

“Do to Others as You Would Have Them Do to You”:

*Why Religious People Tend to Obey the Golden Rule*

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## **Abstract**

Research shows that religious people tend to behave more prosocially than their non-religious counterparts. Two explanations have been proposed for the link between religiosity and prosociality. The first refers to religious people's belief in a supernatural entity that may punish them when they behave in an immoral way. It is argued that this belief in a punishing entity nurtures prosociality. The other explanation claims that the tightly knit moral communities, in which religious people are often embedded, foster religious prosociality. Both a field (Study 1) and a lab study (Study 2) were conducted to determine which of the explanations is primal for religious prosociality, and also whether fear underlies these relationships. In Study 1, traditional religious people and so-called untied spirituals were questioned, as these groups vary from each other in binding with a community (i.e., religious people show more binding than untied spirituals), and both may or may not believe in a punishing entity (i.e., religious people may believe in a punishing God and untied spirituals may believe in karma). Results showed that prosocial behavior is associated with belief in karma (but not with belief in a punishing God) and belonging to a community of fellow believers. Self-reported prosociality was found to be associated with degree of religiosity and spirituality. In Study 2, the two factors were experimentally manipulated through a priming-procedure and prosocial behavior was assessed. Unfortunately, causal claims could not be endorsed. In neither study moderating effects of fear were found. Implications are discussed.

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## The Golden Rule

“Do to others as you would have them do to you” (Luke 6:31). This golden rule is taught by all major religions, in one way or another, to promote prosociality (e.g., Blackburn, 2001; Epstein, 2010; Spooner, 1914). *Religious prosociality* is the idea that religions facilitate behavior that is beneficial for others at a personal cost (Norenzayan & Shariff, 2008). The encouragement of prosocial behavior by religious teachings appears to be fruitful: a considerable amount of research shows that religion is positively related to prosocial behavior (e.g., Friedrichs, 1960; Koenig, McGue, Krueger, & Bouchard, 2007; Morgan, 1983)<sup>1</sup>. For instance, religious people have been found to give more money to, and volunteer more frequently for, charitable causes than their non-religious counterparts (e.g., Brooks, 2008; Grønberg & Never, 2004; Lazerwitz, 1962; Pharoah & Tanner, 1997). Also, the more important people viewed their religion, the more likely they were to do volunteer work (Youniss & Yates, 1997; Youniss, McLellan, & Yates, 1999).

However, the role of religion in prosocial behavior has been a topic of discussion, with some scholars questioning whether the association between religiosity and prosociality is real (e.g., Batson, Schoenrade, & Ventis, 1993; Galen, 2012). It is argued that solely because religious people say they are prosocial, does not necessary mean that they act more prosocial. Indeed, most research concerning religiosity and prosocial behavior is based on self-report, which is known to be sensitive to social desirability (Paulhus, 1984). Moreover, religious people are especially prone to respond in social desirable manners, as is demonstrated by the positive association between measures of

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<sup>1</sup> The vast majority of literature addressing religious prosociality focusses on Christians. Christianity is the world's largest religion and also most prevalent in the Netherlands. Although the discussed mechanisms may extent to other religions (e.g., Islam), due to practical reasons we only consider Christians. Therefore, in the continuation of this thesis, when we refer to (traditional) religious people, we mean Christians.

religiosity and social desirability (Trimble, 1997). Hence, it could be that the relationship between religiosity and prosociality is due to religious people's tendency to portray themselves in a social desirable manner, and not due to their prosocial nature.

Nevertheless, the link between religion and prosocial self-perception does not disappear when social desirability is controlled for (see Saroglou, 2012). Also, behavioral studies indicate that there is a reliable association between religiosity and prosociality, but under limited conditions (for an overview, see Norenzayan and Gervais, 2012). For example, experimental research has shown that the implicit activation of religious concepts can promote prosocial behavior. In addition, religious priming effects have been found to activate prosocial thoughts and concern (e.g., Pichon, Boccato, & Saroglou, 2007), as well as to increase generosity in anonymous economic games (e.g., Ahmed & Salas, 2008). Thus, although controversial, religiosity and prosociality seem to frequently co-occur. The question remains however why this is the case. *Why* do religious people obey the golden rule, and therefore, tend to act more prosocially?

### **Supernatural Punishment**

Religious people have been argued to behave more prosocially, because they are in general more moral (e.g., McCready & Greeley, 1976; Morgan, 1983). Two explanations have been proposed for the link between religiosity and morality (e.g., enhanced prosociality, increased tendency towards cooperation, lack of cheating). The first explanation comes from theorists who have adopted an evolutionary approach to religious prosociality. They emphasize the role that religion has played in human evolution by enhancing reputation, trust, and cooperation within extended groups (Norenzayan & Gervais, 2012; Norenzayan & Shariff, 2008). Humans have a strong

sensitivity for prosocial reputation (i.e., they act prosocial because they want to make a good impression), which may serve as a facilitator of strong reciprocal cooperative relationships within groups (Gintis, Bowles, Boyd, & Fehr, 2003). When members of a group do not reciprocate, co-operate, or when they try to free-ride, others tend to exclude them from further interaction, or even actively punish them (Norenzayan & Shariff, 2008). Furthermore, due to gossip, strangers may apply the same treatment for such free loafers, making them outcasts. People fear to be expelled from groups, because belonging to a group provides evolutionary benefits (e.g., protection, food, reproduction). In short, acting selfishly can have severe consequences for an individual (e.g., group membership may be denied), and the threat of these consequences functions as a powerful incentive for moral and cooperative behavior.

Religious devotion facilitates this reputation-based prosociality when it involves the worship of omniscient supernatural and morally vigilant deities. Many religions promote the existence of a supernatural agent (e.g., God) who is constantly monitoring humans. Importantly, this supernatural entity has the ability to reward or punish people for their deeds - in this life or in the afterlife (e.g., Supernatural Punishment Hypothesis; Johnson and Kruger, 2004). The cognitive awareness of a moralizing supernatural being is likely to heighten prosocial reputational concerns, and as such, promotes prosocial and cooperative behavior - even in the absence of social monitoring (Norenzayan & Shariff, 2008). Thus, for individuals who believe in a supernatural punisher, selfish behavior is not only countered by fear of punishment from the group, but also by fear of punishment from a supernatural being. Therefore, adherents of such deities are more likely to behave prosocially. Arguing from an evolutionary perspective: believing in a morally concerned

deity is adaptive, because it results in more prosocial and cooperative behavior within a group, allowing for the emergence of large cooperative groups (Roes & Raymond, 2003; Shariff, Norenzayan, & Henrich, 2009).

Support for the relationship between religious prosociality and belief in supernatural punishment can be found in a cross cultural survey from Atkinson and Bourrat (2011). They showed that beliefs about two related forms of supernatural monitoring and punishment — God and the afterlife — independently predict participants' assessment of the permissibility of a range of moral transgressions. People who believed in a punishing God or in a heaven or hell held stronger beliefs about the unjustifiability of moral transgressions. This relationship persisted even when controlling for religious participation. Also, a semi-experimental study of Shariff and Norenzayan (2011) suggests the influence of belief in a supernatural punisher on moral behavior. They examined the relationship between cheating behavior and people's image of God (loving and compassionate or angry and penalizing). Results indicated that lower levels of cheating are primarily related to the view of God as more punitive and judgemental rather than the overall level of religious devotion.

Additional evidence comes from studies in which thoughts of supernatural agents were experimentally induced. For instance, Piazza, Bering, and Ingram (2011) conducted an experiment in which children were explicitly instructed not to look inside a box, before they were left alone with it. The children who were told that Princess Alice (a fictional supernatural agent) was watching them, were significantly more likely to obey the instructions, and peeked less inside the box, than the children who had no knowledge of Princess Alice. In another experiment, university students had to perform a

computerized spatial-reasoning task. The students who were told that the ghost of a dead student had been spotted in the experimental room, were less likely to cheat on the task, than those who had no knowledge of the ghost (Bering, McLeod, & Shackelford, 2005). Clearly, all studies suggest that being confronted with the existence of a supernatural agent affects moral behavior positively.

To summarize, the evolutionary approach to religious prosociality postulates that the moral behavior of religious people is due to their belief in a supernatural punisher, who monitors and may punish them (in this life or the afterlife) for their behavior.

### **Belonging to a Community of Fellow Believers**

However, if religious people only act prosocially because they fear that if they act differently, they will be punished in this life or the afterlife, it is presumable that religious affiliation matters (cf. Graham & Haidt, 2010). You would expect a difference in prosociality between adherents of religions that teach about a morally determined afterlife (i.e., heaven and hell, in for example Christianity) and adherents of those that do not (e.g., Judaism). Yet, Brooks (2008) found that religious affiliation did not matter for the prediction of charity donations. Instead, it was the regularity of religious service attendance that was associated with donation behavior.

The second explanation for religious prosociality seems more capable to account for Brooks' (2008) findings. This explanation is rooted in a social-functionalist approach, and focuses on the social functions of religion. Religion is social in nature, since it binds people into moral communities through beliefs, rituals, and other aspects of religious practice (Durkheim, 1915/1965). Proponents of this approach argue that religious prosociality is mainly encouraged by the embedment in tightly knit communities with

fellow believers, who share (moral) norms and ideals (Graham & Haidt, 2010). The more a community is based on ideals of interdependence instead of autonomy, the easier it should become to retrieve money, time or goods from its members - especially when such an appeal is made by a fellow group member (Graham & Haidt, 2010). Most religious communities are relatively tied; religious people often come together at religious services and church groups. It is proposed that these communal ties with fellow believers, rather than individual beliefs, cause religious people to behave in a more prosocial and cooperative manner.

Support for the relationship between belonging to a community of fellow believers and prosocial behavior can be found in work from Monsma (2007). He focused specifically on the unique roles of social networks and religious beliefs and concluded that religious donation behavior is better explained by the former than by the latter. In addition, Putnam (2000) showed that participation in tightly knit secular groups, such as bowling leagues, predicted charitable giving to an extent that is comparable to participation in religious activities. This finding suggests that the communal ties with fellow believers may not uniquely predict prosocial tendencies, but strong communal ties in general do. Likewise, Jackson, Bachmeier, Wood, and Craft (1995) found that associational ties of both religious and nonreligious people predicted secular volunteer work and donating. Also, they found participation in church groups to be more strongly associated with charity than attendance of church services (Jackson et al., 1995).

To summarize, the social-functionalist approach argues that the amount of interdependence and connectedness within a (religious) community is key in determining prosocial tendencies.



## **Belief in Supernatural Punishment or Communal Ties**

Previous research is not conclusive in determining which of the proposed factors (i.e., belief in a punishing entity and belonging to a community of fellow believers) is primarily responsible for religious prosociality. Where the research of Atkinson and Bourrat (2011) suggests that belief in a punishing entity is more important for moral behavior than being part of a religious community (the relationship between belief in a punishing entity and justifiability holds when controlling for frequency of religious participation), other research suggests the opposite (Brooks, 2008). The aim of the the present studies was therefore to examine which of the proposed factors of religion (belief in punishing entity or belonging to a community) is more important for religious prosociality.

In addition, this research intended to extend previous research concerning supernatural punishment. Theoretically it has been argued that there should be a relationship between supernatural punishment and prosocial or moral behavior. However, research examining the topic of supernatural punishment only looked at the absence of antisocial or immoral behavior, like cheating and justifying moral transgressions (e.g., Atkinson & Bourrat, 2010; Shariff & Norenzayan, 2011). It should be noted, that the absence of immoral behavior is not the same as prosocial behavior (e.g., volunteering, donating). Therefore, the present research examined whether belief in a punishing entity predicts individual prosocial behavior.

## **Two Fears Underlying Religious Prosociality**

Importantly, this study investigated whether individual differences in proneness to fear moderate the relationships between the proposed constructs. Although previous

studies have demonstrated that belief in a punishing entity and ties with fellow believers predict religious people's moral behaviors, possible underlying mechanisms of these relationships were not examined. We propose that two different types of fear underlie the relationships between the two factors and prosociality. We postulate that fear for punishment is the mechanism underlying the relationship between belief in a punishing entity and prosociality. People respond to their belief in a punishing entity (by behaving morally), because they fear reprisals otherwise. Therefore, we expect people who are especially *sensitive and fearful of punishment* to be more receptive for the moralizing effects of belief in a punishing entity. That is, we expect these people to respond stronger to the fear of possible punishment by a supernatural entity, and thus behave more prosocially than their less fearful fellow believers.

Further, we propose that *fear for social exclusion* underlies the relationship between being part of a religious community and prosociality. The norm in religious communities is often to act in a prosocial way (Graham & Haidt, 2010). When one does not comply with this norm, one may well be excluded from the community. Being social excluded from a group to which we want to belong is in general a painful affair (for a review, see Baumeister & Leary, 1995). We contend that it is the fear for this social exclusion that is the mechanism underlying the relationships between belonging to a community and prosociality. Therefore, we expect that people who have a stronger need to belong than others, and are thus more fearful of social exclusion (Baumeister & Leary, 1995), to be more affected by what (they think) the group expects of them. Thus, if fear for social exclusion indeed underlies the relationship between belonging to a community and prosociality, then people who are tied to such a community and have a strong fear for

social exclusion, should behave more prosocially than fellow believers who do not have such a fear.

To examine whether belief in a punishing entity or belonging to a community is more strongly related to religious prosociality, and whether these relationships are moderated by fear, a field study (Study 1) and a lab study (Study 2) were conducted.

### **Study 1**

Study 1 tested the hypotheses that religious prosociality is predicted by both belief in a punishing entity and belonging to a group of fellow believers, and examined which of the two is a stronger predictor of religious prosociality. Study 1 also investigated whether the relationship between belief in a punishing entity and religious prosociality is moderated by fear for punishment. And whether the relationship between belonging to a community of fellow believers and religious prosociality is moderated by fear for social exclusion. We expected people who are more sensitive to - and fearful of punishment, to be more affected by their belief in a punishing entity, and thus behave more prosocially, than people who are less fearful of punishment. We expected people who have a stronger fear for social exclusion to be more affected by their ties to a community of fellow believers, and thus behave more prosocially, than people who are less fearful of social exclusion.

In order to ensure sufficient variation on the main independent variables (belief in a punishing entity and belonging to a religious community), two growing trends within the religious landscape were used. The first trend pertains more individualized faith practice, also known as 'believing without belonging' (Davie, 1990, 1994, 2001). This trend is reflected in the expanding group of less tied traditional believers, that can be

described as people who still believe in God, but do not (often) attend church and feel less affiliated with the church<sup>2</sup>. The second trend refers to the group of untied spirituals. Untied spirituals can be defined as people who compose their own individual beliefs in order to find meaning (e.g., Kronjee & Lampert, 2006). Untied spirituals have a sense of transcendence, feel a connectedness to the world in general and rely on their own intuitions, but do not belong to a particular religious tradition, institution or group (e.g., Hill et al. 2000; Miller & Thoresen 2003; Piedmont 1999). The inclusion of less tied traditional religious people and untied spirituals to the sample (next to [tied] traditionally religious people) provided sufficient variation on the binding with a community dimension, as these groups show less affinity with a community of fellow believers than traditionally religious people.

Furthermore, within these groups people may vary in the degree to which they believe in a punishing entity. Tied and less tied traditional religious people may or may not believe in a punishing God (i.e., they could also believe in a more forgiving and compassionate God). Although untied spirituals may lack belief in traditional moral deities, and as such, do not believe in a punishing God, they may still believe in karmic justice and reincarnation (rebirth), inspired by Buddhism (Siegers, 2010). Karma can be defined as “the belief that the total effect of a person’s intentions during the successive phases of the person’s existence will determine the person’s destiny” (Levy, Slade, & Ranasinghe, 2009, p.39). In other words, people who believe in karma think that their past actions (in past lives or the current) have caused their current circumstances, and their present actions will determine their future circumstances (in this life or future lives).

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<sup>2</sup> Just as we operationalized traditional religious people with Christians who are tied to a community, we operationalized less tied traditional religious people with Christians who are less tied to the Christian community.

This possible belief in karma and reincarnation of untied spirituals could essentially have the same function as a possible belief in a punishing God may have for traditional religious people (Johnson, 2005). That is, untied spirituals may show more prosocial behavior due to their fear of karmic justice.

In summary, to examine whether religious prosociality is more strongly associated with belief in a punishing entity (operationalized as belief in a punishing God and belief in karma) or with the engagement in a religious community, a questionnaire was distributed to traditional religious people (both tied and less tied) and untied spirituals, who all vary from each other in binding with a community and who all (to a certain degree) may or may not believe in a punishing entity. We had the following hypotheses concerning traditional religious people (tied and less tied) and untied spirituals. Firstly, we expected traditional religious people to show a higher degree of religiosity and a lower degree of (untied) spirituality, than untied spirituals. Secondly, we expected traditional religious people (tied and less tied) to show a stronger binding with their community of fellow believers, than untied spirituals. Finally, we expected traditional religious people to show a stronger belief in a punishing God, than in karma; for untied spirituals we expected the opposite pattern.

## **Method**

### **Design and Participants**

A total of 255 participants completed the survey. 78 participants were excluded from analysis<sup>3</sup>, leaving a total of 177 participants. Participants (103 female) were all

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<sup>3</sup> Participants got excluded based on the following criteria:

1. Participants who had a difference-score of more than 1 on (2 x 2) identical screening questions (“I consider myself a Christian” and “I consider myself spiritual, but not religious) presented in two different stages in the survey ( $N=50$ ).
2. Participants who did not score above the midpoint on both screening-questions the second time, indicating that they (on second thought) did not consider themselves to be religious or spiritual but not religious ( $N=57$ ).
3. Participants who completed the survey in less than four minutes (we employed a 5<sup>th</sup> percentile criterion – 4.10 minutes). The mean time to complete the study was 25.43 minutes ( $SD = 11.60$ ). There were outliers on both sides. However, we decided to only focus on the outliers on the low side (i.e., people that completed the survey very fast) and not on outliers on the high side

Dutch citizens ranging in age from 18 to 70 years ( $M_{age} = 51.08$ ,  $SD = 14.16$ ). Of the participants, 108 considered themselves to be Christian, 55 considered themselves to be spiritual but not religious, and 14 considered themselves to be both. All participants were recruited through research agency Motivaction and received a financial remuneration for their participation. The study consisted of a questionnaire in which degree of religiosity and spirituality<sup>4</sup>, belief in a punishing entity (operationalized as belief in a punishing God and belief in karma) and communal ties were independent variables, and self-reported and enacted prosociality were dependent variables. Questions assessing fear for punishment and fear for social exclusion were included as possible moderators.

### **Materials and Measures**

Responses were measured on a scale ranging from 1, *strongly disagree* to 5, *strongly agree*, unless stated otherwise.

**Religiosity (screening questions).** In order to target the required participants ([less]tied traditional religious and untied spirituals), participants were asked for their religious orientation. Items included “I consider myself a Christian” and “I consider myself spiritual, but not religious”. Only participants that scored a 4 or a 5 on one (or both) of these items were allowed to continue with the survey, as this indicated that they considered themselves to be traditional religious and/or untied spiritual.

**Degree of Religiosity.** To assess their degree of religiosity, participants were asked to respond to four items: “I consider myself a Christian”, “I believe God exists”, “My faith in God gives my life meaning” and “I regularly visit church or religious meetings”. The scale showed sufficient reliability ( $\alpha = .90$ ).

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(i.e., people that needed a lot of time), because the latter might have stopped with the survey and returned to it later. The former on the other hand did not allow themselves enough time to read the instruction adequately ( $N=12$ ).

<sup>4</sup> For the remaining of the paper: when degree of spirituality is mentioned, we mean untied spirituality.

**Degree of Spirituality.** To assess their degree of spirituality, participants were asked to respond to four items: “I consider myself spiritual but not religious”, “I am fascinated by things in life that cannot be explained scientifically”, “I often feel a spiritual connection with the people around me”, and “I have had an extrasensory experience in the past”. The scale had sufficient reliability ( $\alpha = .74$ ).

**Punishing Entity.** To assess whether participants believe in a punishing entity, two scales were developed (based on Kopalle, Lehmann, and Farley, 2010; and Yen, 2012). One scale referred to God as a punishing entity (three items; e.g., “I believe that God will reward the good and recompense the bad”); the other scale referred to karma as a punishing entity (four items; e.g., “I believe that through karma I will be punished for my bad deeds”). Both scales revealed sufficient reliability (respectively  $\alpha = .93$  and  $\alpha = .84$ ).

**Binding with a community of fellow believers.** To assess communal ties with fellow believers, the extent to which participants socially identified with their group of fellow believers was measured. A shortened version of Mael and Tetrick’s (1992) Identification with a Psychological Group (IDPG)-scale (six out of ten items) was administered. The questions were adjusted such that they specifically addressed perceptions of shared identity and shared experiences with the group of fellow believers (i.e., Christians for Christians and untied spirituals for untied spirituals). Items included “When I talk about Christians/ spirituals, I usually say ‘we’ rather than ‘they’ ” and “When someone praises Christians/ spirituals, it feels like a personal compliment”. The scales showed sufficient reliability ( $\alpha = .87^5$ ).

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<sup>5</sup> The reported reliability is the average reliability of the two separate identification scales. The identification scale for Christians had an alpha of .85 and the identification scale for spirituals had an alpha of .89.

**Fear for punishment.** To assess fear for punishment, participants were asked to respond to six items, partly based on the sensitivity to punishment-subscale of the yes-no response item Sensitivity to Punishment and Sensitivity to Reward Questionnaire (SPSRQ; Torrubia, Ávila, Moltó, & Grande, 1995). Items included “Do you often refrain from doing something because you are afraid of it being illegal?” and “As a child, were you troubled by punishments at home or in school?” The scale showed sufficient reliability ( $\alpha = .79$ ).

**Fear for social exclusion.** To assess fear for social exclusion, participants’ individual need to belong was measured, as this implies a fear for social exclusion. A shortened version (eight out of ten items) of Leary, Kelly, Cottrell, and Schreindorfer’s (2005) Need to Belong –scale was administered. Items included “My feelings are easily hurt when I feel that others do not accept me” and “I have a strong need to belong”. The scale showed sufficient reliability ( $\alpha = .85$ ).

**Religious prosociality.** Religious prosociality was assessed via two measures. The first was a shortened version (six out of twenty items<sup>6</sup>) of the Self-Report Altruism Scale (Rushton, Chrisjohn, & Fekken, 1981). We chose the most representative items, which included “I have donated goods or clothes to a charity” and “I have done volunteer work for a charity”. Responses were measured on a scale ranging from 1, *never* to 5, *very often*. The scale showed sufficient reliability ( $\alpha = .73$ ).

Our second measure of religious prosociality was behavioral and assessed participants’ willingness to volunteer as a participant in a subsequent study. At the end of the questionnaire participants were presented with a link requesting their participation in

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<sup>6</sup>We originally included 7 items, this resulted in a barely reliable scale ( $\alpha = .68$ ). We decided to drop the item “I have donated blood” to increase reliability.



a short additional survey. It was emphasized that this survey was independent of the current survey, and their participation completely voluntarily. Whether or not participants agreed to participate in the additional survey was taken as an indication of their prosociality (cf. the helping-the-experimenter measure, e.g., Bartlett and DeSteno, 2006; Twenge, Baumeister, DeWall, Ciarocco, and Bartels, 2007). As the study was conducted online, we adjusted the measure, but conceptually it remained the same.

## **Procedure**

Research agency Motivaction invited participants to take part in our online study. Participants that considered themselves to be traditionally religious or untied spiritual (as indicated by the screening questions) were redirected to our study. Once redirected, participants answered questions about their degree of prosociality, followed by questions assessing their degree of religiosity and spirituality<sup>7</sup>, their belief in a punishing entity (God and karma), their religious communal ties and their fear for punishment and social exclusion. As a final measure of prosociality, participants were asked to volunteer in an additional (unrelated) online-study. If they complied, they immediately participated in this additional study. Afterwards participants were thanked and debriefed.

## **Results**

### **Descriptives and Analyses of Separate Groups**

We included both religious people and untied spirituals in the study, because these groups were expected to vary on the main independent variables (belief in a

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<sup>7</sup> Embedded in this section, the two screening questions were once more assessed. The first time the screening-questions were assessed, participants had responded with a 4 or a 5 (otherwise they were not allowed to continue with the study) – see previous section. If the difference-score of the two (2 x 2) identical screening questions (“I consider myself a Christian” and “I consider myself spiritual, but not religious”) was more than 1, participants were excluded from analysis ( $N=50$ ). This is the first exclusion criterion in footnote 3.

punishing entity and belonging to a community). To see whether these groups indeed behaved as expected, the groups were first examined separately (religious people vs. untied spirituals)<sup>8</sup>.

Table 1a and 1b indicate that traditional religious people and untied spirituals showed the expected pattern on the various independent variables. Religious people scored higher on the religiosity scale ( $M = 4.17$ ,  $SD = .76$ ), than untied spirituals ( $M = 1.77$ ,  $SD = .70$ ),  $t(161) = 19.51$ ,  $p < .001$ . Untied spirituals scored higher on the spirituality scale ( $M = 3.59$ ,  $SD = .58$ ), than religious people ( $M = 2.24$ ,  $SD = .79$ ),  $t(139.33) = -12.32$ ,  $p < .001$ . Further, religious people believed more in a punishing God ( $M = 3.24$ ,  $SD = 1.20$ ), than untied spirituals ( $M = 1.55$ ,  $SD = .86$ ),  $t(143.37) = 10.26$ ,  $p < .001$ . Untied spirituals believed more in karma ( $M = 3.01$ ,  $SD = 1.07$ ), than religious people ( $M = 2.09$ ,  $SD = 1.01$ ),  $t(161) = -5.37$ ,  $p < .001$ . Furthermore, religious people were more tied to their community of fellow believers ( $M = 2.91$ ,  $SD = .86$ ), than untied spirituals ( $M = 2.16$ ,  $SD = .86$ ),  $t(161) = 5.25$ ,  $p < .001$ . However, the average score of religious people on the binding with a community-scale was moderate, this is probably due to the inclusion of less tied traditional religious people in the group of religious people. Finally, there was no significant difference between religious people and untied spirituals in self-reported prosociality: both groups scored slightly above the midpoint of the self-reported prosociality scale, respectively ( $M = 3.41$ ,  $SD = .68$ ) and ( $M = 3.38$ ,  $SD = .64$ ),  $p = ns$ . Also, both groups were equally likely to engage in actual prosocial behavior: 73 percent of the religious people and 76 percent of untied spirituals was willing to participate in the additional study,  $p = ns$ .

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<sup>8</sup>There were 14 participants that considered themselves to be both traditionally religious and untied spiritual (i.e., they scored a 4 or a 5 on both screening questions). As it was not possible to assign these participants to either the group of traditional religious people or the group of untied spirituals, they were not considered in the analyses of the separate groups. However, these 14 participants were included in the main analyses.

The above described descriptives and analyses of the separate groups confirm the prior beliefs about these groups, and shows that the inclusion of these groups provides sufficient variation on the independent variables. However, as stated previously, the main interest of the study is the predictive value of the different independent variables on prosociality. Therefore, in the remaining part of the results the group of participants will be considered as a whole.

### **Descriptives of all Participants Together**

Table 2 indicates that participants' overall response on the religiosity and spirituality-scales was well above the midpoint of the scales. Further, participants scored slightly below the midpoint of the belief in a punishing entity-, belief in karma-, belonging to a community of fellow believers- and fear for punishment scale. Participants' fear for social exclusion was around the midpoint of the scale.

When examining the correlations between the main independent variables, it was found that degree of religiosity and degree of spirituality were negatively related to each other. Religiosity and spirituality had opposite patterns concerning the relationships with the other independent variables. That is, degree of religiosity was positively related to belief in a punishing God and belonging to a community of fellow believers, and negatively to belief in karma. Degree of spirituality was positively related to belief in karma, and negatively to belief in a punishing God and belonging to a community of fellow believers.

Now we will continue with the examination of the relationships between the independent variables and the dependent variables (respectively self-reported prosociality and prosocial behavior).

## Self-reported Prosociality

Table 2 shows that on average participants reported to have engaged in prosocial behavior between more than once (3) and frequently (4). Contrary to the hypotheses, self-reported prosociality did not show an association with belief in a punishing God, belief in karma or belonging to a community. However, self-reported prosociality was positively related to degree of spirituality.

In a hierarchical regression, self-reported prosociality was regressed onto degree of religiosity and degree of spirituality in Block 1, and belief in a punishing God, belief in karma and belonging to a community of fellow believers in Block 2. Together, degree of religiosity and degree of spirituality predicted self-reported prosociality in Block 1,  $R^2 = .08$ ,  $F(2, 174) = 7.19$ ,  $p = .001$ , and both predictors made a significant unique contribution (respectively  $\beta = .26$ ,  $p = .003$ <sup>9</sup> and  $\beta = .30$ ,  $p = .001$ ). Higher degrees of religiosity and spirituality were associated with higher amounts of self-reported prosociality.

Adding the other predictors to the model, did not result in a significantly improved model ( $R^2\Delta = .006$ ,  $F\Delta(5,71) = .40$ ,  $p = .76$ ). Degree of religiosity ( $\beta = .24$ ,  $p = .04$ ) and degree of spirituality ( $\beta = .34$ ,  $p = .001$ ) remained significant predictors of self-reported prosociality, but there was no relationship between belief in a punishing God, belief in karma and belonging to a community of fellow believers on the one hand and self-reported prosociality on the other.

## Prosocial Behavior

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<sup>9</sup> Interestingly, we found that although degree of religiosity was not significantly correlated with self-reported prosociality, it significantly predicted self-reported prosociality when degree of spirituality was added to the model. Examining the partial correlations, we found that degree of religiosity and degree of spirituality functioned as suppressor variables for each other in relation to self-reported prosociality.

Table 2 reveals that 73 percent of the participants was willing to participate in the additional unrelated study. As expected, actual prosocial behavior was related to belonging to a community of fellow believers and to belief in karma. However, it was not associated with belief in a punishing God.

As the measure of prosocial behavior was binary (0 = did not participate in the additional study, 1 = participated in the additional study), We conducted a stepwise logistic regression in which degree of religiosity and spirituality were added as predictors in block 1, and belief in a punishing God, belief in karma and belonging to a community of fellow believers were included as predictors in block 2.

A test of the overall model against a constant only model was not significant, indicating that all predictors (block 1 and block 2) together were not predictive of participants' prosocial behavior ( $\chi^2 = 9.12$ ,  $p = .10$  with  $df = 5$ ). The model had a Nagelkerke's  $R^2$  of .073, indicating a weak relationship between prediction and grouping. The overall prediction success was 74.6% (98.4% for participation, and 10.4% for no participation).

When testing the blocks separately, it appeared that block 1 (with degree of religiosity and spirituality as predictors) was not significant ( $\chi^2 = .15$ ,  $p = .93$  with  $df = 2$ ). However, a test of block 2 (with belief in a punishing God, belief in karma and belonging to a community of fellow believers as predictors) against a constant only model was (as hypothesized) significant, indicating that the three proposed predictors together reliably predicted whether people acted prosocially ( $\chi^2 = 8.98$ ,  $p = .03$  with  $df = 3$ ).

Examining the predictors individually, the Wald-criterion showed that belief in karma ( $p = .055$ ) and belonging to a community of fellow believers ( $p = .061$ ) were marginally significant predictors. The EXP(B) values indicated that when belief in karma was raised by 1 unit, people were 1.45 times more likely to participate in the additional study. When belonging to a community of fellow believers was raised by 1 unit, people were 1.53 times more likely to participate in the additional study. Thus, belonging to a community of fellow believers was slightly more predictive of prosocial behavior than belief in karma, but this difference is negligible. The other individual predictors did not contribute to the predictive value of the model.

### **Moderators**

It was proposed that fear for punishment interacts with the relationship between belief in a punishing entity and prosociality, and that fear for social exclusion interacts with the relationship between belonging to a community and prosociality. However, no moderating effects of fear for punishment and fear for social exclusion on prosociality were found, neither in the moderated linear regression (where self-reported prosociality was the dependent variable) nor in the moderated logistic regression (where actual prosocial behavior was the dependent variable).

We did find a direct negative relationship between fear for social exclusion and self-reported prosociality ( $r = -.17$ ,  $p = .026$ ). The most plausible direction for this relationship is from prosociality to fear for social exclusion. That is, the more prosocial people behave, the less they need to fear to be socially excluded.

### **Discussion**

Study 1 revealed an interesting mix of results with three important findings. Self-reported prosociality was associated with degree of religiosity and degree of spirituality, but not with belief in a punishing entity (God or karma) or communal ties. Actual prosocial behavior was equally (but marginally) predicted by belief in karma and belonging to a community of fellow believers, but not by belief in a punishing God nor degree of religiosity and spirituality. There was no support found for moderating effects of fear for punishment or fear for social exclusion.

In accordance with the literature, the first finding reveals that self-reported prosociality is predicted by degree of religiosity. Thus, the more people perceived themselves to be Christian, the more prosocial behavior they reported. This finding was extended by showing that the same applies for degree of spirituality. That is, the more people considered themselves to be spiritual, the more prosocial acts they reported. Belief in a punishing entity and belonging to a community of fellow believers did not relate to self-reported prosociality.

In contrast, the second finding shows that actual prosocial behavior was (marginally) predicted by the degree to which people feel they belong to a community of fellow believers and the degree to which they believe in karma. In line with the social-functional approach to religious prosociality, we found that the more people felt they belong to a religious or spiritual community, the more prosocial they acted. Partly supporting the supernatural punishment hypothesis, it was found that the more people believed in karma, the more prosocial they behaved. However, it should be noted that both the relationship between belonging to a community of fellow believers and prosocial behavior and the relationship between belief in karma and prosocial behavior was rather

weak. Still, the first and second finding together show an interesting discrepancy between the predictors of self-reported prosociality and actual prosocial behavior.

Finally, the third finding indicates that individual differences in fear for punishment and fear for social exclusion did not moderate the relationships between belief in a punishing entity (karma) and belonging to a community of fellow believers on the one hand, and prosocial behavior on the other. This suggests that the relationships between the factors and prosocial behavior function for everyone similarly. That is, belief in a punishing entity and communal ties (marginally) predicted prosocial behavior, independent of people's proneness to fear for punishment or fear for social exclusion. Possible implications of the three findings will be discussed in the general discussion.

## **Study 2**

Although Study 1 provides some initial evidence for the proposed relationships between the factors and prosocial behavior, not all expectations were met. Moreover, the relationships that were found were rather weak. It might be that the infirmity of the findings was due to the research design. Therefore, in Study 2, we tested the relationships with a stronger design, namely in a controlled lab-study. This design also allows for causal claims, which could not be examined with the design of Study 1. It might for example be that the causal link between communal ties and prosociality goes in the opposite direction. That is, people might create stronger ties with fellow believers through their acts of prosociality, instead of acting more prosocial due to their communal ties. To address these issues, in Study 2, belief in a punishing entity and belonging to a community were experimentally manipulated, and their effects on different measures of prosocial behavior was examined. Fear for punishment and fear for social exclusion were



again measured to assess possible moderation. It was expected that participants who scored higher on fear for punishment and/or fear for a punishing entity were stronger affected by the experimental manipulations, and would thus act more prosocially than less fearful participants in the same experimental condition.

## **Method**

### **Design and Participants**

Participants were 106 undergraduate students (72 female) at the University of Amsterdam, ranging in age from 17 to 36 years ( $M_{age} = 21.23$ ,  $SD = 2.99$ ). One participant failed to follow the instructions, and got excluded from further analysis, leaving a total of 105 participants. Participants were recruited through the university participant pool and received partial course credit or money in exchange for their participation.

The experiment employed a one-way between subjects design that compared participants who were primed with a punishing entity ( $n = 33$ ), participants who were primed with belonging to a community ( $n = 36$ ) and participants in a control group ( $n = 36$ ) on two measures of prosocial behavior. Degree of religiosity and spirituality were measured, as well as fear for punishment and fear for social exclusion.

### **Materials and Measures**

**Degree of Religiosity.** To assess their degree of religiosity, participants responded to the same four items as in Study 1. The scale exhibited sufficient reliability ( $\alpha = .89$ ).

**Degree of Spirituality.** To assess their degree of spirituality, participants responded to the same four items as in Study 1. The scale revealed sufficient reliability ( $\alpha = .80$ ).

**Moderators.** To assess their *fear for punishment* and *fear for social exclusion*, participants responded to the same items as in Study 1. The scales showed sufficient reliability (respectively  $\alpha = .77$ , and  $\alpha = .82$ ).

**Punishing entity manipulation.** To prime a punishing entity, participants were asked to describe a situation in which they (or another person) seemed to get punished for their deeds by God or another higher power. This priming method is similar to the priming methods often used for power (e.g., Galinsky, Gruenfeld, & Magee, 2003) and control (e.g., Smith & Bargh, 2008). Although most of the participants were secular, previous research showed that priming with religious concepts may have an effect independent of religious orientation (for an overview, see Galen, 2012).

**Belonging to a community manipulation.** To prime communal ties, participants were asked to describe an important group to which they belonged (e.g., a sports team or sorority). This priming is based on the priming manipulation from Macrae, Milne, & Stangor, 1994, see Dijksterhuis et al., 1998.

**Control condition.** In the control condition participants, a neutral priming manipulation was applied. Participants were asked to describe the route they generally take when they go to university.

**Manipulation checks.** As a manipulation check, participants in the punishing entity and control condition responded to three items assessing their belief in a punishing entity (e.g., “I believe God will reward the good and punish the bad”). Participants in the belonging to a community and control condition responded to questions assessing their degree of identification with a group (e.g., “I identify with a group”).

**Dictator game (prosociality).** The first measure of religious prosociality consisted of an adapted version of the one-shot, anonymous dictator game (Hoffman, McCabe, Shachat, & Smith, 1994), which has also been used in previous research addressing religious prosociality (Shariff & Norenzayan, 2007). In our version, participants were told that 100 images needed to be rated and that they could decide how many they wanted to rate themselves and how many they would leave for the other participants<sup>10</sup> to rate. All participants got the following instruction: “There are a number of images that have to be rated on several dimensions. In total, 100 images have to be rated in this session by you and your fellow-students in the other cubicles. It is up to you to decide how many images you will rate, and how many you leave for them to rate.” To prevent reputational concerns from occurring, it was clear that the other participants did not know the identity of the person that decided the ratio of rating. As rating images is considered to be a tedious task, the number of images participants decided to rate themselves can be viewed as a measure of prosociality (the more images they decided to rate themselves, the more prosocial they acted).

**Participating in an additional study (prosociality).** The second measure of prosociality consisted of a variant of the helping-the-experimenter measure (e.g., Bartlett & DeSteno, 2006; Twenge et al., 2007), similar to what we used in the previous study. At seemingly the end of the experiment, the experimenter (blind for condition) asked whether the participant wanted to participate in a short study of a fellow researcher. It was clear that this study was independent of the previous study, and that participation

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<sup>10</sup> As the amount of participants participating in the experiment at the same time varied, the number of other participants was not specified (varying from 1 to 3 other participants). However, the variation of number of other participants was random over the conditions.

was completely voluntarily. Whether participants complied or not was used as a measure of prosocial behavior.

## **Procedure**

When arriving at the lab, participants were placed in individual cubicles. All participants started with answering questions concerning their degree of religiosity and spirituality, their fear for punishment, and their fear for social exclusion. After being exposed to a filler-task, participants were randomly assigned to either one of three conditions: a punishing entity condition, a belonging to a community condition, or a control condition. After the priming-task, participants responded to the manipulation check. Subsequently they played the adapted version of the dictator-game. Finally, when the experiment was ostensibly finished, participants were asked to voluntarily participate in an additional study. Afterwards participants were thanked and debriefed.

## **Results**

### **Manipulation checks**

To check whether the punishing entity manipulation was successfully applied, independent t-tests were performed on the three belief in a punishing entity-items, comparing the punishing entity condition with the control condition. None of the t-tests yielded significant results, implying that the punishing entity manipulation was unsuccessful. To check whether the belonging to a community manipulation was successful, an independent t-test was performed on the identification-item comparing the belonging to a community condition with the control condition. Participants in the belonging to a community condition ( $M = 4.11$ ,  $SD = .75$ ) identified significantly more

with a group than participants in the control condition ( $M = 2.97$ ,  $SD = 1.14$ ),  $t(56.43) = 4.92$ ,  $p < .001$ . Thus, the belonging to a community manipulation was successful.

### **Dictator game**

A one-way ANOVA was applied to the first measure of prosocial behavior (rating pictures, i.e., the dictator game)<sup>11</sup>. There was no difference in the amount of pictures people decided to rate themselves depending on the condition they were in: punishing entity condition ( $M = 35.36$ ,  $SD = 18.21$ ), belonging to a community ( $M = 41.53$ ,  $SD = 14.82$ ), and control condition ( $M = 36.56$ ,  $SD = 20.50$ ),  $F(2,102) = 1.16$ ,  $p = .316$ ,  $\eta^2 = .022$ . Post-hoc analyses did not exhibit significant differences either. Introducing degree of religiosity or spirituality and age as a covariate did not yield different results. There were also no interaction effects between condition and fear for punishment or fear for social exclusion.

### **Participating in an additional study**

A crosstabulation was performed to determine whether there was a relationship between condition and voluntary participation in an additional study (second prosocial measure). The results indicated that there was no significant relationship between condition and voluntary participation in the additional study ( $\chi^2 = .78$ ,  $df = 2$ ,  $p = .676$ ).

### **Other individual differences**

In a regression analysis in which the amount of pictures participants wanted to rate themselves was regressed upon degree of religiosity and degree of spirituality, we found that degree of religiosity was a significant predictor of the amount of pictures participants wanted to rate ( $\beta = -.24$ ,  $p = .024$ ). This indicates that the more religious people considered themselves to be, the less prosocial they behaved. However, this result should

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<sup>11</sup> Age was a significant predictor of the Dictator game,  $\beta = .20$ ,  $p = .045$ , therefore we included it as a covariate.

be treated with extreme caution, as the distribution of the religiosity variable was extremely skewed.

Degree of religiosity and degree of spirituality did not predict whether participants agreed to participate in the additional study. However, sex did have predictive value for the voluntarily compliance to the other study. That is, males were more inclined than females to participate in the additional study.

### **Discussion**

The results of Study 2 did not reveal any differences between people who were primed with a punishing entity, people who were primed with belonging to a community and a control condition in terms of their respective prosocial behavior. A possible explanation for these null-results may be that the proposed factors are not responsible for prosocial behavior. However, it could well be that the lack of significant results were due to methodological reasons, and not a result of theoretical inaccuracies.

An indication of a methodological issue was the lack of significant differences between the punishing entity condition and control condition on the associated manipulation check-items. This suggests that the priming manipulation of a punishing entity failed to be effective, and this in turn, makes it impossible to draw any conclusions from the null-results (lack of difference between these experimental condition and the other conditions).

Judging from the manipulation check of the other experimental condition, priming people with belonging to a community was effectively applied. Still, there were no effects found of this manipulation on any of the prosocial measures. This lack of effect may be explained by the way the priming manipulation was designed. Since the

participant population (students) was generally secular and quite diverse, it was not possible to specify the group participants had to write about. Instead, participants were free in their choice of group they wanted to describe. It might be that some of the groups participant chose to write about, did not provide the sense of connectedness which is arguably a prerequisite for prosocial behavior to occur.

Another possibility is that the effect of belonging to a community on prosociality is contingent upon the moral norms that are present in that community (e.g., acting prosocial is the norm). Then it is not the connectedness and identification with just any group that causes prosocial behavior, but the connectedness and identification with groups that portray morality – like for example religious groups. However, previous research showed that strong ties with for example a bowling team (Putnam, 2000) was a reliable predictor of prosocial tendencies. The norms of bowling teams are not per definition grounded in a moral foundation. Although it is likely that members of communities that portray morality will behave prosocially, the relationship between communal ties and prosocial behavior should not be contingent upon these norms. Future research should address what aspects of belonging to a community are determining for prosociality.

### **General Discussion**

The present research shows that belonging to a community of fellow believers is a (marginal) predictor of prosocial behavior. Interestingly, belief in a punishing entity is only partly related to prosociality. That is, belief in karma, but not belief in a punishing God, is (marginally) associated with prosocial behavior. Importantly, belonging to a community of fellow believers and belief in karma are equally predictive of prosocial

behavior (Study 1). Further, individual differences in proneness to fear (i.e., fear for punishment and fear for social exclusion) do not moderate the relationships between belonging to a community and belief in karma on the one hand, and prosocial behavior on the other. Finally, the results of the research do not allow for causal inferences (Study 2).

Even though the results of the studies do not respond to all prior expectations, some interesting findings were made. Somewhat unexpectedly, the results reveal a discrepancy between the predictors of self-reported prosociality and actual prosocial behavior. Unlike prosocial behavior, which is (marginally) predicted by belonging to a community of fellow believers and belief in karma, self-reported prosociality is predicted by the degree of religiosity and spirituality. A possible explanation for this discrepancy can be found in the low correlation between self-reported prosociality and actual prosocial behavior (.10). This low correlation indicates that self-reported prosociality does not have to be consistent with actual prosocial behavior, suggesting that there might be different factors responsible for the two types of prosociality.

The two types of prosociality (self-reported and behavioral) relate to two types of social desirable behavior. The first is *saying* that one is prosocial to make a good impression and the second is *acting* prosocial to make a good impression. Religious people have been found to be especially motivated to preserve a social desirable appearance, as is reflected in the positive association between measures of religiosity and impression management (Gillings & Joseph, 1996). It is therefore likely that the more religious people consider themselves to be, the more prosocial they ought themselves to be, and the higher they score on self-reported measures of prosociality (i.e., the more they *say* they are prosocial). The same kind of mechanism, which operates for degree of



religiosity, may apply to (untied) spirituality. That is, untied spirituals may also be inclined to maintain a prosocial self-image. One of the characteristics of spirituality is to feel a spiritual connection with the people surrounding you. One can imagine that the experience of a spiritual connection with the people around you, instills a feeling of obligation to treat other people well. Thus, being prosocial is likely consistent with the self-image spiritual people have and want to portray. Therefore, people that score high on (untied) spirituality might be just as motivated as religious people to preserve a prosocial appearance, and hence score high on self-reported prosociality.

However, when it comes to *acting* prosocially people's degree of religiosity (and spirituality) seems of minor importance, as is also demonstrated by the classic "Samaritan experiment" by Darley and Batson (1973). These researchers showed that people's willingness to help a man, who was lying on the sidewalk and obviously sick and in need of assistance, was by no means related to their degree of religiousness. Thus, it appears that in the case of *acting* prosocial the good impression that religious people want to make appeals to the two proposed factors. That is, one acts prosocially because one wants to maintain a prosocial reputation towards a punishing entity and/or towards a community of fellow believers. Although our results surely seem to point in this direction, the relationships between belief in a punishing entity and belonging to a community of fellow believers on one hand and prosocial behavior on the other hand are rather weak. However, our measure of prosocial behavior was relatively subtle, and therefore, we expect that when a more palpable and transparent measure of prosocial behavior is used, the effect may be stronger.

The question that remains unanswered is why self-reported prosociality is not (also) predicted by belonging to a community of fellow believers and belief in a punishing entity. Previous research showed that belonging to a community (both religious and secular) is predictive of prosocial tendencies (Jackson et al., 1995; Monsma, 2007; Putnam, 2000). One possible explanation for the divergence between the present and previous research is the way binding with a community is operationalized. Often binding with a community is operationalized as the frequency of community gatherings, like church group meetings (not church attendance<sup>12</sup>). In the present study, binding with a community was operationalized as the strength of the identification with the community. Although it is likely that the frequency of communal participation highly correlates with in-group identification, they may not be the same. People who frequently participate in communal activities might not always highly identify with that community, and people who highly identify with a community might not always frequently participate in communal activities. It might be that self-reported prosociality relates to communal participation but not to communal identification.

For example, for people that have frequently participated in communal activities, there have been many opportunities for other group members to do an appeal on them (e.g., ask them to volunteer or donate). The more charity requests people get, the more likely it becomes that they actually engage in prosocial behavior, and thus, the more prosocial acts they can report. When on the other hand, people identify with a community, but have not often participated in communal activities, there have been less opportunities for charity appeals. For this reason, it is likely that these people report less

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<sup>12</sup> In contrast to Jackson et al. (1995) but in accordance with Brooks (2008), we found a relationship between church attendance and volunteer work,  $r = .22$

prosocial activities, than people that have participated more frequently in a community - but who (for some reason) identify less with that community. Therefore, it might be that communal participation but not identification relates to self-reported prosociality. Still, it remains questionable whether people who frequently participate in communal gatherings show a low identification with this community.

Self-reported prosociality was also not associated with belief in a punishing entity. This seems to oppose theories pertaining supernatural punishment. However, previous research addressing supernatural punishment and prosociality or cooperation has mainly been laboratory based (e.g., Ahmed & Salas, 2011; Shariff & Norenzayan, 2007)<sup>13</sup>. In these lab studies the manipulation or assessment of a punishing entity was prior to the assessment of prosociality. It might be that belief in a supernatural entity only has an effect on individual prosociality, when people have just been reminded of their belief in such an entity. In Study 1, belief in a punishing entity was administered after self-reported prosociality, which might be the reason why no association has been found between belief in a punishing entity and self-reported prosociality. Actual prosocial behavior was assessed after belief in a punishing entity (like in the lab-based studies), and belief in a supernatural entity was found to be partly predictive of that behavior. Thus, it might be that if the punishing entity questions had been assessed before the self-reported prosociality questions, an association would have been found. People would then first have been reminded of their belief in supernatural punishment, before being exposed to the prosociality questions.

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<sup>13</sup> An exception the described study of Atkinson and Bourrat (2011) who examined the relationship between supernatural punishment and the justifiability of moral transgression through cross-cultural survey data. Another exception is work by Johnson (2005) who approached supernatural punishment on a more societal level.

Another interesting finding is that prosocial behavior relates to the degree to which people believe in karma, but not to the degree to which people believe in a punishing God. A possible explanation for the lack of predictive value of belief in a punishing God for prosocial behavior, is that people did not categorize participating in the additional study as the right thing to do, and thus as the (in God's eyes) morally better choice. An alternative explanation is that the belief in such a God might only result in the absence of immoral behavior, not in the presence of prosocial behavior. Theories concerning supernatural punishment have argued that there should be a relationship between supernatural punishment and prosocial or cooperative behavior. However, as was explicated in the introduction, research addressing this topic focused on (the absence of) antisocial or immoral behavior, like cheating and justifying moral transgressions (e.g., Atkinson & Bourrat, 2010; Shariff & Norenzayan, 2011). To our knowledge, no evidence has yet been found for the relationship between belief in supernatural punishment and individual prosocial behavior, like volunteering or donating. Our research seems to suggest that belief in a punishing entity might only be predictive of the lack of immoral behavior, not so much of the enactment of prosocial behavior.

But if belief in a punishing God does not relate to prosocial behavior, why does karma? One reason might be that the rewarding qualities of supernatural entities promote prosocial behavior, instead of the penalizing aspects. Indeed, the innate pendant of supernatural punishment is supernatural reward. People who believe that God or karma punishes them when they behave unjust, are also likely to believe that God or karma rewards them when they behave rightfully. Thus maybe, it is the belief in supernatural reward that translates into prosocial behavior, and not the belief in supernatural

punishment. Support for this notion can be found when taking a closer look at the formulation of the punishing entity-items. Where the belief in a punishing God-items almost solely underscored the punishing aspects of God, the karma items also emphasized the rewarding character of karma. Correlations between the separate items of the belief in karma-scale and prosocial behavior reveal that the two items which significantly relate to prosociality are the items that mention the rewarding aspect of karma (i.e., “I believe that through karma I will be rewarded for my good behavior” [ $r = .14$ ] and “I believe that good/bad deeds will lead to good/bad outcomes in the future or the hereafter [ $r = .14$ ]). The items that embody the punishing characteristics of karma (i.e., “I believe that through karma I will be punished for my bad deeds” and “I believe in reincarnation”) do not show significant relationships with prosociality. The items that made up the belief in a punishing God-scale mostly stressed the punishing capacities of God (i.e., “I believe God is judging my behavior”, “I believe God will penalize people for their bad deeds” and “I believe that God will reward the good and punish the bad”). None of these items is related to prosocial behavior. In accordance with this line of reasoning, belief in karma shows a significant relationship with prosocial behavior, and belief in a punishing God does not. Future research should explore the possibility of a dissociated effect of supernatural agents: their punishing qualities may prevent people from crossing ethical borders, but it may be their rewarding capacities that promote prosocial behavior.

Contrary to the expectations, individual differences in sensitivity to fear (i.e., fear for punishment and fear for social exclusion) do not moderate the relationships between the proposed factors and prosociality. It might be that people’s receptibility for punishment does not affect the relationship between belief in a punishing entity and

prosocial behavior, and that the strength of this association is for all people the same. However, assuming that the previous theorizing about the punishing and rewarding aspects of supernatural entities holds, it is not remarkable that fear for punishment does not moderate the relationship between belief in a punishing entity and prosocial behavior. If prosocial behavior occurs due to the rewarding aspects of belief in a supernatural entity (and not due to the penalizing aspects), then it is more likely that for instance reward-sensitivity moderates the relationship between belief in a supernatural entity and prosociality. People that are more sensitive for reward and praise are likely more affected by the rewarding capacities of a supernatural entity, and will thus behave more prosocially. Fear for punishment might still moderate the relationship between belief in a punishing entity and the absence of immoral behavior. Future research should look into such possibilities. Still, it was found that belief in a punishing entity positively relates to fear for punishment. This finding indicates that people who are more sensitive and fearful of punishment are more likely to believe in a punishing entity.

We also did not find the expected interaction of fear for social exclusion with belonging to a community of fellow believers and prosocial behavior. It might be that people's individual need to belong does not affect the relationship between belonging to a community of fellow believers and prosocial behavior, and that the strength of this association is for all people the same. However, an alternative explanation for the lack of moderation is that the nature of the prosocial act within the study, was not tied to the own group. It might be that fear for social exclusion is only an effective moderator when the request of prosociality comes from the own religious group; or when it is the explicit norm of the own group to behave prosocially (in general). Failing to obey such a request

or norm, may result in disapproval of the own group, or worse, social exclusion. In these cases it might well be that fear of social exclusion does moderate the relationship between belonging to a community of fellow believers and prosociality.

In addition, it might be that fear for social exclusion is only a moderator when the compliance to a prosocial request is non-anonymous and visible for the own group. The prosocial behavior in this research was performed anonymously, which excludes the possibility of group judgement. It might be that in such situations being more fearful of social exclusion does not make a difference. Finally, if we apply the same rationale as for the other moderator, it might also be that fear for social exclusion moderates the relationship between belonging to a community of fellow believers and the absence of immoral behavior, and that reward-sensitivity interacts with the relationship between communal ties and prosociality. Indeed, social exclusion is more likely to occur when a group member transgresses moral boundaries than when a member fails to behave prosocially. Fear for social exclusion might therefore only impact this (negative) relationship. That is, people who are more fearful of social exclusion are less willing to take the risk of being expelled from the group, and are thus also less likely to behave immorally. When a group member acts prosocially on the other hand, it is likely that he or she will be praised for this moral behavior by other group members. Therefore, group members who are especially sensitive for rewards will probably behave even more prosocial than group members who are less sensitive for praise. To conclude, fear for social exclusion might still operate as a moderator, but only in specific instances.

### **Implications**

To summarize, the current results show that the two proposed factors (i.e., belief in a punishing entity and belonging to a community of fellow believers) are of equal

importance for the prediction of prosocial behavior. This is good news in the light of a secularizing Western world. The finding that binding with a community facilitates prosocial behavior (equally to belief in a punishing entity) means that other groups may serve as substitutes for religious communities, generating the same kind of prosociality as religious communities do. Thus, secularization does not need to result in a decrease of cooperation and prosociality (i.e., social capital building).

Also, the finding that belief in karma is related to prosociality is interesting in the view of the changing religious landscape. Where the group of traditional (tied) religious people is getting smaller in most of the Western world, the group of untied spirituals is growing. Untied spirituals often hold beliefs of karmic justice. This study shows that belief in karma is associated with prosocial behavior. Hence, this change in the religious landscape (of traditional religion towards more individualized spirituality) does not need to result in a decrease of prosocial behavior. What is now known as religious prosociality might in the future be transformed into spiritual prosociality. In other words, the evolution of religion does by far not need to be the end of (religious) prosociality.

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Table 1a. Descriptive Statistics and Correlations Amongst Variables for Religious People

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Religiosity	4.17	.76	-							
2. Spirituality	2.24	.79	-.09	-						
3. Punishing God	3.24	1.20	.36**	-.13	-					
4. Belief in karma	2.09	1.01	-.22**	.36**	.23**	-				
5. Community	2.91	.86	.43**	-.05	.36**	.07	-			
6. Fear punishment	2.59	.83	-.12	.08	.36**	.40**	.30**	-		
7. Fear exclusion	3.06	.71	-.11	.07	.11	.28*	.23**	.50**	-	
8. Prosociality1	3.41	.68	.19*	.12	.08	-.10	.12	.01	-.08	-
9. Prosociality2	0.73	.45	.13	.01	-.06	-.22*	-.07	-.04	.17*	-.16*

Note. *N* = 108 \**p* < .05. \*\**p* < .001. All tests are one-tailed.

Prosociality 1 is self-reported prosociality. Prosociality2 is prosocial behavior and is coded as 0 = did not participate, 1 = did participate.

Table 1b. Descriptive Statistics and Correlations Amongst Variables for Untied Spirituals

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Religiosity	1.77	.70	-							
2. Spirituality	3.59	.58	.17	-						
3. Punishing God	1.55	.86	.61**	.01	-					
4. Belief in karma	3.01	1.07	.19	.43**	.26*	-				
5. Community	2.16	.86	.19	.34	.16	.24*	-			
6. Fear punishment	2.56	.86	.03	.11	.16	.20	.27*	-		
7. Fear exclusion	2.89	.75	.03	-.00	.16	.21	.30*	.59**	-	
8. Prosociality1	3.38	.64	.04	.32**	-.16	.20	-.11	-.01	-.24	-
9. Prosociality2	0.76	.43	-.07	-.02	-.05	-.13	-.41**	-.18	-.21*	.05

Note. *N* = 55 \**p* < .05. \*\**p* < .001. All tests are one-tailed.

Prosociality 1 is self-reported prosociality. Prosociality2 is prosocial behavior and is coded as 0 = did not participate, 1 = did participate.

Table 2. Descriptive Statistics and Correlations Amongst Variables for Total Sample

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Religiosity	3.38	1.33	-							
2. Spirituality	3.78	.99	-.52**	-						
3. Punishing God	2.68	1.36	.67**	-.41**	-					
4. Belief in karma	2.45	1.13	-.37**	.53**	-.07	-				
5. Community	2.65	.94	.49**	-.22**	.46**	-.02	-			
6. Fear punishment	2.57	.82	-.03	.05	.23**	.29**	.28**	-		
7. Fear exclusion	2.98	.73	.06	-.09	.13*	.17*	.27**	.51**	-	
8. Prosociality1	3.44	.67	.10	.17*	.05	.01	.02	-.05	-.17*	-
9. Prosociality2	0.73	.45	.02	.01	.05	.15*	.16*	.06	.02	.10

Note. *N* = 177 \**p* < .05. \*\**p* < .001. All tests are one-tailed.

Prosociality 1 is self-reported prosociality. Prosociality2 is prosocial behavior and is coded as 0 = did not participate. 1 = did participate.