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Religiosity and Trust: Evidence from the United States

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Abstract

Background Trust is one of the key driving forces behind human action and an important factor in shaping human interaction. Trust can improve economic growth, political and civic involvement, democratic stability, and subjective well-being. Yet, trust has been in decline for the last 60 years in the U.S.

Purpose This article tests the effect of several indicators of religiosity, including an index for both social and individual religiosity, on trust. Common religious doctrine instructs followers to place their trust solely in God, and can therefore be interpreted as a determinant of generalized trust. Thus, the purpose of this paper is to find out whether religious people are more likely to be distrustful of others and whether they are more likely to be misanthropic.

Methods We use the US General Social Survey (GSS, 1972–2018, $n > 10k$), a large, recurring, and nationally-representative sample of U.S. adults. Using the GSS, we investigate the relationship between religiosity and trust (interpersonal and generalized) in a well-controlled model using OLS regressions. We examine both the effects of social religiosity (e.g. church attendance, membership at religious organization), and individual religiosity (e.g. belief in God, feeling of closeness to God, prayer), on trust and on misanthropy. Several additional robustness tests were conducted.

Results The findings demonstrate that while social religiosity or belonging (services attendance, church membership) predicts more trust, individual religiosity or believing (prayer, closeness and belief in God) predicts lower trust. Likewise, social religiosity lowers misanthropy, while individual religiosity promotes it. Furthermore, we show that it is important to consider individual and social religiosity simultaneously because they correlate and have opposite effects—this is an intriguing and not entirely obvious finding as most people would expect that religiosity in general, has a positive effect on trust.

Conclusions and Implications Our results indicate that religiosity is a substantial determinant of social trust and of misanthropy. The divergent results based on whether religiosity is social or individual in character is a new conceptual approach

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Extended author information available on the last page of the article

towards religiosity not previously undertaken in the literature. Ingroup favoritism and outgroup derogation theory explains our findings—connecting with God disrupts connection with humans.

Keywords Faith · Misanthropy · Religion · Trust · U.S. General Social Survey (GSS)

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

Psalm 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 God only, and not to put their trust in men (e.g., Psalm 118:8(9), Jeremiah 17:5(7), Micah 7:5(6)). The Quran, likewise, contains many verses with the word *Tawakkul*, which implies the Islamic concept of perfect trust and reliance in 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 improve economic growth, interaction and coordination, commerce and trade, political and civic involvement, crime prevention, health, democratic stability, and subjective well-being (SWB) (e.g. see Berggren and Jordahl 2006; Hempel et al. 2012; Lount 2010; Kramer 1999; Sosis 2005; Uslaner 2002; Helliwell 2006; Berggren et al. 2008; Uslaner 2003). Yet, studies have shown that trust has been in decline for at least 60 years in the U.S. (Rotter 1971; Putnam 2001). In particular, a steady decline has been documented by the General Social Survey since it started to measure trust in 1972.

Religion exerts a profound influence on social conduct, and its effects on human society are exacerbated by the fact that the majority of the world population—85%—possesses some form of religious belief (Sedikides 2010). Specifically, common religious doctrine instructs followers to place their trust solely in God, and can therefore

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

be interpreted as a potential determinant of generalized trust (Iannaccone 1998; Tan and Vogel 2008).

In what follows, we investigate the relationship between *religiosity* and *trust*, and examine the effects of both individual and social religiosity simultaneously. Our results show that while social religiosity, or belonging (attending services, church membership), predicts more trust and less misanthropy,² individual religiosity, or believing (prayer, belief, closeness to God), predicts lower trust and higher levels of misanthropy. We begin with a brief excursus into the evolving literature on religiosity and trust, then present our model, documenting how we used the received literature to control for sources of individual variation, discuss results, and conclude by placing them within the in-group favoritism and out-group derogation theory, reinforced by the findings that a connection with God implies disrupted connection with humans.

Previous Studies and Contribution

A large body of literature has established a number of factors that affect trust [e.g. see Camerer (2003) p. 86, and Hoffmann (2013) for a detailed overview]. However, until recently, religion was relatively unexplored in the trust literature, as well as in political science and economics (with some exceptions, e.g., Iannaccone 1998; Wald 2005; McCleary and Barro 2006; Wald and Wilcox 2006). This relative oversight impedes our understanding of the effects of religiosity on trust, given that people are often influenced by religious behavior, theologies, and beliefs, which in turn can significantly affect economic and political outcomes in many domains (Berggren and Bjornskov 2011). Furthermore, the linkage between *religiosity* and *trust* has been scantily considered. As stated by Dilmaghani (2017), few “studies have explored the influence of religious intensity, or degree of commitment to different dimensions of religiosity, on trust” (p. 49). Dilmaghani (2017) goes on to provide an important contribution to the literature by showing that high levels of religious commitment negatively correlates with trust in unknown others for Catholics, while the opposite is true for Protestants in Canada. Other imperative contributions include Berggren and Jordahl (2006) who found that religiosity and religious fractionalization lower trust, and the comprehensive study of Berggren and Bjornskov (2011) who using data for 109 counties found a robust, negative relationship between religiosity and trust, whose magnitude was positively related to the degree of fragmentation in a country.

Most studies focus on the connection between religious affiliation and trust (La Porta 1996; Fehr and Fischbacher 2002; Bellemare and Kröger 2007). These studies, which largely consist of cross-country studies, examine determinants of trust and its effect on people who belong to hierarchical religions (e.g., Islam, Orthodox Churches, the Catholic Church, and some other religions, as defined by Putnam

² This refers to people who have a general hatred, distrust, or contempt for the human species.

(1993)). The effect of belonging to a hierarchical religious organization³ is negative (La Porta 1996; Zak and Knack 2001; Bjornskov 2007), although Brañas-Garza et al. (2009) using individual level data, found that Catholic affiliation in Latin America was positively associated with trust. Protestantism seems to have a positive effect on trust in studies using cross-sectional (Uslaner 2002) and individual-level data (Trautmüller 2009). A few studies, on the other hand, found no statistical significance effect of religious affiliation on trust (Bjornskov 2007; Alesina and Ferrara 2002), except for Hinduism and Buddhism, which have a positive effect in some specifications of trust (Bjornskov 2007). A more recent study differentiating between types of Christian denominations, found that affiliation in more conservative denominations lead to less trust, and affiliation with more liberal denominations entails more trust (Daniels and Von Der Ruhr 2010). Likewise, belonging to a main-line denomination predicts trust (Veenstra 2002; Welch et al. 2004, 2007; Berggren and Bjornskov 2009; Trautmüller 2009; Smidt 1999; Orbell et al. 1992).

Of the existing few quantitative studies analyzing the effect of *religiosity* on *trust*, findings are discordant. Schoenfeld (1978), who surveyed attitude of over 1500 U.S. respondents, found hints of a curvilinear relationship with high-attendance individuals and members of more fundamentalist churches displaying greater *mistrust* (Schoenfeld 1978; Hoffmann 2013). Welch et al. (2007), on the other hand, found no statistical association between religiosity⁴ and trust. More recently, Tan and Vogel (2008) examined the relationship between individual religiosity and trust doing a randomized experiment using a trust game (see Berg 1995). They found that more religious trustees are trusted more, and such behavior is more pronounced in more religious trusters (Tan and Vogel 2008).

A growing number of studies have found that social religiosity increases trust (Smidt 1999; Veenstra 2002; Bègue 2002; Welch et al. 2004; Trautmüller 2009), while individual religiosity, or believing, decreases trust (Helliwell and Putnam 2004). People feel more connected to God when praying alone rather 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). Thus, religiosity seems to promote ingroup trust and outgroup distrust (Sosis 2005).

Our research contributes to the literature in several ways. First, this study measures religiosity using several indicators, including an index for both social (e.g., fellowship, church attendance, membership) and individual (e.g., prayer, belief in God) religiosity. Notice that we prefer to use the simpler “individual” and “social” religiosity terms as opposed to “extrinsic” and “intrinsic”—to be sure, both terminologies share similarities, but the latter suffers from some notable problems as outlined by Kirkpatrick and Hood (1990).⁵

³ Defined as Catholic, Eastern Orthodox, or Muslim.

⁴ In Welch et al. (2007), religiosity was measured by activity in religious congregations, belief in absolute morality, frequency of prayer, and belief in the sinfulness of human nature.

⁵ The conceptualization of intrinsic and extrinsic religiosity can be traced back to Allport (1950)' study of mature and immature religions, while the empirical measurement of the constructs were established by Wilson (1960) and Feagin (1964). Over the years, many criticism was leveled against the I–E framework (Hunt and Morton 1971; Hoge 1972; Kirkpatrick and Hood 1990), particularly the lack of conceptual clarity in the definitions, as well as the factorial structure, reliability, and construct validity of the I

To our knowledge, thus far, only Helliwell and Putnam (2004) differentiate between social and individual religiosity. Most studies measure religiosity specifically as denomination membership (Alesina and Ferrara 2000; Addai et al. 2013), or use a single or a few measures of religiosity.

Second, this study considers social and individual religiosity simultaneously since they are positively correlated and have opposite relationships with trust and misanthropy. Although Welch et al. (2007) considers both types of religiosity simultaneously, they do not address the differences between social and individual religiosity. Moreover, with the exception of Helliwell and Putnam (2004), other studies have not proposed that there can be opposite effects from individual and social religiosity. This study corroborates and provides empirical evidence for this claim.⁶

Another contribution of this research is to show that individual religiosity, or believing, is negatively related to interpersonal or generalized trust. Finally, our work also corroborates and expands on the findings of the GSS Topical Report No. 29 (Smith 1997) that using a smaller sample size provided bivariate correlation results on the relationship between religiosity and misanthropy.

We use ingroup favoritism outgroup derogation/prejudice theory (Tajfel 1982; Tajfel et al. 1971; Byrne 1971; McPherson et al. 2001) to conceptualize belief in God. It is perhaps unorthodox to do so—the theory has been so far used on humans only, but it can elucidate the relationship people develop with supernatural beings. 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 a connection with God, it may be difficult for her to connect with humans, who not only are very different, but also very inferior to an omnipotent God. A related explanation is that a connection with God fulfills one's desire for control, a fundamental human motive (Yzerbyt and Demoulin 2010), and as a result, one does not need to put trust into humans. Adherent's ingroup is God (and perhaps other supernatural beings or religious figure such as the Prophet, Virgin Mary, etc.) and the outgroup is the human species. Ingroup bias has often been used to reflect ingroup favoritism, whereby favorable treatment, attitudes, or warmth are limited for the ingroup (Hamley et al. 2020), and this bond is formed at the expense of the outgroup. Indeed, religious writings, as quoted at the beginning, specifically prescribe trust in God, and distrust in humans.

Belief in "God," or religiosity more generally, may be an outgrowth of the attachment system, whereby "God" and other believers in the same spiritual community are referred to as attachment figures [e.g., "God the father," priests referred to as

Footnote 5 (continued)

and E scales. Thus, we heed to Kirkpatrick and Hood (1990) suggestion that researchers should "pursue more promising methodological and theoretical directions" (p. 443), and simply classify social religiosity to refer to religious rituals and practices performed in fellowship with others, and individual religiosity to refer to one's personal belief and practices performed by one's self. We discuss these definitions in more detail in the next section.

⁶ Smith (1997) has made a related suggestion: church attendance should reduce misanthropy and "fundamentalist beliefs, which emphasize the sinful nature of humans and a stern and authoritarian God" should increase misanthropy.

“fathers” or “patriarchs,” other members are referred to as “brothers” and “sisters” (see Kirkpatrick 2005; Rowatt and Kirkpatrick 2002)].⁷

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 externalities—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 mankind. Social religiosity draws a circle, which separates believers from nonbelievers of a particular god. Adherence to a religion separates a person from other religions. In fact, 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 U.S., where the vast majority of population is Christian. Hence, we propose that:

*Individual religiosity will decrease trust, and social religiosity will increase trust.*⁸

Method

Data

All variables come from the US General Social Survey (GSS) (<http://gss.norc.org>). The GSS is a cross-sectional, nationally representative survey. It was administered almost every year until 1994 when it became biennial. The unit of analysis is at the individual level and data are collected in face-to-face, in-person interviews (Davis et al. 2007). The full dataset contains 64,813 observations pooled over 1972–2018, but the sample size used will vary depending on the 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 the supplementary material. Merging these two categories can result in lost of information, of course, but only slightly since fewer than 5% of respondents answered “depends.” Note that recent studies question

⁷ We are grateful to an anonymous reviewer of an earlier version of this study for this suggestion.

⁸ At least in relatively religiously homogeneous society such as the U.S.

the validity of this item (Sapienza et al. 2013), and hence, we also use an alternative measure, *misanthropy*.

Another potential problem with the trust measure is that it is mostly a binary concept and there are few responses in the intermediate category—such measure, of course, does not allow for much variance. This disadvantage is offset at least in two ways. We use a *misanthropy* scale that allows more variance, and we have a large sample size that adds statistical power.

Misanthropy

The second outcome of interest is *misanthropy*. Following Smith (1997), *misanthropy* is measured as an index of three measures, *trust*, *fair* and *helpful*, as follow:

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 the supplementary material.

Religiosity

The definition and measurement of religiosity is important because it is a broad and fuzzy concept. Glock (1962) and later Glock and Stark (1965) contended that all religions have five universal dimensions: Ideological (belief), Intellectual (knowledge), Ritualistic (religious behavior), Experiential (religious experiences that affect the senses), and Consequential (the effects of the other four dimensions in the secular world). Although researchers have since questioned whether these dimensions are indeed “universal” and applicable to all religions most researchers accept the concept of religiosity as a multidimensional phenomenon (Glock and Stark 1965; Faulkner and Gordon 1966; King and Hunt 1972, 1975; Clayton and Gladden 1974), and many different dimensions have been proposed in the literature (e.g., Fukuyama 1961; Lenski 1961; King and Hunt 1972).

The literature is generally divided among two approaches in measuring religiosity. The first attempts to operationalize dimensions that have been conceptually created. This approach assumes the existence of certain dimension, and then selects constructs that are believed to measure these dimensions (Lenski 1961; Glock and Stark 1965; Fukuyama 1961; Allport and Ross 1967; Wilson 1960). The second approach involves analyzing empirically the relationship among sets of items from a large pool of religiosity indicators (King 1967; King and Hunt 1969, 1975, 1972).

In this paper, we combine both approaches. Following Neuberg et al. (2014) we initiate with the 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. The literature on religiosity is replete with such a distinction. Dittes (1971) for example, made a distinction between religion's explicit (e.g. public, social, formalized) and subjective modes (e.g. personal attitudes, values, commitments). Greeley (1972) made a distinction between "meaning and belonging" while Davison (1975), separated religiosity modes as "private and public."

Social religiosity refers to social interaction such as church attendance and religious meetings. Individual religiosity, on the other hand, is about personal interaction with God, a feeling of closeness to God, which occurs through prayer, worship, or communion—for elaboration see Okulicz-Kozaryn (2010). Echoing Lambert et al. (2010), we note that it is difficult to find a behavior that is so widespread like prayer, and yet, so little studied (90% of Americans say they pray at least occasionally). 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 subjective well-being (SWB) (Okulicz-Kozaryn 2010).

Thus, social religiosity (belonging) is measured in this study with the 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"

In addition, an index was created for social religiosity using these two variables, *attend* and *member*, to test the robustness of our findings (refer to the Supplemental Material).

Individual religiosity (believing) is measured with the following variables:

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 = "don't 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"

An index was created for individual religiosity using the variables, *pray* and *believe* (refer to the Supplemental Material). The variable *close* was not included in the index because of the large amount of missing data for that specific variable.

Controls

We follow Welch et al. (2007) and control for personal characteristics such as: income, marital status, age, age², education, gender, race, born in the U.S., and political leaning. Different denominations imply different levels of individualism/collectivism (Cohen and Hill 2007), potentially affecting trust, and hence we include dummies for main religious denominations, which helps ensure that effects are not due to specific denominations. In addition, we control for religious tradition, the *fund* variable on the GSS. Without these controls, the religiosity variables may be picking up differences in practice across traditions and denominations.

We also control for socio-economic class, unemployment, and occupational prestige, since higher social class is positively associated with religious service attendance, and negatively associated with prayer, thus ensure that it is not an unobserved aspect of social class that is driving the results for religiosity and trust.

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

Data were pooled over many years, and hence we include year dummies.⁹ The U.S. is quite heterogeneous across its regions—the relationship between religiosity and trust may differ by region, thus, we include a dummy for the South. Refer to Tables 1, and 5 in the “Appendix” for sample details and descriptive statistics.

Results

The measures of religiosity correlate moderately at about .3–.6 in Table 2. There is a 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. All correlations are significant at .01, except for MISANTHROPY and CLOSE, which were insignificant, but note that the sign is as expected. The variable CLOSE only has about 10k observations—if there were more observations, the correlation would be more significant. The correlations are statistically significant, but small substantively.

One of the key findings from our models 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 the correlations, as there are moderate to high correlations among religiosity measures, and only small but opposite correlations between social religiosity and trust or misanthropy, and individual religiosity and

⁹ We did some additional robustness tests and divided the dataset by decades to control for possible changes in society over time as it relates to religion. The results mostly concur to our main findings. See the “Appendix” for more details.

Table 1 Descriptive statistics—GSS 1972–2018

Variable	Obs	Mean	S.D.	Min	Max
Trust	41,258	.3728731	.4835746	0	1
Misanthropy	39,774	2.006502	.7572934	1	3.041185
Attend	64,218	3.761469	2.729547	0	8
Member	20,654	.3553307	.478625	0	1
Pray	35,813	4.243766	1.645931	1	6
Belief	24,654	5.077229	1.424088	1	6
Close	10,009	4.081427	.8554988	1	5
South	64,813	.3554071	.4786402	0	1
Real income	58,292	.0317147	.0294714	.000227	.162607
Socio-class	61,330	2.449845	.6618418	1	4
Protestant	64,524	.5752278	.4943122	0	1
Catholic	64,524	.2429174	.4288489	0	1
Fundamentalist	62,271	1.964558	.7586637	1	3
Conservative	55,327	.3389304	.4733504	0	1
Liberal	55,327	.2748387	.446437	0	1
Married	64,786	.5267959	.4992853	0	1
Unemployed	64,792	.0336307	.180278	0	1
Prestige of job	60,048	42.98771	12.97033	16	80
Age	64,585	46.09883	17.53433	18	89
Age2	64,585	2432.55	1772.483	324	7921
Education	64,636	12.86961	3.176276	0	20
Male	64,813	.4414855	.4965681	0	1
Born U.S.	55,550	.9080108	.2890133	0	1
Household white	57,874	.7968691	.4023326	0	1
swb	60,053	2.185736	.6376671	1	3
Health	47,589	2.991994	.8476682	1	4
Year	64,813	1994.939	13.46529	1972	2018

Table 2 Pairwise correlation matrix. * $p < 0.05$, ** $p < 0.01$. Source: GSS 1972–2018

Variable	Member	Pray	Believe	Close	Trust	Misanthropy
Attend	0.56**	0.53**	0.44**	0.43**	0.04**	− 0.09**
Member	.	0.37**	0.26**	0.27**	0.07**	− 0.12**
Pray	.	.	0.59**	0.59**	− 0.05**	0.02**
Believe	.	.	.	0.61**	− 0.09**	0.06**
Close	− 0.06**	0.01
Trust	− 0.72**

Table 3 OLS regressions of trust. Beta (fully standardized) coefficients reported. *Source:* GSS 1972–2018

	a1	a2	a3	a4	a5
Pray	- 0.06***	- 0.09***	- 0.02**	- 0.03**	- 0.04**
Attend		0.07***	0.04***	0.04***	0.05***
South			- 0.07***	- 0.07***	- 0.06***
Family income in \$1986, millions			0.04***	0.04***	0.02
Class			0.06***	0.05***	0.04***
Protestant			0.05***	0.05***	0.04**
Catholic			0.02*	0.02*	0.03*
Fundamentalist			- 0.07***	- 0.07***	- 0.06***
Conservative			- 0.01	- 0.01	- 0.02*
Liberal			0.05***	0.05***	0.04***
Married			0.03***	0.01	0.02*
Unemployed			- 0.01	- 0.00	- 0.00
Occupational prestige			0.04***	0.04***	0.04***
Age			0.28***	0.31***	0.43***
Age2			- 0.17***	- 0.19***	- 0.28***
Educ			0.19***	0.19***	0.18***
Male			0.04***	0.04***	0.04***
Born in U.S.			0.00	0.00	0.00
White household			0.11***	0.11***	0.12***
SWB				0.08**	0.09***
Health					0.05***
_cons	***	***	***	***	***
Year dummies	Yes	Yes	Yes	Yes	Yes
N	23213	23074	18066	17982	9616

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

trust or misanthropy. Hence, if only one type of religiosity was included in the regression models, it would pick up the effect of the excluded dimension of religiosity, since the effects are opposite and cancel each other out.

We ran several analyses and robustness tests. On Table 3, we first considered only PRAY to measure individual religiosity, and ATTEND to measure social religiosity, because these two variables have fewer missing observations in comparison to the other variables (note that the results are substantively the same for other measures of religiosity presented in the Supplemental Material).¹⁰ Also, these are OLS regressions, but robustness tests show that the results are substantively the same from discrete models, (all additional models and regression results are available in the Supplemental Material) and all standard errors are robust to correct for heteroskedascity.

¹⁰ The supplemental material will be made available to readers in a Gitlab repository upon publication.

Table 4 OLS regressions of misanthropy index. Beta (fully standardized) coefficients reported. *Source:* GSS 1972–2018

	b1	b2	b3	b4	b5
Pray	0.02***	0.08***	0.04***	0.04***	0.04**
Attend		− 0.11***	− 0.07***	− 0.06***	− 0.06***
South			0.08***	0.08***	0.07***
Family income in \$1986, millions			− 0.05***	− 0.04***	− 0.03*
Class			− 0.09***	− 0.08***	− 0.07***
Protestant			− 0.06***	− 0.06***	− 0.05***
Catholic			− 0.04***	− 0.04***	− 0.05***
Fundamentalist			0.08***	0.08***	0.06***
Conservative			0.00	0.00	0.01
Liberal			− 0.03***	− 0.03***	− 0.03**
Married			− 0.04***	− 0.02*	− 0.01
Unemployed			0.00	− 0.00	− 0.00
Occupational prestige			− 0.04***	− 0.04***	− 0.04***
Age			− 0.27***	− 0.31***	− 0.40***
Age2			0.10*	0.14***	0.21***
Educ			− 0.19***	− 0.19***	− 0.17***
Male			0.02**	0.02**	0.01
Born in the U.S.			− 0.01	− 0.01	− 0.00
White household			− 0.12***	− 0.11***	− 0.12***
SWB				− 0.12***	− 0.12***
Health					− 0.07***
_cons	***	***	***	***	***
Year dummies	Yes	Yes	Yes	Yes	Yes
N	22461	22327	17543	17463	9155

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

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 3.

The coefficient on PRAY increases significantly from model a1 to a2 when controlling for ATTEND. An larger and similar effect is observed in the corresponding models b1 and b2 for the misanthropy dependent variable in Table 4—this is a classic suppression effect (MacKinnon et al. 2000).¹¹

Next, we add a full set of controls following (Welch et al. 2007) in model a3. Then, we add robustness checks in the last two columns: in model a4 we control for health and in model a5 for subjective well-being (SWB), and the results persist. Therefore, it is not only the unhealthy or unhappy that are more religious and less trusting—we control for these factors.

¹¹ We are grateful to an anonymous reviewer of an earlier version of this study for this suggestion.

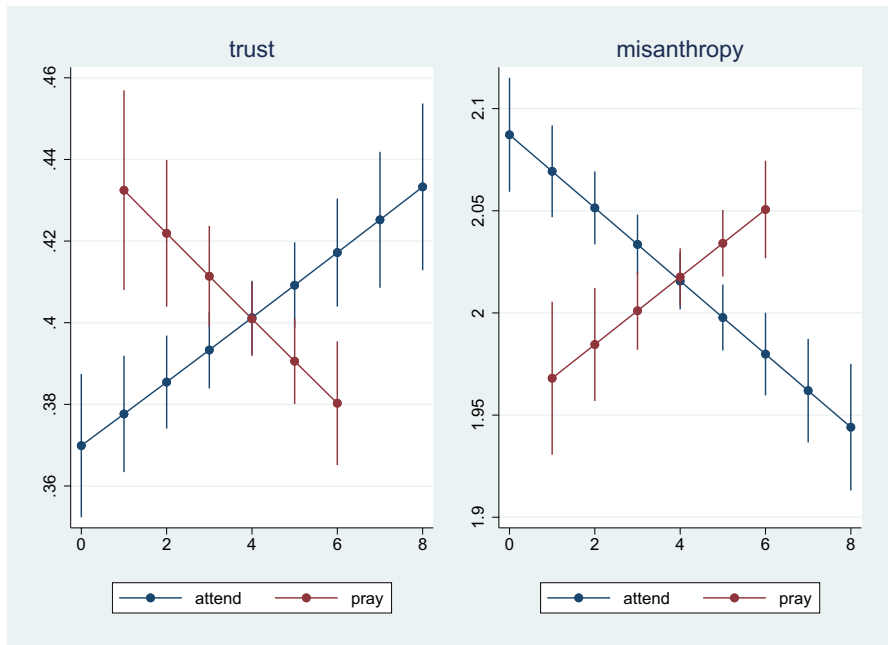


Fig. 1 Predicted values from full models: a5 (but using binary trust in logistic regression: aLogit5 in supplementary material) and b5

These effects are not trivial. The effect sizes of *ATTEND* and *PRAYER* are at least about half that of income (a3) or even as large as income (a4), and about as large as being a liberal (a3 to a5)—relatively sizable magnitudes as compared to other predictors of trust. Irrespective of magnitude, it is interesting to find opposite effects depending on whether one believes or belongs.

In Table 4, we regress *MISANTHROPY* on the same variables. Using misanthropy measures, the effect sizes are even larger—as large as having a liberal ideology. Strikingly, *PRAYER* increases *MISANTHROPY* by about as much as income decreases it in last full model.

Following Cumming (2014), it is more meaningful to interpret these coefficients by looking at 95% CI. Thus, we plot them in Fig. 1. The graphs show that increasing prayer from none (1) to more than once a day (6) is associated with a decrease in the probability of trusting others from approximately .44 to .38, and an increase from never attending religious services (0) to attending more than once a week (8) would result in about the same magnitude or boost, from .37 to .44. The differential effects of social and individual religiosity are as strong or even stronger in the second panel showing the effects on misanthropy.

Next we re-run the models using the social religiosity index and the individual religiosity index, and the results are robust as indicated in Tables 1 to 4 in the Supplemental Material.

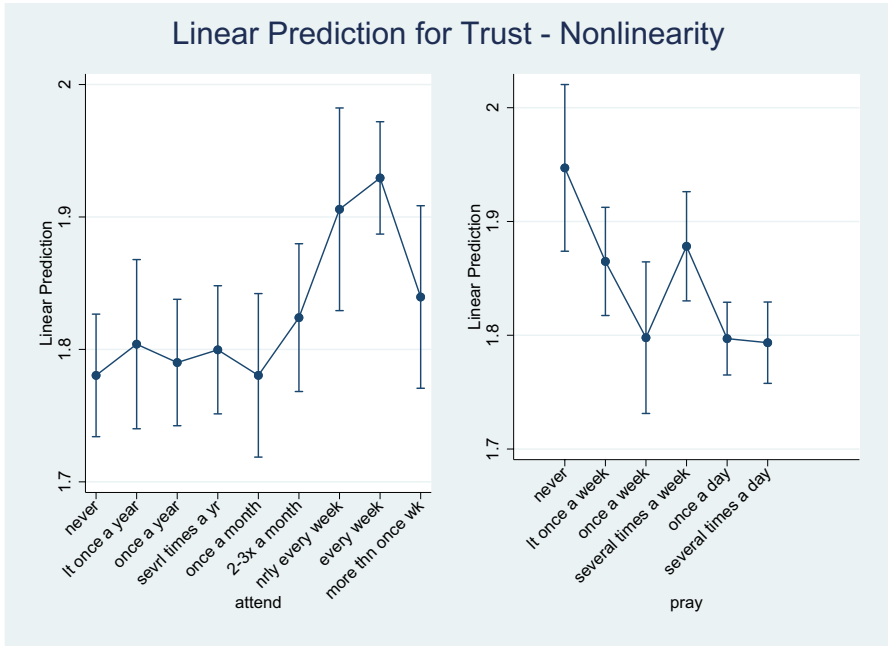


Fig. 2 Nonlinear relationship between attend, prayer and Trust (see “Appendix” for regressions)

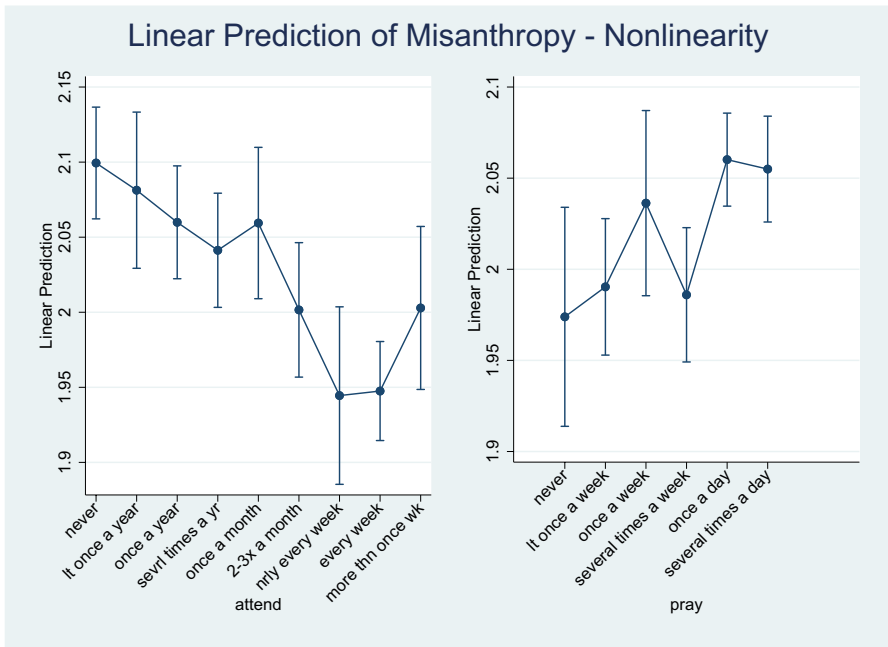


Fig. 3 Nonlinear relationship between attend, prayer and Misanthropy (see “Appendix” for regressions)

To follow Schoenfeld (1978), we also tested whether there was a curvilinear relationship between the religious measures and, trust and misanthropy, by re-running our model using dummies for the subcategories of attend and prayer.

As illustrated in Fig. 2, there's a nonlinear effect of prayer and trust—not so much for the rarely/seldom categories, but for the “daily” and “more often” categories, where we found the effect to be about 3–4 times stronger.¹² When examining attendance and trust we found that the strongest effect was in the “every week” which was several times stronger than the category “once a week.”

Per misanthropy, there were also clear nonlinearities as illustrated in Fig. 3. Those who prayed “daily” or “more often” show an effect several fold than the other categories, and were the only categories significant in more elaborate specifications (refer to the “Appendix”). Similar with the finding for trust, “once a week” was the strongest category, at least 2 times stronger than “more than once a week.” Lower categories also have an effect, but much smaller.

In addition to the main independent variables effects, the results for other variables in our model allow us to examine how the association between trust vary across socio-demographic characteristics including marital status, race, education and socioeconomic status. Our results are concurrent with previous findings. Trust varies across important sociodemographic characteristics, with married individuals, whites, and high-socioeconomic individuals (in terms of class, occupational prestige, education, income) having higher levels of trust (Brehm and Rahn 1997; Knack and Keefer 1997; Lindstrom 2012; Marschall and Stolle 2004; Welch et al. 2007; Bradshaw et al. 2019). We also found that individuals with greater life satisfaction and health have higher levels of trust consistent with the literature (Bradshaw and Ellison 2010; Ellison et al. 2014; Kent et al. 2018), whereas unemployed, conservative, fundamentalists, and people in the south being less trusting of others.

Discussion

Our analysis shows that religiosity is a substantial determinant of social trust. Its effect, however, has two opposing parts: social religiosity furthers trust, whereas individual religiosity lowers it. Likewise, social religiosity lowers misanthropy, while individual religiosity promotes it. Religiosity is therefore a substantial determinant of trust and misanthropy as compared to other predictors. Although effect sizes are not large, the opposite effects of social and individual religiosity are intriguing and not entirely obvious—most people would expect that religiosity, in general, has a positive effect on the social fabric of society, including on trust.

Religious writings, as quoted at the beginning, specifically prescribe trust in God, and distrust in humans. Thus, 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 and explain why individual religiosity lowers trust. The adherent's ingroup is God, and the outgroup is other people. The ingroup bond

¹² See the “Appendix” for the regression results.

is formed at the expense of the outgroup. Arguably, belief in God brings self-sufficient orientation, making people free of human dependency—those who believe in God, transfer any need for dependency to God and, as a result, will distance themselves from depending on other people. In this way, God enhances individualism, but diminishes one's communal motivations.¹³

Studies have found that money and power also activate a self-sufficient orientation in which people value autonomy and prefer to be free of dependency (Vohs et al. 2006, 2008; Lammers et al. 2012). Power, in particular, provides a sense of independence to pursue and reach one's goals (Keltner et al. 2003; Inesi et al. 2011; Galinsky et al. 2015; Anderson and Berdahl 2002). Since for most believers God is all powerful, their belief might provide a sense of self-empowerment, resulting in the same self-sufficient behaviors observed in powerful people. This makes logical sense: If you have God who is all powerful on your side, why would you need to depend or rely on other people? To echo a Biblical verse, "If God is for us, who can be against us?" (Romans 8:31).

These findings contravene arguments that individual religiosity promotes pro-social behavior, such as charitable donations and volunteerism (Monsma 2007; Brooks 2007). We reconcile our results by arguing that pro-social behavior does not relate to increased attitudinal or cognitive trust. Norenzayan and Shariff (2008) propose possible mechanisms and explanations. Trust is not a manifest variable as volunteering or charity; it can be concealed without judgment or penalty. As a result, while individual religiosity can increase volunteering, charity, and trustworthiness, it does not increase trust. Religiously induced pro-social behavior and reputation sensitivity, do not need to translate into generalized or interpersonal trust. In fact, the motivation behind volunteering and charity could be to impress or boost one's reputation, or a result of self-deception—believers make trusting impression, but actually trust less. The believer projects an overly positive image of themselves in evaluative contexts, possibly to avoid shame or guilt.

Other studies have suggested that religion may actually create a divide in society, particularly if religious people see others as morally inferior (Berggren and Bjornskov 2009). This may result in lower levels of social trust (Uslaner 2012), despite any pro social norm that may be part of a religion ideology.

It is important to underline that individuals may not belong to any religion tradition, but still feel a connection to God or to the divine (believing without belonging) (Davie 2006)—another reason to support the use of both dimensions of religiosity. Furthermore, our results show the importance of analyzing individual and social religiosity simultaneously since we find that they correlate and have opposite effects on trust.

Our results confirm that religious involvement, or social religiosity, is positively related to social trust (Meuleman and Billiet 2011). Previous studies have shown that regular attendance of a religious service has a positive effect on the level of trust

¹³ This may be specially advantageous under exceptionally adverse conditions, such as during war times or terminal illnesses, where dependency or trust in others is limited—when one faces eminent death, trust in God becomes more beneficial than reliance on people.

(Daniels and Von Der Ruhr 2010; Mencken et al. 2009; Uslaner 2012; Welch et al. 2004). By attending religious services and being an affiliated member of a religious group, people are more exposed to religious ideologies that promote social trust and respect for human beings (Halman and Pettersson 2001). For example, the Bible promotes the story of the ‘Good Samaritan’ (Luke 10:25–37), one of the five pillars in Islam (*Zakat*) is to give alms (charity) to the poor, and *Tzedakah* (charity) to the needy is also an obligation in Judaism. Thus, by being exposed to these ideologies of social solidarity and respect for others, one will further social trust. In addition to religious ideology, why does social religiosity predict trust? Religiosity is often a “social glue” (Gervais et al. 2011)—in many places, within the US, arguably especially in remote and rural areas, religiosity may be the major or even the only form of social engagement.

These results have practical and policy implications. Trust is a desirable outcome, an end in itself. Accordingly, efforts should be made to increase it, which is especially important today, since trust has been on decline in the U.S. for several decades (Putnam 2001). It will become increasingly difficult to live in a society without trusting people, because the economy and everyday life requires collaboration, sharing and trusting in others in a constant and daily basis (e.g., Botsman 2012)—trust helps with communication, lowers transaction cost and risk (Sosis 2005).

We are not saying that in an effort to increase trusting behavior, policies should be implemented to make people less religious. On the contrary, in a democratic society, religious freedom is an essential freedom and no attempts should be made to diminish it. At the same time, however, the negative relationship between religiosity and trust needs to be highlighted and discussed. Why are religious people less trusting? Does it make sense to trust in a divine being, but not in your “neighbor”? Isn’t this idea counter to most religious ideologies that promote social solidarity? Perhaps, by making people aware of this phenomenon, which could be a result of unconscious bias, their behavior could change.

Limitations

This is a cross-sectional observational study, and hence we do not claim causality. There may be a problem of reverse causality: trust could affect religiosity, and not the other way round—e.g. lack of trust in humans may cause increased trust in God [(Epley et al. 2008) for example, found that loneliness increases belief in God]. Since the data is cross-sectional, we cannot properly address this issue, but we tried to by using additional controls for satisfactions with friendship and other domains, and the results were similar (refer to the Supplemental Material Tables 9 and 10). In addition, 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).

Additionally, a higher misanthropy index cronbach’s alpha (higher than .7) would have been better. However, alpha values that are borderline with .7 are also acceptable (Hair et al. 2006; Taber 2017) when you are measuring a latent variable with

three items as we do in this case. However, it's likely that the correlations are attenuated over what they would have been if the scale had higher reliability.

Conclusion and Implications

This study finds evidence that social religiosity, or belonging, predicts more trust, whereas individual religiosity, or believing, results in lower trust. These divergent results based on whether religiosity is social or individual in character is a new conceptual approach towards religiosity not previously undertaken in the literature.

What mechanisms could be driving these results? Research by Hempel et al. (2012) found that once theological conservatism was directly modeled, there was very little difference in the average level of generalized trust and followers of different denominations. This provides some initial clues, by suggesting that a certain theological dispensation (theological conservatism) may affect the content of prayer and overall belief systems towards God versus humanity. Thus, future research, should examine whether our findings are being driven by a characteristic of all denominational forms or by a certain theological dispensation that affects the content of prayer, and overall belief system towards God versus humanity.

The ingroup favoritism and outgroup derogation theory explains our findings—particularly, given our results that misanthropy is negatively related to trust. Personal connection to God (individual religiosity) results in more misanthropy or hatred towards humankind, whereas having more social interaction in a religious setting (social religiosity) yields lower levels of misanthropy—once the ingroup expands to include more than just God, but also people, hatred for the outgroup (humans) seems to diminish. Future research should aim to design a more reliable scale to measure misanthropy using additional items when creating this index.

We focused on individual (believing) and social (belonging) religiosity, but there are other typologies worth investigating. For instance Smith (1997, p. 183) proposes that “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.”

Future research could further examine individual denominations and expand our research by deploying interaction terms to examine denomination versus social, and denomination versus individual relationships (refer to the “Appendix”). In addition, future research may also investigate whether trust will be lower for religious adherents in countries with more fractionalized/polarized religion. It would be informative to analyze the impact of religious diversity on social trust in other countries and how it differs from our findings.

Appendix

See Table 5.

Table 5 Variables description. *Source:* GSS 1972–2018

Variable	Description—GSS variable in parenthesis
Trust	“Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?” (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?” (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?” (helpfuL)
misanthropy	Misanthropy index: trust, fair, and helpful
Attend	“How often do you attend religious services?” (attend)
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-affiliation groups 1=yes, 0=no”
Pray	“About how often do you pray?” 0=never to 6=several times a day (pray)
Believe	“Please look at this card and tell me which statement comes closest to expressing what you believe about God.” 1=does not believe to 5=extremely close (god)
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?” (neargod)
Family income	Family income in \$1986, millions (income in 1972–2006 surveys in constant dollars (base = 1986)). Since this variable is based on categorical data, income is not continuous, but Based on categorical mid-points and imputations. For details see GSS Methodological Report No. 64. (realinc)
Socio-economic class	“If you were asked to use one of four names for your social class, which would you say you belong in: the lower class, the working class, the middle class, or the upper class?” (class)
Unemployed	“Last week were you working full time, part time, going to school, keeping house, or what?” “Unemployed, laid off, looking for work” (wrkstat)
Occupational prestige	Prestige of respondents occupation (prestg10)
Protestant	“What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?” (relig)
Catholic	“What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?” (relig)
Fundamentalist	Fundamentalism/Liberalism of Respondents religion (fund)
Conservative	“We hear a lot of talk these days about liberals and conservatives. I’m going to show you a seven-point scale on which the political views that people might hold are arranged from Extremely liberal–point 1–to extremely conservative–point 7. Where would you place yourself on this scale?” -if slightly conservative, conservative, or extremely conservative (polviews)
Liberal	“We hear a lot of talk these days about liberals and conservatives. I’m going to show you a seven-point scale on which the political views that people might hold are arranged from Extremely liberal–point 1–to extremely conservative–point 7. Where would you place yourself on this scale?” -if slightly liberal, liberal, or extremely liberal (polviews)
Married	marital status: “Are you currently–married, widowed, divorced, separated, or have you never been married?” Note: variable recoded to 1 if married, 0 otherwise (marital)
Age	age of respondent (age)
Education	highest year of school completed (educ)
Male	male (sex)

Table 5 (continued)

Variable	Description—GSS variable in parenthesis
Born in the U.S.	“Were you born in this country?” (born)
White household	“Race of household” (hhrace)
Health	“Would you say your own health, in general, is excellent, good, fair, or poor?”
swb	Subjective wellbeing “Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?”

All variables were recoded so that the higher value means more, or in the case of dummy variables, one means “yes” and 0 means “no”

Nonlinearity

See Tables 6 and 7.

Table 6 OLS regressions of trust (nonlinearity). Beta (fully standardized) coefficients reported. *Source:* GSS 2000–2018

	A1	A2	A3	A4	A5
Pray (ref: never)					
It once a week	- 0.05***	- 0.06***	- 0.03**	- 0.04***	- 0.03*
Once a week	- 0.05***	- 0.06***	- 0.03***	- 0.03***	- 0.04**
Several times a week	- 0.04***	- 0.06***	- 0.02	- 0.02	- 0.03
Once a day	- 0.11***	- 0.14***	- 0.06***	- 0.07***	- 0.07***
Several times a day	- 0.10***	- 0.15***	- 0.05***	- 0.05***	- 0.07***
Attend (ref: never)					
It once a year		0.02*	0.01	0.01	0.01
Once a year		0.01	0.00	0.00	0.01
Sevrl times a yr		0.03***	0.01	0.01	0.01
Once a month		0.01	0.00	0.00	0.00
2–3x a month		0.01	0.01	0.01	0.01
nrly every week		0.04***	0.02*	0.02*	0.03*
Every week		0.10***	0.05***	0.05***	0.06***
More thn once wk		0.02*	0.02	0.01	0.02
South			- 0.07***	- 0.07***	- 0.06***
Family income in \$1986, millions			0.05***	0.04***	0.02
Class			0.06***	0.05***	0.04***
Protestant			0.06***	0.06***	0.05**
Catholic			0.03**	0.03**	0.04**
Fundamentalist			- 0.07***	- 0.07***	- 0.06***
Conservative			- 0.01	- 0.01	- 0.02*
Liberal			0.05***	0.05***	0.04***
Married			0.03***	0.01	0.02
Unemployed			- 0.01	- 0.00	- 0.00
Occupational prestige			0.04***	0.04***	0.04***
Age			0.28***	0.31***	0.43***
Age squared			- 0.17**	- 0.20***	- 0.28***
Highest year of school completed			0.23***	0.23***	0.22***
Male			0.04***	0.04***	0.04***
Born in the U.S.			0.00	0.00	0.00
White household			0.11***	0.11***	0.12***
SWB				0.08***	0.09***
Health					0.05***
N	23,213	23,074	18,066	17,982	9616
Year dummies	Yes	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

Table 7 OLS regressions of misanthropy (nonlinearity). Beta (fully standardized) coefficients reported. Source: GSS 2000–2018

	B1	B2	B3	B4	B5
Pray (ref: never)					
It once a week	0.04**	0.05***	0.02	0.02	0.01
Once a week	0.02*	0.04***	0.02*	0.02*	0.02
Several times a week	0.02	0.05***	0.01	0.01	0.00
Once a day	0.06***	0.12***	0.06***	0.06***	0.05*
Several times a day	0.05***	0.12***	0.05**	0.05***	0.05*
Attend (ref: never)		0.00	0.00	0.00	0.00
It once a year		-0.02*	-0.01	-0.01	-0.01
Once a year		-0.03***	-0.02*	-0.02	-0.02
Sevrl times a yr		-0.04***	-0.02*	-0.02*	-0.03*
Once a month		-0.02**	-0.02	-0.01	-0.01
2-3x a month		-0.03***	-0.03***	-0.03**	-0.04**
Nrly every week		-0.06***	-0.04***	-0.04***	-0.04***
Every week		-0.14***	-0.08***	-0.07***	-0.08***
More thn once wk		-0.05***	-0.04***	-0.03**	-0.03*
South			0.08**	0.08***	0.07***
Family income in \$1986, millions			-0.05***	-0.04***	-0.03*
Class			-0.09***	-0.08***	-0.07***
Protestant			-0.07***	-0.06***	-0.05**
Catholic			-0.04***	-0.04***	-0.05**
Fundamentalist			0.08**	0.07***	0.06***
Conservative			0.00	0.00	0.01
Liberal			-0.03***	-0.03***	-0.03**
Married			-0.04***	-0.02*	-0.01
Unemployed			0.00	-0.00	-0.00
Occupational prestige			-0.04***	-0.04***	-0.04***
Age			-0.28***	-0.32***	-0.41***
Age squared			0.10**	0.14***	0.21***
Highest year of school completed			-0.19***	-0.19***	-0.17***
Male			0.02**	0.02**	0.01
Born in the U.S.			-0.01	-0.01	-0.00
White household			-0.12***	-0.11***	-0.12***
SWB				-0.12***	-0.12***
Health					-0.07***
N	22,461	22,327	17,543	17,463	9155
Year dummies	Yes	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

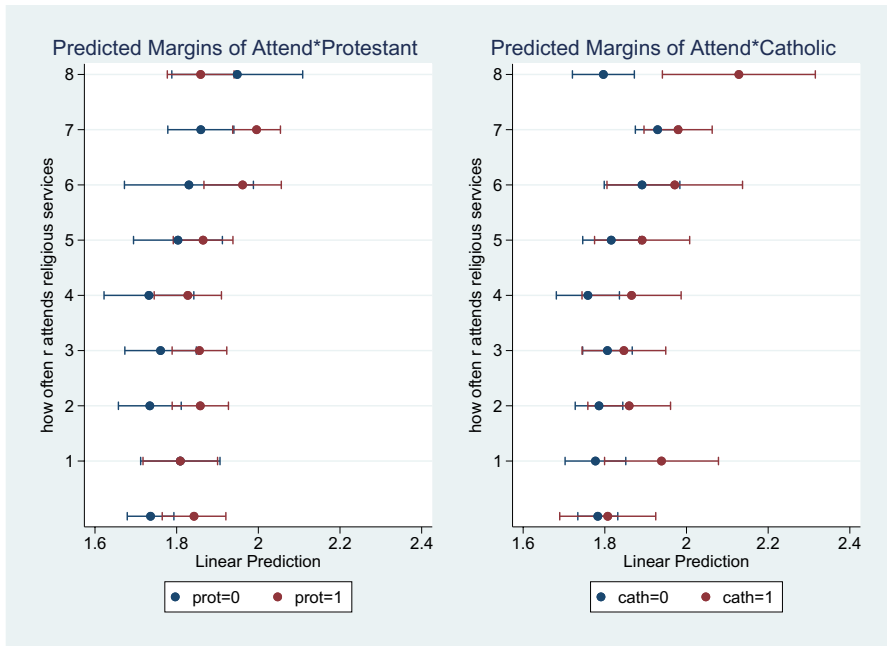


Fig. 4 Predicted Margins of Interaction terms from full models: Trust, 95% CI

Interaction Terms—Differences Across Denominations

In order to see whether the differences across faiths (i.e. denominations or belonging) in how religiosity affects trust and/or misanthropy, we ran additional models and tested for the interaction effects between belonging and denomination (protestant and catholic). As shown in Fig. 4 and Table 8, the effect of belonging was only significant for Catholics who attend church more than once a week, we did not find any other significant interactions (Fig. 4, Table 8).

Results by Decades

We ameliorate to some degree the problem of pooling over time by employing year dummies in our main analyses, but to run additional robustness test we re-ran everything separated by the 1980s, then 1990s, and 2000s/2010s. The analyses do not go back to the 1970s, since the prayer question started only in 1983. The results mostly concur—for the 1990s, once full controls are included, the main independent variables lose significance. This could be a reflection of different conditions across time.

Table 8 OLS regressions of trust and misanthropy index. Beta (fully standardized) coefficients reported. Source: GSS 1972–2018

	Trust (prot)	Misanthropy (prot)	Trust (cath)	Misanthropy (cath)
Attend (ref: never)				
It once a year	0.020	− 0.015	− 0.002	0.002
Once a year	− 0.001	− 0.008	0.001	− 0.019
Sevrl times a yr	0.008	− 0.025	0.008	− 0.026
Once a month	− 0.001	− 0.027	− 0.007	− 0.001
2-3x a month	0.020	− 0.052**	0.010	− 0.022
Nrly every week	0.021	− 0.042*	0.025*	− 0.039*
Every week	0.050*	− 0.068***	0.059***	− 0.071***
More thn once wk	0.057*	− 0.049*	0.004	− 0.024
Protestant = 1	0.055*	− 0.053*		
Interactions				
It once a year*prot	− 0.021	0.011		
Once a year*prot	0.005	− 0.019		
Sevrl times a yr*prot	− 0.003	− 0.002		
Once a month*prot	− 0.002	0.017		
2-3x a month*prot	− 0.011	0.021		
Nrly every week*prot	0.005	− 0.004		
Every week*prot	0.010	− 0.010		
More thn once wk*prot	− 0.048	0.018		
Catholic = 1			0.011	− 0.012
Interactions				
It once a year*cath			0.018	− 0.023
Once a year*cath			0.009	− 0.009
Sevrl times a yr*cath			0.003	− 0.008
Once a month*cath			0.013	− 0.028
2-3x a month			0.008	− 0.030*
Nrly every week*cath			0.006	− 0.014
Every week*cath			0.006	− 0.017
More thn once wk*cath			0.031**	− 0.019
_cons	(***)	(***)	(***)	(***)
n	9616	9155	9616	9155
Year dummies and controls	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

1980s

See Fig. 5, Tables 9 and 10.



Fig. 5 Predicted values from full models A2dec5 and B2dec5 by decade: 1980s, 95% CI. See tables below

Table 9 OLS regressions of trust for the **1980s**. Beta (fully standardized) coefficients reported. *Source:* GSS 1983–1988

	A2dec1	A2dec2	A2dec3	A2dec4	A2dec5
Pray	− 0.05 ^{***}	− 0.10 ^{***}	− 0.04 [*]	− 0.04 [*]	− 0.06 ^{**}
Attend		0.10 ^{***}	0.08 ^{***}	0.07 ^{***}	0.06 ^{**}
South			− 0.07 ^{***}	− 0.07 ^{***}	− 0.06 ^{**}
Family income in \$1986, millions			0.03	0.03	0.03
Class			0.01	− 0.00	− 0.01
Protestant			0.05	0.05	0.08 [*]
Catholic			0.04	0.04	0.07 [*]
Fundamentalist			− 0.07 ^{***}	− 0.07 ^{***}	− 0.06 ^{**}
Conservative			− 0.01	− 0.01	− 0.03
Liberal			0.03	0.03	0.02
Married			0.04 [*]	0.02	− 0.00
Unemployed			0.01	0.02	0.01
Occupational prestige			0.03	0.03	0.02
Age			0.39 ^{***}	0.45 ^{***}	0.53 ^{***}
Age squared			− 0.28 ^{**}	− 0.34 ^{***}	− 0.41 ^{***}
Highest year of school completed			0.20 ^{***}	0.20 ^{***}	0.18 ^{***}
Male			0.04 [*]	0.04 [*]	0.04 [*]
Born in the U.S.			0.01	0.00	0.01
White household			0.18 ^{***}	0.17 ^{***}	0.20 ^{***}
SWB				0.11 ^{***}	0.12 ^{***}
Health					0.05 [*]
N	5481	5470	4307	4249	2836
Year dummies	Yes	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

Table 10 OLS regressions of misanthropy index for the **1980s**. Beta (fully standardized) coefficients reported. *Source:* GSS 1983–1988

	B2dec1	B2dec2	B2dec3	B2dec4	B2dec5
Pray	− 0.00	0.07 ^{***}	0.04 [*]	0.05 ^{**}	0.06 ^{**}
Attend		− 0.13 ^{**}	− 0.11 ^{***}	− 0.09 ^{***}	− 0.09 ^{***}
South			0.08 ^{***}	0.08 ^{***}	0.08 ^{***}
Family income in \$1986, millions			− 0.06 ^{***}	− 0.05 ^{**}	− 0.05 [*]
Class			− 0.03 [*]	− 0.02	− 0.03
Protestant			− 0.05	− 0.05	− 0.06
Catholic			− 0.04	− 0.05	− 0.06
Fundamentalist			0.05 ^{**}	0.04 [*]	0.04 [*]
Conservative			0.01	0.02	0.01
Liberal			− 0.01	− 0.01	− 0.02
Married			− 0.03	− 0.00	0.02
Unemployed			− 0.01	− 0.01	− 0.02
Occupational prestige			− 0.04 [*]	− 0.04 [*]	− 0.03
Age			− 0.33 ^{***}	− 0.41 ^{***}	− 0.50 ^{***}
Age squared			0.17	0.24 ^{**}	0.32 ^{**}
Highest year of school completed			− 0.21 ^{***}	− 0.20 ^{***}	− 0.17 ^{***}
Male			0.02	0.02	0.01
Born in the U.S.			0.00	0.00	− 0.02
White household			− 0.21 ^{***}	− 0.20 ^{***}	− 0.20 ^{***}
SWB				− 0.13 ^{***}	− 0.14 ^{***}
Health					− 0.06 ^{**}
N	5408	5398	4268	4212	2810
Year dummies and controls	Yes	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

1990s

See Fig. 6, Tables 11 and 12.



Fig. 6 Predicted values from full models A3dec5 and B3dec5 by decade: 1990s, 95% CI. See tables below

Table 11 OLS regressions of trust for the **1990s**. Beta (fully standardized) coefficients reported. *Source:* GSS 1990–1998

	A3dec1	A3dec2	A3dec3	A3dec4	A3dec5
Pray	− 0.06**	− 0.08***	− 0.02	− 0.02	0.00
Attend		0.04*	0.01	0.01	− 0.03
South			− 0.05**	− 0.06**	− 0.03
Family income in \$1986, millions			0.04	0.05	− 0.01
Class			0.03	0.03	0.05
Protestant			0.08*	0.08*	0.07
Catholic			0.04	0.04	0.02
Fundamentalist			− 0.05*	− 0.05*	− 0.03
Conservative			0.03	0.03	0.07*
Liberal			0.07**	0.07**	0.10**
Married			− 0.01	− 0.01	0.03
Unemployed			− 0.01	− 0.01	0.00
Occupational prestige			0.02	0.01	0.04
Age			0.28*	0.28*	0.52**
Age squared			− 0.17	− 0.17	− 0.36*
Highest year of school completed			0.22***	0.21***	0.20***
Male			0.05*	0.05*	0.04
Born in the U.S.			0.02	0.02	0.00
White household			0.14***	0.13***	0.15***
SWB				0.03	0.05
Health					0.01
N	3388	3326	2515	2500	1018
Year dummies	Yes	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

Table 12 OLS regressions of misanthropy index for the **1990s**. Beta (fully standardized) coefficients reported. *Source*: GSS 1990–1998

	B3dec1	B3dec2	B3dec3	B3dec4	B3dec5
Pray	0.02	0.07**	0.05*	0.04	0.03
Attend		− 0.08***	− 0.05*	− 0.04	0.00
South			0.08***	0.09***	0.06
Family income in \$1986, millions			− 0.03	− 0.03	− 0.01
Class			− 0.06**	− 0.05*	− 0.05
Protestant			− 0.14***	− 0.14***	− 0.16**
Catholic			− 0.09**	− 0.10**	− 0.11*
Fundamentalist			0.08***	0.08***	0.06
Conservative			− 0.01	− 0.01	− 0.07*
Liberal			− 0.03	− 0.03	− 0.09**
Married			− 0.03	− 0.01	− 0.01
Unemployed			0.01	0.00	− 0.01
Occupational prestige			− 0.01	− 0.01	− 0.04
Age			− 0.46***	− 0.48***	− 0.55***
Age squared			0.31**	0.33**	0.36*
Highest year of school completed			− 0.22***	− 0.22***	− 0.20***
Male			0.04*	0.04*	0.03
Born in the U.S.			− 0.03	− 0.03	− 0.02
White household			− 0.17***	− 0.16***	− 0.15***
SWB				− 0.07***	− 0.12***
Health					− 0.01
N	3348	3286	2488	2474	1008

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

2000–2010s

See Fig. 7, Tables 13 and 14.

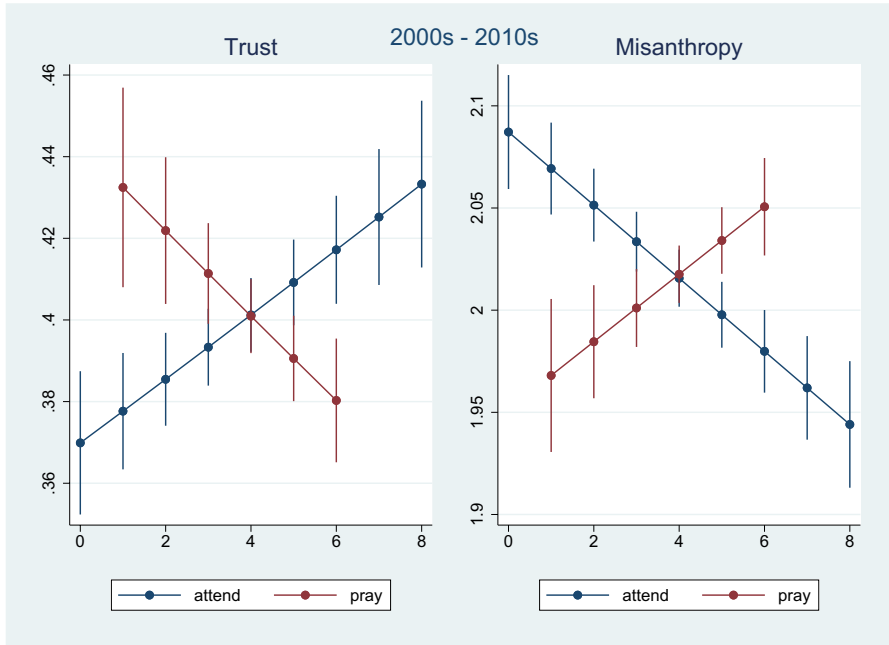


Fig. 7 Predicted values from full models A4dec5 and B4dec5 by decade: 2000s-2010s, 95% CI. See tables below

Table 13 OLS regressions of trust for the **2000s and 2010s**. Beta (fully standardized) coefficients reported. *Source:* GSS 2000–2018

	A4dec1	A4dec2	A4dec3	A4dec4	A4dec5
Pray	− 0.06***	− 0.09***	− 0.02**	− 0.03**	− 0.04**
Attend		0.07***	0.04***	0.04***	0.05***
South			− 0.07***	− 0.07***	− 0.06***
Family income in \$1986, millions			0.04***	0.04***	0.02
Class			0.06***	0.05***	0.04***
Protestant			0.05***	0.05***	0.04**
Catholic			0.02*	0.02*	0.03*1
Fundamentalist			− 0.07***	− 0.07***	− 0.06***
Conservative			− 0.01	− 0.01	− 0.02*
Liberal			0.05***	0.05***	0.04***
Married			0.03***	0.01	0.02*
Unemployed			− 0.01	− 0.00	− 0.00
Occupational prestige			0.04***	0.04***	0.04***
Age			0.28***	0.31***	0.43***
Age squared			− 0.17***	− 0.19***	− 0.28***
Highest year of school completed			0.19***	0.19***	0.18***
Male			0.04***	0.04***	0.04***
Born in the U.S.			0.00	0.00	0.00
White household			0.11***	0.11***	0.12***
SWB				0.08***	0.09***
Health					0.05***
N	23213	23074	18066	17982	9616
Year dummies	Yes	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

Table 14 OLS regressions of misanthropy index for the **2000s and 2010s**. Beta (fully standardized) coefficients reported. *Source*: GSS 2000–2018

	B4dec1	B4dec2	B4dec3	B4dec4	B4dec5
Pray	0.02***	0.08***	0.04***	0.04***	0.04**
Attend		− 0.11***	− 0.07***	− 0.06***	− 0.06***
South			0.08***	0.08***	0.07***
Family income in \$1986, millions			− 0.05***	− 0.04***	− 0.03*
Class			− 0.09***	− 0.08***	− 0.07***
Protestant			− 0.06***	− 0.06***	− 0.05***
Catholic			− 0.04***	− 0.04***	− 0.05***
Fundamentalist			0.08***	0.08***	0.06***
Conservative			0.00	0.00	0.01
Liberal			− 0.03***	− 0.03***	− 0.03**
Married			− 0.04***	− 0.02*	− 0.01
Unemployed			0.00	− 0.00	− 0.00
Occupational prestige			− 0.04***	− 0.04***	− 0.04***
Age			− 0.27***	− 0.31***	− 0.40***
Age squared			0.10*	0.14***	0.21***
Highest year of school completed			− 0.19***	− 0.19***	− 0.17***
Male			0.02**	0.02**	0.01
Born in the U.S.			− 0.01	− 0.01	− 0.00
White household			− 0.12***	− 0.11***	− 0.12***
SWB				− 0.12***	− 0.12***
Health					− 0.07***
N	22,461	22,327	17,543	17,463	9155
Year dummies	Yes	Yes	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, robust std err

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