DOES RELIGION BREED TRUST? A CROSS-NATIONAL STUDY OF THE EFFECTS
OF RELIGIOUS INVOLVEMENT, RELIGIOUS FAITH AND RELIGIOUS CONTEXT
ON SOCIAL TRUST

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Abstract

Many previous studies have linked religiosity to social trust. Yet much of this relation remains insufficiently understood, which is partly due to the fact that religiosity is a multi-dimensional phenomenon. In this paper we identify several of those dimensions, including the integration in religious communities, the importance of God in people's lives, and the religious context. These dimensions give rise to different mechanisms that produce both trust-enhancing and trust-reducing effects. Data from the European Values Survey (2008) were used to test the resulting hypotheses, using multilevel logistic regression models. We conclude that the micro effects are ambivalent: integration in religious communities furthers trust, whereas religious socialization and the importance of God lower trust. On the macro level, we find a strong effect of Protestantism, which is in line with previous studies, but which remains puzzling since the individual-level difference between Protestants and the other religious traditions was found to be very small. In addition, and contrasting other studies, we found that religious diversity increases social trust.

Keywords: Social trust – Religious involvement – Importance of God – Multi-level logistic analysis

Does Religion Breed Trust? A Cross-National Study of the Effects of Religious Involvement,
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Social trust is sometimes referred to as a ‘social glue’; without a certain level of trust in general others, everyday activities such as driving, using subways, and sending children to school would be very challenging (Govier, 1997: 31). The fact that favorable outcomes have often been associated with social trust on both the individual and societal level has directed attention towards the origins of social trust. Although social trust is seen as a reasonable stable personality trait (Uslaner, 2002), also substantial variation is found within individuals in their levels of trust over time (Van Ingen and Bekkers, 2013). Previous research has shown that individuals’ religious values and preferences and the religious context are important predictors of social trust, even though considerable disagreement exists about whether the effects are positive or negative. For example, Uslaner (2002: 87) states that “religion has an uneasy relationship to trust”, whereas Putnam and Campbell (2010: 460) state that “... religious people [...] are more trusting of just about everybody than are secular people”. Moreover, other scholars have pointed to the impact of the social context on social trust (Alesina and La Ferrara, 2002; Delhey and Newton, 2005; Putnam, 2007). For instance, they suggested that diversity in society, such as religious diversity, may challenge the level of social trust.

With this paper, we aim to enhance our understanding of how religion affects trust. In order to do so, a first step is to recognize that there are many aspects of religion or religiosity that could theoretically affect trust, which means that religion can have both positive and negative effects. Second, we need to unravel the different theoretical mechanisms connected to these dimensions and argue how they affect trust. Third, these different mechanisms need to be tested simultaneously using data with a wide coverage of countries and religions. Our

central research question is: to what extent do religious involvement, religious faith, and religious context affect social trust?

Previous literature has considered various aspects of religion in an attempt to explain social trust, sometimes with inconsistent outcomes. For example, Fukuyama (1995) argued that Protestant norms extend social trust from acquaintances to people in general (Traunmüller, 2011), whereas Daniels and Von der Ruhr (2010) argued that Protestants – and especially conservative Protestant groups – do not extend their trust beyond the borders of their own communities. Other research did not focus on religious tradition in particular, but argued that the individual relationship with God is the most important; the image of God as a loving God is related to loving people in general and thus trusting them more (Mencken, Bader, and Embry, 2009). The aspects of religiosity that have been tested in prior studies include belonging to a denomination, integration in the religious community, aspects of believing, having fundamentalist ideas, the share of Protestants in a country, and religious diversity (e.g. Welch, Sikkink, Sartain, and Bond, 2004; Delhey and Newton, 2005; Bjørnskov, 2006; Mencken, Bader and Embry, 2009; Daniels and Von der Ruhr, 2010; Traunmüller, 2011; Hempel, Matthews, and Bartkowski, 2012). As far as we know, most studies fail to combine the different dimensions and mechanisms that connect religion to social trust. Therefore, we contribute to the literature by combining insights from earlier studies (like the ones mentioned above) and by simultaneously testing these different mechanisms. The latter is important since many religious indicators are positively correlated, which means that spurious effects could arise easily (e.g. an uncontrolled effect of religious adherence could turn out to be an effect of religious participation instead, when the former is controlled for the latter).

A second contribution to the literature is the inclusion of religious socialization and religious diversity in our models, which have been hardly tested in previous studies. The lack of research regarding religious socialization is remarkable, since it is argued that social trust is a reasonable stable personal characteristic that is formed early in life (Uslaner, 2002). Thus, besides the impact of the contemporary involvement in a religious network, it may be argued that religious socialization in a religious community during childhood also has a lasting impact on one's propensity to trust others (Vermeer and Scheepers, 2012). With the inclusion of religious diversity, we also explicitly acknowledge that there can be negative effects of religiosity on trust. This seems especially relevant given the recent gain in studies that discuss whether ethnic diversity has a negative effect on trust (see Van der Meer & Tolsma, 2014).

Finally, most studies are limited to either the micro or macro level. Instead, we try to disentangle micro and macro influences of religiosity by seeing the religion-trust question as a multilevel problem. The use of such a framework avoids ecological fallacy problems and also forces researchers to be more explicit in their theoretical reasoning about context versus composition effects. The study by Traunmuller (2011) is one of the few exceptions that also tries to accomplish that. While he focused on regional diversity in a specific country (i.e., Germany), we try to contribute to the literature by providing a cross-national perspective and investigate how individual levels of social trust are affected by country-level differences in religiosity. We analyze data that were gathered in 2008 in 44 European countries. As such we are able to test both micro level and macro level explanations (and "cross-level" explanations) of social trust. We control in these analyses for important country-level influences (Uslaner, 2002; Bjørnskov, 2006) that could jointly explain religiosity and social trust levels in a country in order to investigate the robustness of the effects of the context-related factors of religiosity.

Theory and Hypotheses

The concept of social trust is often linked to the existence of a “moral community” (Uslaner, 2002) or a “web of commonsense expectations” (Govier, 1997). The idea that we share fundamental norms and values underlying our different outlooks and ideologies makes the world more predictable (Welch, Skikink and Loveland, 2007), resulting in easier cooperation between strangers. Within the borders of this moral community, people “belief that others will not deliberately or knowingly do us harm, if they can avoid it, and will look after our interests, if this is possible” (Delhey and Newton, 2005: 311). While it is sometimes argued that social trust is built on previous experiences (Govier, 1997), Uslaner (2002) argued that social trust is based on morality and is unrelated to former experiences. Instead, these former experiences might be especially important in forming trust in people you know, in some studies referred to as particularized trust (Welch et al., 2004). In the case of social – or generalized – trust, views on human nature and the experience of a moralistic bond with others in general is most important. Religion has traditionally been important in the formation of views on human nature and norms and values about how to act as a good and decent person and it is, thus, often argued to be an important correlate of social trust. Both individual-level religious characteristics (e.g. Welch et al., 2004; Mencken, Bader and Embry, 2009; Daniels and Von der Ruhr, 2010) and context-level religious characteristics (Bjørnskov 2006; Breggen and Bjørnskov, 2011; Delhey and Newton, 2005) are assumed to (potentially) affect social trust levels. We provide an integrated framework in which we look at both these levels of analysis. First, we elaborate on potential individual-level characteristics. Second, we pay attention to contextual forces that could impact individuals in their levels of social trust.

Belonging and Religious Integration

Religious involvement has been recognized as an important source of social trust (e.g. Meuleman and Billet, 2011). Most religious ideologies incorporate values of social solidarity and respect for human beings (Halman and Pettersson, 2001). For example, the Islam prescribes charitable giving as one of its five pillars, and the Christian bible includes the story of the Good Samaritan who helps out a stranger in need. Theoretically, these elements of religious ideology should further social trust. Previous research has found support for this idea, both in survey and experimental studies (Norenzayan and Shariff, 2008). Thus, other things being equal, we expect members of a religious tradition to be more trusting than non-members.

Hypothesis 1: Belonging to a religious tradition has a positive effect on social trust.

Welch et al. (2004) argued that theological precepts cause differences in the extent to which people trust strangers. Because the doctrine of mainline Protestant denominations focuses on horizontal relationships (“priesthood of all believers”, Hempel, Matthews and Bartkowski, 2012: 525), some authors suggest that they should be able to extend their trust in others across the borders of their own community (thereby enhancing their generalized trust). In contrast, Banfield (1958) argues that Catholics have lower levels of social trust compared to Protestants because of ‘amoral familism’, or a tendency to be socially oriented towards family and close friends, which may restrict their perceived moral community and thus their generalized trust (Traunmüller, 2011). Previous empirical studies largely supported the idea that in general Protestants are more trusting than adherents from other religions (Stolle, Soroka and Johnston, 2008; Traunmüller, 2011). Following previous studies, we thus assume that Protestants are more trusting than members from other religious traditions, albeit we stress that a more well-developed theory covering a systematic comparison of characteristics of religions relevant for

trust would be necessary to be more precise about the exact mechanism that would cause this relationship..

Hypothesis 2: Protestants are more likely to trust strangers, compared to adherents from other religions.

There seems to be consensus in the previous literature that the regular attendance of a religious service has a positive effect on the level of social trust (e.g., Daniels and Von der Ruhr, 2010; Mencken, Bader and Embry, 2009; Welch et al., 2004; Uslander, 2002; Smidt, 1999). Two distinct but not necessarily competing lines of reasoning help explain this: (1) those who are strongly integrated in religious communities subscribe most strongly to their ideologies, and (2) those who are strongly integrated in religious communities have the most frequent contact with a diverse group of other members.

First, participation in a religious organization creates norms and values about people that they are good, decent and trustworthy, and that can create trust not only in members of the organization, but also in people in general (Mencken, Bader and Embry, 2009). Halman and Pettersson state: “religious beliefs are assumed to produce an ethos which is trusting, altruistic, and cooperative” (2001: 70), and by going to church people are exposed to these beliefs. The stronger the integration in a religious community, the stronger the internalized pro-social norms and values about trustworthiness of fellow human beings (Smidt, 1999; Welch et al., 2004). However, from a social network perspective, a contrasting argument states that strong integration in a religious community also might have a downside for social trust. Based on theory of Granovetter about network ties, Daniels and Von der Ruhr (2010) claimed that thick-tie networks, often found in fundamentalist religious traditions, are characterized by high levels of in-group trust (or bonding social capital (Putnam, 2000))

which come at the expense of trust in others. As a contrast, often more liberal religious traditions generate weak-tie networks which makes it easy to generalize trust across the borders of the own religion (bridging social capital (Putnam, 2000)).

Nevertheless, for both types of networks the idea applies that when people are highly integrated in a religious community, it is likely that they generate contacts with people that differ in sex, age, education, social status and other non-religious characteristics. Wuthnow (2002) provides support for this: he shows that members of religious congregations have more “status-bridging social capital” than non-members, which means that they have social networks that span across a wider range of social positions. According to the author, one of the explanations for this is that churches bring together mixed social status crowds, and that they offer meeting opportunities for people of different status groups. Although there is homogeneity with respect to religious ideology in this community, it also provides opportunities to contact people with other socio-economic characteristics and, as the contact theory proposes, this can help to overcome initial hesitation between different social stratified groups (Putnam, 2007). In keeping with this argumentation, we expect that:

Hypothesis 3: Regular attendance of a religious service enhances social trust.

Not only the involvement in contemporary religious networks may impact social trust, but also religious socialization in childhood may be of importance. In the current literature there is much discussion about the origins of social trust, which is usually seen as a reasonably stable and optimistic outlook on the world (Uslaner, 2002). Given this reasonable stable nature of social trust, it is most likely shaped in the early phases of life during one’s upbringing and socialization. The inculcation of religious values and ideas during formative years in childhood may have lasting impact on an individual’s identity and social orientation

(Perks and Haan, 2011; Vermeer and Scheepers, 2012). In their study on volunteering, Vermeer and Scheepers even argued that “being raised in a religious way by one’s parents strengthens ones propensity to volunteer later in life even if one has already lapsed as an adult” (2012: 943). Following this line of reasoning, it may be expected that religious socialization determines the level of social trust in addition to the contemporary involvement in a religious collective. This leads to the following hypotheses:

Hypothesis 4: Regular attendance of a religious service in childhood enhances social trust.

Individual faith

Regardless of the collective aspects of religion, it is clear that people differ in the extent to which they subscribe to the ideology of the religious tradition they belong to and to religious ideas and values in general. Moreover, individuals may not be a member of any religious tradition, but still feel a connection to the divine in some way in their lives (e.g. believing without belonging, Davie, 2006; De Hart, 2013). In research on the impact of religiosity on volunteer work, Lam (2002) emphasized the importance of the various dimensions of religious ideology on the individual level:

“Even though religious denomination often help individuals formulate moral standards and a philosophy for life (e.g. Moberg, 1962), affiliation with a particular denomination itself does not tell us the extent to which individuals agree with their denominations on different issues. Thus, in addition to religious affiliation, we need to take into account the religious beliefs that individuals hold.” (Lam, 2002: 408).

We follow this suggestion by also looking at individual faith. Since God is assumed to be a key religious symbol in this respect (Mencken, Bader and Embry, 2009; Stark, 2001; Noffke and McFadden, 2001), certainly in the dominant religions in Europe, we consider the

importance of God in one's life. In previous research, Berggren and Bjørnskov (2011) argued that the importance of religion in one's life could have both positive and negative effects on social trust. In their empirical research, they found support for a negative effect of the importance of religion in daily life on social trust. They argue that "religion may create a divide in society, if those who believe see others as morally inferior" and if "the non-religious may consider the religious strange or different" (Berggren and Bjørnskov, 2011: 462). In line with this argumentation, we might argue that strong individual faith could result in the exclusion of some groups of strangers – the non-religious in particular – from the 'moral community'. This may result in lower levels of social trust (Uslaner, 2002), despite any pro-social norms that are included in the religious doctrine. We could expect that:

Hypothesis 5: The greater the importance of God in people's lives, the less they trust other people in general.

The Religious Context

In addition to religiosity on the individual level, several scholars have proposed that the religious context affects individual levels of social trust. Most theoretical arguments are based on an idea of "spill over"; effects of religious ideology and religious integration are argued to spill over to the non-religious. In other words, the non-religious in religious countries should be more trusting than the non-religious in non-religious countries, because they are affected by the trust and religiosity of their fellow citizens. How this works is not always clear. One reason could be the symmetry of trust and trustworthiness: if a large share of the population in a country is encouraged to act trustworthy by their religious beliefs, then that evokes trust, also by the non-religious. It may evoke trustworthiness because of the tendency of most people to reciprocate trustworthiness. Another reason could be that in some countries

religious parties have become very successful in politics, the educational system, and other institutions (Bjørnskov, 2006). Through these institutions some of the non-religious may also be affected by – or in some cases socialized in – religious values and beliefs.

The spill-over mechanism may also explain the macro effect of Protestant ideology that has been found in several prior studies (e.g. Delhey and Newton 2005; Traunmüller, 2011). The specific dominant ideas about human kind as a moral community and human goodness on the one hand, and expected association to personal ideology, empathy and altruism, on the other hand, can spillover to common thinking in a country (Traunmüller, 2011). Additionally, it was assumed that historical trajectories dominated by this way of thinking have caused long-term and quite stable high levels of trust for Protestant communities (Bjørnskov, 2006; Hempel, Matthews and Bartkowski, 2012). Delhey and Newton (2005) tested the impact of various religions on social trust at the macro-level and found that mainly Protestantism was positively correlated to social trust levels in a country, even after controlling for potential confounders, such as the quality of government, income inequality and national wealth. Following the approach of Delhey and Newton (2005), we investigate to what extent the share of various religions in a country impacts social trust and we expect to find an effect of Protestantism.

Hypothesis 6: The higher the percentage of Protestants in a country the higher the individual level of social trust.

As with social network integration on the individual level, religious integration can also affect social trust from a macro level perspective. Traunmüller (2011) related aggregated church attendance rates to individual social trust in his social control hypothesis. People who are highly involved in the religious community are assumed to have incorporated pro-social

norms and show trustworthy behavior. In countries with high church attendance rates, irrespective of what people believe, a large share of the people are involved in a religious community which promotes these pro-social norms. In line with Hearn (1997), knowledge about this membership of others to the religious community can warrant an idea of good, decent and trustworthy people. As such, individual trustworthiness due to religious membership can cause a spillover effect to non-religious individuals (a context effect): irrespective of their own attendance of religious services, the knowledge that most people do so – and are thus argued to be socialized in pro-social norms – may create a sense of trustworthiness of strangers in general. This leads to the second country level hypothesis.

Hypothesis 7: The higher the rate of religious service attendance in a country, the higher the individual level of social trust.

Another potentially important context factor is that of the religious diversity in a country. The homophily principle of McPherson, Smith-Lovin, and Cook (2001) assumes that people prefer to interact with similar others which results in relationships with relatively strong ties and high levels of social trust (Gesthuizen, Van der Meer and Scheepers, 2009). When a country is very homogeneous with regard to their religious composition, it is easier to trust people because people know they all share the same norms and values and belong to the same moral community (Uslaner, 2002; Traunmüller, 2011; Berggren and Bjørnskov, 2011). However, when a country has a plural religious composition several smaller moral communities seem to appear, all with their own norms and values. Therefore it becomes harder to trust people in general.

This argument is at one with the notion of fractionalization, which is a widely discussed topic these days. For example, it is often assumed that ethnic diversity makes

people withdraw from social interactions, both inside and outside their own group, with detrimental effects on trust (Putnam, 2007). However, the empirical evidence on this issue is ambiguous (Van der Meer and Tolsma, 2014). In some research on ethnic diversity no significant effects were found (Gesthuizen, Van der Meer and Scheepers, 2009; Bjørnskov, 2008; Alesina and La Ferrara, 2002), while other research provided significant support (Putnam, 2007; Dinesen, 2011). One of the sources of the confusion may be the level at which trust is measured, which ranges from trust in neighbors to – like in our study – people in general (Van der Meer and Tolsma, 2014). The abovementioned arguments lead to the following hypothesis:

Hypothesis 8: The higher the religious diversity in a country the lower the individual level of social trust.

It is questionable whether religious diversity affects everybody to the same extent. It seems plausible to assume that those for whom God is very important are more affected by religious diversity, because they care more about religiosity. For atheists on the other hand, religion is not important, and neither does the difference between the presence of one or several religions in their country.

Hypothesis 9: The effect of the importance of God on social trust at the individual level will be stronger in religious divers contexts, compared with religious more homogeneous contexts.

Data and Method

Data

To investigate the relationship between religiosity and social trust, data was used from the European Values Study (EVS). An important benefit of this dataset with regard to the cross-national design of this study is the large number of countries included; 47 European countries participated in the EVS in the fourth wave, which was conducted in 2008. In line with recommendations from the EVS organizations, we did not include Azerbaijan in our analyses (personal communication). About 1000 to 1500 respondents per country were sampled (using random sampling) to answer questions in a face-to-face interview about life, family, work, religion, politics and society. Only individuals of 18 years and older were included in the sample.

Dependent Variable

Social trust is in the literature often measured with the same question, namely: “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?” Sometimes respondents can choose one of the two options, while in other surveys they have to give a score on a scale from one to ten. In EVS, the dichotomous answer format was used in which people could answer with: 1. ‘Most people can be trusted’, or 2. ‘Can’t be too careful’. In line with standards in logistic analysis techniques, the ‘can’t be too careful’ category is recoded to a score of 0, and therefore results represent the likelihood of trusting people instead of not trusting people.

Independent Variables on the Individual Level

Membership in a religious tradition indicates to which religious tradition respondents belong. First, they were asked if they considered themselves to belong to a religious group (about 35% of the respondents indicated that they are not religious). Second, if people answered positively to this question, they were asked to indicate to which religion they belong. We

recoded these answers to six groups: (1) no religion, (2) Roman Catholic, (3) Protestant, (4) Muslim, (5) Orthodox, and (6) other.

Religious service attendance is a measure of religious involvement. While in previous literature it is frequently referred to as ‘church attendance’, it actually represents the frequency with which people attend religious services, regardless whether that is a church, mosque or synagogue. In the EVS (2008), respondents were asked: “Apart from weddings, funerals and christenings, about how often do you attend religious services these days?”. The answer categories were: (1) more than once a week, (2) once a week, (3) once a month, (4) only on specific holy days, (5) once a year, (6) less often, and (7) never, practically never. We recoded this variable to a ratio variable. For people who have stated they go to church more than once a week, it was assumed that they go about 104 times a year to church. People who have stated that they attend church once a week had score 52, going to church once a month was coded as 12, only attending church on special holy days was assumed to be about 3 times church attendance a year, attending a religious service once a year had score 1, going to church less often was coded as 0,5 and finally, people who never go to church had a score of 0. The scale was transformed to the frequency of attendance in a month. Additionally, we applied the same operationalization to the question on religious service attendance in childhood. Respondents were asked: “Apart from weddings, funerals and christenings, about how often did you attend religious services at age 12?”. This measure is used as an indicator for the religious socialization in childhood.

Importance of God is the response to the question “And how important is God in your life?”. The answer categories ranged from 1 (not at all important) to 10 (very important). We use this measure as an indication of individual’s faith.

Independent Variables on the Country Level

Percentage Protestants reflects the share of people denoting themselves as Protestants within a country, as was aggregated from the individual data. The same was done for the percentage Catholics, Orthodox, and non-religious people in a country.

Attendance rate is the average level of attendance to a religious service in a country, which was aggregated from the individual data.

Religious diversity equals 1 minus the herfindahl index of the different religious groups in a country. Our calculations are based on the country-specific question about religious groups (i.e., the answer categories are based on those religious groups that exist in a certain country). The non-religious were included in this measure, because they also represent an important and often substantial subgroup in the religious composition of a country. Our measure correlated highly ($r=.81$) with the well-known religious fractionalization measure by Alesina et al. (2003, 2011). However, due to the limited coverage of European countries by the latter, this correlation was based on 18 countries only.

Control Variables

On the micro level, it is important to control for several socio-demographic characteristics such as gender, age, educational level, income, and marital status, as they are likely to affect both aspects of religiosity and social trust. The variable for *gender* was a dummy variable in which men are the reference category. *Age* is a continuous measure, computed from the year of birth. The educational level in EVS was measured with 6 categories: ‘Pre-primary education or no education’, ‘primary education or first stage of basic education’, ‘lower secondary or second stage of basic education’, ‘(upper) secondary education’, ‘post-secondary non-tertiary education’, ‘first stage of tertiary education’, and ‘second stage of tertiary education’. Household income is the net monthly household income, which was measured in 12 categories, ranging from ‘less than €150’ to ‘€10.000 or more’. *Marital status*

included the categories: ‘married’, ‘living together without marriage’, ‘divorced’, ‘separated’, ‘widowed’, and ‘single’. In order to keep respondents with missing values in the analyses we included categories “missing” for education, income, and marital status.

On the macro level, *HDI*, or human development index, is a measure that captures development of a society by combining three important country level indicators, namely life expectancy, the level of educational attainment, and gross national income per capita (for more information, see: <http://hdr.undp.org/en/statistics/hdi/>). The measure is provided by the United Nations.

Analytical Strategy

To analyze the data properly, multilevel logistic regression analysis is needed. The multilevel approach takes account for the clustering of individuals within countries. In addition, because of the dichotomous nature of the dependent variable, logistic regression analysis is needed. However, as a first step before estimating multilevel models, ordinary logistic regression was used to investigate the relationship between the individual membership to a religious tradition and social trust in a pooled data set. Second, the differences between the ordinary logistic model and the multilevel logistic model in which country clustering is taken into account can provide insight in the impact of the context on social trust. As a third step, effects of the individual level religious variables are estimated in the multilevel models. Fourth, macro level religious variables are added to the models to investigate what characteristics of the religious context are important in explaining the level of trust people have in others. Finally, we tested the cross-level interaction to investigate differences in the individual effect of the importance of God across countries with varying levels of religious diversity.

[Table 1 around here]

Results

Individual Effects

At the individual level, differences in social trust between the religious and non-religious, between different levels of religious services attendance, and between different levels of religious faith were expected. These ideas are tested in Table 2. We begin our analyses by comparing two models: in model I differences between individuals of different traditions were estimated in a pooled logistic regression model not accounting for country dependency; in model II we explicitly distinguished between country and individual level variation of trust (in a random-intercept (i.e. multilevel) logistic model). This comparison is instructive and illustrated in Figure 1, where predicted probabilities of trust (based on models I and II) were plotted. It turns out that - when all European citizens are pooled in one dataset - there are major trust differences among the adherents of various religious traditions. Protestants were the most trusting (around 47% thinks most people can be trusted) whereas Muslims were the least trusting (around 19% thinks most people can be trusted). However, when we distinguished between country and individual variation (model II) the differences in social trust between the various traditions decreased dramatically. In other words, the differences in social trust are mainly due to the fact that the adherents of the different religions mostly live in different countries. The differences that remain on the individual level (or within countries) are very small (see model II and Figure 1), with an estimated probability of trusting among Protestants of around 0.29 and an estimated probability of 0.27 among the non-religious (and around .28 for Muslims). Membership in a religious tradition, therefore, is shown to have only marginal micro effects on social trust.

[Figure 1 around here]

The individual level hypotheses concerning membership in a religious tradition, religious involvement and religious faith are tested in Table 2. From the second model, it can be concluded that religious people in general are not more trusting than the non-religious (Hypothesis 1 is not supported). There is one exception: Protestants are significantly more likely to trust compared to non-religious people (Hypothesis 2). Compared to the other religious groups (in an additional model we changed the reference category to Protestants), Protestants are more likely to trust compared to the Orthodox ($logit = -0.108$, $z = -2.16$) and Roman Catholics ($logit = -0.117$, $z = -2.84$), but no systematic differences are found compared to Muslims or the other religion category.

The collective aspects of religion are included in Model III in Table 2. The results support the idea that the more people attend religious services, the more likely they are to trust others. Hence, it can be concluded that the idea of integration in religious communities fostering social trust is supported (Hypothesis 3). Additionally, we also expected childhood religious service attendance to affect social trust in a positive way (Hypothesis 4). However, it appeared that regular religious service attendance in childhood negatively affects social trust, though marginally, once controlled for the adherent's religious tradition, contemporary religious service attendance and the demographic control variables. Therefore, hypothesis 4 cannot be supported.

[Table 2 around here]

Model IV of Table 2 provides evidence for the proposition that the personal bonding with God is associated to decreased levels of social trust (Hypothesis 5). A significant effect of

importance of God is shown, once we controlled for demographic characteristics and the collective aspects of religion. The negative sign suggests that the stronger people state God is important in their life, the lower their level of trust in others would be. Furthermore, we conclude that the importance of God does not explain the relationships between the structural religious aspects and the levels of social trust, as is shown by significant coefficients for the religious service attendance variables. Instead, the effect of religious service attendance has become slightly stronger (i.e., it turned out to be somewhat suppressed).

Contextual Effects

In Table 3, country level characteristics were added to the individual level models. First, in Model I, it was tested whether a higher percentage of Protestants in a country relates to higher levels of social trust (Hypothesis 6). When controlled for the religious composition of a country and the human development index (HDI), it was found that indeed a high percentage of Protestants in a country is associated to a higher likelihood to trust others and, thus, Hypothesis 5 can be confirmed (this was already implied by the difference between models I and II in Table 2). Furthermore, still a small individual level effect of Protestant ideology on social trust was found.

In additional analyses (not shown) we explored whether other religious traditions had macro level effects. We tested the effects of the other main European religious traditions (% Catholics and % Orthodox) as well as the effect of the percentage non-religious in a country (by adding them one at a time to model I). None of the variables tested significant at $p < .05$. The effect of the percentage non-religious was marginally significant ($p = .054$), but when we added it to the final model (V) it disappeared ($p = .768$).

Second, the macro level integration effect, or social control hypothesis in the words of Trauttmüller (2011), is considered in model II of Table 3. A positive association was expected

between the religious service attendance rate and the level of social trust (Hypothesis 7). However, the results do not provide evidence for the effect of the church attendance rate on the level of social trust, and, therefore, Hypothesis 7 is not supported.

Third, the expectation (Hypothesis 8) that religious diversity is detrimental for social trust is investigated in model III of Table 3. In contrast to theory on fractionalization, and rejecting Hypothesis 8, we find the opposite result; religious diversity is associated with higher trust. An explanation for this result – as one of our anonymous reviewers kindly pointed out – can be found in Uslaner's (2012) work on residential segregation, which suggests that diversity only harms social trust when it is accompanied by segregation. In additional analyses (not shown), we included the religious segregation measure provided by Alesina and Zhuravskaya (2011) in our model (Table 3, model IV) and found that it had a significant, negative effect on social trust, whereas the effect of religious diversity remained significant and positive. However, we regard these findings as very preliminary, since – due to the limited country coverage of the segregation measure – the analyses are based on a sample that includes only 18 out of our 44 countries.

Finally, we tested all macro level characteristics simultaneously and included a cross-level interaction between the importance of God at the individual level and the religious diversity of the context (Model V of Table 3). Again, the results revealed that trusting others is more likely when the share of Protestants in a country is larger. These results turned out to be very robust to different model specifications; the inclusion (in separate models) of other possible disturbing and mediating factors (income inequality, social policy expenditure, rule of law, voice, and gender inequality) hardly affected the outcomes. In addition, the results revealed a cross-level interaction between the importance of God and the religious diversity in a country, which was opposite to Hypothesis 9; it indicates that the negative impact of the importance of God on the levels of social trust diminishes in religious diverse countries.

[Table 3 around here]

Statistical and Practical Significance

Our dataset contains a very large number of respondents, which means that very small individual-level effects reach levels of significance quite easily. Furthermore, our multi-level logistic models do not give an intuitive understanding of the size of the effects, or their *practical* significance. One way to provide a reader-friendly and intuitive indication of which factors really matter is to calculate predicted probabilities for a few profiles of typical or instructive "persons". We do this by filling in the regression equation for that particular profile and then transforming the log odds to probabilities. This gives the following predicted probabilities of trusting (%). An "average person" (all variables at their means) has a probability of 27% to trust strangers, which is comparable to the predicted probability of those non-religious persons who do never attend a religious service and think God is unimportant in their lives. If we look at people with frequent attendance of a religious service and a high importance of God (high being defined as a score of two standard deviations above the (grand) mean), we see that Protestants have a predicted probability of 31% versus 29% for Catholics. Again, we see only marginal differences in social trust among adherents of different religious traditions. The predicted probability to trust others increases when we vary the country-level characteristics. An average person in a country with a high religious diversity has a predicted probability of 34% to trust strangers, while a high percentage of Protestants results in 43%. This corresponds to a 7 to 16% increase in social trust when compared to an average person living in a country with respective an average level of religious diversity or percentage of Protestants.

Conclusions and discussion

The present paper examined the effects of religious involvement, religious faith, and religious context on social trust. The results underscore the idea that religiosity is an important determinant of social trust. However, its effect is ambivalent: some aspects further trust, whereas other aspects lower trust. Moreover, some of our findings contradict existing theories about trust and religion.

In contradiction to previous studies, which focused on the importance of individual level differences in religious traditions and the relationship with social trust, we found that belonging to a religious tradition only had a minor effect on social trust, and that the differences between the traditions were small. We showed that what seemed to be large differences between religions in the extent to which their adherents trust other people were actually masked country differences. Protestants are often assumed to have high levels of trust because they consider human kind as one moral community (e.g. Uslaner, 2002). Our analyses confirmed that Protestantism is associated with (higher) social trust, but essentially as a macro level effect. This is surprising, because - as we argued in the theoretical section - the macro effect of Protestantism is usually explained theoretically as a spill-over mechanism. This means that the micro effect is implicit in the reasoning about the macro effect (otherwise there is nothing to spill over). This macro effect also turned out to be very robust, i.e., none of the different model specifications we tried showed evidence of a spurious effect. One possible explanation for this puzzling pattern could be some sort of collective socialization of Protestant values in the past (Bjørnskov, 2006). This might have created an imprint on general values and attitudes, which remain to affect social trust today, even though individual differences between Protestants and non-Protestants have disappeared (which could even be

the result of successful collective socialization). Future research, with historical data, may be able to test the validity of the idea of collective socialization in a better way.

In accordance with previous research, the current research provides support for the idea that religious attendance increases social trust. Furthermore, we found that this was a micro effect and not a macro effect. The latter contradicts findings by Traunmüller (2011) in Germany. We already suggested that contact with dissimilar others (with the obvious exception of religion) could be an important additional explanation. A limitation of this study is the lack of data to test this mechanism, and further research could consider using network data. We also elaborated on the origins of social trust and investigated whether religious attendance during childhood fosters social trust. Our findings did not provide support for this idea. Instead, religious attendance during childhood had a (very small) negative effect on social trust. Apparently, this seems to imply that social trust may change with important life changes rather than being a pure stable personal characteristic. Unfortunately, we were unable to investigate this argument and to view the relationship between childhood religiosity and trust from a dynamic perspective. This would have been very interesting to disentangle whether, and how, social trust changes over time dependent on potential changes in religiosity from childhood to adulthood. Further research is needed to investigate religious attendance from a life course perspective and provide a more comprehensive picture of its impact on social trust.

Our analyses also revealed another dimension of religiosity that lowers trust: the greater the importance of God in people's life, the smaller their likelihood to trust others. Even though this result aligns with our expectation derived from the specific literature on individual faith, it is puzzling in the sense that, based on literature on religious integration, we also expected – and found – a positive impact of belonging to a religion because it teaches solidarity. If religiosity is related to solidarity principles, then why would believing be

detrimental? An answer may come from previous studies, which found that religious groups with liberal convictions showed more pro-social attitudes and behavior than religious groups with conservative convictions (Hempel, Matthews and Bartkowski, 2012; Lam 2002; Wilson and Janoski 1995). Apparently, there are elements in conservative religious convictions and values that counterbalance (or in some cases even outweigh) positive elements such as caring about fellow human beings. This might be due to a stronger orientation on the in-group, with smaller and denser social networks (Daniels and Von der Ruhr, 2010; Welch et al., 2004). Unfortunately, our data did not allow us to test these ideas and to account for specific differences within the rather broad denominational categories, but perhaps the measure for the importance of God partly picked up this phenomenon. Another limitation of our study is that we were not able to investigate the association between importance of God and images people have from God (Mencken, Bader and Embry, 2009; Stark, 2001; Noffke and McFadden, 2001). Further cross-national research could elaborate more in-depth on the impact of these images on social trust and whether this is different in various contexts, as we found that the impact of the importance of God varied with the religious diversity of the country.

Our final conclusion is perhaps the most remarkable one. In contrast to previous studies that showed negative effects of fractionalization (such as ethnic diversity or income inequality) on trust (e.g. Knack and Keefer, 1997), religious diversity was found to have a positive effect on social trust. The more diverse the religious composition of a country, the higher the likelihood that inhabitants trust "most people". A limitation of our study is that our measure of religious diversity was based on the most important religious groups in a country. A more fine-grained measure would take into account further subdivisions within religious groups, but unfortunately our data did not include such detailed information.

The discrepancy with previous research might be explained by Putnam's suggestion that diversity challenges social trust in the short-run but may turn out to be positive in the long

run (Putnam, 2007). Several of the countries with high religious diversity have already been diverse for a long time, although the specific composition of religious groups may differ somewhat over time. One of the reasons why it takes time before diversity has a positive effect (in the case of immigrants) could be that it takes time before a reasonable number of interactions take place between existing religious groups and new ones (cf. Allport 1954; Pettigrew and Tropp 2006). In our view, it would be highly informative to investigate the impact of religious diversity on social trust from a historical perspective.

Another interesting idea from research on ethnic diversity is that diversity only harms social trust when it is accompanied by segregation (see Uslander, 2012). This seems in line with work on inter-group contact in neighborhoods (Rudolph and Popp, 2010; Stolle, Soroka and Johnston, 2008), which has shown that lack of interaction within heterogeneous neighborhoods lowers social trust. Since in most European countries religious diversity does not come with religious segregation, this can help explain the difference between our finding (a positive diversity effect) and the findings in some ethnic diversity studies (negative diversity effects): our analyses of religious diversity do not pick up a religious segregation effect. Our preliminary findings for a selected group of countries suggested a significant, negative effect of religious segregation on social trust, whereas the effect of religious diversity remained significant and positive. Hence, this also looks like an interesting territory for future exploration.

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Table 1
Descriptive statistics.

	Range: Minimum	Maximum	%	Mean	SD
<i>Dependent variable:</i>					
Social Trust	0	1	29.9		0.46
<i>Individual level independent variables:</i>					
Membership in a religious tradition:					
No religion	0	1	24.0		0.43
Islam	0	1	9.8		0.30
Orthodox	0	1	23.8		0.43
Other religion	0	1	2.5		0.16
Protestant	0	1	11.3		0.32
Catholic	0	1	28.7		0.45
Religious services (monthly)	0	8.67		1.19	2.21
Religious services childhood (monthly)	0	8.67		2.30	2.69
Importance of God	1	10		6.53	3.24
<i>Country level independent variables:</i>					
% Protestants	0	0.86	11.3		0.22
Church attendance rate	0.31	4.98		1.19	0.90
Religious diversity	0.03	0.80		0.44	0.21

Source: European Values Study, 2008

See Appendix 1 for an overview of the countries in EVS.

Table 2.
Logistic and multilevel logistic regression analysis of social trust on religiosity.

	Model I	Model II	Model III	Model IV
Membership in a religious tradition:				
- Not religious (ref.)				
- Muslim	-0.638 ** (0.043)	0.035 (0.060)	0.015 (0.062)	0.055 (0.066)
- Orthodox	-0.391 ** (0.029)	-0.015 (0.039)	-0.043 (0.041)	-0.004 (0.043)
- Other	0.216 ** (0.057)	0.057 (0.061)	0.000 (0.063)	0.037 (0.065)
- Protestant	0.702 ** (0.031)	0.093 * (0.039)	0.069 (0.040)	0.108 ** (0.042)
- Roman Catholic	-0.200 ** (0.025)	-0.024 (0.030)	-0.043 (0.032)	-0.005 (0.034)
Religious services (monthly)			0.035 ** (0.005)	0.040 ** (0.006)
Religious services childhood			-0.012 * (0.005)	-0.011 * (0.005)
Importance of God				-0.012 ** (0.004)
Intercept	-1.880 ** (0.086)	-1.569 ** (0.143)	-1.590 ** (0.146)	-1.535 ** (0.147)
Var. Intercept	n.a.	0.567 ** (0.119)	0.582 ** (0.122)	0.575 ** (0.121)
N (countries)	63,375	63,375 (46)	60,767 (46)	59,087 (46)

Note. All models are controlled for gender, age, education, household income, and marital status.

* p<.05; ** p<.01.

Table 3
Multilevel logistic regression analysis of social trust on religiosity.

	Model I	Model II	Model III	Model IV	Model V
<i>Individual level:</i>					
Membership in a religious tradition:					
- Not religious (ref.)					
- Muslim	0.067 (0.071)	0.074 (0.070)	0.056 (0.065)	0.071 (0.070)	0.049 (0.071)
- Orthodox	0.012 (0.044)	0.010 (0.044)	-0.002 (0.043)	0.016 (0.044)	-0.001 (0.045)
- Other	0.020 (0.065)	0.020 (0.065)	0.037 (0.065)	0.019 (0.065)	-0.004 (0.066)
- Protestant	0.089 * (0.042)	0.102 * (0.042)	0.110 ** (0.042)	0.090 * (0.042)	0.053 (0.043)
- Roman Catholic	-0.014 (0.034)	-0.016 (0.034)	-0.004 (0.034)	-0.013 (0.034)	-0.038 (0.035)
Religious services (monthly)	0.046 ** (0.006)	0.046 ** (0.006)	0.040 ** (0.006)	0.046 ** (0.006)	0.048 ** (0.006)
Religious services childhood	-0.011 * (0.005)	-0.011 * (0.005)	-0.011 * (0.005)	-0.011 * (0.005)	-0.011 * (0.005)
Importance of God	-0.011 ** (0.004)	-0.011 ** (0.004)	-0.012 ** (0.004)	-0.011 ** (0.004)	-0.063 ** (0.015)
<i>Country level:</i>					
% Protestants	1.696 ** (0.337)			1.631 ** (0.331)	1.630 ** (0.324)
% Attends religious services		-0.191 (0.097)		0.003 (0.089)	0.002 (0.087)
Religious diversity			1.114 * (0.509)	0.782 * (0.356)	0.013 (0.407)
Cross-level interaction:					
Importance of God * religious diversity					0.101 ** (0.028)
Intercept	-5.041 ** (0.922)	-6.409 ** (1.053)	-2.033 ** (0.267)	-5.301 ** (0.902)	-4.768 ** (0.892)
Var. Intercept	0.221 ** (0.048)	0.326 ** (0.071)	0.524 ** (0.111)	0.195 ** (0.043)	0.224 ** (0.055)
Var. slope:					
- Importance God					0.001 ** (0.000)
N (countries)	56,549 (44)	56,549 (44)	59,087 (46)	56,549 (44)	56,549 (44)

Note. All models are controlled for gender, age, education, household income, marital status, and HDI.

* p<.05; ** p<.01.

Figure 1
Estimated proportion that trusts people in general by religious tradition (based on Table 2, model 1 and 2).

Appendix 1: Countries in EVS 2008 and their mean level of social trust.