

Circle of Trust: the More Believing, the Less Belonging. (How Individual and Social Forms of Religiosity Affect Trust.)

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Abstract

We use pooled US General Social Survey (GSS, 1972-2014, $n > 10k$) to investigate the relationship between religiosity and trust (interpersonal or generalized). While social religiosity or belonging (attending services, church membership) predicts more trust, individual religiosity or believing (prayer, belief, closeness to God) predicts lower trust. We use ingroup favoritism outgroup derogation/prejudice theory to explain our findings: connecting with God, disrupts connection with humans. Belief in God predicts dislike of humankind (misanthropy). We show that it is important to consider individual and social religiosity simultaneously because they correlate and have opposite effects. By using both measures, we are the first to show the negative effect of believing on trust.

KEYWORDS: RELIGION, BELIEF IN GOD, TRUST, MISANTHROPY, INGROUP, US GENERAL SOCIAL SURVEY (GSS)

“It is better to trust in the Lord than to put confidence in man.”

Psalms 118:8

“Stop trusting in man, who has but a breath in his nostrils. Of what account is he?”

Isaiah 2:22

“Cursed is the one who trusts in man (...) but blessed is the one who trusts in the Lord.”

Jeremiah 17:5-7

Introduction

The Bible and the Torah contain passages admonishing its followers to trust in God only, and not to trust in men (e.g., Psalm 118:8, Jeremiah 17:5(7)). The Quran, likewise, contains many verses with the word *Tawakkul*, which implies the Islamic concept of perfect trust and reliance on God alone. This begs the question, are religious people more likely to be distrustful of others? Is the trustworthiness that others see in religious people reciprocated?

Forty years ago, Julian B. Rotter noted that “the entire fabric of our day-to-day living, of our social order, rests on trust¹” (1971, p. 443). Fiske (2009) considers trust as one of the key driving forces behind human action—trust shapes human interaction. Trust can

¹We will use term “trust” instead of generalized or interpersonal trust for simplicity.

improve economic growth, interaction and coordination, commerce and trade, political and civic involvement, crime prevention and health, and subjective well-being (SWB) (e.g. see Berggren & Jordahl 2006, Hempel et al. 2012, Lount 2010, Kramer 1999, Sosis 2005).

Another reason why it is worthwhile to study trust now is that it has been on decline for at least 60 years in the US. Trust was measured as early as in mid 50s and it kept on declining through late 60s (Rotter 1971). General Social Survey measures trust since 1972, and trust has been declining ever since.

Eighty five percent of World population has some religious belief, and 94% of the US population believes in God (Sedikides 2010). Religion is a powerful force shaping human society, and interpersonal or generalized trust is an outcome of great importance. Religious doctrine instructs followers on ethical, moral and social conduct, being therefore a potential determinant of generalized trust (Iannaccone 1998, Tan & Vogel 2008).

Psychologists' interest in interpersonal/generalized trust has been waning after the Rotter studies several decades ago (1971). Likewise, there is little interest among psychologists in religiosity as recently highlighted in a special issue of *Personality and Social Psychology Review*, which urged psychologists to study religion (Ysseldyk et al. 2010, Graham & Haidt 2010, Sedikides 2010, Hall et al. 2010, Sedikides & Gebauer 2010).

Literature

Our study was inspired by Helliwell et al. (2004, p.1441) who did notice the thesis of our study, but did not seem to notice its significance, neither elaborated beyond few sentences:

church attendance creates community level social capital (whether bridging or bonding depends on the divide under consideration), while belief in God provides alternative types of support for an individual's well-being[...] those who have strong belief in God are significantly less likely to think that others can be trusted [...] This suggests that trust in God and trust in others are substitute modes of belief for individuals.

There is small literature linking religiosity to trust. Religiosity in religious areas, for instance in Latin America, predicts trust (Brañas-garza et al. 2009). Likewise, belonging to mainline denomination predicts trust (Veenstra 2002, Welch et al. 2004, 2007, Berggren & Bjornskov 2009, Traunmüller 2009, Smidt 1999, Orbell et al. 1992). Likewise, social religiosity increases trust (Smidt 1999, Veenstra 2002, Bègue 2002, Welch et al. 2004, Traunmüller 2009). But individual religiosity or believing decreases trust (Helliwell et al. 2004). People feel more connected to their God when praying alone than in a group, and people with insecure and anxious attachments to others are likely to hold the strongest religious beliefs (Epley et al. 2008). Religiosity promote ingroup trust and outgroup distrust (Sosis 2005).

The literature is limited in terms of measurement. Some studies measure religiosity as denomination only (Alesina & Ferrara 2000, Addai et al. 2013). Most studies use a single or only few measures of religiosity, and only Helliwell et al. (2004) differentiates social (e.g., fellowship, church attendance, membership) v individual (e.g., prayer, belief in God). Only Welch et al. (2007) considers them simultaneously, but do not notice that there is a difference between social and individual religiosity. The literature is limited in terms of modeling: It is important to consider the two types of religiosity simultaneously because they are positively correlated (as we find here), but have opposite relationships with trust and connectedness with humans. The literature is limited in terms of findings—again, with exception of Helliwell et al. (2004), nobody seems to have proposed that there can be opposite effects from individual and social religiosity. We are the first to show that individual religiosity or believing is negatively related to interpersonal or generalized trust. All previous studies either measured religiosity as social or as mainline denomination. The only study that did consider them simultaneously (Welch et al. 2007), strikingly, did not even notice the negative effect.

Also, no study has linked religiosity to misanthropy apart from GSS Topical Report No. 29 published in 1996 (Smith 1997), which only considered bivariate simple relationships using much smaller sample of GSS than present study.

The Circle of Trust: the More Believing, the Less Belonging

We use ingroup ingroup favoritism outgroup derogation/prejudice theory (Tajfel 1982, Tajfel et al. 1971, Byrne 1971, McPherson et al. 2001) to conceptualize believing in God.² Adherent's ingroup is God (and perhaps other supernaturals such as Holy Spirit, the Prophet, etc) and the outgroup is human species. Ingroup bond is formed at the expense of outgroup. Indeed, religious writings, as quoted at the beginning, specifically prescribe trust in God, and distrust in humans.

Circles of trust are based on ingroup trust (rather binding, not bridging social capital). Individual religiosity will reduce (generalized) trust because there is only an adherent and her God in the circle. Other adherents may appear in the circle only as externality—because they share the same God.

Social religiosity, on the other hand, explicitly adds other adherents in the circle. In other words, individual religiosity draws a circle that separates a person from the mankind. Social religiosity draws a circle, that separates believers in some God from nonbelievers in that God. Adherence to a religion separates a person from other religions. Indeed, a recent meta-analysis suggests that religiosity promotes outgroup prejudice (Hall et al. 2010). Yet, the problem is not likely to be serious in a relatively religiously homogeneous society such as the US studied here, where vast majority of population is Christian. Hence, we propose that:

²It is perhaps unorthodox to do so—the theory has been so far used on humans only, but it can also help to explain relationship with supernatural beings, we think. An adherent clearly forms a very close relationship with God, who is, of course, very different from humans, and hence, there is a clear ingroup and outgroup. If a person forms connection with God, it may be difficult for her to connect with humans, who not only are very different, but also very inferior to omnipotent God. A related explanation is that a connection with God fulfills one's desire for control (Skinner Haidt p1027 from handb of soc psy AOK-TODO-ADD!!!!) and as a result, one does not need to put trust into humans.

Individual religiosity will decrease trust, and social religiosity may increase trust (at least in relatively religiously homogeneous society such as the US).

Method

Data

All variables come from the US General Social Survey (GSS) (<http://gss.norc.org>). GSS is a cross-sectional, nationally representative survey. GSS was administered almost every year until 1994 when it became biennial. The unit of analysis is a person and data are collected in face-to-face, in-person interviews (Davis et al. 2007). The full dataset contains about 50 thousand observations pooled over 1972-2014, but sample size used will vary depending on variables used and missing data. All variables were recoded in such a way that a higher value means more.

Trust

The outcome of interest, trust, involves confidence or faith that some other, upon whom we must depend, will not act in ways that occasion us painful consequences (Fiske 2009). We measure it with:

TRUST "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"
1 = "cannot trust", 2 = "depends", 3 = "can trust".

We also measure trust as a binary variable, collapsing "depends" and "cannot trust" into one category in supplementary material.

Misanthropy

An alternative outcome of interest is misanthropy, a dislike of humankind, measured as an index of above trust measure, and two other variables (Smith 1997):

TRUST "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"
1 = "cannot trust", 2 = "depends", 3 = "can trust".

FAIR "Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair?" 1 = "take advantage",
2 = "depends", 3 = "fair".

HELPFUL "Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?" 1 ="lookout for self", 2 = "depends", 3 = "helpful".

We used factor analysis with varimax rotation to produce an index, and we reversed it so that it measures misanthropy. Cronbach's alpha is .67. Frequencies of these and all other variables are in supplementary material.

Religiosity

Definition and measurement of religiosity is important because it is a broad and fuzzy concept. Following Neuberg et al. (2014) we start with an assumption that religion is more than just a set of beliefs, but also community practices, socialization functions, organizational structures, and other elements. Specifically, we define two dimensions of religiosity: social and individual. Social religiosity is about social interaction and takes forms such as church attendance and religious meetings. Individual religiosity, on the other hand, is about personal interaction with God and takes forms such as prayer or feeling of closeness to God—for more elaboration see Okulicz-Kozaryn (2010). Echoing Lambert et al. (2010), we note that it is difficult to find any behavior that is so widespread as prayer (90% of Americans pray at least occasionally) that was studied less. The distinction between social and individual religiosity is also important for practical reasons—the two types of religiosity predict different outcomes: for instance only social religiosity predicts support for terrorism (Ginges et al. 2009), and only individual religiosity predicts low SWB (Okulicz-Kozaryn 2010).

Social Religiosity (Belonging)

Social religiosity is measured with following variables: ATTEND "How often do you attend religious services?" 0 ="never" to 8 ="more than once wk"

MEMBER "Now we would like to know something about the groups or organizations to which individuals belong. Here is a list of various organizations. Could you tell me whether or not you are a member of each type?" "Church-affiliated groups" 1 ="yes", 0 ="no"

Individual Religiosity (Believing)

PRAY "About how often do you pray?" 0 ="never" to 6 ="several times a day"

BELIEVE "Please look at this card and tell me which statement comes closest to expressing what you believe about God." 1 ="dont believe" to 6 ="know god exists"

CLOSE "How close do you feel to God most of the time? Would you say extremely close, somewhat close, not very close, or not close at all?"

1 = "does not believe" to 5 = "extremely close"

Controls

In the choice of the control variables we follow Welch et al. (2007). We control for personal characteristics: income, marital status, unemployed, age, age², education, gender, race, born in the US, religious denomination, political leaning, size of a place, and health.

In addition we control for subjective wellbeing and health—the goal is to alleviate possible problem of spuriousness. It may be not the individual religiosity that causes lower trust but it may be lack of success, unhappiness, or poor health that makes a person both closer to God and farther from people.

Data were pooled over many years, and hence we include year dummies. U.S. is quite heterogeneous across its regions—the relationship between religiosity and trust may differ by region—we include a dummy for South. Different denominations imply different levels of individualism/collectivism (Cohen & Hill 2007), potentially affecting trust, and hence we include dummies for main religious denominations, which helps to ensure that effects are not due to specific denominations.

Results

The measures of religiosity correlate moderately at about .3 to .6 in table 1. There is higher correlation among measures within each category, social and individual, and smaller correlation between measures from each of the two categories. For instance, people may attend religious events for social reasons. All social religiosity measures indicate higher trust and lower misanthropy, and all individual religiosity measures indicate the opposite, lower trust and higher misanthropy.

variable	church	pray	believe	nearbelieve	trust	misanthropy
attend	0.56	0.53	0.43	0.43	0.04	-0.09
church	.	0.37	0.26	0.27	0.07	-0.12
pray	.	.	0.58	0.59	-0.05	0.02
believe	.	.	.	0.61	-0.09	0.06
nearbelieve	-0.06	0.01
trust	-0.73

Table 1: Pairwise correlation matrix.

All correlations significant at .01, except MISANTHROPY and PRAY significant at .05, and misanthropy and CLOSE, insignificant, but note that the sign is as expected and there are only about 10k obs on CLOSE—if there were more observations, the correlation would be more significant.

The correlations are statistically significant, but small substantively. One of the key findings of this study is that the effect sizes become larger when both measures of religiosity, individual and social, are included in one model—this is expected based on correlations, as there are moderate to high correlations among religiosity measures, and only small but opposite correlations between social and trust or misanthropy

and individual and trust or misanthropy. Hence, if only one included, then it will pick up the effects of both, and the effects cancel out.

In the following regressions, in the body of the paper we only consider `PRAY` and `ATTEND` as they have fewest missing observations, but the results are substantively the same for other measures of religiosity. Likewise we use OLS regressions, but results are substantively the same from discrete models. Additional results are in supplementary material.

We report beta coefficients in order to show that the effect size of religiosity is comparable to that of other predictors of trust in table 2. Coefficient on `PRAY` doubles from model a1 to a2 when controlling for `ATTEND`. Next we add full set of controls following (Welch et al. 2007) in a3. And then robustness checks in last two columns: in a4 we control for health and in a5 for subjective wellbeing (SWB), and results persists. Therefore, it is not the unhealthy or unhappy that are more religious and less trusting—we control for these factors.

These effects are not trivial. The effect sizes of attending and prayer are about half of income (a3) or even as large as income (a5), and about as large as being liberal—relatively sizable magnitudes as compared to other predictors of trust. And regardless of magnitude, it is interesting to find the opposite effects depending on whether one believes or belongs.

Table 2: OLS regressions of trust. Beta (fully standardized) coefficients reported. All models include year dummies.

	a1	a2	a3	a4	a5
pray	-0.05***	-0.09***	-0.04***	-0.04***	-0.05***
attend		0.08***	0.04***	0.04***	0.04***
South			-0.07***	-0.07***	-0.06***
family income in \$1986, millions			0.08***	0.07***	0.05***
protestant			0.00	0.00	0.00
catholic			-0.01	-0.01	0.00
conservative			-0.00	-0.00	-0.01
liberal			0.05***	0.05***	0.04***
married			0.02***	0.01	0.01
unemployed			-0.00	0.00	0.00
age			0.27***	0.31***	0.45***
age squared			-0.13***	-0.17***	-0.29***
highest year of school completed			0.23***	0.22***	0.21***
male			0.04***	0.04***	0.04***
born in the U.S.			0.00	0.00	-0.00
white household			0.13***	0.13***	0.14***
SWB				0.08***	0.09***
health					0.06***
N	19740	19617	16733	16640	9046

*** p<0.01, ** p<0.05, * p<0.1; robust std err

In table 3, we regress misanthropy on the same variables. Using misanthropy measures, effect sizes are even larger—larger than being married or liberal ideology. Strikingly prayer increases misanthropy by about as much as income decreases it in last full model.

Table 3: OLS regressions of misanthropy index. Beta (fully standardized) coefficients reported. All models include year dummies.

	b1	b2	b3	b4	b5
pray	0.02**	0.08***	0.04***	0.05***	0.05***
attend		-0.11***	-0.07***	-0.06***	-0.06***
South			0.08***	0.08***	0.07***
family income in \$1986, millions			-0.09***	-0.08***	-0.06***
protestant			-0.01	-0.01	-0.01
catholic			-0.01	-0.01	-0.02
conservative			0.00	0.00	0.00
liberal			-0.03***	-0.03***	-0.03***
married			-0.03***	-0.01	0.00
unemployed			0.00	-0.01	-0.01
age			-0.23***	-0.29***	-0.39***
age squared			0.03	0.09**	0.17***
highest year of school completed			-0.24***	-0.23***	-0.21***
male			0.02**	0.02**	0.01
born in the U.S.			-0.01	-0.01	0.00
white household			-0.14***	-0.13***	-0.14***
SWB				-0.12***	-0.13***
health					-0.07***
constant	***	***	***	***	***
N	19022	18903	16163	16074	8541
*** p<0.01, ** p<0.05, * p<0.1; robust std err					

Following Cumming (2014), interpreting coefficients is more meaningful when looking at 95% CI, and we plot them in figure 1.

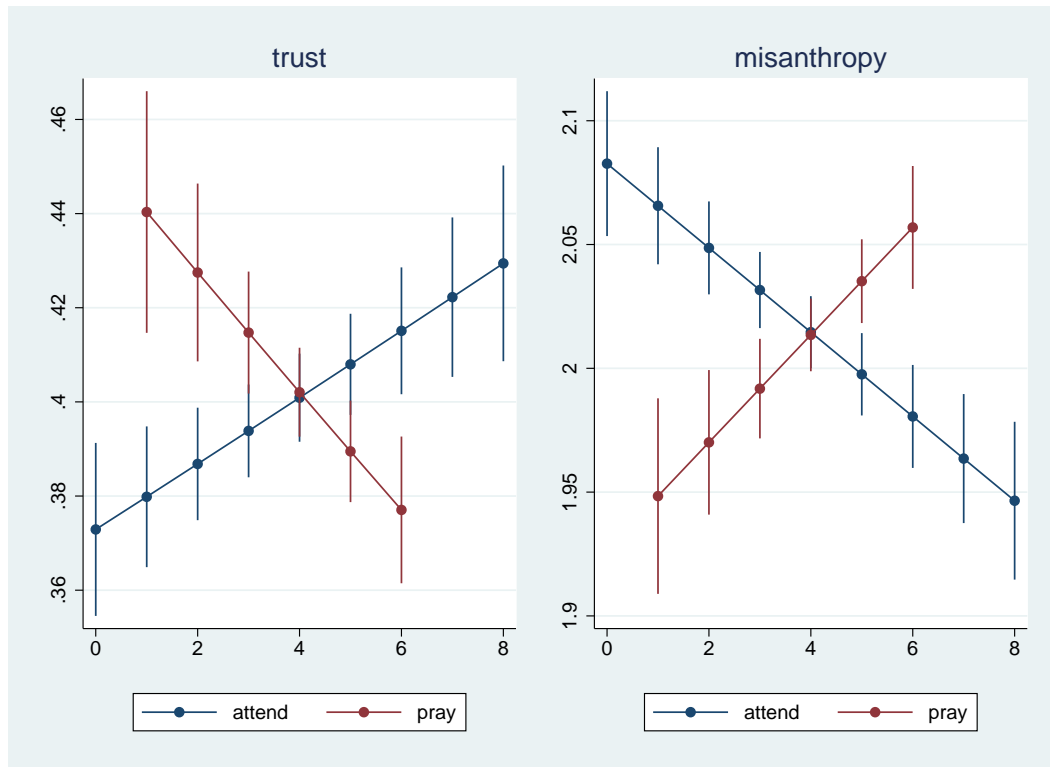


Figure 1: predicted probabilities

Based on 1, increasing pray from none (1) to more than once a day (6) is associated with decrease in probability of trusting others from .44 to .38, and increase from never attending religious services (0) to attending more than once a week (8) would result in about the same magnitude of boost from .37 to .43. The differential effects of social and individual religiosity are as strong or even stronger in the second panel.

Discussion

TODO this is a mess

God brings self-sufficient orientation, free of human dependency. This may be good if a person is lonely or during exceptionally adverse conditions, such as war or terminal sickness. But in general, a self-sufficient orientation is not desirable.

We reconcile our findings with past findings that individual religiosity increases prosociality and socially desirable responding, by arguing that increasing revealed behavioral forms such as volunteering and charity, does not mean increase attitudinal or cognitive trust. THESE TERMS and adjust!!

Norenzayan & Shariff (2008), in their review, suggest possible mechanisms and explanations. Individual religiosity or believing, while increase volunteering, charity and trustworthiness, does not need to increase trust—one reason is that there is no punishment and ostracism for not trusting, trust is not as revealed as charity or volunteering. In other words, religiously induced prosociality and reputation sensitivity do not need to translate into generalized or interpersonal trust, if anything only trust within group. Religiosity induces socially desirable responding (SDR), but again trust, is not as revealed as volunteering or charity.

Given that we find that individual religiosity is related to diminished trust, we find support for Norenzayan & Shariff (2008) speculation that religiosity induction of socially desirable behaviors such as volunteering and charity is due to impression/reputation management or self-deception—believers make trusting impression, but actually trust less. Believer project overly positive image of themselves in evaluative contexts, possibly to avoid shame or guilt.

Norenzayan & Shariff (2008): “religious situation is more important than the religious disposition in predicting prosocial behavior”: individual religiosity is personal and rather asocial, while social religiosity is quite the opposite: more social than personal.

TODO: add from rubia parts that would indicate that ind rel could increase trust

Why social religiosity predicts trust—religiosity is often a “social glue” (Gervais et al. 2011)—in many places, within the US, arguably especially remote and rural areas—religiosity may be the major or even the only form of social engagement.

just as with happiness (CITE MY FIRST PAPER), so with trust—religiosity kills it, unless it is dressed in social form—say social gatherings like church attendance.

Limitations and Future Research

This is a cross-sectional observational study, and hence we do not claim causality. Again, there are theoretical reasons, to expect that religiosity causes lower trust: strong ingroup religiosity is formed at the expense of outgroup trust (Sosis 2005). In other words, ingroup religiosity promotes outgroup prejudice (Hall et al. 2010). On the other hand, there can be reverse causality present, that is, lack of trust in humans may cause increase in trust in God. For instance, one study found that loneliness increases belief in God (Epley et al. 2008) We do not have data to answer this question, however, and leave it for the future research.

Finally, there may be a problem of reverse causality: trust would affect religiosity, and not the other way round. WE are not interested in arguing causality here—WE only want to show that there is a tradeoff in terms of trust in people and in God.

In addition we control for subjective wellbeing using overall measure and domain satisfactions—the goal is to alleviate possible problem that it may be not the individual religiosity that relates to lower trust but it may be lack of success that makes a person both closer to God and farther from people.

We focused on individual (believing) v social (belonging) religiosity. There are other typologies worth investigating, for instance Smith (1997, p. 183) summarizes literature and concludes “fundamentalist beliefs, which emphasize the sinful nature of humans and a stern and authoritarian God, should be more misanthropic than those with a liberal religious orientation, which emphasizes human goodness and a compassionate and caring God”

Conclusion

We use ingroup favoritism outgroup derogation/prejudice theory (Tajfel 1982, Tajfel et al. 1971, Byrne 1971, McPherson et al. 2001) to conceptualize believing in God. Adherent’s ingroup is God, and the outgroup is human species. Ingroup bond is formed at the expense of outgroup. Indeed, religious writings, as quoted at the beginning, specifically prescribe trust in God, and distrust in humans.

We are the first to show individual religiosity or believing is negatively related to interpersonal or generalized trust. All previous studies either measured religiosity as social or as mainline denomination. The only study that did consider them simultaneously (Welch et al. 2007), strikingly, did not even notice the negative effect.

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