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Atheism, Wellbeing, and the Wager: Why Not Believing in God (With Others) is Good for You

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Abstract | The majority of social science research on religiosity and associated variables has tended to focus on putative beneficial aspects, implying that the absence of religious belief is accompanied by liabilities. However, a closer examination of the literature reveals that the mechanisms of most beneficial associations with religiosity are attributable to factors other than beliefs, chiefly, social engagement and embeddeness in supportive groups. Often, those with the lowest levels of well-being and prosociality are uncommitted or indifferent religious believers, not socially engaged nonbelievers. Therefore, defining individuals who are not committed or engaged in socially supportive groups solely in terms of their lack of religious belief virtually guarantees that atheists and agnostics will appear inferior on a variety of outcome variables. However, nonbelief and secular worldviews can also be practiced in social groups such as atheist, humanist, and freethought organizations. Contrary to prevalent stereotypes, organized nonbelief is also associated with well-being and prosociality equivalent to that seen with organized religious belief. Notable areas of relative advantage for nonbelievers are in the domains of outgroup tolerance and moral universalism.

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Guest Editors | John R. Shook PhD, Ralph W. Hood Jr. PhD, and Thomas J. Coleman III

s disbelief in God, on balance, bad for you? Is belief **⊥**in God good for you? Does answering the latter question in the affirmative also compel answering the former in the affirmative? The interest in the psychological associations of nonbelief, atheism, and secularity has steadily increased over the past decade. By comparison, there is an extensive history of studies concerning the putative benefits of religiosity. (For a recent example of a scholarly debate on this topic, see Galen, 2012 with critiques by Saroglou and Myers). One version of a "religion is good for you" thesis (more technically, a "religious prosociality hypotheses") was recently offered in this journal by McBrayer (2014), in the form of Pascal's wager. This argument states that, all other reasons aside, it is better to believe, rather than disbelieve in God because such belief has tangible benefits. If valid, the converse implies that non-belief or atheism does not provide these benefits, or worse, works in opposition to them. Because the hypotheses of religion-as-benefit and atheism-as-detriment are almost always presented (whether tacitly or not) as two sides of the same coin, the present review will first address the evidence regarding the benefits of belief, and then focus more on the implications for nonbelievers and atheists.

In what ways is belief in God said to be superior to nonbelief in terms of tangible outcomes? Several domains are frequently offered as illustrative of the benefits of belief including superior mental and physical well-being, better interpersonal relationships, and greater charitable giving (Brooks 2006; Myers 2000;



Putnam and Campbell 2010). For example, McBrayer points to evidence of associations between religiosity and greater happiness (Gallup 1985), more favorable health outcomes (Koenig, McCullough, and Larson 2001) and general longevity (McCullough et al. 2000). He cites support for the positive effects of religious belief on relationships such as lower rates of divorce and infidelity (Call and Heaton 1997). Another domain that is mentioned in conjunction with the benefits of religious belief is that of communal prosocial behavior, including charitable giving, volunteering, helpfulness, and general "good neighborliness" (Putnam and Campbell 2010). For example, McBrayer points to results stating that the "spiritually committed" are far more involved in charitable activities than are their counterparts. Given the apparent relative lack of benefits for the nonreligious, should they instead place their wager upon belief in God?

Belief vs. Belonging

If we are to approach the impressively large literature on religion and well-being or prosociality for its relevance to nonbelief or atheism, a starting point would be to ask "what is the opposite of religious belief?" In order to ascertain what relevance a belief-as-beneficial hypothesis has for complete nonbelief, it would seem obvious that we should simply look at the end of the continuum that is the antithesis of religious belief. If believers have superior outcomes, it should be axiomatic that nonbelievers lack those benefits. But here we run into a major problem. A close examination of the majority of findings cited in support of the benefits of religious belief indicates that the studies usually do not refer solely to belief or disbelief in God. Rather, most utilize measures such as church attendance, engagement in, or commitment to religion, or subjective importance of religion. Most of the literature (as is the case of the examples cited by McBrayer) has indeed found that religious attendance is related to lower depression, lower divorce risk, greater charitable giving and community volunteering. Likewise the "actively religious" have better physical health and longevity (Hummer et al. 1999; Strawbridge, et al., 1997). However, it bears emphasizing, in a discussion of religious belief, that these findings refer to religious activity and attendance rather than privately-held belief in God (McCullough et al. 2000; Powell, Shahabi, and Thoresen 2003).

The counterpoint to a religiously-involved "frequent

attender" - a "never-attender" - is not necessarily equivalent to being a nonbelieving atheist. There is a significant correlation between religious belief and religious practice, but it is a modest one (e.g., Pearson's r of 0.40; Halman and Draulans 2006). Rather, the majority of those who are not active in religious organizations or who do not attend services are believers in God who are uncommitted or unengaged with religious practices Likewise, the largest segment of the most frequently-used comparison group to religious affiliation - the unaffiliated (i.e., those not declaring as a member of any religious denomination) - believe in God. By contrast, about a third of the unaffiliated are secular atheists and agnostics who differ markedly from the religious unaffiliated on a wide range of important variables aside from metaphysical beliefs, such as educational attainment (Pew Forum 2008). Therefore, the use of attendance as a measure of belief and nonbelief has the effect of lumping indifferent and uncommitted believers together with atheists and agnostics. A more accurate description of findings such as those cited by McBrayer would be something like "committed or devout religious individuals tend to have lower incidence of depression compared with uncommitted or uninvolved religious individuals".

To take a specific example cited by McBrayer, Arthur Brooks, in his book Who Really Cares, argued that those with regular church attendance were more likely to have made a charitable donation and volunteered during the past year (Brooks 2006, 35). But again, this leads to the question: more likely than whom? Brooks' use of the data (taken from the Social Capital Community Benchmark Survey 2000) involved categorizing people as "religious" if they attended church once a week or more, in contrast to those labelled as "secular" who reported no religious preference or attending church less frequently than a few times per year (Brooks 2004, 4). That is, the "seculars" consisted of the completely nonreligious combined with the non-practicing religious, and thus comparisons were made between those known to be active and committed members of social groups versus nonmembers. Brooks' results are better described as: people who are embedded members of normative community groups (i.e., religious organizations) and who attend the groups regularly, give more to charities than those who are not regular members.

In fact, the primary sources cited as support for the belief-as-beneficial theory themselves have often



qualified their findings as applying only to the effects of religious engagement rather than religious belief. Brooks (2004) stated: "the role of religion in giving appears to turn on the practice itself..." (p. 7). Likewise, in the cited research on marriage, Call and Heaton state: "of the dimensions of religious experience, attendance has the greatest impact on marital stability" (1997, 389). Contrary to the implication lent by McBrayer's description of the General Social Survey data in which "religious people" are superior in terms of a range of personal relationship variables to those who never attend church, although religious attendance is related to non-monogamous sex, religious belief is not and the nonreligious do not differ from the religiously-affiliated in regard to cheating sex (Atkins and Kessel 2008; Farmer, Trapnell, and Meston 2010). In their book American Grace, Putnam and Campbell stated that "religious beliefs... turn out to be utterly irrelevant to explaining the religious edge in good neighborliness." Rather, the religiously-based social network predicted prosociality, such that "even an atheist who happened to become involved in the social life of a congregation . . . is much more likely to volunteer in a soup kitchen than the most fervent believer who prays alone" (2010, 472–473).

In an odd instance of "burying the lede" later in his paper, McBrayer brings up and then counters a possible objection that it is not belief in God, but rather the practice of a religion that matters. This is followed by something of a non sequitur: "while such research might undermine the thesis of this paper that belief in God is good for you, it would still be an interesting conclusion if a renewed wager could show that we have strong prudential reasons to practice a religion, even if it didn't go as far as belief in God" (138). Aside from the serious problems in referring to a practice without a belief in God as "religion", the fact that collective social engagement appears to be the beneficial component in religious practice certainly raises the question, in the context of a discussion of whether religion is "good for you", whether religious belief is even necessary to obtain prosocial benefits.

What factors predict prosociality?

If believing in God is relatively unimportant for these benefits, then what else could account for the relatively strong relationship between engagement in religious practice and positive outcomes? As alluded to above, prosocial characteristics such as happiness and charitable giving are found most often when using measures such as religious engagement or attendance at services. Why is this? Frequent church attenders tend to have greater social contact and denser social networks than non-attenders (Ellison and George 1994). The relationship between religious attendance and physical or mental well-being are largely mediated by factors such as social capital and perceived social support derived from group engagement (Salsman et al., 2005; Stark and Maier 2008; Yeary et al., 2012). This explains why, for example, church attendance is more strongly related to mental health than are individual religious beliefs (Acevedo 2010; Berthold and Ruch 2014; Patrick and Kinney 2003; Smith, Mc-Cullough, and Poll 2003). Such results indicate that when the social relationships and support associated with collective religious engagement are taken into consideration, the relationship between belief in God and well-being often disappears or is substantially diminished (Greenfield and Marks 2007; Jackson et al., 1995). For example, religious and nonreligious group members with equal levels of group participation have equivalent physical health, indicating that positive health effects are attributable to the social participation component, rather than to the belief component (Shor and Roelfs 2013).

In a variety of other domains mentioned by McBrayer (e.g., marriage), although religious attendance is linked with benefits, religious beliefs have not been found to be related to actual interpersonal behaviors (e.g., divorce, fewer conflicts; Clydesdale 1997; Sullivan 2001). Likewise, for forms of communal prosociality such as charitable giving and volunteering, it is not belief in God, but rather the social networking present in religious groups that drives the effect (Brown and Ferris 2007; Monsma 2007; Reitsma, Scheepers, and te Grotenhuis 2006; Smith and Stark 2009). Membership in religious groups simply increases the likelihood that one will be asked to donate money or time, or that social activities, accompanied by peer influences, and interactions will be structured around charitable activities (Becker and Dhingra 2001; Campbell and Yonish 2003; Merino 2013). Even nonreligious individuals, if they are socially linked to active members of religious congregations engage in more volunteering (Lim and MacGregor 2012). Unfortunately, when many studies report prosocial effects stemming from religious social networks, they are often misinterpreted as demonstrating that religious belief is driving such behavior. For example, McBrayer cites





Lim and Putnam's (2010) findings that religiosity boosts life satisfaction only when coupled with the social networking that occurs in religious services, but this fact is never followed to its full implications: What is the evidence that religious belief is uniquely beneficial and why does the social group need to be religious in character in order to yield similar benefits? If a particular study does not include nonbelievers and atheists who are similarly socially engaged, it cannot address the associations with religious belief independently of the role of social engagement. For example, Lewis, MacGregor, and Putnam (2013) found that religiously-based social networks predicted volunteering, informal giving, and civic participation but the study did not include a specifically secular counterpart to those engaged in church groups and thus found a prosocial effect as a function of social networking, not belief in God or religiosity.

There are other factors that are associated with religious belief that often complicate interpretation of the relationship with prosociality. For example, women are found in greater numbers in religious groups and they are also more likely to engage in prosocial behavior such as charity and volunteering. Controlling for demographic factors such as the proportion of married women with children has been found to diminish or eliminate the relationship between religious denomination and prosociality (Galen and Kloet 2011a; Manning 2010). Similarly, with physical benefits such as mortality risk, studies controlling for demographics and religious service attendance eliminate much or all of the effect due to religion (Sullivan 2010), suggesting that demographic characteristics, psychosocial influences, and the lack of attendance account for the higher mortality rates of those with no religious preference. Likewise, in the research on divorce, demographic characteristics have the greatest influence on dissolution (Call and Heaton 1997). Atheists and agnostics have a lower rate of divorce than some religious groups such as conservative Protestants largely because of differences in the age at marriage and education levels (Pew, 2008). In sum, many previously-reported characteristics associated with religiosity are not a function of belief itself, but rather of demographics and social embeddedness. When studies use religious engagement they are also sampling factors such as general motivation, conscientiousness, and willingness to participate in programs or social events rather than simple belief in god. To amend McBrayer's advice that: "...one of the best things one can do is become involved in a religion" (135), the last element in the statement is superfluous (i.e., the involvement does not have to be religious involvement).

Normative context

In an attempt to rebut the criticism that any benefits of religiosity are reducible to practice, McBrayer mentions that all of the empirical studies cited were done in the United States where the overwhelming majority of religious people are theists, so "the data collected so far seems to track theistic belief just as well as it tracks religious practice". However, this inadvertently brings up another important qualification of the associations between religiosity, secularity, and well-being: the religious context. As mentioned earlier, it is indeed accurate to state that forms of well-being such as happiness and life satisfaction are associated with religious engagement. However, this relationship varies as a function of the predominance of religion in the country or society. Where religiosity predominates, religiously-involved people are more mentally healthy than secular people, but where religiosity is not dominant, either no relationship exists, or the nonreligious are happier and have fewer mental health problems than the religious (Diener, Tay, and Myers 2011; Eichhorn 2012; Gebauer, Sedikides, and Neberich 2012; Leurent, et al. 2013; Lun and Bond 2013; Snoep 2008; Stavrova, Fetchenhauer, and Schlösser 2013). Such a pattern is best explained by a normative effect such that worldviews, whether religious or secular can vary in degree of alignment between individuals' beliefs and the prevailing social milieu. Thus, a communally-oriented individual is likely to be religious if residing in a religiously-predominant country but the opposite is true in a secular country. In fact, on a societal level, countries with the greatest level of disbelief in God are the most functional, stable, and secure nations and regions (Barber 2011; Paul 2009). In these contexts, religiosity does not appear to confer any benefits such as buffering against stress, and being embedded or socially engaged in a community does not require religious contextualization. For example, in a study conducted in Norway (a very secular country), religious and nonreligious middle aged adults did not differ in their levels of social support, and secular older adults reported higher levels of social support than the religious (Kvande et al., 2014).

Of conviction and curvilinearity

In the same manner that the absence of religious be-



havior is misinterpreted as the absence of belief in God, when considering studies finding that strongly convicted or devout individuals do better than the less devout, the question must be asked "what is the opposite of having strong religious beliefs or convictions?" The majority of studies use measures or subjective importance anchored at the low end by choices such as "religion is not important to me". For example, McBrayer mentions the frequently-used dimension of intrinsic religiosity, which refers to the degree to which religion is important or serves as a guiding basis in an individuals' life. One of the items on the intrinsic religiosity scale is "I try hard to live all my life according to my religious beliefs" (Gorsuch and McPherson 1989). Another item, this one scored in reverse (i.e., disagreeing indicates greater intrinsic-ness) is, "although I believe in my religion, many other things are more important in my life". It is of dubious validity when such questions are answered from the standpoint of an atheist. First, the latter item is "double-barreled" in that an atheist faces a dilemma regarding with which portion of the item to disagree. More importantly, how would such a construct capture an individual who lives a life of meaning and commitment to a belief system, but the beliefs are not religious ones (e.g., secular humanism)? Studies using intrinsic religiosity have the effect of combining indifferent religious individuals together with compete nonbelievers and thus the intrinsic measure only has validity when used on religious individuals. One could imagine a similar problem in defining a liberal as one who scores low on a scale designed to measure "subjective importance of conservatism". Such data do not address the question of whether or not "religion (or atheism) is good" because degree of commitment to a belief system is confounded with the particular type of metaphysical belief.

However, if the degree of worldview conviction is treated separately from the meta-physical belief content, that is, if the strength or coherence of beliefs is separated from whether or not the beliefs are religious, another interesting hypothesis is apparent. There are benefits for having *either* a strongly religious *or* a firmly nonreligious worldview. This "curvilinear" relationship indicates that those with the least firm beliefs - the indifferent, undecided, or confused - have the lowest well-being. In fact, when studies have been methodologically and analytically equipped to detect this effect, many have indeed found that strong belief *either way* is associated with mental health, with

affirmatively nonreligious individuals and atheists exhibiting mental health equivalent to the highly religious (Buggle et al., 2000; Eliassen, Taylor, and Lloyd 2005; Horning et al., 2011; Meltzer et al., 2011; Mochon, Norton, and Ariely 2011; Riley, Best, and Charlton 2005; Ross 1990; Shaver, Lenauer, and Sadd 1980; Wilkinson and Coleman 2010).

This pattern is also seen cross-nationally. For example, data from the World Values Survey, representing fifty nations, indicate that those for whom religion is either "very important" or "not at all important" report a greater level of happiness than those for whom religion is "rather important" and "not very important" (Rees 2009). Taken together with the above-mentioned point about the difference between religious commitment and religious belief, this provides more context to the 1985 Gallup data McBrayer cites showing a linear positive relationship between greater "spiritual commitment" and greater life satisfaction. In fact, a more recent Gallup-Healthways poll found that moderately religious individuals had poorer mental health than the highly religious and the nonreligious (Newport, Agrawal, and Witters 2010). (The report was titled "Very Religious Americans Report Less Depression, Worry"). Yet, if belief in God itself is beneficial, why are the moderate believers benefitting less than the complete nonbelievers?

One possible explanation for this curvilinear effect is that greater certainty or commitment in people's beliefs or worldviews, whether religious or secular, may result in greater emotional stability, comfort, or acceptance compared with persistent ambivalence or uncertainty (Galen and Kloet 2011b). Relevant to the above-mentioned lumping problem, those who are "fence-sitters," or who have doubtful or uncertain views, such as "seekers", "questers" or "spiritual but not religious" have been found to exhibit lower well-being that those with more certain worldviews such as atheists and the religiously devout (Hunsberger, Pratt, and Pancer 2002; King et al. 2013; Krause 2006; Krause and Wulff 2004; Lavric, and Flere 2010). Combined with the evidence of social-contextual effects, an additional explanation is that lower levels of religiosity are associated with poor mental health only if this is relatively atypical or is viewed as deviant, as would be the case in a religiously-predominant milieu in which lack of belief is pejoratively referred to as "apostasy" or "backsliding". Worldviews, whether religious or secular, tend to be associated with mental health if they



are confidently held, perceived to be normative, and consensually validated by others.

Taken together, the importance of being socially engaged with others who share coherent worldviews would appear to require an alteration in the religious belief-as-benefit hypothesis. Both atheists and secular individuals exhibit identical benefits to the religious under such conditions. In attempting to counter the possible objection that belief in God isn't a necessary condition for securing benefits, McBrayer states that "at least some studies suggest that the most plausible secular alternatives don't have the same positive effects", citing a study comparing religious and secular civic participation (Acevedo, Ellison, and Xu 2014). A closer examination of that particular study indicates several things. Acevedo et al. indeed state that religious organizations may offer "slightly stronger" effects relative to other forms of civic engagement, however it is not mentioned by McBrayer that the study also found that nonorganizational religious participation (e.g., prayer) was associated with greater psychological distress, and that both organizational religious involvement and secular volunteering mitigate the noxious effects of financial hardship on distress, with the religious involvement effect merely being stronger. More to the present point, in this study "secular" referred broadly to any non-church civic groups and activities (e.g., voting, volunteering) not specifically to nonreligious groups with affirmative, shared secular world-

views (e.g., humanist alliances, atheist organizations).

If one wishes to ascertain the effect of religious beliefs

rather than social influences present in any group, the

equivalent comparison to a group of religious believ-

ers is a group of equally committed secular believers,

not merely those who are members of civic groups.

Again, the actual implication of the study (i.e., not all

types of groups have equivalent benefits), is confound-

ed with the religious belief content of the groups (i.e.,

civic groups are not affirmatively secular groups).

In fact, when comparisons are made between church and secular group members, many of the putative advantages of religious belief (e.g., number of close friends, perceived social support) disappear (Galen and Kloet 2011a). In an example of such a comparison, when Galen, Sharp, and McNulty (2015) controlled for the demographic (e.g., sex, income, education) and group attendance-related differences between church and secular group members there were few associations with prosocial behavior that were attributable to

religious belief itself.

Secular groups and nonreligious well-being

To briefly review, benefits in terms of personal well-being and prosociality accrue from sharing social contact and a group identity in a supportive context, regardless of religious content. Turning attention toward a greater focus on atheists and nonbelievers, what do we know about sources of nonreligious well-being and types of specifically nonreligious groups that can offer these benefits? Is "not believing in God together with other nonbelievers" good for you?

There has been significant growth in the opportunity to encounter other secular and nonreligious people, whether informally on the internet (e.g., meetups, facebook groups) as well as through formal organizations in schools, universities, and communities (e.g., secular, freethought, humanist, or atheist alliances, the Centers for Inquiry), reflecting a shift from individual nonbelief to a collective identity (Galef 2010; Guenther, Mulligan, and Papp 2013). Although in most of these groups, the absence of religious belief itself is the ostensible common focus, they frequently also involve other socio-political issues and communal activities such the dissemination of science and critical thought, promotion of church-state separation, volunteering for community service, and the like. As with other social organizations based upon shared worldviews, this communal activity serves to strengthen group cohesion as well as enhance self-understanding for the nonreligious (Smith 2013). Such social contact, as mentioned above, also has beneficial personal effects. As is the case with religious affiliation, being affiliated with a nonreligious group is associated with greater well-being and prosociality relative to being unaffiliated (Galen and Kloet 2011a; 2011b; Galen, Sharp, and McNulty 2014). Because nonbelief also carries a social stigma in a religiously-predominant context, for many nonbelievers, part of the narrative content in nonreligious groups involves themes of social and familial rejection and negotiation of being "the Other" in society (Guenther, Mulligan, and Papp 2013). One recent study found that perceived discrimination on the part of atheists was negatively associated with their well-being, but it also increased the sense of identifying as an atheist, which itself was positively associated with well-being (Doane and Eliott 2015). That is, atheists strengthen their group identification in the face of discrimination; a strategy that is protec-



tive from the harmful effects of social rejection that would be experienced more acutely if handled alone. It therefore seems justifiable as well as ironic to state that promulgating the theory that religion is beneficial has the effect of not only reducing nonbelievers' level of well-being, but it also leads them to further identify strongly as atheists.

Given that being engaged in a supportive social community confers benefits regardless of religious content, are there any differences in the factors relevant to well-being that distinguish believers and nonbelievers? Aside from the ubiquitous need for social belonging, there are other more existential and epistemic needs linked to psychological well-being such as having a sense that one's life has meaning, purpose, and a degree of control. However, nonbelievers are likely to make a distinction between a belief that one's specific life has purpose or meaning, as opposed to a belief that life in general or existence itself is purposeful and meaningful. Nonreligious individuals make such a distinction because they do not believe that an external agency establishes and maintains a meaningful or teleological universe, but they may still view their own lives are meaningful, preventing a sense of nihilism.

Interestingly, some objective differences in worldviews between atheists and the religious are not always reflected in their subjective reactions or mental health. For example, although studies have found that atheists report lower levels of meaning in life, this does not translate into the perception of a crisis or a greater searching for meaning compared to those in other belief groups (Horning et al. 2011; Schnell and Keenan 2011), indicating that atheists' lower general sense of meaning does not affect their overall happiness or life satisfaction. Another universal concern is the sense that one exists in an environment operating with a degree of order and control, which can be derived from a variety of external sources such as deities (for the religious) as well as stable socio-political institutions (Kay et al., 2010). One such secular alternative source of order is a belief in the efficacy of the scientific worldview, which makes the universe comprehensible. Evidence indicates that not only is the belief in a scientific worldview negatively correlated with belief in a religious worldview, but to the extent that one worldview increases in value, the other one decreases in value, in a compensatory or hydraulic-type relationship (Preston and Epley 2009). Therefore, a religious worldview with an external sense of purpose and

meaning is merely one type among a broader array of systems including endorsement of scientific progress and a belief in stable socio-political institutions that all provide similar existential and epistemic functions (Rutjens, van Harreveld, and van der Pligt 2013). For example, when individuals encounter stressors such as threats to their sense of control or reminders of mortality, they exhibit a heightened belief in those scientific theories that specifically provide a sense of order and predictability (Farias et al., 2013; Rutjens, van der Pligt, and Harreveld 2010), indicating that the endorsement of a secular, scientific worldview can provide similar benefits and existential meaning for nonbelievers that a religious worldview does for believers (Tracy, Hart, and Martens 2011). For example, studies of atheists have indicated that they derive happiness and fulfillment from their affinity for logic and science (Hunsberger and Altemeyer 2006).

Many methods of coping with physical and emotional stressors rely on mechanisms that are similar or analogous for the religious and nonreligious alike. Acts of secular reverence -- being in nature, playing sports, enjoying music or art, being loved or supported, and serving others - play an equivalent role for the nonreligious that spiritual concepts play for the religious. Researchers have found that for patients awaiting surgery, the use of reverence in a secular sense rather than the religious/spiritual sense, predicts shorter hospitalization (Ai, Wink, and Shearer 2011). Further, many of the mechanisms often attributed to the use of positive religious coping and its connection with better physical functioning are largely reducible to basic secular factors that do not require a spiritual worldview such as social support and the instilling of hope (Ai et al., 2007). In another example, the use of meditation and relaxation, practices not necessarily spiritual in content, can function effectively for both religious and nonreligious individuals to buffer stressors and improve physical and mental health.

One area that reveals more clear differences between religious and nonreligious individuals pertains to end-of-life issues. One the one hand, individuals regardless of their religiosity express similar desires to find meaning and to have connection with friends and family. However, in contexts where religiosity is predominant, the nonreligious can have concerns that religious elements not be introduced into their treatment (Smith-Stoner 2007). In cases of prolonged, futile suffering, the nonreligious are more likely than the





religious to avoid aggressive life-extending measures and are more open to the idea of physician-assisted death (Balboni et al. 2007; Phelps et al. 2009). In sum, many of the same factors that promote well-being in the religious are also effectively utilized by the nonreligious, although the differences in their worldviews may be most apparent when dealing with existential issues such as death and the sources of meaning in life.

The nonreligious advantage

Rather than frame the question as a comparison between the religious and nonreligious in the somewhat defensive manner as "are the nonreligious as well-off as the religious?" an alternative way of framing the question pertains to areas that may indicate a nonreligious advantage. Part of McBrayer's argument in favor of placing a wager on belief rather than nonbelief was that there was "simply not the clear, careful empirical evidence tying belief in God to negative outcomes" (137). In response to the potential charge that religious belief makes one intolerant, McBrayer counters that people who are spiritually committed are more likely to be tolerant of other people and races. Rather than re-iterate the earlier point that definitions such as "spiritually committed" are not tantamount to belief in God or religious identification, a firmer refutation of this argument is based on the copious amount of research on religiosity, tolerance, and prejudice.

Contrary to McBrayer's thesis, surveys as well as experimental research conducted over the past half century have provided no evidence that religious belief in general makes people more tolerant, and yielded much evidence to the contrary. For example, a meta-analytic review of studies found that religiosity was linked with greater racism, largely through its influence on promoting group identity and its association with conformity and traditionalism (Hall, Matz, and Wood 2010). Agnosticism, by contrast, was linked to the greatest racial tolerance. Experimental work has shown that activating Christian concepts in the minds of participants causes them to display more prejudice toward African-Americans, illustrating an associative connection between religious identity and racism (Johnson, Rowatt, and LaBouff 2010). A wide range of what might be best described as parochial attitudes (i.e., constraint in dealing with different others, xenophobia, closed-mindedness) have been repeatedly linked with religious belief (Galen, Sharp, and McNulty 2015; Putnam and Campbell 2010).

However, McBrayer does attempt to make a point that bears further scrutiny pertaining to what specific types of religious belief should be considered relevant. McBrayer advocated for placing the wager on belief in God by stating that there is no empirical evidence tying religious belief to negative outcomes. He contends that some oft-cited evidence of harmfulness (e.g., the Crusades) is not compelling because "...it is not the belief that God exists but some auxiliary belief like 'God wants me to kill the heathens' that is efficacious" (137) and that it is "...not in our best interest to hold EVERY religious belief". He argues that "... it is implausible that religious belief is efficacious in many of the hackneyed examples on offer" suggesting that instances such as the Crusades are more related to other interests (e.g., greed). Apart from disregarding the pernicious effects that belief in a divine sanction can have on potentiating aggression and exacerbating conflict (Bushman et al., 2007; Neuberg et al. 2014), this brings up a valid point regarding the presence of different strains or types of religious belief.

Evidence indicates that the concept of religion contains many separate facets or orientations, with differing patterns of associations. For example, Gordon Allport's (1954) classic work on religiosity and prejudice distinguished between intrinsic (sincere) versus extrinsic (utilitarian) religiosity. General religiosity itself does contain elements of prosocial, humanistic, inclusive values, but these compete with a separate set of conservative, exclusive, and authoritarian influences (Malka et al., 2011; Taniguchi and Thomas 2011; Saroglou, Corneille, and Van Cappellen 2009). Ironically, many of the individual benefits associated with practicing religion in a group are obtained at the expense of others who are not in that group. Thus, the portion of religiosity relevant to belief in God is associated with benevolence towards those who are different (the outgroup), but a separate portion pertaining to religious identification has an insulating effect, focusing prosociality toward only ingroup members (Preston and Ritter 2013). Obviously, focusing only on the prosocial portion of religious belief as the one on which to place a wager is tantamount to a "no true Scotsman" fallacy in which the non-prosocial forms of belief is not "real" religious belief.

It is here that we see evidence of relative nonreligious advantage. Although there is a nearly universal tendency for humans to favor those who are proximate or similar to us as opposed to those who are strangers,



people differ in the degree to which this tendency is emphasized in their psychology, morals, and behavior. Some individuals and socio-cultural groups make sharp distinctions between friends, family and kin on one hand, and foreigners or outgroup members, on the other. In contrast, some individuals show little nepotistic favoritism or xenophobia, viewing others as equal regardless of group membership or proximity. Religion has been demonstrated to increase the tendency toward ingroup favoritism or "parochial altruism" (Choi and Bowles 2007). Religiosity's function within groups and cultures has always involved what Henrich et al. (2010) describe as: "prosocial behaviour towards co-religionists (and the exploitation of nonco-religionists)" (S88). Some anthropological theories suggest that religion itself, in regard to its origin and function, has more to do with binding together social and cultural groups than it does with abstract metaphysical beliefs. Rather, according to this view, the metaphysical beliefs have evolved for the purpose of group binding rather than universal morality (Bloom 2012; Graham and Haidt 2010; Norenzayan and Shariff 2008), giving rise to concepts such as "God's chosen people" and sanctified ethno-religious boundaries.

Because of this, any putative beneficial associations with religion should always be contextualized in relation to group membership. Although those who are more religious place a higher value on benevolence toward friends and family, they are less likely than the nonreligious to value the universal welfare of strangers and outgroup members (Saroglou, Delpierre, and Dernelle 2004). As a result, general outgroup-inclusive trust is negatively associated with religiosity (Welch, Sikkink, and Loveland 2007). This is also reflected in different patterns of moral attitudes. Those who are secular in outlook tend to determine what is right or wrong in a way that is more narrowly focused on issues of consequentialist or utilitarian care-based and fairness-based ("individualizing") morality, and the use of an "ethics of autonomy" -that people ought to be allowed to live as they choose as long as others are not harmed (Graham and Haidt 2010). By contrast, those who are more religious tend to also moralize notions of sanctity, loyalty to one's ingroup, and obedience to authority ("binding morality"), which are more arbitrary and relativistic to group status. As a result, although religiosity is predictive of individuals' attitudes regarding reproductive morality such as "illicit" sexuality, or hedonism, it shows no relationship to social or cooperative morality (e.g., lying, cheating,

stealing, hurting others; Weeden and Kurzban 2012).

This also contradicts several of McBrayer's assertions regarding the beneficial influence of religious beliefs on charitable giving and volunteering. Any discussion of religion and charitable giving must begin with the fact that the largest sources of charity are religious organizations themselves (AAFCTP 2002; McKitrick et al., 2013). However, McBrayer attempts to counter any potential objections of religious nepotism by referring to Brooks (2006) for evidence that "religious giving swamps nonreligious giving even to secular causes like the United Way or giving to family and friends" and "the religious are also more likely to donate blood, volunteer, and give directions to those who are lost". Aside from factual objections to these assertions (e.g., blood donation and spontaneous helping of anonymous strangers are not related to religiosity; Batson, Schoenrade, and Ventis 1993; Gillum and Masters 2010) and the abovementioned problems with Brooks' data in defining the comparison groups of the givers, there are also problems in such research pertaining to the categorization of the sources of charity or giving. In many surveys and studies, "religious" giving is narrowly defined as giving to houses of worship or congregations, whereas "secular" sources of charity also include such things, as one study describes them (Center on Wealth and Philanthropy 2007), gifts to a school, program, or hospital run by a religious organization or those "that many would agree embodies spiritual values" (7). For example, donations to organizations like the Salvation Army or Samaritan's Purse could be defined as "secular" because they are not churches, despite having clearly religious connections and goals.

Beyond the ambiguity in the identity of the target of giving, the literature indicates that the association between greater religiosity and greater charitable giving is strongest in the context of religious giving to an unambiguously religious recipient, and weakest or nonexistent in general community contexts when the recipient is not religious (Borgonovi 2008; Choi and DiNittio 2012; Lam 2002; McKitrick et al., 2013; Monsma 2007; Wang and Graddy 2008). For example, Christians and the non-affiliated are equally likely to give to basic necessity organizations (i.e., food, shelter; Ottoni-Wilhelm 2010). A gradient of religious ingroup preference can be seen more clearly in experimental contexts wherein factors such as the group identity of the various partners or "helpers and



helpees" can be controlled (Galen 2012). When the religious or secular identity of potential charities is manipulated and cross-referenced with the religious identity of the giver there is no evidence of a relationship between religious attendance and secular giving (Bekkers 2007; Eckel and Grossman 2004). In fact, the higher the level of individuals' religiosity, the greater the allocation of giving and volunteering toward religious rather than secular causes (Center on Wealth and Philanthropy 2007; Forbes and Zampelli 2013).

In the case of community volunteering, a similar pattern is manifest, indicating that religious individuals do not volunteer more than the nonreligious when the organization or cause is secular (Borgonovi 2008; Galen, Sharp, and McNulty 2015). For example, In the Portraits of American Life Study, the proportion of the religiously unaffiliated who report volunteering at least one hour in a month (61%) was equivalent to other major religious denominations such as Catholics (62%) and Mainline Protestants (59%). However the differences were greater for volunteering that was not with a religious organization, with 81%, 68% and 73% for those same categories. This indicates that religiosity is not associated with general community volunteering in the United States, but it does guide where people volunteer, such that the religious spend more time volunteering in churches, whereas the nonreligious spend more time volunteering outside churches (Cragun 2013). Thus, although religiosity is positively associated with both religious and non-religious civic engagement, factors such as service attendance increases within-group bonding but are negatively associated with civic engagement in more religiously and ethnically diverse settings (Storm 2015). Significant differences in levels of communal prosociality between religious groups (e.g., liberal vs. conservative) argue against any general "religious belief is beneficial" effect and illustrate the previously-mentioned phenomenon of separate religious strains working at odds with other beliefs (e.g., views of God as benevolent vs. judgmental; Driskell, Lyon, and Embry 2008; Mencken and Fitz 2013).

Thus, one way in which the expression of prosociality on the part of nonbelievers is relatively advantageous is in the way it is "indiscriminate" – without reference to the group identity of those likely to benefit. Assistance offered only to those sharing a religious identity rather than non-group members does not represent generalized dispositional generosity operating inde-

pendently of religious identity or motivation. Rather, religiosity promotes a motivation that is ideological or group-based and less universally prosocial. By contrast, nonreligious values such as individual autonomy and generalized trust promote an alternative secular ethos of civic engagement (Storm 2015).

Problems with the wager

One of the assumptions of Pascal's wager was: If one believes in God and God happens not to exist, what is lost? McBrayer's response was that one would forego present benefits by not believing in theism, whereas "belief in God advances many of our goals" (131). But this version of the wager as stated assumes that there are no disadvantages to belief, even if the belief is misplaced. One more complicated, yet empirically-based response is that if such a belief leads one to engage in forms of communal religious belief, there is some evidence to believe one would be personally better off (or as McBrayer puts it getting "what we want in life", 136), but that others in the community (particularly those who do not share one's beliefs) would be worse off than if one engaged in communal nonbelief. Further, theists do not do better than non-theists because of their general religious belief; the particular type of religious belief matters. Some forms (e.g., intrinsic belief in a benevolent deity) are associated with prosocial, universalist behavior, but others (extrinsic belief in a wrathful deity) are associated with parochial and insular behavior, therefore "belief" is not beneficial. As reviewed above, there is no compelling evidence that lacking a belief in God itself is detrimental. If one wishes to define benefits objectively in terms of communal public good and functioning societies, one is better off among the many atheists in Sweden and Denmark than among the many theists in the United States. It is inaccurate and simplistic to assert that only belief in God itself is prudentially justified by positive outcomes whereas disbelief is detrimental.

Likewise, if one wishes to judge the merit of a given worldview by the outcomes that result from such a belief (as William James stated it, judging a belief by its "fruits rather than its roots"), then the evidence indicates that it is beneficial to have a coherent worldview and to engage in regular meaningful interactions with others who share this view in a supportive environment that allows for prosocial engagement with the broader community. There is no reason to suggest that any religious, spiritual, or supernatural concepts need be invoked in order to facilitate this.





References

- Acevedo, Gabriel. 2010. Collective rituals or private practice in Texas? Assessing the impact of religious factors on mental health. *Review of Religious Research* 52: 188-206.
- Acevedo, Gabriel, Christopher Ellison, and Xiaohe Xu. 2014. Is it really religion? Comparing the main and stress-buffering effects of religious and secular civic engagement on psychological distress. Society and Mental Health 4: 111-128. http://dx.doi.org/10.1177/2156869313520558
- Ai, Amy, Crystal Park, Bu Huang, Willard Rodgers, and Terrence Tice. 2007. Psychosocial mediation of religious coping styles: A study of short-term psychological distress following cardiac surgery. *Personality and Social Psychology Bulletin* 33: 867–882. http://dx.doi.org/10.1177/0146167207301008
- Ai, Amy, Paul Wink, and Marshall Shearer. 2011.
 Secular Reverence Predicts Shorter Hospital
 Length Of Stay Among Middle-Aged And Older Patients Following Open-Heart Surgery. *Journal of Behavioral Medicine* 34: 532-541. http://dx.doi.org/10.1007/s10865-011-9334-8
- Allport, Gordon. 1954. *The nature of prejudice*. Reading, MA: Addison-Wesley.
- American Association of Fundraising Counsel Trust for Philanthropy. 2002. Giving USA: The annual report on philanthropy for the year 2002. New York, NY: American Association of Fundraising Counsel.
- Atkins, David, and Deborah Kessel. 2008. Religiousness and infidelity: Attendance, but not faith and prayer, predict marital fidelity. *Journal of Marriage and Family* 70: 407-418. http://dx.doi.org/10.1111/j.1741-3737.2008.00490.x
- Balboni, Tracy, Lauren Vanderwerker, Susan Block, et al. 2007. Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. *Journal of Clinical Oncology* 25: 555-560. http://dx.doi.org/10.1200/JCO.2006.07.9046
- Barber, Nigel. 2011. A cross-national test of the uncertainty hypothesis of religious belief. *Cross-Cultural Research* 45: 318-333. http://dx.doi.org/10.1177/1069397111402465
- Batson, C. Daniel, Patricia Schoenrade, W. Larry Ventis. 1993. *Religion and the Individual: A Social-Psychological Perspective*. Oxford: Oxford University Press.

- Becker, Penny, and Pawan Dhingra. 2001. Religious involvement and volunteering: Implications for civil society. *Sociology of Religion* 62: 315–335. http://dx.doi.org/10.2307/3712353
- Bekkers, Rene. 2007. Measuring altruistic behavior in surveys: The all-or-nothing dictator game. Survey Research Methods 1: 139-144.
- Berthold, Anne, and Willibald Ruch. 2014. Satisfaction with life and character strengths of non-religious and religious people: it's practicing one's religion that makes the difference. *Frontiers in Psychology* 5: 876. http://dx.doi.org/10.3389/fpsyg.2014.00876
- Bloom, Paul. 2012. Religion, morality, evolution. *Annual Review of Psychology* 63:179-199.http://dx-.doi.org/10.1146/annurev-psych-120710-100334
- Borgonovi, Francesca. 2008. Divided we stand, unitedwefall:Religiouspluralism,givingandvolunteering. American Sociological Review 73: 105-128. http://dx.doi.org/10.1177/000312240807300106
- Brooks, Arthur. (2004). Faith, secularism, and charity. *Faith and Economics* 43: 1-8.
- Brooks, Arthur. (2006). Who really cares: America's charity divide—Who gives, who doesn't and why it matters. New York: Basic Books.
- Brown, Eleanor, and James Ferris. 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. http://dx.doi.org/10.1177/0899764006293178
- Buggle, Franz, Dorothee Bister, Gisela Nohe, Wolfgang Schneider, and Karl Uhmann. 2000.
 Are atheists more depressed than religious people? Free Inquiry 20: 50–55.
- Bushman, Brad, Robert Ridge, Enny Das, Colin Key, and Gregory Busath. 2007. When God sanctions killing: effect of scriptural violence on aggression. *Psychological Science* 18: 204-207. http://dx.doi.org/10.1111/j.1467-9280.2007.01873.x
- Call, Vaughn, and Tim Heaton. 1997. Religious influence on marital stability. *Journal for the Scientific Study of Religion* 36: 382-392. http://dx.doi.org/10.2307/1387856
- Campbell, David, and Steven Yonish. 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.
- Center on Wealth and Philanthropy. 2007. Geography and giving: The culture of philanthropy in New England and the nation. Boston, MA: Boston





- Foundation. Retrieved from http://www.bc.edu/content/dam/files/research_sites/cwp/pdf/geo-andgiving2007.pdf
- Choi, Jung-Kyoo, and Samuel Bowles. 2007. The coevolution of parochial altruism and war. *Science* 318 (5850): 636 –640. http://dx.doi.org/10.1126/science.1144237
- Choi, Namkee, and Diana DiNittio. 2012. Predictors of time volunteering, religious giving, and secular giving: Implications for nonprofit organizations. *Journal of Sociology and Social Welfare* 39: 93-120.
- Clydesdale, Timothy. 1997. Family behaviors among early U.S. baby boomers: Exploring the effects of religion and income change, 1965-1982. Social Forces 76: 605-635. http://dx.doi. org/10.1093/sf/76.2.605
- Cragun, Ryan. 2013. What you don't know about religion (but should). Pitchstone Publishing, Durham, NC.
- Diener, Ed, Lewis Tay, and David Myers. 2011.
 The religion paradox: If religion makes people happy, why are so many dropping out? *Journal of Personality and Social Psychology* 101: 1278–1290. http://dx.doi.org/10.1037/a0024402
- Doane, Michael, and Marla Elliott. 2015. Perceptions of discrimination among atheists: Consequences for atheist identification, psychological and physical well-being. *Psychology of Religion and Spirituality*. 7: 130-141. http://dx.doi.org/10.1037/rel0000015
- Driskell, Robyn, Larry Lyon, and Elizabeth Emry. 2008. Civic engagement and religious activities: Examining the influence of religious tradition and participation. *Sociological Spectrum* 28 578-601. http://dx.doi.org/10.1080/02732170802206229
- Eckel, Catherine, and Phillip Grossman. 2004. Giving to secular causes by the religious and non-religious: An experimental test of the responsiveness of giving to subsidies. *Nonprofit and Voluntary Sector Quarterly* 33: 271-289. http://dx.doi.org/10.1177/0899764004263423
- Eichhorn, Jan. 2012. Happiness for believers? Contextualizing the effects of religiosity on life-satisfaction. *European Sociological Review* 28: 583-593. http://dx.doi.org/10.1093/esr/jcr027
- Eliassen, A. Henry, John Taylor, and Donald Lloyd. 2005. Subjective religiosity and depression in the transition to adulthood. *Journal for the Scientific Study of Religion* 44: 187–199. http://dx.doi. org/10.1111/j.1468-5906.2005.00275.x

- Ellison, Christopher, and Linda George. 1994.
 Religious involvement, social ties, and social support in a southeastern community. *Journal for the Scientific Study of Religion* 33: 46-61. http://dx.doi.org/10.2307/1386636
- Farias, Miguel, Anna-Kaisa Newheiser, Guy Kahane, and Zoe de Toledo. 2013. Scientific faith: Belief in science increases in the face of stress and existential anxiety. *Journal of Experimental Psychology* 49: 1210-1213. http://dx.doi.org/10.1016/j.jesp.2013.05.008
- Farmer, Melissa, Paul Trapnell, and Cindy Meston. 2010. The relation between sexual behavior and religiosity subtypes: A test of the secularization hypothesis. *Archives of Sexual Behavior* 38: 852-865. http://dx.doi.org/10.1007/s10508-008-9407-0
- Forbes, Kevin, and Ernest Zampelli. 2013. The impacts of religion, political ideology, and social capital on religious and secular giving: evidence from the 2006 Social Capital Community Survey.
 Applied Economics: 2481-2490. http://dx.doi.org/1 0.1080/00036846.2012.667555
- Galef, Jesse. 2010. Fall brings record numbers of atheist, agnostic student organizations on campus. http://www.secularstudents.org/recordnumbergroups2010.
- Galen, Luke. 2012. Does religious belief promote prosociality? A critical examination. *Psychological Bulletin* 138: 876–906. http://dx.doi.org/10.1037/a0028251
- Galen, Luke, and James Kloet. 2011a. Personality and social integration factors distinguishing non-religious from religious groups: The importance of controlling for attendance and demographics. *Archive for the Psychology of Religion 33*: 205-228. http://dx.doi.org/10.1163/157361211X570047
- Galen, Luke, and James Kloet. 2011b. Mental well-being in the religious and the non-religious: Evidence for a curvilinear relationship. *Mental Health, Religion and Culture* 14: 673–689. http://dx.doi.org/10.1080/13674676.2010.510829
- Galen, Luke, Michael Sharp, and Alison McNulty. 2015. The role of nonreligious group factors versus religious belief in the prediction of prosociality. Social Indicators Research. 122: 411-432.
- Gallup. 1985. Religion in America. *The Annals of the American Academy of Political and Social Science* 480: 167-174.
- · Gebauer, Jochen, Constantine Sedikides, and





- Wiebke Neberich. 2012. Religiosity, social self-esteem, and psychological adjustment: On the cross-cultural specificity of the psychological benefits of religiosity. *Psychological Science* 23: 158–160. http://dx.doi.org/10.1177/0956797611427045
- Gillum, R. Frank, and Kevin Masters. 2010. Religiousness and blood donation: Findings from a national survey. *Journal of Health Psychology* 15: 163-172. http://dx.doi.org/10.1177/1359105309345171
- Gorsuch, Richard, and Susan McPherson. 1989. Intrinsic/Extrinsic measurement: I/E-Revised and single-item scales. *Journal for the Scientific Study of Religion* 28: 348–354. http://dx.doi.org/10.2307/1386745
- Graham, Jesse, and Jonathan Haidt. 2010. Beyond beliefs: Religions bind individuals into moral communities. *Personality and Social Psychology Review* 14: 140–150. http://dx.doi.org/10.1177/1088868309353415
- Greenfield, Emily, and Nadine Marks. 2007. Religious social identity as an explanatory factor for associations between more frequent formal religious participation and psychological well-being. *International Journal for the Psychology of Religion* 17: 245-259. http://dx.doi.org/10.1080/10508610701402309
- Guenther, Katja, Kerry Mulligan, and Cameron Papp. 2013. From the outside in: Crossing boundaries to build collective identity in the new atheist movement. *Social Problems* 60: 457–475. http://dx.doi.org/10.1525/sp.2013.60.4.457
- Hall, Deborah, David Matz, and Wendy Wood. 2010. Why don't we practice what we preach? A meta-analytic review of religious racism. *Person-ality and Social Psychology Review* 14: 126 –139. http://dx.doi.org/10.1177/1088868309352179
- Halman, Loek, and Veerle Draulans. 2006. How secular is Europe? *British Journal of Sociology* 57: 263–288. http://dx.doi.org/10.1111/j.1468-4446.2006.00109.x
- Henrich, Joseph, Jean Ensminger, Richard McElreath, Abigail Barr, Clark Barrett, Alexander Bolyanatz, et al. 2010. Markets, religion, community size, and the evolution of fairness and punishment. *Science* 32: 1480–1484. http://dx.doi.org/10.1126/science.1182238
- Horning, Sheena, Hasker Davis, Michael Stirrat, and R. Elisabeth Cornwell. 2011. Atheistic, agnostic, and religious older adults on well-being and coping behaviors. *Journal of Aging Stud*-

- ies 25: 177-188. http://dx.doi.org/10.1016/j.jag-ing.2010.08.022
- Hummer, Robert, Richard Rogers, Charles Nam, and Christopher Ellison. 1999. Religious involvement and U.S. adult mortality. *Demography* 36:273–85. http://dx.doi.org/10.2307/2648114
- Hunsberger, Bruce and Robert Altemeyer. 2006. Atheists: A groundbreaking study of America's non-believers. Amherst, New York: Prometheus Books.
- Hunsberger, Bruce, Michael Pratt, and S. Mark Pancer. 2002. A longitudinal study of religious doubts in high school and beyond: Relationships, stability, and searching for answers. *Journal for the Scientific Study of Religion* 41: 255–266. http://dx.doi.org/10.1111/1468-5906.00115
- Jackson, Elton, Mark Bachmeier, James Wood, and Elizabeth Craft. 1995. Volunteering and charitable giving: Do religious and associated ties promote helping behaviors? *Nonprofit and Voluntary Sector Quarterly* 24: 59-78. http://dx.doi.org/10.1177/089976409502400108
- Johnson, Megan, Wade Rowatt, and Jordan LaBouff. 2010. Priming Christian religious concepts increases racial prejudice. Social Psychological and Personality Science 1: 119–126.
- Kay, Aaron, Steven Shepherd, Craig Blatz, Sook Chua, and Adam Galinsky. 2010. For God (or) country: The hydraulic relation between government instability and belief in religious sources of control. *Journal of Personality and Social Psychol*ogy 99 (5): 725-739. http://dx.doi.org/10.1037/ a0021140
- King, Michael, Louise Marston, Sally Mc-Manus, Terry Brugha, Howard Meltzer, and Paul Bebbington. 2013. Religion, spirituality and mental health: results from a national study of English households. *The British Journal of Psychiatry* 202: 68–73. http://dx.doi.org/10.1192/bjp.bp.112.112003
- Koenig, Harold, Michael McCullough, David Larson. 2001. *Handbook of Religion and Health*. Oxford: Oxford University Press. http://dx.doi.org/10.1093/acprof:oso/9780195118667.001.0001
- Krause, Neal. 2006. Religious doubt and psychological well-being: A longitudinal investigation. Review of Religious Research 47: 287–302.
- Krause, Neal, and Keith Wulff. 2004. Religious doubt and health: Exploring the potential dark side of religion. Sociology of Religion 65: 35–56. http://dx.doi.org/10.2307/3712506





- Kvande, Marianne, Randi Reidunsdatter, Audhild Lohre, Michael Nielsen, and Geir Espnes. 2015. Religiousness and social support: A study in secular Norway. Review of Religious Research. 57: 87-109.
- Lam, Pui-Yan. 2002. As the flocks gather: How religion affects voluntary association participation. *Journal for the Scientific Study of Religion* 41: 405–422. http://dx.doi.org/10.1111/1468-5906.00127
- Lavric, Miran and Sergej Flere. 2010. Trait anxiety and measures of religiosity in four cultural settings. *Mental Health, Religion and Culture* 13: 667-682. http://dx.doi.org/10.1080/13674670701414961
- Leurent, B., Nazareth, I., Bellon-Saameno, J., Geerlings, M-I., Maaroos, H., Saldivia, S., Svab, I., Torres-Gonzalez, F., Xavier, M., and King, M. 2013. Spiritual and religious beliefs as risk factors for the onset of major depression: an international cohort study. *Psychological Medicine* 43: 2109-2120. http://dx.doi.org/10.1017/S0033291712003066
- Lewis, Valerie, Carol Ann MacGregor, and Robert Putnam. 2013. Religion, networks, and neighborliness: The impact of religious social networks on civic engagement. *Social Science Research*, 42: 331–346. http://dx.doi.org/10.1016/j.ssresearch.2012.09.011
- Lim, Chaeyoon, and Carol Ann MacGregor. 2012.
 Religion and volunteering in context: Disentangling the contextual effects of religion on voluntary behavior. American Sociological Review 77: 747-779.
 http://dx.doi.org/10.1177/0003122412457875
- Lim, Chaeyoon, and Robert Putnam. 2010. Religion, social networks, and life satisfaction. *American Sociological Review* 75: 914–933. http://dx.doi.org/10.1177/0003122410386686
- Lun, Vivian, and Michael Bond. 2013. Examining the relation of religion and spirituality to subjective well-being across national cultures. *Psychology of Religion and Spirituality* 5: 304-325. http://dx.doi.org/10.1037/a0033641
- Malka, Ariel, Christopher Soto, Adam Cohen, and Dale Miller. 2011. Religiosity and social welfare: Competing influence of cultural conservatism and prosocial value orientation. *Journal of Personality* 79: 763-792. http://dx.doi.org/10.1111/j.1467-6494.2011.00705.x
- Manning, Lydia. 2010. Gender and religious differences associated with volunteering in later life.
 Journal of Women and Aging 22: 125–135. http://dx.doi.org/10.1080/08952841003719224
- McBrayer, Justin. 2014. The wager renewed: Be-

- lieving in God is good for you. Science, Religion and Culture 1: 130-140.
- McCullough, Michael, William Hoyt, David Larson, Harold Koenig, and Carl Thoresen. 2000. Religious involvement and mortality: A meta-analytic review. *Health Psychology* 19: 211–222. http://dx.doi.org/10.1037/0278-6133.19.3.211
- McKitrick, Melanie, J. Shawn Landres, Mark Ottoni-Wilhelm, and Amir Hayat. 2013. Connected to give: Faith communities. Key findings from the national study of American religious giving. Jumpstart Labs.
- Meltzer, Howard, Nisha Dogra, Panos Vostanis, and Tamsin Ford. 2011. Religiosity and the mental health of adolescents in Great Britain. *Mental Health, Religion and Culture* 14: 703–713. http://dx.doi.org/10.1080/13674676.2010.515567
- Mencken, F. Carson, and Brittany Fitz. 2013. Image of God and community volunteering among religious adherents in the United States. *Review of Religious Research* 55: 491-508. http://dx.doi.org/10.1007/s13644-013-0115-4
- Merino, Stephen. 2013. Religious social networks and volunteering: Examining recruitment via close ties. Review of Religious Research 55: 509-527. http://dx.doi.org/10.1007/s13644-013-0113-6
- Mochon, David, Michael Norton, and Dan Ariely. 2011. Who benefits from religion? *Social Indicators Research* 101: 1–15. http://dx.doi.org/10.1007/s11205-010-9637-0
- Monsma, Stephen. 2007. Religion and philanthropic giving and volunteering: Building blocks for civic responsibility. *Interdisciplinary Journal of Research on Religion* 3: Article 3.
- Myers, David. 2012. Reflections on religious belief and prosociality: Comment on Galen 2012. Psychological Bulletin 138: 913–917. http://dx.doi.org/10.1037/a0029009
- Myers, David. 2000. The funds, friends, and faith of happy people. American Psychologist 55: 56–67. http://dx.doi.org/10.1037/0003-066X.55.1.56
- Neuberg, Steven, Carolyn Warner, Stephen Mistler, Anna Berlin, Eric Hill, Jordan Johnson, and Gabrielle Filip-Crawford et al. 2014. Religion and intergroup conflict: Findings from the global group relations project. *Psychological Science* 25: 198-206. http://dx.doi.org/10.1177/0956797613504303
- Newport, Frank, Sangeeta Agrawal, and Dan Witters. 2010, December 1. Very religious Americans report less depression, worry. Retrieved from http://





- www.gallup.com/poll/144980/Religious-Americans-Report-Less-Depression-Worry.aspx
- Norenzayan, Ara, and Azim Shariff. 2008. The origin and evolution of religious prosociality. *Science*, 322 (5898): 58-62. http://dx.doi.org/10.1126/science.1158757
- Ottoni-Wilhelm, Mark. 2010. Giving to organizations that help people in need: Differences across denominational identities. *Journal for the Scientific Study of Religion*, 73 (1): 11-412. http://dx.doi.org/10.1111/j.1468-5906.2010.01518.x
- Patrick, Julie, and Jennifer Kinney. 2003. Why believe? The effects of religious beliefs on emotional well being. *Journal of Religious Gerontology* 14: 153–170. http://dx.doi.org/10.1300/J078v14n02_05
- Paul, Gregory. 2009. The chronic dependence of popular religiosity upon dysfunctional psychological conditions. *Evolutionary Psychology* 7: 398-441.
- Pew Forum on Religion and Public Life 2008.
 U.S. Religious Landscape Survey.
- Phelps, Andrea, Paul Maciejewski, Matthew Nilsson, Tracy Balboni, Alexi Wright, M. Elizabeth Paulk, and et al 2009. Religious coping and use of intensive life-prolonging care near death in patients with advanced cancer. *JAMA* 301 (11): 1140-1147. http://dx.doi.org/10.1001/ jama.2009.341
- Powell, Lynda, Leila Shahabi, and Carl Thoresen.
 2003. Religion and spirituality: Linkages to physical health. *American Psychologist* 58: 36–52. http://dx.doi.org/10.1037/0003-066X.58.1.36
- Preston, Jesse, and Nicholas Epley. 2009. Science and God: An automatic opposition between ultimate explanations. *Journal of Experimental Social Psychology* 45: 238-241. http://dx.doi.org/10.1016/j.jesp.2008.07.013
- Preston, Jesse, and Ryan Ritter. 2013. Different effects of religion and God on pro-sociality with the ingroup and outgroup. *Personality and Social Psychology Bulletin* 39: 1471-1483. http://dx.doi.org/10.1177/0146167213499937
- Putnam, Robert, and David Campbell. 2010.
 American grace: How religion divides and unites us.
 New York, NY: Simon and Schuster.
- Rees, Tom. 2009, August 6. The happiness smile [Web log message]. Retrieved from http://ep-iphenom.fieldofscience.com/2009/08/happiness-smile.html
- Reitsma, Jan, Peer Scheepers, and Manfred te

- Grotenhuis. 2006. Dimensions of individual religiosity and charity: Cross-national effect differences in European countries? *Review of Religious Research* 47: 347–362.
- Riley, Jennifer, Sophia Best, and Bruce Charlton. 2005. Religious believers and strong atheists may both be less depressed than existentially-uncertain people. *Quarterly Journal of Medicine* 98: 840. http://dx.doi.org/10.1093/qjmed/hci132
- Ross, Catherine. 1990. Religion and psychological distress. *Journal for the Scientific Study of Religion* 29: 236–245. http://dx.doi.org/10.2307/1387431
- Rutjens, Bastiaan, Joop van der Pligt, and Frenk van Harreveld. 2010. Deus or Darwin: Randomness and belief in theories about the origin of life. *Journal of Experimental Social Psycholo*gy 46: 1078-1080. http://dx.doi.org/10.1016/j. jesp.2010.07.009
- Rutjens, Bastiaan, Frenk van Harreveld, and Joop van der Pligt. 2013. Step by step: Finding compensatory order in science. *Current Directions in Psychological Science* 22: 250-255. http://dx.doi. org/10.1177/0963721412469810
- Salsman, John, Tamara Brown, Emily Brechting, and Charles Carlson. 2005. The link between religion and spirituality and psychological adjustment: The mediating role of optimism and social support. *Personality and Social Psychology Bulletin*, 31: 522-535. http://dx.doi.org/10.1177/0146167204271563
- Saroglou, Vassilis. 2012. Is religion not prosocial at all?: Comment on Galen 2012. Psychological Bulletin. 138: 907–912. http://dx.doi.org/10.1037/ a0028927
- Saroglou, Vassilis, Olivier Corneille, and Patty Van Cappellen. 2009. "Speak, Lord, your servant is listening": Religious priming activates submissive thoughts and behaviors. The *International Journal for the Psychology of Religion* 19: 143-154. http://dx.doi.org/10.1080/10508610902880063
- Saroglou, Vassilis, Vanessa Delpierre, and Rebecca Dernelle. 2004. Values and religiosity: A meta-analysis of studies using Schwartz's model. Personality and Individual Differences 37: 721–734. http://dx.doi.org/10.1016/j.paid.2003.10.005
- Schnell, Tatjana, and William Keenan. 2011. Meaning-making in an atheist world. *Archive for the Psychology of Religion* 33: 55-78. http://dx.doi.org/10.1163/157361211X564611
- Shaver, Phillip, Michael Lenauer, and Susan Sadd. 1980. Religiousness, conversion, and sub-





- jective well-being: The "healthy-minded" religion of modern American women. *American Journal of Psychiatry* 137: 1563–1568. http://dx.doi.org/10.1176/ajp.137.12.1563
- Shor, Eran, and David Roelfs. 2013. The Longevity Effects of Religious and Nonreligious Participation: A Meta-Analysis and Meta-Regression. *Journal for the Scientific Study of Religion* 52: 120-145. http://dx.doi.org/10.1111/jssr.12006
- Smith, Jesse. 2013. Creating a Godless Community: The Collective Identity Work of Contemporary American Atheists. *Journal for the Scientific Study of Religion* 52: 80-99. http://dx.doi.org/10.1111/jssr.12009
- Smith, Timothy, Michael McCullough, and Justin Poll. 2003. Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin* 129: 614–636. http://dx.doi.org/10.1037/0033-2909.129.4.614
- Smith-Stoner, Marilyn. 2007. End-of-life preferences for Atheists. *Journal of Palliative Medicine* 10: 923-928. http://dx.doi.org/10.1089/jpm.2006.0197
- Smith, Buster, and Rodney Stark. 2009. Religious Attendance Relates to Generosity Worldwide; Religious and the Secular More Charitable if They Attend Services [online]. Available from: http://www.gallup.com/poll/122807/religious-attendance-relates-generosity-worldwide.aspx
- Snoep, Liesbeth. 2008. Religiousness and happiness in three nations: A research note. *Journal of Happiness Studies* 9: 207–211. http://dx.doi.org/10.1007/s10902-007-9045-6
- Stark, Rodney, and Jared Maier. 2008. Faith and happiness. *Review of Religious Research* 50: 120-125.
- Stavrova, Olga, Detlef Fetchenhauer, and Thomas Schlösser. 2013. Why are religious people happy? The effect of the social norm of religiosity across countries. *Social Science Research* 42: 90-105. http://dx.doi.org/10.1016/j.ssresearch.2012.07.002
- Storm, Ingrid. 2015. Civic Engagement in Britain: The Role of Religion and Inclusive Values. *European Sociological Review*. 31: 14-29. http://dx.doi.org/10.1093/esr/jcu077
- Strawbridge, William, Richard Cohen, Sarah Shema, and George Kaplan. 1997. Frequent attendance at religious services and mortality over 28 years. *American Journal of Public Health* 87: 957–61. http://dx.doi.org/10.2105/AJPH.87.6.957

- Sullivan, Allison. 2010. Mortality differentials and religion in the United States: Religious affiliation and Attendance. *Journal for the Scientific Study of Religion* 49 (4): 740-753. http://dx.doi.org/10.1111/j.1468-5906.2010.01543.x
- Sullivan, Kieran. 2001. Understanding the relationship between religiosity and marriage: An investigation of the immediate and longitudinal effects of religiosity on newlywed couples. *Journal of Family Psychology* 15: 610-626. http://dx.doi.org/10.1037/0893-3200.15.4.610
- Taniguchi, Hiromi, and Leonard Thomas. 2011. The influences of religious attitudes on volunteering. *Voluntas: International Journal of Voluntary and Nonprofit Organizations* 22: 335–355. http://dx.doi.org/10.1007/s11266-010-9158-0
- Tracy, Jessica, Joshua Hart, and Jason Martens. 2011. Death and science: The existential underpinnings of belief in intelligent design and discomfort with evolution. *PLoS ONE* 6: e17349. http://dx.doi.org/10.1371/journal.pone.0017349
- Wang, Lili, and Elisabeth Graddy. 2008. Social capital, volunteering, and charitable giving. Voluntas: International Journal of Voluntary and Nonprofit Organizations 19: 23-42. http://dx.doi.org/10.1007/s11266-008-9055-y
- Weeden, Jason, and Robert Kurzban. 2012. What predicts religiosity? A multinational analysis of reproductive and cooperative morals. *Evolution and Human Behavior* 34: 440-445. http://dx.doi.org/10.1016/j.evolhumbehav.2013.08.006
- Welch, Michael, David Sikkink, and Matthew Loveland. 2007. The radius of trust: Religion, social embeddedness and trust in strangers. Social Forces 86: 23-46. http://dx.doi.org/10.1353/ sof.2007.0116
- Wilkinson, Peter, and Peter Coleman. 2010. Strong beliefs and coping in old age: A case-based comparison of atheism and religious faith. *Aging and Society* 30: 337-361. http://dx.doi.org/10.1017/S0144686X09990353
- Yeary, Karen, Songthip Ounpraseuth, Page Moore, Zoran Bursac, and Paul Greene. 2012. Religion, social capital, and health. Review of Religious Research 54: 331-347. http://dx.doi.org/10.1007/ s13644-011-0048-8

