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## **Religion, Altruism, and Helping Strangers: A Multilevel Analysis of 126 Countries**

### **Abstract**

#### **Abstract**

This paper tests how religion relates to helping strangers, an important but rarely studied measure of social solidarity and informal social capital. It uses the Gallup World Poll, a survey with nationally representative samples of 179,961 respondents from 126 countries. It finds that religious people, members of minority religions, and people in religiously diverse countries were more likely to help a stranger. Individuals living in devout countries were more likely to help strangers even if they themselves were not religious. The results suggest that religion plays a particularly important role in promoting the prosocial norms and values that motivate helping strangers.

## **Religion, Altruism, and Helping Strangers: A Multilevel Analysis of 126 Countries**

Why do people help strangers and what does helping strangers tell us about a society? If we assume that people are rational, self-interested actors, helping behaviours among people who know each other are easy to explain. People help others within their social networks because they expect direct or indirect reciprocity, and because they are concerned with creating and maintaining a reputation for being a good person. Helping strangers is more difficult to explain. Why would a self-interested actor help someone who will probably never reciprocate, and is not a member of a group who evaluates the actor's reputation? To explain these helping behaviours, we must go beyond self-interested explanations and look at the role of moral values and social solidarity, and the role of religion in promoting those values.

If people help strangers out of a feeling of religious values, moral obligation and social solidarity, differences among societies in how willing people are to help strangers may tell us something important about those societies. To what degree do people feel a sense of solidarity with other people they meet on the street? Do people expect indirect reciprocity when they help strangers? People's willingness to help strangers may be an indicator of solidarity and trust, and the act of helping a stranger may be a form of "bridging" social capital (Putnam 2000) which contributes to solidarity and trust. Religious values may contribute to feelings of solidarity and trust among religious individuals, and in devout societies these values may be shared even by people who are not personally devout.

This paper tests how country-level and individual-level variation in religion and values correlates with helping strangers. It uses data from the Gallup World Poll (GWP), a survey with nationally representative samples of 179,961 respondents from 126 countries. It examines how both individual religiosity and the religious characteristics of the society an individual lives in affect that individual's helping behaviours.

This paper provides several novel contributions to the research literature on the relationship between religiosity and helping others. While many previous studies have established a connection between religiosity and helping behaviours using self-reported measures (Saroglou 2006), most of this helping behaviour involves helping people one knows personally. Our study's focus on helping strangers rules out self-interested explanations based on social networks, in-group favouritism or the expectation of reciprocity, and focuses on how religion motivates helping through the development of prosocial values. Second, the large multinational sample allows for an examination of how religion relates to prosocial values outside of majority Christian and economically developed countries. Third, multilevel modelling allows us to examine how individual and societal levels of religiosity interact.

### **Review of the literature**

There is relatively little sociological literature on helping strangers, meaning that we must draw upon other research literatures for theories and hypotheses. The first section of this review discusses helping strangers as a type of informal volunteering. The next section discusses religion as a possible explanation of cross-national variation in helping strangers. Within this discussion, we will use the theoretical literature on formal and informal volunteering to generate hypotheses about helping strangers. We do not review here the large literature on how aspects of a situation make helping more or less likely (see Penner et al., 2005, for a review), as we are interested in differences among helpers and societies across a range of situations.

### ***Helping strangers as a form of informal volunteering***

Much of the literature on helping strangers conceptualizes it as a type of informal volunteering. Informal volunteering is doing work to help others that, unlike formal

volunteering, is not done through an organized group or institution. Informal volunteering behaviours measured on surveys include providing childcare or elderly care, cooking meals, doing household repairs, giving directions, listening to a friend's problems, and providing advice. Much informal volunteering is reciprocal, with individuals taking turns helping one another, or with people in informal groups helping other members of the group (Ekeh 1974; Molm 2010). Most informal volunteerism is directed at people one knows and is only rarely directed at strangers (Amato 1990); a factor analysis of different types of informal volunteering found that helping strangers loaded on a different factor from helping people one knows personally (Einolf 2008). Definitions of informal volunteering vary across societies, which makes cross-national comparisons difficult, and it is probably impossible to design a survey measure of informal volunteering that would be both comprehensive and cross-nationally comparable. This paper's focus on helping strangers limits its focus to one type of informal volunteering, but the simplicity of this measure increases the likelihood that cross-national comparisons will be valid.

### ***Religion***

Many studies find that religious individuals are more likely to help others, and this distinction is particularly strong in regards to formal volunteering and charitable giving (Bekkers and Wiepking 2011; Musick and Wilson 2008; Putnam 2000; Wiepking et al. 2014; Wuthnow 1991, 2004). Religion influences people's internal norms and values and therefore may help develop an internal motivation to help others. Religious participation brings people into social networks in which people are more likely to be asked to help others, and these networks contain strong external norms that make people feel that they are expected to comply with these requests (Bekkers and Schuyt 2008; Bekkers and Wiepking 2011; Lam 2002; Ruiter and De Graaf 2006).

While many studies have found this relationship between religiosity and volunteering and charitable giving, some scholars dispute whether this indicates that religion actually promotes altruism. These disputes involve the question of motivation. Many religious individuals would claim that religion makes them better people, instilling in them a sense of prosocial values and the motivation to help others. However, evidence from social experiments suggests that "the motivation of prosocial behaviour among the intrinsically religious is not altruistic, but rather egoistic: the need to be perceived as others as good and the non-consideration of the real needs as expressed by the persons asking for help are dominant" (Saroglou 2006:2).

The debate over whether religiously inspired helping is altruistic mirrors a larger debate in psychology over altruism. While it is easy to find examples of people helping others without the promise of material reciprocity or reward, many argue that this type of behaviour is not purely altruistic because people have selfish motives for it. People may help others for a number of egoistic reasons: because they want to be seen by others as helpful, because they want to avoid feeling guilty for not helping, or because they want to avoid the discomfort that comes with seeing others suffer (Cialdini 1991). In decades of experimental research, Batson (2011) has demonstrated that empathy can lead to truly altruistic motives for helping, and there is other evidence for the existence of true altruism (Piliavin 1990). In the relationship between religiosity and helping others, one can see both altruistic and egoistic motives for helping. This paper cannot distinguish between the two but holds that helping strangers provides stronger evidence for the existence of true altruism than helping friends, family members, or others from whom reciprocity can be expected and with whom concerns about reputation are important.

Galen (2012) argues that the connection between religion and helping is largely not a function of true prosociality, but of in-group favouritism. In planned behaviours such as

volunteering and charitable giving, “religious individuals use the religious identity of a given target as an ingroup boundary distinction and regard coreligionists more favourably” (879). Saroglou (2006:2) comes to a similar conclusion when he argues that religion supports a “minimal prosociality” that is real but primarily expressed in regards to in-group members. Much of the advantage that religious people have in giving and volunteering involves contributions to religious congregations and charities with a religious identity. Even giving to completely secular causes may involve in-group favouritism, since the majority of Americans are Christians. When a Christian gives to a secular charity, he or she may assume that the recipient is probably a Christian also, and therefore a member of the same in-group (Galen 2012).

A second main critique of the link between religion and prosociality is that this link is more evident in survey research that uses self-reported behaviour measures than in experimental research that uses observations of actual behaviour. Both religious and non-religious people tend to overreport socially desirable behaviours such as helping others, but religious people disproportionately overreport their helping behaviours because their religious values make them feel like they should be helpful. They also are more likely to engage in planned helping behaviours than spontaneous ones because planned helping behaviours “are more associated with self-presentation” (Galen 2012:891).

A third critique states that religion promotes prosocial behaviour not through the development of altruism but through fear of divine punishment. Purzycki and colleagues (2016) postulate that religion plays a role in maintaining social order in large societies in which people engage in “fleeting transactions with genetically unrelated strangers in large anonymous groups” (p. 327) by postulating knowledgeable, powerful gods who rewarded prosocial behaviours and punished those who violated the rules. Testing these hypotheses through economic games administered to people from eight very different cultures, they found that the more punitive and knowledgeable the gods were in a culture, the more people were willing to behave prosocially towards geographically distant people from the same religious group. Other studies have found that getting experimental subjects to think about God makes them more likely to behave prosocially towards strangers and members of out-groups, due to the perception that an all-knowing and all-powerful God will reward helpful behaviour and punish selfishness (Preston and Ritter, 2013; Shariff and Norenzayan, 2007).

Finally, sociological studies that include measures of both subjective religiosity and religious social networks tend to find that the apparent effect of subjective religiosity disappears when religious networks are controlled for (Becker and Dhingra 2001; Bennett 2014; Cnaan, Kasternakis, and Wineberg 1993; Musick and Wilson 2008; Musick, Wilson, and Bynum 2000; Park and Smith 2000; Ruiters and De Graaf 2006). This further supports the argument that religiosity makes one help others due to a higher likelihood of being asked and the desire to appear generous to in-group members, not because religion truly encourages prosocial values. If religious people help others primarily due to external norms and social networks, they may not be more likely to help strangers, who are outside of these networks. In fact, many studies have found that religious people often help members of their congregation, but are equally likely or even less likely than non-religious people to help people outside of their religious group (Saroglou 2006).

The issue of whether religion contributes to prosociality only in regards to planned helping behaviours directed towards in-group members is a question that this study can help resolve. Studies of data from the Gallup World Poll have already established a connection between religiosity and giving and volunteering (Bennett 2014; Myers 2012), but this connection

is not surprising because other studies have found a correlation between religiosity and planned helping behaviours towards in-group members. As helping strangers involves spontaneous behaviour towards people who are not members of one's in-group, a connection between religiosity and helping strangers would provide stronger support for the theory that religion promotes true prosociality.

Despite the doubts expressed by Galen (2012), Saroglou (2006), and others, several lines of research suggest that religion may encourage truly altruistic motivation, not only towards in-group members but also towards all people. Many religions stress the importance of helping not only members of one's own group, but also strangers and even enemies. In a United States study, Christians who were familiar with the parable of the Good Samaritan engaged in more helping behaviour than Christians who were not familiar with the story (Wuthnow 1991). Studies that use nuanced measures of subjective religiosity and prosocial religious norms find a correlation between subjective religiosity and helping even when controlling for networks (Einolf 2011; Regnerus, Smith, and Sikkink 1998; Wuthnow 2004). Finally, some experimental evidence does support a link between religiosity and helping strangers even in countries where religious people are a minority and helpers cannot assume that the person to be helped is likely to be a member of the same religion (Saroglou 2012).

Accordingly, one might expect to find a positive relationship between religiosity and helping strangers. We test this theory with three hypotheses:

*H1a/b: People who report a religious affiliation (H1a) and attend religious services (H1b) are more likely to help a stranger than unaffiliated respondents.*

As actual participation in religious life is a better measure of religiosity than mere denominational affiliation, we further hypothesize:

*H1c: The initial differences between religious members and non-members in the likelihood of helping a stranger will decline controlling for service attendance.*

At the national level, Ruiter and De Graaf (2006) find that the religious devoutness of a country is associated with a greater likelihood of volunteering, even among those who are not religious. Non-religious people living in a religious country are more likely to have religious people in their networks; these religious people are more likely to volunteer, to tell their non-religious friends and colleagues about volunteer opportunities, and to invite them to participate. Non-religious people living in a devout country also have more exposure to religious norms of altruism and stewardship.

In terms of helping strangers, religious norms of altruism may have an effect on non-religious people, but people are not likely to be recruited into helping strangers through social networks in the same way that they might be recruited into volunteering or making a charitable donation. However, higher levels of religious activity in a society may lead to a greater diffusion of prosocial norms that would increase the prosocial behaviour of all people within a society, irrespective of whether they are religious or not. Cross-national studies by Ruiter and De Graaf (2006) and Lam (2006) find that religious norms affect volunteering even among the non-devout, and Wiepking and colleagues (2014) find a similar effect on religious and secular giving. Borgonovi (2008) finds an effect of religious norms on the non-devout in a US study. While we would expect the effects of devoutness to be weaker for helping a stranger than it would for more formal activities such as volunteering and giving, we would nonetheless expect a positive relationship. We therefore hypothesize that:

*H2: People who live in a society with a higher level of national devoutness will have a greater likelihood of helping a stranger.*

We are also interested in exploring the effect of belonging to a religious minority group within a society. According to social identity theory, belonging to a minority group can result in a stronger sense of ingroup bias towards members of their own minority group at the expense of outgroup members who are not from their religious minority group (Tajfel 1979; Tajfel and Turner 1979). If a person belongs to a religious minority group, that person knows that any given stranger is probably not a member of the same religious group, making that person less likely to help strangers. On the other hand, the stronger sense of ingroup identity is also associated with a stronger sense of obligation and compliance to group norms, which may mean that members of religious minority groups are more likely to internalize and act upon religious norms of prosocial behaviour. If this effect predominates, then members of minority religious groups would be more likely to help strangers. Wiepking et al. (2014) find support for this theory in regards to both secular and religious charitable giving, and Bennett (2014) finds this effect in terms of formal volunteering. While the theoretical literature could support either a negative or positive effect of membership in a religious minority group, the two studies prior to ours found that members of minority religious groups were more likely to be prosocial, so we test this hypothesis:

*H3: People who belong to a religious minority group in a society will have a higher likelihood of helping a stranger.*

We also test the effect of the religious diversity of a country on the likelihood that a person will help a stranger. One might expect that religious differences would make it less likely that a person would help a stranger, as the probability that the stranger is a member of the same religion and entitled to in-group treatment is smaller in more diverse countries. However, Borgonovi (2008) has shown that religious diversity is actually associated with a *greater* likelihood that individuals will engage in prosocial activities such as volunteering and charitable giving. Borgonovi (2008) explains this through a rational choice framework, arguing that religious diversity encourages competition among religious firms, causing them to deliver a higher quality product and increasing the demand for and commitment towards their products (Finke and Stark 1988, 1992; Iannaccone 1998). Further support for this theory comes from a comparative study that finds that higher amounts of religious diversity are associated with higher rates of formal volunteering (Bennett 2014) and religious giving but not secular giving (Wiepking et al. 2014). On the other hand, religious diversity makes it less likely that any given stranger is a member of one's own religious group, and in-group bias may make those living in diverse countries less willing to help strangers. While the theory is ambivalent, we again predict that our results will follow the pattern of previous studies that found that religious diversity was associated with higher rates of volunteering and charitable giving:

*H4: People who live in a society with a higher level of religious diversity will have a higher probability of helping a stranger.*

Just as the non-devout are more likely to volunteer in devout countries (Ruiter and De Graaf 2006), individual devoutness may have less of an effect on volunteering and other forms of prosocial behaviour in countries where most of the population is devout. In such countries, the devoutness of the majority draws everyone into participation in helping activities, while in less devout countries being religious and participating in religious-based helping projects is more a matter of individual choice. Accordingly, we hypothesize:

*H5a/b: People who are non-religious, as measured by not having a denominational affiliation (H5a) or not attending religious services (H5b), will be more likely to help a stranger in more devout countries.*

Two prior studies using international data provide some insight into the nature of the correlation between religiosity and helping others. Smith (2015) found that countries high in a measure of in-group favouritism correlated negatively with volunteering, charitable giving, and helping a stranger. Stavrova and Siegers (2014) found that religiosity correlated positively with membership in charitable organizations but only in countries where there was no social pressure to follow a religion. In these countries, religiosity represents an individual's free choice, and freely choosing one's religious commitment is "closely linked to the extent of the internalization of religious values and determines the strength of the association between religiosity and prosociality/morality" (317). We were not able to operationalize measures of in-group favouritism or social pressure in our data so we did not propose hypotheses to test these theories.

## **Data and Methods**

The hypotheses are tested using the 2007 and 2008 waves of the Gallup World Poll (Gallup Inc. 2010, 2011). Individual-level data were gathered via phone or face-to-face interviews in the main language of each country, based on nationally representative probability samples. The data capture self-reported demographics, attitudes, and behaviours of respondents, including formal and informal volunteering (helping strangers). The Gallup World Poll (GWP) is a useful data source as it not only contains an unusually large sample of countries, but it also contains a standardized set of questions across all countries. These data have been used more recently to investigate aspects of prosocial behaviour such as formal volunteering (Bennett 2014; Lim and MacGregor 2012) and charitable giving (Aknin et al. 2013), but no study to date has examined the correlates of helping strangers.

The dependent variable of interest in this paper is a dichotomous variable measuring whether or not the respondent helped a stranger in the past month, making logistic regression the most appropriate technique for analysing the data. All of the continuous variables are mean centered. The data are clustered where individuals live in countries, making multilevel logistic regression the most appropriate method to analyse the data (Snijders and Bosker 1999). The data contain two levels: level one is the lowest level and accounts for individual respondents; level two accounts for countries. Countries with complete information for the dependent and independent variables were selected, accounting for 179,961 individuals living in 126 countries.

### **Dependent Variable**

The question of interest to this study in the GWP gauges whether the respondent reported helping a stranger in the past month ("Have you done any of the following in the past month? How about helped a stranger or someone you didn't know who needed help?<sup>1</sup>"). This outcome measure takes the value 1 for respondents who reported "yes" and 0 for respondents who reported "no". The descriptive statistics for this variable are displayed in Table 1. Across countries, 47% of respondents reported helping a stranger in the previous month. This proportion varied widely across countries from a low of 20% in Cambodia to a high of 84% in Liberia.

### **Independent Variables**

Basic descriptive statistics for all independent variables are displayed in Table 1 and correlations between all independent variables and the dependent variable are displayed in table A1 (see appendix). We first describe the independent variables of substantive interest. At the individual level, *religious denomination* membership was measured by a question that asked respondents which religion they belonged to. We grouped their responses into eight categories:

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<sup>1</sup> The other activities were listed in the questionnaire were: "Volunteered your time to an organization"; "donated money to an organization"; "voiced your opinion to a public official".

Protestant, Catholic, Orthodox, Muslim, Hindu, Buddhist, Jewish, other, and non-religious. *Service attendance* was measured with the question “Have you attended a place of worship or religious service within the past seven days?”, where “yes” was coded as 1 and “no” coded as 0.

At the contextual level, the *religious devoutness* of a country is measured by aggregating (and thus averaging) the services attendance variable, defined above. High values indicate that the country is relatively devout and low values indicate that the country is relatively secular. *Religious diversity* was measured using the Fractionalization Index developed by Alesina and colleagues (2003). This measure is the inverse of the Herfindahl Index and varies from 0-1, where scores of 1 indicate the highest level of religious diversity. Finally, we distinguish respondents who belong to a *religious minority* group by including a dummy variable coded 1 if the respondent belongs to a religious group that is not the largest religious group in their country.

At the individual level, gender, age, health, income, educational level, marital status, presence of children in the household, and employment status have been found to influence informal volunteering, so we include them as controls. Earlier studies have found that women do more informal volunteering than men (Egerton and Mullan 2008; Gundelach et al. 2010; Hank and Stuck 2008; Hook 2004). Informal volunteering increases with age and then declines late in life as health declines (Gundelach et al. 2010). Some studies find that people with low income and education are more likely to engage in informal volunteering (Egerton and Mullan 2008; Henning and Lieberg 1996; Li, Pickles, and Savage 2005; Williams 2004). Married people and people with children engage in more informal volunteering than people who are single or have no children (Gundelach et al. 2010). A Swiss study of hours spent in paid employment and informal volunteering showed a negative correlation (Gundelach et al. 2010).

Our measure of *gender* takes the value of 1 for female respondents and 0 for males. As studies of volunteering often find that age has a quadratic relationship with helping, increasing for most of the life course and decreasing in late old age, we use both a linear and quadratic term to control for *age*. We include a dummy variable for *health status*, coded as 1 for those respondents who answered yes to the question, “Do you have any health problems that prevent you from doing any of the things people your age normally can do?”. As income varies widely across the 126 countries in our study, we measure income on a quintile scale as the total household income of the respondent relative to the respondent’s national average. We distinguish between level of *education* by including dummy variables coded 1 for each education level: completed elementary education or less (up to 8 years of basic education), some secondary or some tertiary education (9-15 years of education), completed four years of education beyond high school and/or received a 4-year college degree (16 or more years of education), and unknown. We include an indicator for *marital status* as a set of dummy variables indicating whether the respondent is “married”, “cohabiting”, “divorced”, “widowed”, or “single” “unknown”. The presence of *children* under the age of 15 residing in the household is included as a set of dummy variables for “none”, “1-10”, and “11+/*unknown/unrealistic*”. *Employment status* is included as a dummy variable coded 1 if the respondent has a job.

### **Analytical Strategy**

Testing each of our hypotheses of helping strangers motivates our model building strategy. This approach allows us to test the explanations of helping strangers, but also the robustness of results as the models become more saturated. The multilevel modeling approach allows us to assess how the explanatory individual-level and contextual-level variables explain country-level differences by calculating how much the country-level intercept variance decreases after including explanatory variables.

Model 1 tests hypothesis 1a that religious affiliates are more likely to help a stranger compared to the unaffiliated. We therefore include the main substantive indicators for religious affiliation alongside our individual-level controls for gender, age, age-squared, highest level of education, income quintile, marital status, health, employment, and children.

In model 2 we add our indicator for service attendance to test hypothesis 1b that respondents who attend religious services are more likely to have helped a stranger compared to those who have not attended. The model also test hypothesis H1c that the initial differences between religious affiliates and the non-affiliated will decline controlling for religious services attendance. We also allow service attendance to vary across countries (estimate a random coefficient) to assess the uniformity of the size and strength of this effect across all 126 countries.

In model 3 we add our contextual-level measures of national religious devoutness and religious diversity to test hypothesis 2 – that devoutness is positively related to helping a stranger – and the competing hypotheses 4a/b related to negative of positive relationship between diversity and helping a stranger.

Model 4 includes religious minority group status and tests competing hypotheses 3a/b and assesses whether people from religious minority groups have a higher or lower likelihood of helping a stranger.

Model 5 includes a cross-level interaction between the religiously unaffiliated indicator and national religious devoutness to test hypothesis 5a that people who are non-religious will be more likely to help a stranger in a more devout country, compared to a non-religious person in less devout country. To do this we include a dummy variable for those with no religious affiliation and allow this to vary across countries (estimate a random coefficient) and set the reference group as all religiously affiliated respondents.

Model 6 includes a cross-level interaction between the service attendance and national religious devoutness to test hypothesis 5b that people who do not attend services will be more likely to help a stranger in a more devout country, compared to a those that do not attend services in a less devout country. To do this we once again estimate a random coefficient by allowing the service attendance dummy variable to vary across countries.

## **Results**

Table 2 displays the results. We estimated a null model with random intercepts only (not displayed), which suggested that the probability of helping strangers varied across countries. Model 1 includes dummy variables for the religious affiliation of respondents. The findings tend to support Hypothesis 1a, as all respondents who report a religious affiliation, except Hindus, are more likely to help strangers than those who report no affiliation. Of the denominations, the most likely to help were Jews, followed by Muslims, Orthodox Christians, members of other religions, Buddhists, Protestants, and Catholics.

Model 1 also includes individual-level controls for sex, age, age-squared, highest level of education, income quintile, marital status, health problems, and number of children. In line with previous studies, we find a curvilinear relationship between age and helping strangers and find that people with young children at home are more likely to help strangers. Contrary to the findings of previous studies of informal volunteering, we find that men, well-educated people, and people with high incomes are more likely to help strangers. Similarly, we also find that single, divorced, and separated people are more likely than married people to help strangers, and widows are less likely than any other group to help strangers. The employed are more likely to help a stranger than the unemployed. Health has no relationship with helping strangers.

These findings may differ from previous studies of informal volunteering because the type of informal volunteering measured in this study differs from previous studies. Men may be more likely to help strangers because men are more actively involved in the workforce in many countries, which would place them out in society where they are more likely to encounter strangers needing help. Men may also feel less threatened by safety concerns when a stranger approaches them for help. The positive correlation with education and income does not follow findings on informal volunteering but is consistent with the correlation between education and income and formal volunteering (Musick and Wilson, 2008). Non-married people may have more contact with strangers than married people, who may withdraw somewhat from public life (Einolf and Philbrick, 2014; Sarkisian and Gerstel, 2008), and employment gets people out of the house and into public areas where they are more likely to encounter strangers who might need help.

In Model 2 we include service attendance and find it is positively correlated with helping strangers, supporting Hypothesis 1b. People who attended religious services are 1.43 ( $\exp(.360)$ ) times more likely to help a stranger compared We also allow this affect to vary which allows us to assess the size of this relationship across all countries. These results tell us that across the 126 countries, people who attend religious services are between 1.38 ( $\exp(.321)$ ) and 1.49 ( $\exp(.399)$ ) times more likely to help a stranger compared to people who do not attend religious services<sup>2</sup>. We also find support for Hypothesis 1c as the coefficients for denominational membership decrease when service attendance is included in the model and become non-significant in the case of Protestants, Catholics, and Buddhists. The coefficients for Jews, Muslims, and Orthodox Christians remain essentially the same and remain significant and positive even in the final saturated model, which includes all the country-level and individual-level variables.

In Model 3 we introduce our contextual level variables of interest. National religious devoutness is positively related to helping a stranger at the  $p < .10$  level of statistical significance. This provides weak support for Hypothesis 2, although with a greater risk at making a type 1 error, and the substantive significance of the relationship between national devoutness and helping a stranger is small. Hypotheses 3 and 4 propose that membership in a religious minority (Model 4) and religious diversity within a country (Models 3 and 4) will be positively related to the probability of helping a stranger. We found that both variables had a statistically significant and positive relationship, as predicted.

Table 3 displays the results of the cross-level interactions. There are contradictory findings for the interaction between two of our individual-level measures of religiosity (religious affiliation and service attendance) and national devoutness (Models 5 and 6). We hypothesized that the correlation between each of these individual-level measures of religiosity and helping strangers would decrease as the level of country devoutness increased. We find that people without a religious affiliation are indeed more likely than a religious affiliate to help a stranger in a more devout country (H5a), as shown in Figure 1. However, we did not find that the effect of service attendance on helping strangers varied across levels of country devoutness (Figure 2), thus failing to support Hypothesis 5b.

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<sup>2</sup> This is calculated by assuming that the coefficient is normally distributed, and that 95% of all coefficients are between  $\pm 1.96$  times the standard deviation. The standard deviation is calculated as the service attendance coefficient (0.011) times the random effect of service attendance (0.036) = 0.000396. Therefore,  $0.360 \pm 1.96 (0.000396)$ <sup>-5</sup> gives a range of [0.321 ; 0.399].

## Conclusion

This paper tested how religious devoutness and diversity at both the individual and societal levels correlated with individual decisions to help a stranger in a very large multinational data set. Overall, religion had a strong positive correlation. Religious people were more likely to report having helped a stranger in the last month, and there was partial support for the hypothesis that the devoutness of a country was positively associated with helping strangers. Members of minority religions and people in religiously diverse countries were more likely to help strangers. The effect of service attendance was constant across levels of national devoutness, but the non-religious were more likely to help strangers in more devout countries. Our use of cross-sectional data and correlational analyses means that we cannot be certain that there is a causal relationship between religiosity and helping strangers, but our findings are consistent with the predictions of the causal theories tested.

The findings of this paper argue strongly against the view, dominant in the sociological literature, that religious people only help members of their own religious community or that religion only encourages helping through the influence of social networks. As strangers are not members of one's own religious congregation and may or may not share one's religious faith, the positive role of religion in helping strangers is consistent with the theory that religion may truly motivate prosocial behaviour through the promotion of altruistic norms. Ruiter and DeGraaf (2006) proposed two reasons why non-religious people living in a devout country were more likely to engage in formal volunteering. First, they were likely to have religious people in their social networks, who were themselves more likely to volunteer and who would recruit their non-religious friends into their volunteer work. Second, non-religious people in a devout country had more exposure to religious norms of altruism. People do not recruit others into helping strangers informally in the same way that they recruit them into formal volunteer work, so the social networks explanation cannot apply to helping strangers. It seems that norms of altruism explain the greater helping behaviours of non-religious people in devout countries.

Even more striking and surprising is the fact that people are more likely to help strangers in religiously diverse countries. If religiosity motivates helping people only if they are members of one's own religion, then helping strangers should be more common in non-diverse countries, where the chances are high that any given stranger is a member of the same religion. Studies of formal volunteering have used a rational choice framework to explain why religious diversity leads to more formal volunteering, but the rational choice arguments do not apply well to helping strangers. Stark and Finke (2000) argue that diversity creates competition, which causes church leaders to demand more contributions of time from members, and that diversity creates smaller congregations, where members can monitor one another and prevent free-riding. Neither argument applies to helping strangers. Only Borgonovi's (2008) argument that diversity causes competition, which leads churches to deliver a high quality product, makes sense. If the high quality product includes stronger and more effective messages about the value of helping others, then diversity and competition may indeed contribute to a greater likelihood of helping strangers.

The fact that members of religious minorities are more likely to help strangers is also unexpected from the rational choice and social networks approaches to explaining why religious people are more helpful. One possible explanation is that religion is more salient to members of religious minorities, so religious values are more likely to influence their behaviour. Another possibility is that minority congregations must work harder to maintain the loyalty of their members against the temptations of broader society, and therefore deliver a higher quality product, which includes stronger messages for altruism. A third possibility is that minority

members are aware of their less dominant position in society and attempt to cultivate the favour of the majority through good behaviour. These are speculations, however, and more research is needed to understand the relationship between membership in a minority religion and helping strangers.

In addition to the theory that religion promotes prosocial values, an alternative theory can explain the same results: religion may encourage prosocial behaviour through promoting a belief in an all-powerful, omniscient God or gods who reward prosocial behaviour and punish selfishness, even when the person needing help is a stranger (Preston and Ritter, 2013; Purzycki et al. 2016; Shariff and Norenzayan, 2007). While the current academic literature on this possibility assumes a belief in a personal god or Gods, belief in the workings of an impersonal law of karma, as exists in Buddhism and Hinduism, would likely have a similar effect. Future research can determine the extent to which religion's role in promoting helping strangers lies in the development of altruistic values or concerns with supernatural rewards and punishment.

This study is the first to examine religion and informal volunteering across a wide range of countries, and there are aspects of the dataset that limit its applicability. While the dataset contains many countries and individuals, it uses only a single measure of informal volunteering, and helping a stranger is an uncommon and atypical form of informal helping. Studying helping strangers has an advantage in that it may tell us more about altruistic motivation and the strength of civil society than other forms of informal volunteering, which are normally directed towards friends, family, and others one knows personally. Nevertheless, one cannot generalize from this study about informal volunteering as a larger phenomenon, as it is likely that the causes of helping people one knows personally are different from the causes of helping a stranger.

The Gallup World Poll data suffer from the same limitations as other multinational omnibus surveys: limited questions and response categories, the difficulty of translating a question accurately into the language and cultural context of 126 different countries, and problems with recall and social desirability. As people are more likely to recall volunteer behaviour when prompted in multiple ways, asking a single question about helping a stranger is a less effective method of gathering information than a series of questions that prompt respondents with examples of types of helping behaviours and contexts in which they might occur (Rooney, Steinberg, and Schervish 2004). However, the lack of prompts does make the question more cross-nationally unbiased, as any prompts would likely be more salient to some national contexts than others. Our dependent variable is also a limited yes/no question and cannot therefore distinguish between a single small action and many or more extensive helping actions.

A second limitation lies with the measures of religiosity on the Gallup World Poll. We only have measures of identification with a religious denomination and religious services attendance. Different religions place different importance on attending religious services regularly, and not all religions have a main service once a week. Even if religious services attendance were a good measure of religiosity, the service attendance variable is simplistic, merely asking respondents whether they attended religious services during the previous week. It separates weekly attenders from others, but does not distinguish among those who attend every other week, a few times a year, or not at all.

A more serious problem lies with social desirability bias. Galen (2012) argues that one reason that religious people report more prosocial behaviours in surveys is that they feel like their religious beliefs should make them more helpful, and therefore tend to describe themselves as more helpful than they really are. If religious and non-religious people had equal levels of social desirability bias there would be no problem, but Galen argues convincingly that religious

people are more motivated to think of themselves and present themselves as helpful, leading them to overreport their helping behaviours more than non-religious people. This is a valid criticism of studies using self-reported data and we can only acknowledge this limitation of the type of data source we use. Further studies using lab or field experiments would lack the breadth of coverage of our study but would test whether religiosity correlates with helping behaviours measured by others, not just by self-reports.

This study opens up a number of areas for future research, but before this research can take place, more cross-national survey data is needed on informal volunteering. The single question on helping a stranger in the GWP is a limited source of information, but the large number of countries surveyed make the GWP a better source than the two previous cross-national surveys that incorporate measures of informal volunteering, the International Social Survey Programme and the European Social Survey, which primarily or exclusively focus on industrialized countries. We hope that this paper will encourage scholarly attention to the important but largely invisible phenomenon of informal volunteering and encourage more cross-national data collection and analysis on the subject.

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Table 1. Descriptive statistics for dependent and independent variables

	Mean or % yes	Std. Dev.	Min	Max
<i>Dependent variable</i>				
Helped stranger	47%		0	1
<i>Individual-level variables</i>				
Female	54%		0	1
Age	39.42	17.46	15	100
Age-squared	1858.49	1632.11	225	10000
<i>Education</i>				
≤ 8 years	28%		0	1
9-15 years	43%		0	1
≥ 16 years	11%		0	1
Unknown	18%		0	1
<i>Marital status</i>				
Single	31%		0	1
Married	51%		0	1
Separated/divorced	5%		0	1
Widowed	6%		0	1
Cohabiting	5%		0	1
Unknown	2%		0	1
<i>Income</i>				
Poorest income quintile	16%		0	1
Second income quintile	15%		0	1
Third income quintile	16%		0	1
Fourth income quintile	15%		0	1
Richest income quintile	14%		0	1
Unknown income	24%		0	1
Health problems	25%		0	1
<i>Children under 15 in household</i>				
No children	39%		0	1
1-10 children	48%		0	1
Unknown or 10+ children	13%		0	1
Employed	45%		0	1
<i>Religious membership</i>				
Catholic	33%		0	1
Protestant	19%		0	1
Orthodox	5%		0	1
Muslim	25%		0	1
Hindu	4%		0	1
Buddhist	7%		0	1

Jewish	1%		0	1
Other	2%		0	1
None	5%		0	1
Religious services	53%		0	1
Minority religious group	26%		0	1
<i>Country-level variables</i>				
National devoutness	0.52	0.21	0.10	0.88
Religious diversity	0.41	0.23	0.00	0.86

Table 2. Multilevel logistic regression results predicting the likelihood of helping a stranger in the past month.

	Model 1	Model 2	Model 3	Model 4
Intercept	-0.582*** (0.058)	-0.669*** (0.057)	-0.665*** (0.056)	-0.705*** (0.057)
<i>Individual-level variables</i>				
Female (ref. male)	0.001 (0.010)	0.001 (0.010)	0.001 (0.010)	0.001 (0.010)
Age	0.014*** (0.002)	0.013*** (0.002)	0.013*** (0.002)	0.013*** (0.002)
Age squared	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Education (ref. ≤ 8 years)				
Education (9-15 years)	0.271*** (0.014)	0.270*** (0.014)	0.270*** (0.014)	0.270*** (0.014)
Education (≥16 years)	0.463*** (0.020)	0.459*** (0.020)	0.460*** (0.020)	0.460*** (0.020)
Unknown	0.268*** (0.022)	0.277*** (0.022)	0.278*** (0.022)	0.279*** (0.022)
Marital status (ref. married)				
Single	0.053*** (0.015)	0.056*** (0.015)	0.056*** (0.015)	0.056*** (0.015)
Separated/divorced	0.064** (0.024)	0.082*** (0.024)	0.082*** (0.024)	0.082*** (0.024)
Widowed	-0.086*** (0.023)	-0.087*** (0.023)	-0.087*** (0.023)	-0.087*** (0.023)
Cohabiting	0.034 (0.025)	0.060* (0.025)	0.060* (0.025)	0.060* (0.025)
Unknown	0.078 (0.055)	0.099+ (0.055)	0.095+ (0.055)	0.093+ (0.055)
Income (ref. third income quintile)				
Poorest income quintile	-0.156*** (0.018)	-0.159*** (0.018)	-0.159*** (0.018)	-0.159*** (0.018)
Second income quintile	-0.040* (0.018)	-0.039* (0.018)	-0.039* (0.018)	-0.038* (0.018)
Fourth income quintile	0.091*** (0.018)	0.092*** (0.018)	0.092*** (0.018)	0.091*** (0.018)
Richest income quintile	0.204*** (0.018)	0.205*** (0.018)	0.205*** (0.018)	0.205*** (0.018)
Unknown income	-0.039* (0.017)	-0.037* (0.017)	-0.037* (0.017)	-0.038* (0.017)
Health problems	0.015 (0.012)	0.013 (0.012)	0.013 (0.012)	0.013 (0.012)

Children under the age of 15 (ref. none)				
1-10 children	0.035** (0.012)	0.034** (0.012)	0.034** (0.012)	0.033** (0.012)
11+/unknown/unrealistic	-0.050* (0.025)	-0.051* (0.025)	-0.053* (0.025)	-0.053* (0.025)
Employed (ref. unemployed)	0.219*** (0.011)	0.217*** (0.011)	0.217*** (0.011)	0.217*** (0.011)
Religious membership (ref. none)				
Catholic	0.064* (0.030)	-0.042 (0.030)	-0.043 (0.030)	-0.009 (0.031)
Protestant	0.105*** (0.031)	-0.013 (0.031)	-0.015 (0.031)	0.009 (0.032)
Orthodox	0.196*** (0.046)	0.116* (0.046)	0.116* (0.046)	0.142** (0.046)
Muslim	0.240*** (0.036)	0.122*** (0.036)	0.123*** (0.036)	0.155*** (0.037)
Hindu	0.073 (0.056)	-0.020 (0.056)	-0.021 (0.056)	0.012 (0.056)
Buddhist	0.115** (0.041)	0.066 (0.041)	0.065 (0.041)	0.083* (0.041)
Jewish	0.361*** (0.098)	0.286** (0.098)	0.288** (0.098)	0.338*** (0.099)
Other	0.155*** (0.044)	0.095* (0.044)	0.093* (0.044)	0.085+ (0.044)
Service attendance		0.360*** (0.011)	0.359*** (0.011)	0.358*** (0.011)
Minority				0.055*** (0.013)
<b>Country-level variables</b>				
National devoutness			0.347+ (0.200)	0.336+ (0.200)
Religious diversity			0.478* (0.188)	0.451* (0.188)
<b>Variance components</b>				
Country variance	0.521*** (0.034)	0.510*** (0.033)	0.491*** (0.032)	0.490*** (0.032)
Random effect Services		0.036***	0.036***	0.036***
Individuals	179,961	179,961	179,961	179,961
Countries	126	126	126	126
<b>Goodness of fit indicators</b>				
Deviance	234717.35	233488.7	233460.31	233448.46
ICC	0.076	0.073	0.068	0.068
BIC	235080	233924	233909	233894

Number of parameters	28	29	31	32
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Source: Gallup World Poll 2007, 2008.

Notes: + $p < 0.10$  \* $p < 0.05$  \*\* $p < 0.01$  \*\*\* $p < 0.001$ . Standard errors in parentheses.

Table 3. Multilevel logit Cross-level interactions predicting the likelihood of helping a stranger in the past month.

	Model 5	Model 6
Intercept	-0.812*** (0.109)	-0.894*** (0.113)
<b>Individual-level variables</b>		
Service attendance		0.400*** (0.054)
Non-affiliated (ref. all religious affiliates)	-0.233 (0.144)	
<b>Country-level variables</b>		
National devoutness	0.004* (0.001)	0.004* (0.002)
<b>Cross-level interactions</b>		
Service attendance X National devoutness		-0.001 (0.001)
Non-affiliated X National devoutness	0.006+ (0.004)	
<b>Variance components</b>		
Country variance	0.234*** (0.030)	0.235*** (0.031)
Random effect Services		0.036***
Random effect Non-affiliated	0.205***	
Individuals	179,961	179,961
Countries	126	126
<b>Goodness of fit indicators</b>		
Deviance	233559.84	233487.67
ICC	0.076	0.073
BIC	233923	233935
Number of parameters	26	33

Source: Gallup World Poll 2007, 2008.

Notes: + $p < 0.10$  \* $p < 0.05$  \*\* $p < 0.01$  \*\*\* $p < 0.001$ . Standard errors in parentheses.

*Individual-level controls:* sex, age, age-squared, education ( $\leq 8$  years, 9-15 years,  $\geq 16$  years), marital status (single, married, separated/divorced, widowed, cohabiting), income (lowest income level, middle income level, highest income level), self-reported health, children in household (none, 1-16 children, unknown/unrealistic), employed, religious denomination (Catholic, Protestant, Orthodox, Muslim, Hindu, Buddhist, Jewish, other, none) service attendance, religious minority status.

*Contextual-level controls:* national devoutness, religious diversity.

Figure 1. Effect of national devoutness for non-affiliates and religious affiliates

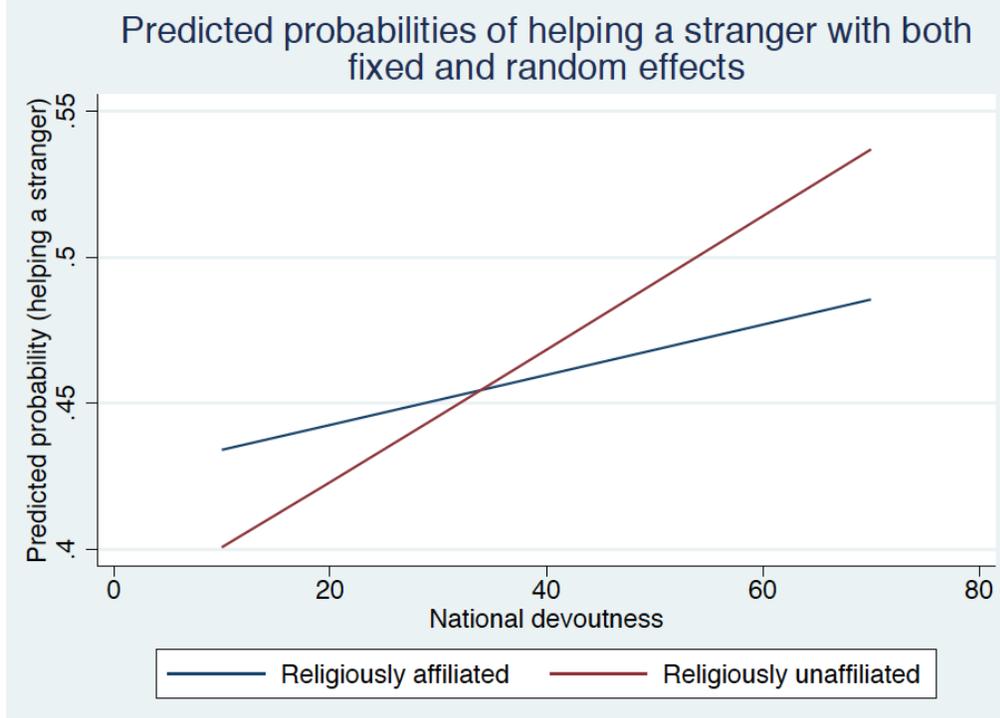


Figure 2. Effect of national devoutness for service attendees and non-attendees.

