation in local religions that typically do not have gods with wide moral scope. Henrich and colleagues found that, controlling for age, sex, household size, community size, and a wide range of other socio-demographic variables, endorsement of religions with Big Gods increased offers in the Dictator Game by 6%, and in the Ultimatum game by 10% (given a standardized stake equaling 100). These are substantial effects, once we realize that 1) the range of behavioral variation in these games is quite restricted (in both games, rarely people offer more than 50% of the stake); and 2) other

known contributing factors to prosocial behavior were accounted for (therefore, these effect sizes are specific to religion.

The other key finding was that greater market integration, that is, experience with economic exchange with strangers, also led to greater prosocial behavior. Once again, prosocial religions are an important factor, but not the only factor, in encouraging prosociality with strangers.

Available archeological evidence, though limited, is consistent with these cross-cultural findings. Although devotion to Big Gods does not typically reveal material traces before writing emerged, the archeological record contains several hints that related practices, such as the expansion of regular rituals and the construction of religiously significant monumental architecture co-occurred as populations exploded, political complexity increased, and agriculture spread (Marcus & Flannery 2004; Cauvin, 1999). Evidence for this can be found in Çatalhöyük, a 9500 old Neolithic site in southern Anatolia (e.g., Whitehouse & Hodder 2010). The on-going excavation of Göbekli Tepe**,** a 11,000 year-old site of monumental architecture with religious significance, suggests that it may have been one of the world's first temples, where hunter-gatherers possibly congregated and engaged in organized religious rituals (Schmidt 2010).

One of the best-documented historical case studies looks at the Big God of the Abrahamic traditions. Textual evidence reveals the gradual evolution of the Abrahamic God from a tribal war god with limited social and moral concern, to the unitary, supreme, moralizing deity of Judaism, and two of the world's largest religious communities – Christianity and Islam (a summary of this evidence can be found in Wright, 2009). Another relevant case study is Chinese civilization. There is an active debate about the

precise role of supernatural monitoring and other secular mechanisms in the moral order of the emerging and evolving Chinese polity (Clark & Winslett, 2011; Paper, 2012). Nevertheless, even there, evidence from early China shows that supernatural monitoring and punishment played an increasingly important role in the emergence of the first large-scale societies in China (see Clark & Winslett, 2011; Slingerland, Henrich, Norenzayan, in press). In summary, there are important open questions and debates regarding the role of religious prosociality and other mechanisms in the ethnographic and historical record of the scaling up of societies over time. But these debates revolve around a statistical pattern that suggests that, religion's role in regulating moral affairs in large societies has been a cultural process that coalesced over time, primarily where anonymous societies took shape and expanded.

Question 3: Is Religion Necessary for Morality?

While there is mounting evidence that reminders of supernatural monitors and related practices encourage prosociality, another idea, that without religion, there could be no morality, also deserves careful attention because it is as widely believed as it is mistaken. This is not just the personal opinion of Dr. Laura Schlessinger (an influential public media personality in America) who infamously claimed, "it's impossible for people to be moral without a belief in God. The fear of God is what keeps people on the straight and narrow" (Blumner, 2011). It is "common wisdom" among many religious believers, and is a primary reason why distrust of atheism is rampant among them (for evidence and reviews, see Gervais, Shariff, & Norenzayan, 2011; Gervais & Norenzayan, in press). It also appears to be one of the key reasons why believers would rather trust people who believe in the "wrong god" (that is, someone of another religion), than they

would trust people of their own culture who believe in no god, that is, atheists (Norenzayan, 2013; Edgell, Gerteis, & Hartmann, 2006).

Even a major Enlightenment figure as John Locke shared this intuition. In the landmark *Letter Concerning Toleration* (1983/1689), a foundational document that ushered the idea of religious tolerance of minority groups, Locke defended religious diversity, and then excluded atheists from moral protection:

> *Those are not at all to be tolerated who deny the being of a God. Promises, covenants, and oaths, which are the bonds of human society, can have no hold upon an atheist. The taking away of God, though but even in thought, dissolves all.*

Despite its widespread appeal, this view does not fit the facts at least for two important reasons. First, core human moral instincts, such as empathy, compassion, and shame are much more ancient than religiously motivated prosociality, and are deeply rooted in the primate heritage (de Waal, 2013), and some of the precursors of these instincts can be found even in the mammalian brain (Churchland, 2012). Some precursors of moral instincts, such as capacities for emotional contagion, consolation, and grief have been found in chimpanzees as well as other species, such as elephants (de Waal, 2008).

These early building blocks of moral psychology draw on innate instincts and emotions rooted in evolutionary adaptations, such as kinship psychology and the caring of offspring (empathy, compassion), reciprocity (guilt, anger), and deference towards dominance hierarchies (shame, pride). Everyone, believers and disbelievers alike, have them. In one study that looked at whether feelings of compassion led to prosocial behavior among believers and non-believers, Saslow et al (2012) found that (1) religiosity and feelings of compassion were statistically unrelated; and (2) for

nonbelievers, the greater the feelings of compassion were, the more prosocial their behavior was; 3) However, among believers, feelings of compassion were unrelated to prosocial behavior. Although more studies are needed to reach firm conclusions, these results suggest that if anything, compassion may be more strongly linked to prosociality among non-believers. While we have ample evidence that supernatural monitoring provided by world religions encourage prosociality, these preliminary data by Saslow et al show that, if anything, moral emotions such as compassion are more strongly linked up with prosociality in non-believers, which could explain why, typically believers and nonbelievers do not differ in prosociality unless religious reminders are present in the situation.

There is additional evidence that suggests that moral intuitions are primary and likely have innate components, as even preverbal babies have the early precursors of these moral intuitions. For example, by 6-months of age, babies show a preference for an individual who helps and an aversion to an individual who obstructs someone else's goal (Hamlin, Wynn & Bloom, 2007). Eight-month old babies not only prefer prosocial individuals, but they also prefer individuals who act harshly towards an antisocial individual (Hamlin, Wynn, Bloom, & Mahajan, 2011). These moral emotions are intuitively directed towards family members and close friends, therefore, socializing children and adults to extend them more broadly is possible, but is not a given; it is facilitated by cultural norms about how to treat others. In support of this idea, in economic game studies with adult participants in large-scale societies, some amount of prosocial tendencies remain even when experimenters go at great lengths to ensure anonymity and lack of accountability (Henrich & Henrich, 2006). In this way, societies

develop norms for kindness, fairness, and other virtues that harness the moral emotions to expand the moral circle (see, for example, Singer, 2011; Kitcher, 2011).

What about prosocial behavior among strangers that is motivated by social monitoring incentives? Here too, the view that religion is necessary for morality is mistaken, because it overlooks the fact that supernatural monitoring and punishment are not the only game in town – in societies with strong rule of law, there are other social monitoring incentives and institutions that encourage prosociality. In particular, recent psychological and sociological evidence show that people exposed to strong secular rule of law are more trusting and prosocial than people exposed to weak or non-existent rule of law (Kauffman, Kraay, & Mastruzzi, 2003; Herrmann, Thöni, & Gächter, 2008).

Where there are strong institutions that govern public life, that is, where people are reassured that, contracts are enforced, competition is fair, and cheaters will be detected and punished, there are high levels of trust and cooperation among strangers. Interestingly, the role of religion in public life declines as societies develop secular alternatives that serve similar functions (Norris & Inglehart, 2004; Norenzayan & Gervais, 2013). This means that atheists, as well as theists who are socialized in such secular societies are prosocial without (or in addition to) immediately being motivated by religion. This also explains why Scandinavian societies are some of the world's least religious societies but also the most cooperative and trusting ones (Zuckerman, 2008).

Secular sources of prosociality not only dampen religious zeal; they also appear to weaken believers' intuition that religion is necessary for morality. Thus, religious distrust of atheists, although common among many believers, is not immutable. All else being equal, believers who live in countries with strong secular institutions (as measured by the

World Bank's rule of law index) are more willing to trust atheist politicians than equally devoted believers who live in countries with weak institutions (Norenzayan and Gervais, in press). These cross cultural survey findings are also supported by experimental evidence, where causal pathways can be identified with more confidence. In studies done in Canada and the US (countries that have strong rule of law), experimentally induced reminders of concepts such as court, police, and judge, that previously were found to increase generosity (Shariff & Norenzayan, 2007), also reduced believers' distrust of atheists, presumably by undermining the intuition that religion is necessary for morality, and by highlighting the fact that there are other, secular incentives that motivate prosocial behavior (Gervais and Norenzayan, 2012b).

Coda

So does religion make people moral? This is a complex question with a complex answer. If, by "moral," we mean "prosocial towards strangers of one's imagined moral community," the growing evidence suggests that supernatural monitoring and related practices indeed are one factor that makes people act more prosocially towards others. However, this prosociality has its limits, it can turn toxic when religious groups feel threatened by rival groups, and in believers' distrust and exclusion of non-believers (Gervais & Norenzayan, in press). Moreover, not all cultural variants of religion make people moral in this sense, and importantly, the best evidence we have suggests that the origins of religious cognition are unrelated to the origins of morality. Religious prosociality is therefore best explained as a cultural process, where supernatural beings, over time and in some places, became more omniscient, more omnipotent, and more moralizing. In doing so these gods spread by galvanizing large-scale cooperation at an

unprecedented scale.

Importantly, these facts about religious prosociality are not incompatible with non-religious sources of moral systems, that is, secular humanism. This is partly because human beings are endowed with natural moral instincts that, although intuitively are directed towards family, friends, and allies, can, under the right conditions, be harnessed by cultural evolution to broaden the moral scope to include strangers. Moreover, supernatural monitoring draws on pre-existing social monitoring mechanisms that promote large-scale cooperation once secular societies develop institutions that are capable of extending and solidifying the rule of law. Secular societies with effective institutions promote strong cooperative norms, and this is precisely where the vast majority of atheists live. Moreover, these institutions have replaced religious sources (and in some cases such as Northern Europe, much more effectively), and given birth to secular humanism, or a set of norms grounded in morality without reliance on gods. In some cases, majority atheist societies have become the most cooperative, peaceful, and prosperous societies in history (Zuckerman, 2008).

Finally, prosocial religions have been important cultural solutions that contributed to the creation of anonymous, moral communities, but clearly they are not necessary for morality. The same forces of cultural evolution that gave rise to prosocial religions with Big Gods also have, more recently, given rise to secular mechanisms that promote large-scale cooperation and trust. These social monitoring and norm-enforcement mechanisms, coupled with an innately given repertoire of moral emotions that can be harnessed to widen the scope of moral concern, have fashioned a new social phenomenon, perhaps even a novel social transition in human history: cooperative moral communities without

belief in Big Gods.

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