



ELSEVIER

Contents lists available at ScienceDirect

The Social Science Journal

journal homepage: www.elsevier.com/locate/soscij



Does religion foster generosity?



Roy Sablosky*

1119 37th Street, Sacramento, CA 95816, USA

ARTICLE INFO

Article history:

Received 3 July 2013

Received in revised form 20 March 2014

Accepted 20 March 2014

Available online 26 April 2014

Keywords:

Generosity

Methodology

Religion

Religious social networks

Selection bias

Social capital

Social desirability

Surveys

ABSTRACT

This paper reviews recent studies that claim to provide support, through statistical analysis of survey data, for the traditional proposition that being religious makes people more generous. The studies have serious shortcomings. First, the data consist exclusively of self-reports. Second, the dependent and independent variables are conceptually problematic and ill-defined. Third, even if there is a positive correlation between religious involvement and personal generosity, it may be due to selection bias. Thus, these studies do not provide serious evidence for the traditional hypothesis. Moreover, it has been directly controverted by experimental studies of economic and other behaviors.

© 2014 Western Social Science Association. Published by Elsevier Inc. All rights reserved.

1. Introduction

In the last decade or so, several studies have claimed to offer strong empirical support for the hypothesis that religion has beneficial consequences for individuals and for society as a whole. According to these authors, careful survey data analysis reveals that religious participation generates social capital (Putnam, 2000); that it fosters civic responsibility (Monsma, 2007; Smidt, den Dulk, Penning, Monsma, & Koopman, 2008); that it boosts volunteering (Campbell & Yonish, 2003) and charitable giving (Bekkers & Schuyt, 2008; Brooks, 2004; Bryant, Jeon-Slaughter, Kang, & Tax, 2003; Havens, O'Herlihy, & Schervish, 2002; Hodgkinson, Weitzman, & Kirsch, 1990; Independent Sector, 2002; Nemeth & Luidens, 2003; Regnerus, Smith, & Sikkink, 1998; Wang & Graddy, 2008); that it makes people more generous (Brooks, 2003, 2005, 2006; Putnam &

Campbell, 2010; Weipking & Maas, 2009); and that it promotes empathy and altruism (Smith, 2006).

Of course, this hypothesis is not new; it is traditional, so all the authors cited above are identified as traditionalists in this study. What is new is their claim that the traditional hypothesis is strongly supported by quantitative evidence. The data are from widely respected sources such as the General Social Survey (National Data Program for the Sciences, 1972–2008), the Social Capital Community Benchmark Survey (Saguaro Seminar, 2001), and surveys from the Pew Forum on Religion and Public Life (see for example Pew Research Center, 2010).¹

¹ Putnam and Campbell (2010) also draw on the 2006 and 2007 Faith Matters surveys (International Communications Research), which were commissioned specifically for them and funded by the John Templeton Foundation (Putnam & Campbell, 2010, p. 557). It should be noted that the works mentioned in this paragraph are based almost entirely on data taken in the United States. The exceptions are the studies of Bekkers and Schuyt (2008) and Weipking and Maas (2009), which were conducted in the Netherlands.

* Tel.: +1 301 919 0229.

E-mail address: roy.sablosky@sablosky.com

Two books stand out from this body of work for the scope and forcefulness of their claims: *Who Really Cares?* by Arthur Brooks (2006) and *American Grace* by Robert Putnam and David Campbell (2010). “When it comes to charity,” writes Brooks (2006, p. 2), “America is two nations—one charitable, the other uncharitable.” Compared to the non-religious, he says, “religious people are, inarguably, more charitable in every measurable way” (p. 40, emphasis in the original). Putnam and Campbell (2010, pp. 453–454) vigorously agree:

Some Americans are more generous than others. . . In particular, religiously observant Americans are more generous with time and treasure than demographically similar secular Americans. . . The pattern is so robust that evidence of it can be found in virtually every major national survey of American religious and social behavior. Any way you slice it, religious people are simply more generous.²

This paper argues that these findings are invalidated by an array of methodological faults. First, the data consist exclusively of self-reports, which are known to be unreliable. Second, both the dependent and the independent variables are conceptually problematic. The word “religiosity” can refer to many different phenomena; there are no objective criteria with which to identify the most significant ones or to judge whether the presence of any of them qualifies the bearer as truly religious. Nor can generosity be measured directly, at least if it is understood in its traditional sense, as a virtue. In the studies in question, generosity is operationalized as relatively higher levels of tax-deductible charitable contributions. This is misleading in two ways. First, tax-deductible giving is not the same thing as being generous. Second, the tax-deductible donations reliably associated with religious participation mostly go to churches; and most church spending goes to other than humanitarian purposes.

Furthermore, even if there is a positive correlation between religious involvement and generosity, it could be due to selection bias—that is, the direction of causality may be the opposite of what is typically assumed. Putnam and Campbell identify what they call “religious social networks” as a cause of generosity; this conclusion results from assuming, rather than demonstrating, that the network effects they identify in their data are due to specifically religious factors.

Finally, I argue that the traditional hypothesis has been directly controverted by experimental studies of economic and other behaviors.

2. Methodological challenges in studies of survey data

Religion and its effects are difficult to study. Religion is surrounded by misconceptions, many of which are

entertained even by experienced sociologists. Mark Chaves (2010, p. 6) writes that sociology of religion is afflicted by the “religious congruence fallacy,” whose “telltale sign . . . is a regression model in which the coefficients attached to religious service attendance, religious belief, or religious affiliation are interpreted causally.” In other words, “almost every claim of the form, ‘People act in a certain way because they are in a particular religion or because they attend religious services or because they hold this or that religious belief’” is based on a misunderstanding.

2.1. Self-reporting and social desirability bias

The traditionalists’ data come entirely from surveys. It is well known (Cahalan, 1969; Parry & Crossley, 1950; Phillips & Clancy, 1972) that survey responses are subject to social desirability (SD) bias, the tendency of respondents to adjust their responses toward conformity with social norms. As Goffman (1959, p. 35) points out, every response is given in the context of a social performance. “When the individual presents himself before others, his performances will tend to incorporate and exemplify the officially accredited values of the society, more so, in fact, than does his behavior as a whole.” People tend to over-report socially encouraged behaviors, such as philanthropy, and under-report socially deprecated behaviors, such as drug abuse. Holtzman and Kagan (1995, ch. 1, p. 5) find that “there is often a minimal correlation, or none at all” between self-reports and related external measures (such as of behavior). Doris (2002, p. 179, n. 42) notes that “failures of behavior to conform with avowed values and self-conceptions are well documented in psychology” and cites several examples.

Studies of generosity are especially vulnerable to SD bias. The classic papers on SD bias examined responses on topics such as voting, sexuality, and drug use. But generosity is not merely subject to social desirability, as those topics are; it is the epitome. Nothing evokes social approbation more consistently than generosity—with the possible exception, in some communities, of church attendance. This means that we should be maximally skeptical regarding people’s reports of their own generosity. This applies to volunteering as much as it does to monetary donations.

SD bias can skew results in another, less obvious way. If groups of respondents differ in the degree or direction of their SD bias, this can create spurious correlations or mask real correlations between variables (Bell & Buchanan, 1966; Ganster, Hennessey, & Luthans, 1983; Presser & Traugott, 1992; Stocké & Hunkler, 2007). For example, in a study of the relation between age and various psychological measures such as agreeableness and conscientiousness, Soubelet and Salthouse (2011, p. 758) find that social desirability accounts for 50% of the age-related variance in eight self-report variables.

When we come to religion, measurement problems proliferate.

Self-report measures . . . fail to make a distinction among (1) what people say they believe, value, and do; (2) what they honestly believe they believe, value, and do; and (3) what they actually believe, value, and do. . .

² Putnam and Campbell (2010) do not, of course agree, with everything in Brooks (2006). In particular, they differ strongly with Brooks’s assertion that political conservatism is associated with generosity, calling it “an elementary statistical mistake” (pp. 457–458; see also note 28, pp. 632–633).

Problems may be especially severe when correlating these self-reports with religion. This is because all major religions make rather clear prescriptions about the right answers to such questions. (Batson, Schoenrade, & Ventis, 1993, pp. 382–383, emphasis in the original)

These observations call into question all responses to any survey question of the form “How important is *X* to you?” where *X* is God, prayer, church attendance, or anything else people approve or disapprove in each other.

2.2. Measuring generosity

In standard usage, generosity is a virtue—that is, a disposition rather than a behavior. The *Oxford English Dictionary* (2009) defines a generous person as one who “shows a readiness to give more of something, esp. money, than is strictly necessary or expected.” The *Science of Generosity Initiative at Notre Dame University* (n.d.) defines generosity as “the virtue of giving good things to others freely and abundantly.” The initiative’s Collett and Morrissey (2007) distinguish religiosity from “mere prosocial behavior” by its “connotations of noble and magnanimous motivations.” Such a property would be very difficult to operationalize.

In practice, of course, sociologists must focus on behavior rather than internal dispositions. The traditionalist studies use charitable spending as a proxy for generosity—or, rather, they use self-reports of charitable spending. This puts us several steps away from the measurement of anyone’s virtue, and the link will get even more tenuous as we examine the methodology in more detail.

In 1950, Parry and Crossley compared answers to the question “Did you, yourself, give to the Denver Community Chest drive this fall?” with the records of the Community Chest organization. Forty percent of the self-reports were false. The authors’ conclusion (p. 76) is bleak: “It can safely be said that this sort of question, whether it concerns the Community Chest or some other charitable organization, is not very helpful for survey use.” More recently, Wilhelm (2007) reports wide variations in reported charitable donations between different large-scale surveys such as Giving and Volunteering and the General Social Survey.

Putnam and Campbell (2010, p. 444) note casually that “generosity can be measured most simply by measuring gifts of time and money”; yet the surveys on which their work is based do not measure such gifts: they measure anonymous, unverified self-reports of such gifts. None of the traditionalist studies directly measures charitable donations, to say nothing of charitable ideas or noble intentions. Using data from the 2004 and 2006 GSS, Putnam and Campbell find (p. 451) that “frequent churchgoers” are more likely than other people to “give money to charity,” “donate blood,” “allow a stranger to cut in front of them,” and seven other friendly things.³ But none of the acts of

generosity reported to the GSS interviewers were corroborated by other means. Strictly speaking, the correlations that Putnam and Campbell find here imply only that people who report frequent church attendance are also more likely to report frequent acts of generosity.

If people deemed “more religious” and “less religious” by the traditionalists were equally likely to exaggerate their gift-giving, the methodological problem created by these distortions would perhaps be manageable. But evidence that SD bias increases with religiosity is reported by Batson, Naifeh, and Pate (1978), Francis, Pearson, and Kay (1983), Powell and Stewart (1978), and Trimble (1997).

Another conceptual problem complicates the measurement of generosity. Throughout the traditionalist literature, the words “generosity,” “charity,” and “giving” are used as synonyms, but charity has an additional, specialized sense. In the US tax code and in colloquial English, a charity is a nonprofit corporation; donations to such organizations are also called charity. The problem is that the concept of generosity is distinct from that of tax-deductible contributions. The first means giving more than expected, out of the goodness of one’s heart; the second means giving money to an organization that qualifies as not-for-profit under the tax code. It is possible to make charitable donations without being generous (by giving much less than one could); and it is possible to be generous without making charitable donations (by giving people cash, goods, assistance, or encouragement—especially if one gives more than was expected). The two are categorically different, yet both are routinely called charity in the traditionalist literature. Brooks (2006, p. 3) writes, for example: “It is in all our interests to figure out what makes people charitable, and what makes them uncharitable.” Is he speaking of generosity here, or of tax-deductible donations? It sounds like the former, but the surveys he cites measured only the latter—or rather, self-reports of the latter.

Another problem is that the traditionalist studies cited here lump churches in with all other tax-exempt organizations. But churches are a special case. Churches are classed as not-for-profit for a traditional reason: because religion has traditionally been assumed to be beneficial to the community at large. But to accept this is to beg the question.

One does not count one’s membership dues for the local health club as a charitable contribution. This is because they are not a gift to the community at large; they benefit only the members and proprietors of the club. But this is true of churches as well, at least to a first approximation. Chaves (2012, ch. 9, p. 382) reports:

Most congregations focus primarily on their religious activities. . . . The median dollar amount spent by congregations directly in support of social service programs in 2006–07 was about \$1,300 . . . [or] about 2 percent of the average congregation’s total annual budget. . . . The vast majority of congregations’ resources support worship services, religious education, and pastoral care for their own members.

Donating to one’s church is a different kind of gesture from donating to a humanitarian organization, such as the Red Cross. It is a mistake to add these two kinds of activities and treat the sum as a single variable called

³ Do volunteer work for a charity; give money to a homeless person; give excess change back to a shop clerk; help someone outside their own household with housework; spend time with someone who is a bit down; offer a seat to a stranger; and help someone find a job.

“charity”—especially given that the term sounds like a synonym of “generosity.” This confusion of terms is foundational to the traditionalist literature.

2.3. *Measuring religiosity*

We have seen that properly conceptualizing and measuring generosity is very difficult, and that the traditionalists have not succeeded. Religiosity is even harder.

In studies whose methodology presupposes the quantitative measurement of subjects’ religiosity, four different types of assessment are found. The most common is to use self-reported frequency of church attendance. Some studies use a single measure constructed from weighted multiple self-reports such as frequency of church attendance, frequency of prayer, personal importance of religion, and so on—such as Putnam and Campbell’s (2010) “index of religiosity.” Many use a single, self-reported psychological measure. Ahmed and Salas (2009), for example, simply asked participants whether they were religious. Finally, some studies wrestle with multiple values, derived from a questionnaire designed to elicit different types of religiosity—for example, the Means, Ends, and Quest dimensions introduced by Batson (1976) or the Diminished, Privatized, Public, and Integrated modes of Smidt et al. (2008).

As a practical matter, these can be regarded as just two, not four, different approaches to the measurement of religiosity. One method asks people for introspective reports on their thoughts, feelings, and beliefs; the other asks people how often they go to church. Let us consider each of these approaches more carefully.

2.3.1. *Thoughts, feelings, and beliefs*

Religion’s physical and behavioral trappings—symbols, words, music, costumes, buildings, books, and ritualistic actions—are designed to be easy to identify. It is assumed that underlying these public displays there is a private experience; and this inner experience, not the public displays, is what religion is supposed to be about. We call this inner experience religious belief. It is regarded as intensely private, and at the same time as being shared and understood by the vast majority of Americans. However, what people refer to as religious belief is a very idiosyncratic matter. The set of possible meanings of the statement “I believe in God” is unbounded. Although each denomination teaches a more or less fixed set of ideas and practices, the way those teachings are incorporated into each person’s understanding of how the world works is extremely individualistic—and opaque to investigation. Researchers assume that among all these varieties of belief there is a common factor that can be identified and quantified.

It is almost a tautology that the validity of introspective measures cannot be checked. This problem is of course not limited to religion; it affects any setting where we wish to collect data on people’s private thoughts or feelings. Survey questions about personal beliefs assume that respondents can, and will, introspectively ascertain what their own beliefs are. But gaining reliable access to subjects’ sincere beliefs is difficult, to say the least. The subjects themselves do not necessarily have such access (Bargh &

Chartrand, 1999; Nisbett & Wilson, 1977).⁴ Furthermore, if the beliefs in question are religious ones, the task will be even harder. As we saw earlier, the public expression of religious belief is subject to strong social norms. In view of all these considerations, it is safe to predict that surveys will tell us more about what respondents think they are expected to say than about what they really believe.

2.3.2. *Church service attendance*

Because it is impossible to measure belief itself, some scholars adopt church attendance as a proxy for religiosity. But this method has its own problems.

Year after year, in all kinds of polls and surveys, about 40% of Americans report that they attend church services every week, or near enough. However, empirical studies suggest that about half of these people are not telling the truth. The correct figure for weekly church attendance is closer to 20%. This has been ascertained by direct, physical methods such as going to every church in a selected county and counting the people in the pews (Brenner, 2011; Chaves & Cavendish, 1994; Chaves & Stevens, 2003; Hadaway & Marler, 2005; Hadaway, Marler, & Chaves, 1993, 1998; Marcum, 1999; Marler & Hadaway, 1999; Presser & Stinson, 1998).

Presumably, this over-reporting is a result of social desirability bias. Hadaway et al. (1998, p. 127) offer a striking anecdote in support of this hypothesis:

At the 1994 Society for the Scientific Study of Religion session devoted to our [1993] article . . . one of the commentators, a retired official of the National Council of Churches of Christ, acknowledged that she would say she attended services last week even if it was not true. She went on to say that she would not consider her answer to be a lie, but instead an affirmation of her involvement in and commitment to the church.

It is important to note that church attendance is held out as a noble activity, indeed a generous one. One attends church services to worship, which is conceptualized as a selfless act of devotion, a giving of oneself to the deity. According to church teachings, then, those who attend “service” are by definition more generous than those who do not. Going to services is good; therefore, all else being equal, people who go more often are better people. This is a core tenet throughout all varieties of monotheistic religion. Those who attend are reminded of it every time they go. Because of this steady, long-term reinforcement, vast numbers of people are likely to describe the nobility of church attendance as a truth they know in their gut. This is precisely the kind of widespread assumption that leads to biased reports.

It should also be mentioned that in some places, being seen as a devoted practitioner of the local faith is not optional. Those who refuse risk extreme sanctions from their more zealous neighbors. To the extent that religious participation is subject to such pressures, one’s frequency

⁴ This is perhaps a contentious claim. Nisbett and Wilson’s (1977) paper has been cited over 6,000 times. The other points in this section do not depend on this one.

of participation is a measure of conformity rather than of belief. This is true even if we measure actual rather than reported attendance.

2.3.3. Which proxy is more accurate? How can we tell?

We have seen that there are problems with using either personal belief or church attendance as a proxy for religiosity. A deeper issue is revealed if we ask: Which proxy is closer to the true nature of what we are trying to measure? This question cannot be answered by science. It is a matter of opinion—of persuasion. Consider that for any behavior, attitude, or quality that one party holds up as the epitome of religiosity, another party can say, “But that’s not really being religious. It’s really *this*—” and name something else. There is no independent standard against which such claims can be checked.

Consider the following questions, all commonly used to measure religiosity. 1. Do you consider yourself Protestant, Catholic, Jewish, Muslim, another religion, or no religion? 2. How often do you attend devotional services? 3. How often do you participate in church activities other than devotional services? 4. How strongly do you agree with the statement, “People need to obey the Ten Commandments, because they are the exact word of God”? The first question is about group identification; the second, ritual behavior; the third, voluntary association; and the fourth, social policy. These are not just differences in emphasis. The questions refer to different realms of investigation. It is impossible to measure a property across ontological categories.

It might be charged that if we press hard enough, no sociological term has a precise definition. But extreme precision is not necessary. Consider the concept of altruism. In sociology, altruism is behavior that benefits other people at a cost to oneself. Though not very precise, this definition is precise enough to be useful. Room remains for disagreement over details, but the broad outlines of the quality to be measured are not in doubt. For the concept of religiosity, on the other hand, even the broadest outlines are unformulated. Even among traditionalists, there is no consensus on what it refers to. Without such consensus, it is meaningless to speak of measurements of this property or the statistical analysis of such measurements.

2.3.4. The recruitment effect—an alternative hypothesis

Let us imagine that, despite the many methodological and conceptual hurdles, we determined with some confidence that frequent churchgoers really are more generous than people who go less often. It is important to recognize that at this point we still would not have shown that their church participation is *the reason* for their generosity. There could be any number of other explanations for the correlation. In particular, the possibility would not have been ruled out that the generous people we find in churches are in church because they are generous, rather than the other way around. Inferring from an observed correlation between religiosity and generosity that religion makes people more generous requires (among other things) the premise that religious influences have a shaping effect on individual personality.

If religiosity is related to prosocial behavior under some contexts, it is possible that having a prosocial disposition causes one to be religious or that a third variable (such as dispositional empathy or being prone to guilt) causes both prosocial and religious tendencies. (Norenzayan & Shariff, 2008, p. 60)

Now consider the following hypothesis. Because of the reputation that religion has established for itself in our culture, people who are naturally generous are likely to believe, whether or not it is true, that joining a church will help them accomplish the magnanimous tasks they enjoy performing. On average, this makes such people more motivated to seek out congregational membership. That is, the average Good Samaritan is more likely to join a church than is the average skinflint. This “recruitment effect” is a form of selection bias that would neatly explain the correlation between religiosity and charity—again, assuming that such a correlation were reliably detected—but with the direction of causation opposite to what is traditionally claimed.

Saroglou (2010) compares personality characteristics from the Big Five model (McCrae & Costa, 2008) to individual variations in personality. In a meta-analysis of 71 studies from 19 countries ($N=21,715$), religiosity is observed to be closely correlated with agreeableness and conscientiousness. According to Saroglou (p. 108), these two personality characteristics “seem to predict religiousness rather than be influenced by it”; that is, they “can be considered predispositions of religiousness.” This is consistent with the recruitment effect in that it suggests that personality leads to religious participation rather than the reverse. In longitudinal studies of adolescents by McCullough, Tsang, and Brion (2003) and by Heaven and Ciarrochi (2007), personality attributes at an earlier time are predictive of religious values at a later time. These findings, too, are consistent with the recruitment effect.

2.3.5. Putnam and Campbell’s religious social networks

The recruitment effect described in the preceding section throws an interesting light on a core proposal of Putnam’s *Bowling Alone* (2000) and Putnam and Campbell’s *American Grace* (2010). In the latter book, Chapter 13 (“Religion and Good Neighborliness”) begins with a series of statistical arguments in support of the proposition that religiosity is strongly correlated with helping behavior. However, after 18 pages of such persuasion, the presentation takes a left turn. Under the subheading “Correlation or Causation?” we read:

Nonexperimental research cannot exclude the potential effects of self-selection, that is, the possibility that some unexpected factor (perhaps even something genetic) induces both religiosity and neighborliness, producing a spurious correlation, so that simply forcing people to attend church more often would not make them more neighborly. (Putnam & Campbell, 2010, p. 461)

Putnam and Campbell then test, and discard, the hypothesis that “values and beliefs” are the “secret ingredient” that makes some Americans more generous than others (p. 463 *ff.*). Helping behavior, they find, is not

causally related to any of the 25 measures of religiosity used in their Faith Matters survey (p. 466), nor to their own “index of religiosity” (which they define on p. 19). Having begun the chapter seemingly with a case for religiosity as the “secret ingredient,” they turn around and strongly deny this. Only then do they identify the new construct that they believe is doing the causal work in fostering generosity: “religious social networks” (p. 471).

The proposal is paradoxical. If none of the measures associated with being religious is essential to these networks, why call them religious? That such activities take place in a nominally religious setting is not enough to support the argument. People who have had a broken leg successfully set at a Catholic hospital will credit their subsequent recovery to the competence of the staff, not to the hospital’s religious affiliation.

According to [Becker and Dhingra \(2001, p. 329\)](#), “Social networks, rather than beliefs, dominate as the mechanism leading to volunteering, and it is the social networks formed within congregations that make congregation members more likely to volunteer.” [Cnaan, Kasternakis, and Wineburg \(1993, p. 44\)](#) find that “religious belief is not a key factor in social service volunteering.” [Putnam and Campbell \(2010, pp. 472–473\)](#) themselves deny that religious belief fosters generous behavior:

The statistics suggest that even an atheist who happened to become involved in the social life of a congregation (perhaps through a spouse) is much more likely to volunteer in a soup kitchen than the most fervent believer who prays alone. The evidence . . . is unequivocal—when it comes to the religious edge in good neighborliness, it is belonging that matters, not believing.

It seems odd to stipulate that an atheist could be an exemplar of this “religious edge.”

As we saw above, one could hypothesize that generous people are under the impression that religion is a way to accomplish good things, and that this makes them, on average, more likely to join a church than selfish people are. If we were looking for data in support of this recruitment effect, it might look a lot like Putnam and Campbell’s data on “religious social networks.”

In his earlier book, [Putnam \(2000, p. 66\)](#) writes approvingly of churches as a friendly training ground for civic-minded people:

Churches provide an important incubator for civic skills, civic norms, community interests, and civic recruitment. Religiously active men and women learn to give speeches, run meetings, manage disagreements, and bear administrative responsibility.

But such benefits are not unique to churches. Nor are churches necessarily the most efficient way to provide them.

Religious beliefs are not the only reason, and probably not even the principal reason, that people join religious organizations. [Roberts and Davidson \(1984, p. 347\)](#) find that of all the sources of religious involvement they measure, “beliefs” are the least important. Religious organizations promise spiritual benefits, but they also provide

material benefits such as child care, professional networking, access to mating markets, and the opportunity to sing in front of a sympathetic crowd. People may be attracted to the organization for many reasons that are independent of the religious messages that are supposedly its *raison d’être* ([Ellison, 1995, p. 92](#); [Stark & Bainbridge, 1980, p. 1394](#)). And beliefs may be adopted after membership is obtained—sometimes, as [Stark and Bainbridge \(p. 1377\)](#) put it, “faith constitutes conformity to the religious outlook of one’s intimates.” Note that in such cases, future surveys will classify these new members as having the values and beliefs associated with the organization. But their beliefs did not cause them to join; it was the other way around.

Putnam himself (2010, p. 119) finds non-religious organizations more effective than religious organizations in promoting all types of volunteerism—as do [Campbell and Yonish \(2003, p. 105\)](#) and [Smidt et al. \(2008, p. 168\)](#). There are similar findings for monetary donations. Participation in a voluntary association of any kind boosts secular charitable donations; but where the organization is religious, the effect is not stronger; it is the same or weaker ([Brooks, 2005, p. 10](#); [Monsma, 2007](#); [Nemeth & Luidens, 2003, p. 118](#); [Putnam, 2000, p. 120](#); [Smidt et al., 2008, p. 120](#)).⁵ [Brown and Ferris \(2007, p. 94\)](#) find that “once stocks of social capital are controlled for, religiosity decreases giving to secular causes.”

[Jackson, Bachmeier, Wood, and Craft \(1995\)](#) find that belonging to a range of voluntary organizations significantly increases both volunteering and donations, whether or not any of the organizations are religious. Belonging to more than one association increases the likelihood of hearing about humanitarian activities. Simply being asked is one of the most important factors in how often people volunteer ([Brown, 1999, p. 29](#)). Therefore, people who belong to more organizations tend to volunteer more often. This “mobilization effect” ([Bekkers, 2002, p. 8](#)) is not unique to religion. Therefore, even if the network effects that Putnam and Campbell observe are real, there does not seem to be any reason to hypothesize that religion is fundamental to their operation. After all, the authors themselves rule out as causal factors a whole spectrum of specifically religious beliefs and behaviors. It is plausible that the benefits of voluntary association are most commonly observed in churches only because churches are the most common form of voluntary association.

3. Behavioral studies

Some of the methodological problems seen in traditionalist studies can be avoided by using different methods. The problems associated with self-reports of generosity can be eliminated by operationalizing generosity as an observed social behavior. Some studies using this technique are listed in [Table 1](#). In all these studies, religiosity was measured with a questionnaire, so there are still

⁵ To clarify: on these narrow matters, the earlier [Brooks \(2004, 2005\)](#) and [Putnam \(2000\)](#) disagree with the later [Brooks \(2006\)](#) and [Putnam and Campbell \(2010\)](#).

Table 1
Experimental studies of self-reported religiosity versus observed charitable behavior.

Paper	Religiosity measure	Generosity measure	N	Correlation of generosity with religiosity
Good Samaritan paradigm				
Annis (1976)	Commitment to traditional tenets of Western religion; importance attached to religious values; frequency of religious behaviors	Opening a door to check on someone who might have been injured	71	None
Batson et al. (1989)	Religious Orientation Scale (“means, end, and quest” paradigm)	Volunteering to spend a significant amount of time helping someone in need	46; 60	None (except positive when participants could “volunteer” without risking being called on to serve)
Darley and Batson (1973)	Multiple scales (“means, end, and quest” paradigm)	Offering aid to someone lying in the street	40	None
Smith et al. (1975)	Belief in God; belief in salvation; belief in a coming “Jesus revolution”	Not cheating on a test; volunteering to help developmentally disabled children	402	None
Economics paradigm				
Anderson and Mellor (2009)	Religious affiliation; frequency of church attendance	Contributions in a public goods game	64	None
Anderson, Mellor, and Milyo (2008)	Religious affiliation; frequency of church attendance	Contributions in a public goods game and a trust game	144	None for affiliation; mixed for attendance ^a
Bekkers (2007)	Frequency of church attendance	Contributions in a one-shot, all-or-nothing dictator game	1964	None
Eckel and Grossman (2003)	Regular church attendance	Contributions in dividing an endowment between themselves and their chosen (secular) charity	168	Positive
Eckel and Grossman (2004)	Regular church attendance	Contributions in dividing an endowment between themselves and their chosen (secular) charity	168	None
Eckel and Grossman (2006a)	Frequency of church attendance	Contributions in dividing an endowment between themselves and their chosen (secular) charity	90	Mixed ^b
Eckel and Grossman (2006b)	Frequency of church attendance	Contributions to Lutheran Social Services of Minnesota in response to a mailed solicitation	1428	Negative
Grossman and Parrett (2011)	Regular church attendance	Tipping at a restaurant	495	None
Mooyart (2011)	Religious affiliation; frequency of prayer; frequency of church attendance	Contributions in a public goods game	150	None for the combined measure; negative for Christian versus non-affiliated
Priming paradigm				
Ahmed and Salas (2011a)	Self-report as “a religious person,” “not a religious person,” or “a convinced atheist”	Contributions in a one-shot public goods game	210	Participants in a chapel setting contributed higher amounts than participants in a lecture-hall setting. Same effect size for religious and nonreligious participants. No correlation between contributions and self-reported religiosity.
Ahmed and Salas (2011b)	Self-report as “a religious person,” “not a religious person,” or “a convinced atheist”	Contributions in a one-shot dictator game; cooperation in a one-shot prisoner's dilemma game	224	Priming with religious words in a scrambled-sentence test increased prosocial behavior in both games, regardless of self-reported religiosity.
Carpenter and Marshall (2009)	Religious Orientation Scale—Revised (Gorsuch & McPherson, 1989)	Honesty in describing how a choice was made	142	Positive correlation for honesty with “intrinsic religiosity” seen only in participants primed by reading nine Bible verses.

Table 1 (Continued)

Paper	Religiosity measure	Generosity measure	N	Correlation of generosity with religiosity
Malhotra (2010)	Frequency of church attendance	Increasing the bid in a charity auction	812	Compared to people who do not attend church, people who attend church on Sunday were more likely to increase their bid, but only on Sunday
Randolph-Seng and Nielsen (2008)	"Intrinsic religiosity" questions from Gorsuch and McPherson (1989)	Not cheating on a test	52	Participants primed with religious words (in a scrambled-sentence task or flashed subliminally on a screen) cheated less on a subsequent task. No correlation between honesty and self-reported religiosity in the prime condition.
Shariff and Norenzayan (2007)	Religious identification; belief in God	Contributions in a one-shot dictator game	78	Religious primes in a scrambled-word sentence task increased generosity; but secular primes had the same effect. ^c No correlation between contributions and self-reported religiosity.

^a In the public goods game, positive trend with attendance, but only within the church-attending subset; and infrequent attenders contributed less than the non-affiliated. In the trust game, frequent attenders contributed less than non-attenders.

^b Increased contributions with greater-than-weekly attendance; reduced with weekly attendance; no correlation for lower-than-weekly attendance.

^c Religious primes were spirit, divine, God, sacred, and prophet; secular primes were civic, jury, court, police, and contract.

self-reporting and definitional problems associated with the independent variable.

The overall difference in findings between the traditionalist survey analyses described earlier and the experimental studies shown in Table 1 is striking. With a few exceptions, experimental studies put the size of the correlation of religiosity with generosity at zero. Just one study finds a clear positive trend, where generosity increases with religiosity (Eckel & Grossman, 2003); but another by the same authors finds a clear negative trend (Eckel & Grossman, 2006b). A few have mixed results, such as generosity increasing among frequent church attenders but decreasing among weekly attenders (Eckel & Grossman, 2006a).

Table 1 distinguishes three types of study. In what we may call the Good Samaritan paradigm, participants are offered, seemingly by chance, the opportunity to go out of their way to help someone in need. Consider for example Darley and Batson's (1973) experiment in which students at Princeton Theological Seminary "encountered a shabbily dressed person slumped by the side of the road" (p. 100) and were observed helping or ignoring the individual. Three conditions were used as independent variables. (1) Subjects had been interviewed on the strength of their religious commitments. (2) Some of the subjects were on their way to give a talk on the parable of the Good Samaritan (Luke 10:25–37); others had been assigned a topic unrelated to the experiment. (3) Some of the subjects were told, "Oh, you're late. They were expecting you a few minutes ago. We'd better get moving" (p. 104). The hurry-up condition had a significant effect on the subjects' behavior (almost no one who was in a hurry bothered to help), but the religious conditions did not.

In the study by Annis (1976), each subject happened, as if by accident, to see a woman carrying a ladder. The

woman went into another room and closed the door; a few moments later there was an audible crash, as if the woman had fallen off the ladder. The subject then either opened the door or did not. None of Annis's three measures of religiosity bore any correlation with the likelihood of a subject's opening the door. In their experimental studies of volunteering and honesty, Smith, Wheeler, and Diener (1975) and Batson et al. (1989) report the same results: religious variables are uncorrelated with prosocial behavior.

More recent studies, as seen in the next section of the table, rely on the methods of behavioral economics: the dependent variable is the size of participants' financial contributions to others or to a public good. Here the results are mixed, though again the aggregate findings seem close to zero.

In the innovative field study by Grossman and Parrett (2011), restaurant patrons in Richmond, Virginia, were surveyed after they paid their checks. In 495 recorded transactions, perceived quality of service made a small but significant difference to the amount that customers left as tips; customers' gender, age, and wealth also had measurable effects; their religiosity did not. In Mooyart's (2011) public goods game, contribution size is found to be unrelated to a combined measure of religiosity (religious affiliation or none; frequency of prayer; frequency of church attendance); but Christians contribute less than the non-affiliated.

The final category of studies in the table used a psychological priming paradigm in which some participants are stealthily exposed to what are taken to be religious influences. In a study by Ahmed and Salas (2011a), some participants met in a lecture hall, others in a chapel. The chapel setting was considered a religious prime. A more common intervention is the scrambled sentence test. Participants are asked to unscramble sets of words to form

coherent sentences; the primed group is given sentences containing religious words such as “spirit,” “divine,” and “God.” All priming studies of which I am aware report the same results: religious primes do seem to increase generous behavior. But we must evaluate the significance of this result very carefully.

First, consider that the same studies that show a positive effect of religious primes on generosity show no correlation of self-reported religiosity with generosity of behavior. In this, they agree with the preponderance of other experimental studies. The self-reported religious and non-religious participants behave similarly without the religious prime—and they behave similarly with the religious prime. Indeed, such studies depend on the fact that being primed with religious concepts is not the same thing as reporting oneself to be religious. This brings up the definitional concerns discussed earlier. Should we consider the primed condition a better proxy for religiosity, or a worse one, than self-reported religiosity? Who is to say?

Second, results similar to those from religious priming can be achieved with other kinds of primes. In Shariff and Norenzayan’s (2007) study, the effect of the secular primes “civic,” “jury,” “court,” “police,” and “contract” is just as strong as that of the religious primes “spirit,” “divine,” “God,” “sacred,” and “prophet.” In view of Shariff and Norenzayan’s results and their own, Randolph-Seng and Neilsen (2008, p. 121) conclude:

It is premature to attribute the findings to something special about activating specifically religious concepts. The more parsimonious explanation is that priming words (whether religious, secular-moral, or otherwise) that are mentally associated with prosocial perceptions and behavior lead to such behavior simply because of that mental association.

4. Conclusion

The studies that claim to find empirical support through the analysis of survey data for the traditional proposition that religiosity is conducive to generosity have severe methodological problems. For example, almost all such studies use donations to charitable organizations as a variable. This combines two very different activities: donations to nonprofit organizations in general, and donations to one’s own church. It may sometimes be reasonable to treat the first as a proxy for generosity; not so for the second. It is misleading to add them together and then draw conclusions from the correlations of this sum with other variables.

The same studies are burdened by conceptual problems. Most prominent among these is that the term religiosity lacks a coherent definition. We do not know whether it is a mental process, a social dynamic, or mere rhetoric. To draw sweeping conclusions about its importance to society is reckless.

As pointed out by Galen (2012) in his exhaustive survey and methodological critique, many of the reported correlations of religiosity with generosity are most plausibly explained by the fact that most people believe that religious people are more generous. On the other hand, that belief is not supported by any experimental study of behavior.

Behavioral studies reliably find that more-religious people and less-religious people are equally likely to be good Samaritans.

The traditionalists’ concern with fostering compassion, and thereby material well-being, deserves support. However, if we are to learn more about how voluntary associations generate social capital, our research must be unencumbered by traditional assumptions about the benefits of religion. Putnam and Campbell’s (2010) findings on religious social networks are intriguing, but despite the name, such networks’ effects are probably not due to anyone’s religion but rather to the well-known positive effects of voluntary association. Future research should consider the question: What are the mechanisms by which voluntary association most efficiently generates social benefits? Such research should probably ignore the concept of religiosity, which is too poorly constrained to allow for quantitative treatment.

References

- Ahmed, A. M., & Salas, O. (2009). Is the hand of God involved in human cooperation? *International Journal of Social Economics*, 36, 70–80.
- Ahmed, A. M., & Salas, O. (2011a). The effect of religious context on prosociality in an economic game. Retrieved from http://www.thearda.com/asrec/archive/papers/Ahmed_Religious.Context.Prosociality.pdf
- Ahmed, A. M., & Salas, O. (2011b). Implicit influences of Christian religious representations on dictator and prisoner’s dilemma game decisions. *Journal of Socio-Economics*, 40, 242–246.
- Anderson, L. R., & Mellor, J. M. (2009). Religion and cooperation in a public goods experiment. *Economics Letters*, 105, 58–61.
- Anderson, L. R., Mellor, J. M., & Milyo, J. (2008). *Did the devil make them do it? The effects of religion in public goods and trust games (Working Paper No. 20)*. Department of Economics, College of William and Mary.
- Annis, L. V. (1976). Emergency helping and religious behavior. *Psychological Reports*, 39, 151–158.
- Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist*, 54, 462–479.
- Batson, C. D. (1976). Religion as prosocial: Agent or double agent? *Journal for the Scientific Study of Religion*, 15, 29–45.
- Batson, C. D., Naifeh, S. J., & Pate, S. (1978). Social desirability, religious orientation, and racial prejudice. *Journal for the Scientific Study of Religion*, 22, 38–50.
- Batson, C. D., Oleson, K. C., Weeks, J. L., Healy, S. P., Reeves, P. J., Jennings, P., et al. (1989). Religious prosocial motivation: Is it altruistic or egoistic? *Journal of Personality and Social Psychology*, 57, 873–884.
- Batson, C. D., Schoenrade, S., & Ventis, W. L. (1993). *Religion and the individual: A social-psychological perspective*. New York, NY: Oxford University Press.
- Becker, P. E., & Dhingra, P. H. (2001). Religious involvement and volunteering: Implications for civil society. *Sociology of Religion*, 62, 315–335.
- Bekkers, R. (2002). Participation in voluntary associations: Resources, personality, or both? In *Paper presented at the 5th Conference of the European Sociological Association, Helsinki August 28 to September 1, 2001*.
- Bekkers, R. (2007). Measuring altruistic behavior in surveys: The all-or-nothing dictator game. *Survey Research Methods*, 1, 139–144.
- Bekkers, R., & Schuyt, T. (2008). And who is your neighbor? Explaining denominational differences in charitable giving and volunteering in the Netherlands. *Review of Religious Research*, 50, 74–96.
- Bell, C. G., & Buchanan, W. (1966). Reliable and unreliable respondents: Party registration and prestige pressure. *Western Political Quarterly*, 29, 37–43.
- Brenner, P. (2011). Identity importance and the overreporting of religious service attendance: Multiple imputation of religious attendance using the American Time Use Study and the General Social Survey. *Journal for the Scientific Study of Religion*, 50, 103–115.
- Brooks, A. C. (2003). Religious faith and charitable giving. *Policy Review*, 121, 39–50.
- Brooks, A. C. (2004). What do ‘don’t know’ responses really mean in giving surveys? *Nonprofit and Voluntary Sector Quarterly*, 33, 423–434.
- Brooks, A. C. (2005). Does social capital make you generous? *Social Science Quarterly*, 86, 1–15.

- Brooks, A. C. (2006). *Who really cares? America's charity divide—Who gives, who doesn't and why it matters*. New York, NY: Basic Books.
- Brown, E. (1999). The scope of volunteer activity and public service. *Law and Contemporary Problems*, 62(4), 17–42.
- Brown, E., & Ferris, J. M. (2007). Social capital and philanthropy: An analysis of the impact of social capital on individual giving and volunteering. *Nonprofit and Voluntary Sector Quarterly*, 36, 85–99.
- Bryant, W. K., Jeon-Slaughter, H., Kang, H., & Tax, A. (2003). Participation in philanthropic activities: Donating money and time. *Journal of Consumer Policy*, 26, 43–73.
- Cahalan, D. (1969). Correlates of respondent accuracy in the Denver Validity Survey. *Public Opinion Quarterly*, 32, 607–621.
- Campbell, D. E., & Yonish, S. J. (2003). Religion and volunteering in America. In C. Smidt (Ed.), *Religion as social capital: Producing the common good* (pp. 87–106). Waco, TX: Baylor University Press.
- Carpenter, T. P., & Marshall, M. A. (2009). An examination of religious priming and intrinsic religious motivation in the moral hypocrisy paradigm. *Journal for the Scientific Study of Religion*, 48, 386–393.
- Chaves, M. (2010). Rain dances in the dry season: Overcoming the religious congruence fallacy. *Journal for the Scientific Study of Religion*, 49, 1–14.
- Chaves, M. (2012). Religious congregations. In L. Salamon (Ed.), *The state of nonprofit America*. Washington, DC: Brookings Institution Press.
- Chaves, M., & Cavendish, J. C. (1994). More evidence on U.S. Catholic church attendance. *Journal for the Scientific Study of Religion*, 33, 376–381.
- Chaves, M., & Stevens, L. (2003). Church attendance in the United States. In M. Dillon (Ed.), *Handbook of the sociology of religion* (2nd ed., pp. 85–95). Cambridge: Cambridge University Press.
- Cnaan, R. A., Kasternakis, A., & Wineburg, R. J. (1993). Religious people, religious congregations, and volunteerism in human services: Is there a link? *Nonprofit and Voluntary Sector Quarterly*, 22, 33–51.
- Collett, J. L., & Morrissey, C. A. (2007). *The social psychology of generosity: The state of current interdisciplinary research*. Indiana: Center for the Study of Religion in Society, University of Notre Dame. Retrieved from http://generosityresearch.nd.edu/assets/17634/social_psychology_of_generosity_final.pdf
- Darley, J. M., & Batson, C. D. (1973). 'From Jerusalem to Jericho': A study of situational and dispositional variables in helping behavior. *Journal of Personality and Social Psychology*, 27, 100–119.
- Doris, J. M. (2002). *Lack of character: Personality and moral behavior*. Cambridge: Cambridge University Press.
- Eckel, C. C., & Grossman, P. J. (2003). Rebate versus matching: Does how we subsidize charitable contributions matter? *Journal of Public Economics*, 87, 681–701.
- Eckel, C. C., & Grossman, P. J. (2004). Giving to secular causes by the religious and nonreligious: An experimental test of the responsiveness of giving to subsidies. *Nonprofit and Voluntary Sector Quarterly*, 33, 271–289.
- Eckel, C. C., & Grossman, P. J. (2006a). Subsidizing charitable giving with rebates or matching: Further laboratory evidence. *Southern Economic Journal*, 72, 794–807.
- Eckel, C. C., & Grossman, P. J. (2006b). *Subsidizing charitable contributions in the field: Evidence from a non-secular charity (Working paper)*. School of Social Sciences, University of Texas at Dallas.
- Ellison, C. G. (1995). Rational choice explanations of individual religious behavior: Notes on the problem of social embeddedness. *Journal for the Scientific Study of Religion*, 34, 89–97.
- Francis, L. J., Pearson, P. R., & Kay, W. K. (1983). Are religious children bigger liars? *Psychological Reports*, 52(2), 551–554.
- Galen, L. W. (2012). Does religious belief promote prosociality? A critical examination. *Psychological Bulletin*, 138, 876–906.
- Ganster, D. C., Hennessey, H. W., & Luthans, F. (1983). Social desirability response effects: Three alternative models. *Academy of Management Journal*, 26, 321–331.
- Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Anchor.
- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement: I/E-revised and single-item scales. *Journal for the Scientific Study of Religion*, 28, 348–354.
- Grossman, P. J., & Parrett, M. B. (2011). Religion and prosocial behaviour: A field test. *Applied Economics Letters*, 18, 523–526.
- Hadaway, C. K., & Marler, P. L. (2005). How many Americans attend worship each week? An alternative approach to measurement. *Journal for the Scientific Study of Religion*, 44, 301–322.
- Hadaway, C. K., Marler, P. L., & Chaves, M. (1993). What the polls don't show: A closer look at U.S. church attendance. *American Sociological Review*, 58, 741–752.
- Hadaway, C. K., Marler, P. L., & Chaves, M. (1998). Overreporting church attendance in America: Evidence that demands the same verdict. *American Sociological Review*, 63, 122–130.
- Havens, J. J., O'Herlihy, M. A., & Schervish, P. G. (2002). Charitable giving: How much, by whom, to what, and how? In W. W. Powell, & R. Steinberg (Eds.), *The non-profit sector: A research handbook* (pp. 542–567). New Haven, CT: Yale University Press.
- Heaven, P. C. L., & Ciarrochi, J. (2007). Personality and religious values among adolescents: A three-wave longitudinal analysis. *British Journal of Psychology*, 98, 681–694.
- Hodgkinson, V. A., Weitzman, M. S., & Kirsch, A. D. (1990). From commitment to action: How religious involvement affects giving and volunteering. In R. Wuthnow, & V. A. Hodgkinson (Eds.), *Faith and philanthropy in America: Exploring the role of religion in America's voluntary sector* (pp. 93–114). San Francisco, CA: Jossey-Bass.
- Holtzman, P., & Kagan, J. (1995). Whither or wither personality research. In P. E. Shrout, & S. T. Fiske (Eds.), *Personality research, methods, and theory: A Festschrift honoring Donald W. Fiske*. Hillsdale, NJ: Erlbaum.
- Independent Sector. (2002). *Giving and Volunteering in the United States 2001*. Washington, DC: Author.
- International Communications Research. (2006). *The Faith Matters Survey*. Retrieved from <http://americangrace.org/RESEARCH/FM2006%20FINAL.pdf>
- Jackson, E. F., Bachmeier, M. D., Wood, J. R., & Craft, E. A. (1995). Volunteering and charitable giving: Do religious and associational ties promote helping behavior? *Nonprofit and Voluntary Sector Quarterly*, 24, 59–78.
- Malhotra, D. (2010). (When) are religious people nicer? Religious salience and the 'Sunday Effect' on pro-social behavior. *Judgment and Decision Making*, 5, 138–143.
- Marcum, J. P. (1999). Measuring church attendance: A further look. *Review of Religious Research*, 41, 121–129.
- Marler, P. L., & Hadaway, C. K. (1999). Testing the attendance gap in a conservative church. *Sociology of Religion*, 60, 175–186.
- McCrae, R. R., & Costa, P. T., Jr. (2008). The five-factor theory of personality. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 159–181). New York, NY: Guilford.
- McCullough, M. E., Tsang, J., & Brion, S. (2003). Personality traits in adolescence as predictors of religiousness in early adulthood: Findings from the Terman Longitudinal Study. *Personality and Social Psychology Bulletin*, 29, 980–991.
- Monsma, S. V. (2007). Religion and philanthropic giving and volunteering: Building blocks for civic responsibility. *Interdisciplinary Journal of Research on Religion*, 3. Retrieved from http://www.religionjournal.com/articles/article_view.php?id=19
- Mooyart, J. (2011). *Where is God in the game? The relation between religion and cooperation [Bachelor's thesis]*. Faculty of Social and Behavioural Sciences, Universiteit Utrecht.
- National Data Program for the Sciences. (1972–2008). *The General Social Survey*. Retrieved from <http://www.norc.uchicago.edu/GSS+Website/Publications/GSS+Questionnaires/>
- Nemeth, R. J., & Luidens, D. A. (2003). The religious basis of charitable giving in America: A social capital perspective. In C. Smidt (Ed.), *Religion as social capital: Producing the common good* (pp. 107–120). Waco, TX: Baylor University Press.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231–259.
- Norenzayan, A., & Shariff, A. F. (2008). The origin and evolution of religious prosociality. *Science*, 322, 58–62.
- Oxford English Dictionary. (2009). *Generous*. Retrieved from <http://www.oed.com/view/Entry/77535>
- Parry, H. T., & Crossley, H. M. (1950). Validity of responses to survey questions. *Public Opinion Quarterly*, 14, 61–80.
- Pew Research Center. (2010). *Religion among the Millennials*. Retrieved from <http://pewforum.org/uploadedFiles/Topics/Demographics/Age/millennials-report.pdf>
- Phillips, D. L., & Clancy, K. J. (1972). Some effects of 'social desirability' in survey studies. *American Journal of Sociology*, 77, 921–940.
- Powell, G. E., & Stewart, R. A. (1978). The relationship of age, sex, and personality to social attitudes in children aged 8–15 years. *British Journal of Social and Clinical Psychology*, 17, 307–317.
- Presser, S., & Stinson, L. (1998). Data collection mode and social desirability bias in self-reported religious attendance. *American Sociological Review*, 63, 137–145.
- Presser, S., & Traugott, M. (1992). Little white lies and social science models: Correlated response errors in a panel study of voting. *Public Opinion Quarterly*, 56, 77–86.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon and Schuster.
- Putnam, R. D., & Campbell, D. E. (2010). *American grace: How religion divides and unites us*. New York, NY: Simon and Schuster.

- Randolph-Seng, B., & Nielsen, M. E. (2008). Is God really watching you? A response to Shariff and Norenzayan (2007). *International Journal for the Psychology of Religion*, 18, 119–122.
- Regnerus, M. D., Smith, C., & Sikkink, D. (1998). Who gives to the poor? The influence of religious tradition and political location on the personal generosity of Americans toward the poor. *Journal for the Scientific Study of Religion*, 37, 481–493.
- Roberts, M. K., & Davidson, J. D. (1984). The nature and sources of religious involvement. *Review of Religious Research*, 25, 334–350.
- Saguaro Seminar. (2001). *The Social Capital Community Benchmark Survey*. Retrieved from http://www.cfsv.org/communitysurvey/docs/survey_instrument.pdf
- Saroglou, V. (2010). Religiousness as a cultural adaptation of basic traits: A five-factor model perspective. *Personality and Social Psychology Review*, 14, 108–125.
- Science of Generosity Initiative. (N.d.). *What is generosity?* Center for the Study of Religion in Society, University of Notre Dame, Indiana. Retrieved from <http://generosityresearch.nd.edu/more-about-the-initiative/what-is-generosity/>
- Shariff, A. F., & Norenzayan, A. (2007). God is watching you: Priming God concepts increases prosocial behavior in an anonymous economic game. *Psychological Science*, 18, 803–809.
- Smidt, C. E., den Dulk, K. R., Penning, J. M., Monsma, S. V., & Koopman, D. L. (2008). *Pews, prayers, and participation: Religion and civic responsibility in America*. Washington, DC: Georgetown University Press.
- Smith, R. E., Wheeler, G., & Diener, E. (1975). Faith without works: Jesus people, resistance to temptation, and altruism. *Journal of Applied Social Psychology*, 5, 320–330.
- Smith, T. W. (2006). *Altruism and empathy in America: Trends and correlates*. National Opinion Research Center/University of Chicago.
- Soubélet, A., & Salthouse, T. A. (2011). Influence of social desirability on age differences in self-reports of mood and personality. *Journal of Personality*, 79, 741–762.
- Stark, R., & Bainbridge, W. S. (1980). Networks of faith: Interpersonal bonds and recruitment to cults and sects. *American Journal of Sociology*, 85, 1376–1395.
- Stocké, V., & Hunkler, C. (2007). Measures of desirability beliefs and their validity as indicators for socially desirable responding. *Field Methods*, 19, 313–336.
- Trimble, D. E. (1997). The Religious Orientation Scale: Review and meta-analysis of social desirability effects. *Educational and Psychological Measurement*, 57, 970–986.
- Wang, L., & Graddy, E. (2008). Social capital, volunteering, and charitable giving. *Voluntas*, 19, 23–42.
- Weipking, P., & Maas, I. (2009). Resources that make you generous: Effects of social and human resources on charitable giving. *Social Forces*, 87, 1973–1995.
- Wilhelm, M. O. (2007). The quality and comparability of survey data on charitable giving. *Nonprofit and Voluntary Sector Quarterly*, 36, 65–84.