Does Religious Belief Promote Prosociality? A Critical Examination

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Numerous authors have suggested that religious belief has a positive association, possibly causal, with prosocial behavior. This article critiques evidence regarding this "religious prosociality" hypothesis from several areas of the literature. The extant literature on religious prosociality is reviewed including domains of charity, volunteering, morality, personality, and well-being. The experimental and quasi-experimental literature regarding controlled prosocial interactions (e.g., sharing and generosity) is reviewed and contrasted with results from naturalistic studies. Conceptual problems in the interpretation of this literature include separating the effects of stereotypes and ingroup biases from impression formation as well as controlling for self-report biases in the measurement of religious prosociality. Many effects attributed to religious processes can be explained in terms of general nonreligious psychological effects. Methodological problems that limit the interpretation of religious prosociality studies include the use of inappropriate comparison groups and the presence of criterion contamination in measures yielding misleading conclusions. Specifically, it is common practice to compare high levels of religiosity with "low religiosity" (e.g., the absence of denominational membership, lack of church attendance, or the low importance of religion), which conflates indifferent or uncommitted believers with the completely nonreligious. Finally, aspects of religious stereotype endorsement and ingroup bias can contribute to nonprosocial effects. These factors necessitate a revision of the religious prosociality hypothesis and suggest that future research should incorporate more stringent controls in order to reach less ambiguous conclusions.

Keywords: religion, prosocial, morality, mental health, personality

A significant number of studies, including several recent reviews, have suggested that religiosity has a causal connection to a host of prosocial outcomes including greater moral behavior, self-control, and helpfulness. An extensive literature has also linked religiosity to subjective well-being and mental health in addition to positive personality characteristics. These studies often receive media coverage beyond academic circles (Tierney, 2008) and claim to establish a solid empirical connection for what I will refer to as the "religious prosociality hypothesis"—that religious belief or concepts lead to prosocial attitudes and behaviors. In the following, I will present a synopsis of this hypothesis followed by conceptual and methodological critiques, and recommendations for future research.

Prosociality itself subsumes dispositional aspects such as personality traits and also includes helping behaviors, whether planned and initiated by the individual (e.g., charity, volunteering) or spontaneous and elicited by the situation (e.g., bystander assistance). It can also be assessed in controlled studies via economic behavior (e.g., sharing, cooperation). Religiosity has been suggested as a causal factor in increasing altruistic behavior and empathy (Saroglou, Pichon, Trompette, Verschueren, & Dernelle, 2005). Religiosity is said to strengthen communities, unify social groups, and influence compliance with group norms (Baumeister, Bauer, & Lloyd, 2010). For example, Myers (2000) stated that "actively religious North Americans are much less likely than irreligious people to become delinquent, to abuse drugs and alcohol, to divorce, and to commit suicide" (p. 63). In sum, as stated by Putnam and Campbell (2010), the religious are thought to be "better neighbors." Some of this work has been integrated within the positive psychology movement as well, by establishing religion and spirituality as sources of virtues (Hood, Hill, & Spilka, 2009).

Religiosity has been said to promote aspects of prosociality as a function of its relationship with personality and temperament (McCullough & Willoughby, 2009; Saroglou, 2010). Prosocial personality characteristics associated with religiosity are thought to underlie personal restraint, resistance to temptation, benevolence, social concreteness, and interpersonal trust (Baumeister et al., 2010). Reviews of the relevant literature indicate that religiosity is indeed associated with higher scores on the Big Five traits of Agreeableness (warmth and trust) and Conscientiousness (dutifulness and self-control; Saroglou, 2002) and that these "higher level personality traits that subsume aspects of self-control also tend to be positively correlated with religiousness" (McCullough & Willoughby, 2009, p. 73). Conversely, those with low Agreeableness typically tend to be less religious (McCullough, Enders, Brion, & Jain, 2005). In the Eysenck personality model, psychoticism (or "tough-mindedness," which is essentially a combination of Agreeableness and Conscientiousness) is negatively related to religiosity (Lodi-Smith & Roberts, 2007). Due to these associations with personality, religiosity is often described as indicating generally "nicer" individuals. For example, in his meta-analysis, Saroglou (2002) stated,
Some studies have even concluded that religious people are nicer beyond merely self-reported ratings of greater prosociality (McCullough & Willoughby, 2009). For example, Morgan (1983) found that interviewers rated religious interviewees as having more positive traits such as cooperativeness than the nonreligious, and Ellison (1992) reported that interviewees who engaged in religious activities or for whom religion “served as moral guidance” were rated by others as more open, friendlier, and less suspicious relative to nonreligious individuals. Likewise, religious individuals are rated by peers as having high altruistic behavior and empathy (Saroglou et al., 2005).

In addition to prosociality, many authors have suggested that religiosity is generally associated with higher subjective well-being and lower levels of depression (Koole, McCullough, Kuhl, & Roelofsma, 2010; T. B. Smith, McCullough, & Poll, 2003). Myers (2000) reported that the proportion of “very happy” people was roughly twice as great among those who frequently attended church when compared with those who never attended. Indeed, Diener, Tay, and Myers (2011) found that worldwide, on average, the religious had higher subjective well-being than the nonreligious. Reviews and meta-analyses have suggested that religiosity may increase psychological well-being via effects such as existential purpose and meaning as well as the buffering of stress (Hakeney & Sanders, 2003; T. B. Smith et al., 2003).

There are numerous studies supporting the association between religiosity and prosociality as conceptualized as greater charitable giving and social engagement such as volunteering and community participation. Religious individuals are suggested to be more “neighborly” by being generous with time and money (Myers, 2008, 2009; Putnam & Campbell, 2010). Almost all literature reviews have concluded that religious attendance is generally associated with these forms of prosociality (Bekkers & Wiepking, 2007; Hodgkinson & Weitzman, 1996; Lincoln, Morrissey, & Mundeley, 2008; Monsma, 2007). For example, those who have attended religious services in the past week are more likely to say they engaged in generous behavior than those who did not attend (Pelham & Crabtree, 2008; Putnam & Campbell, 2010). Religious prosociality such as generosity and sharing has also been studied in the context of controlled social behaviors such as behavioral economics paradigms. There are indications that forms of economic cooperation (e.g., trust and generosity) are greater among the religious (Sosis & Ruffle, 2003). Another line of experimental evidence in this domain involves semantic priming studies in which the activation of religious schema has been demonstrated to increase prosocial behavior (Randolph-Seng & Nielsen, 2007; Shariff & Norenzayan, 2007). Therefore, it appears well-established that the highly religious, particularly devout churchgoers contribute more to charity and volunteering than the less devout, and that activation of religious concepts can affect interactions in a prosocial direction.

Typically, researchers have suggested several explanatory mechanisms by which religiosity promotes prosociality. One of these is participation in a religious group, such as a church or congregation. For example, Myers (2009) stated that “compared with never-attenders, the most religiously engaged Americans were half as likely to be divorced and about one-fourth as likely to be smokers or have been arrested” (para. 5). Putnam and Campbell (2010) posited that “religiously-based social networking” is the most important reason why the religious are “better neighbors” than their secular counterparts. Others have suggested that religious institutions and rituals may assist individuals in developing self-control (McCullough & Willoughby, 2009) and “moral expertise” (Rossano, 2008). Religious concepts themselves (e.g., belief in God) are said to facilitate prosociality. Myers (2000), in his review of the correlates of subjective well-being (“The Funds, Friends, and Faith of Happy People”), also alludes to the effects of religious beliefs, including the provision of meaning and purpose. Religious beliefs are discussed in terms of providing a set of moral ideals and promoting the notion that one’s actions are being evaluated and monitored by supernatural agents. For example, McCullough and Willoughby (2009) posited that the perception of being watched by supernatural entities can increase conscientious behavior via increased self-awareness and improve self-regulation in part via the “sanctification” of goals. The effect of religious priming has been suggested to work via this mechanism of increasing awareness of prosocial behavioral norms. Religious concepts present in believers are hypothesized to activate prosociality at an implicit and unconscious level such that the effects of religious priming are greatest for religious individuals (Koole et al., 2010). Similarly, Baumeister et al. (2010) referred to the effects of priming religion as being driven by having a moralistic audience such that “the belief that one’s actions are constantly and inescapably being observed by a divine being may be a strong stimulus and reminder to be aware of one’s actions” and that religious stimuli “prompted participants to evaluate their behaviors against a higher religious ideal.” (p. 76)

Despite these assertions, questions have been raised regarding whether or not religious individuals actually behave more prosocially than nonreligious individuals (Norenzayan & Shariff, 2008; Preston, Ritter, & Hernandez, 2010). For example, if there is a behavioral manifestation of religious prosociality, does this extend universally to all individuals or only to members of the religious ingroup? Is religious prosociality limited to certain contexts, or is it predictive of future behavior that generalizes to a wide range of contexts? Does religion itself cause these effects, or are effects due to more general psychological processes? Which specific aspects of religiosity are responsible for prosocial effects (e.g., beliefs, social or group influences, religious orientations)? Finally, are any religious effects exclusively prosocial, or are there concomitant nonprosocial aspects as well?

**Goals of the Present Article**

The aim of the present review is to critically examine the empirical support for the religious prosociality hypothesis in these domains. Although some aspects of religious prosociality are well supported by the literature, the interpretations regarding the mechanisms of the effects have often been incomplete or misleading. First, conceptual and interpretive problems in the literature will be explored that indicate that religious prosociality effects are actually attributable to the presence of a ubiquitous stereotype regarding religious prosociality. Also, the identity of the target of prosociality—particularly a shared religious ingroup identity—can affect the quality of prosociality displayed by religious individuals (Norenzayan & Shariff, 2008). Religious prosociality can also vary...
substantially depending on the domain of behavior (e.g., planned vs. spontaneous helping) or the type of religiosity in question (Batson et al., 1989; Preston et al., 2010). Naturalistic studies using uncontrolled situations are not always the optimal paradigm for accurately assessing the mechanism of effect due to confounds. Therefore, a comprehensive review of the literature on controlled economic studies and on religious priming is provided in order to ascertain any general prosocial trends. Although the effects in studies of religious prosociality are frequently interpreted as reflecting religious content (i.e., beliefs, teachings), in most cases the causal mechanism is not religious content itself, but the effect of other, more general, secular pathways. Next, a number of methodological problems, consistently found in the literature, that preclude a valid assessment of the religious prosociality hypothesis, will be covered. These include a reliance on self-report data or that contaminated by a lack of blindeness to the religious status of the participants, as well as comparisons between groups that do not adequately test or represent the underlying effects. The implications of these methodological problems for conclusions regarding religious prosociality will be discussed, and finally, the paradox of religiously related nonprosocial effects will be examined.

Conceptual Problems With Religious Prosociality

Impression Formation and Religion–Morality Stereotype

The assumption that religiosity is associated with prosociality constitutes, in a majority of contexts, a ubiquitous general stereotype. That is, most individuals have a strong tendency to assume that there is an association, and even a causal connection, between religiosity and morality. The pervasiveness and strength of this assumption is illustrated in opinion polls in which the majority of U.S. respondents report that children are more likely to grow up to be moral when raised in a religious faith, and that belief in God is a prerequisite to living a moral life (Farkas, Johnson, & Foleno, 2001). Conversely, the absence of religiosity is assumed to be associated with immorality. The nonreligious or atheists constitute one of the most negatively stereotyped demographic categories in the United States. A recent survey of Americans found that the only major group disliked more than Muslims was atheists (Edgell, Gerteis, & Hartmann, 2006). Indeed, exposure to either atheist or Muslim texts led to visceral disgust among Christians via a symbolic violation of spiritual purity (Ritter & Preston, 2011). The most frequently cited basis for negative attitudes toward the non-religious is their perceived lack of morality. The stereotypes characterizing the nonreligious are invariably negative ones such as being hedonistic, cynical, and judgmental (Harper, 2007). Therefore, exposure to a societal milieu in which religiosity is assumed to be closely associated with morality is almost certainly one basis for the development of the stereotype that such a connection actually exists.

The evidence that the perception of religiously based morality is, in fact, based on biased impression formation has been demonstrated under controlled conditions, across a wide variety of judgment domains. When a target is labeled as religious, he or she is rated as being more moral, trustworthy, and likable than identi
tical targets labeled as nonreligious (Bailey & Young, 1986; Galen, Smith, Knapp, & Wyngarden, 2011; Gervais, Shariff, & Norenzayan, 2011). Regular churchgoers are perceived more positively than those who do not regularly attend church (Isaac, Bailey, & Isaac, 1995). This halo effect extends beyond narrow categories of moral characteristics. Professionals who actively express religious beliefs are rated as more intelligent, likable, and trustworthy relative to those who do not espouse religious beliefs (Bailey & Doriot, 1985). The religion–morality stereotype is not limited to Western or Christian contexts. Chia and Jih (1994) found that Muslim individuals attributed more positive traits to models who were religiously attired (i.e., wearing a head scarf) relative to those who were not wearing clothing symbolic of the Muslim religion. Rather than trivial or inconsequential, this presumed connection between religiosity and morality has profound effects ranging from social exclusion to discrimination, even in legal contexts. For example, when mock jurors are exposed to evidence that a defendant has had a religious conversion subsequent to committing a crime, they become more lenient in sentencing (Miller & Bornstein, 2006). This general stereotype can have an effect on others’ behavior in the manner of a self-fulfilling prophesy. For example, when individuals were told that their partner in an economic game was majoring in religious studies (compared to business), the participants cooperated more with the partner (De Dreu, Yzerbyt, & Leyens, 1995). In sum, a general stereotype exists that religious individuals are more prosocial than nonreligious individuals.

Ingroup Favoritism

A second, but related, mechanism driving the perception of religiosity and prosociality is based on social identity theory. An extremely robust finding in the literature is that individuals display favoritism toward those with whom they share an identity (Hogg & Abrams, 1988; Turner, Brown, & Tajfel, 1979). This tendency results from the desire to maintain self-esteem and a positive social identity (Brewer & Brown, 1998). Shared religiosity is one of the most robust identity categories, associated with ingroup favoritism across a wide range of domains (Ben-Ner, McCall, Stephane, & Wang, 2009; Weeks & Vincent, 2007). When asked to form impressions of others, religious individuals favor other religious individuals and show outgroup derogation toward nonreligious individuals or those not from the same religious group (Rowatt, Franklin, & Cotton, 2005). Therefore, religion serves as a strong basis for shared social identity, and the expression of irreligion constitutes a boundary distinction. As a result, any impression formation of putative prosocial qualities is a function of the shared or unshared religious identity of the perceiver and the target rather than an unbiased perception of objective target characteristics.

The tendency for religious individuals to presume that other religious individuals possess superior moral characteristics may therefore represent ingroup favoritism rather than the accurate perception of actual moral quality of those individuals. This assumption is supported by studies that show that religious individuals favor other religious individuals regardless of whether the targets are behaving positively or negatively (Hunter, 2001). Similarly, in an economic trust paradigm, more religious players extended greater monetary offers to partners who were labeled as religious relative to one labeled as nonreligious (Tan & Vogel,
2008). Highly religious individuals rate targets who disclose a religious identity as being more likable, whereas the least religious individuals do not base likability or trustworthiness on the religious identity of a target (Bobkowski & Kalyanaraman, 2010). Thus, a religious individual may trust another individual not because of knowledge that the target is inherently trustworthy, but because they share common group identification. This would imply that the perception of prosociality as characteristic of religious individuals is an intergroup phenomenon, with favoritism determined, in part, by the degree to which an individual is perceived as a member of one’s own religious ingroup (Tinoco, 1998). Conversely, the negatively biased perceptions of religious outgroup members may be, in part, motivated by the need to bolster religious individuals’ social identity (e.g., D. M. Taylor & Jaggi, 1974). Given that in the United States between 80% and 95% of the population is religious (depending on the phrasing of the question; Gallup & Lindsay, 1999), and around three quarters are nominally Christian, this identity constitutes a “default” such that even those who do not disclose a religious identity are presumed to be Christian unless explicitly labeled otherwise (Bobkowski & Kalyanaraman, 2010; Gervais et al., 2011). The consequence of this milieu is that participants will rate friends, acquaintances, or peers as being more prosocial if these individuals are known or presumed to share a religious group identity with the participant.

Critique of Naturalistic and Uncontrolled Studies of Religious Prosociality

These influences of religious ingroup favoritism and the existence of a religious prosociality stereotype therefore represent a problem for studies purporting to find a veridical religious prosociality link. To date, studies exploring the perception of religious individuals have typically failed to provide control over the religiosity of both the person making the judgment and the target of judgment. If raters are not blind to the religious status of the target, information regarding the presence or absence of religiosity contaminates any subsequent ratings of interpersonal qualities. For example, as indicated earlier, religious individuals have been rated by third parties as being nicer and more cooperative (Ellison, 1992; Morgan, 1983), which has been cited as evidence of actual prosociality. However, in both of these studies, the rater was informed of the religious status of the target prior to the impression formation task, thus contaminating subsequent ratings. Similarly, Saroglou et al. (2005) suggested that ratings of religious targets as having high altruistic behavior and empathy (Studies 3 and 4) constituted valid indications of prosociality rather than “self-delusion” or “moral hypocrisy” because these qualities were not merely self-ratings but were also perceived by peers (friends, siblings, or colleagues). However, these peers were not blind to the target’s religiosity, and ratings must therefore be interpreted in light of this contamination by rater bias.

Only an experimental paradigm in which the religiosity of both the perceivers and the target are controlled allows for accurate conclusions to be drawn regarding the morality–religion link. When these conditions are met, there is a clear bias such that individuals identified as religious, even via implicit identifiers, are rated as being more prosocial than identically acting nonreligious individuals (Widman, Corcoran, & Nagy, 2009). Conversely, those who can be identified as nonreligious either by self-report or by nonverbal indicators are considered less prosocial relative to religious individuals, even when performing the same actions. This bias does not extend to mere socialization preference (in which case the religious and nonreligious individuals alike prefer to socialize with their own kind) but rather pertains to a specific moral perception (Gal en et al., 2011). Gervais et al. (2011) used both explicit and implicit methodologies to determine that the specific reaction most associated with nonreligiosity such as atheism was distrust. However, general ingroup favoritism operates across all levels of religiosity cannot fully account for the results in these studies. First, nonreligious observers do not rate fellow nonreligious targets as more prosocial than religious targets. Second, the specific stereotypes regarding the nonreligious do not include negative associations in all domains (e.g., incompetence, stupidity) but rather those associated with lower prosociality (i.e., immorality or mistrust). The existence of a religious prosociality stereotype and religious ingroup bias has profound implications for interpretation of the literature in that not only self-reports but also unblinded peer ratings (e.g., personality traits) cannot be considered as accurate indicators when testing the religious prosociality hypothesis.

As was initially stated, reviews of naturalistic studies on charitable giving and volunteering have indicated that the religious report engaging in these behaviors to a greater degree than the nonreligious (Bekkers & Wiepking, 2007; Hodgkinson & Weitzman, 1996; Lincoln et al., 2008; Monsma, 2007). However, as is the case with the impression formation literature, these naturalistic studies are also affected by religious ingroup favoritism. In settings with planned, nonspontaneous behaviors (e.g., charitable donations), it is difficult to completely distinguish religious from secular targets of prosociality (e.g., recipients of charity or volunteer work). As has been shown, religious individuals use the religious identity of a given target as an ingroup boundary distinction and regard coreligionists more favorably. Although more religious individuals report greater charitable involvement, another general trend is that religious organizations themselves are the largest sources of charitable giving (American Association of Fundraising Council Trust for Philanthropy, 2002; Hodgkinson & Weitzman, 1996), thus making it difficult to separate universal prosocial tendencies from ingroup preferences. From the standpoint of defining prosociality as an inherent characteristic that would be predictive of future behavior or generalizable to other contexts, it is clearly necessary to separate generalized or universal prosociality from ingroup-specific giving. In addition, it provides useful information regarding the motivation of prosociality (i.e., universal or particularistic) to determine any discrepancy (e.g., decreased charitable giving) between situations in which the target or recipient is an in- versus outgroup member.

This distinction based on the target or recipient characteristics is relevant because there is ambiguity in the literature whether the greater charity and volunteering on behalf of religious individuals is equally manifest in contributions to secular as opposed to religious organizations (Bekkers & Wiepking, 2007). Although some argue that the religiously engaged give equally to religious and nonreligious or secular targets (Brooks, 2006; Putnam & Campbell, 2010), other studies find little effect of religiosity on nonreligious giving and volunteering (Hunsberger & Platnon, 1986; Lam, 2002; Park & Smith, 2000). Using data from the General Social Survey and Pew study of Religion and American
Public Life, Monsma (2007) found that both high- and low-religiosity individuals gave at roughly the same level to nonreligious community causes and that the pattern in volunteering for nonreligious causes was similarly mixed. Although Putnam (2000) found that members of religious congregations were more likely than nonmembers to give to charities, this general organizational effect on generosity (i.e., being an active member of any organization) was even greater for members of secular organizations; members of both religious and secular groups volunteered the most. Therefore, rather than being a characteristic unique to religious communities, volunteerism by members of religious organizations is similar to that of volunteerism on the part of secular organization members (Campbell & Yonish, 2003). However, participation in religious organizations is more likely to be subject to ingroup preferences. That is, the clear religious giving advantage in the literature is potentially problematic in terms of generalizability because the generosity on behalf of the religious may be greater for religious targets than nonreligious targets. Or as Boston College’s Center on Wealth and Philanthropy (2007) stated, “It appears that as families become highly committed to their religion their giving becomes more concentrated in their church, synagogue, temple, or mosque and less concentrated in secular causes” (p. 30).

One reason for the ambiguous findings in this area is that many studies in the existing literature do not clearly separate religious versus secular recipients of charitable giving. That is, many targets of giving designated as “nonreligious” or “secular” often include religiously associated groups and therefore may represent preferential or ingroup giving. Even secular charities or volunteer opportunities can be solicited through or organized by church groups. They can also be staffed by religious ingroup members (Uskaler, 2002) or channel benefits toward ingroup targets such that secular giving is not necessarily religious outgroup giving, yet some surveys have categorized giving to religious hospitals or social services as secular. For example, in Boston College’s Center on Wealth and Philanthropy (2007) study, the category of “religious giving” referred narrowly to houses of worship or congregations, whereas all other forms of what was termed “secular giving” also included gifts to a school, program, or hospital run by a religious organization or those “that many would agree embodies spiritual values” (p. 7). The relative religious homogeneity in a given context is also relevant such that in a location where the vast majority of individuals are religious or from the same Christian denomination, even a secular food bank or homeless shelter may be tantamount to a religious organization in regard to activation of ingroup preferences in the individual donors. From the standpoint of separating out prosocial giving that is a function of ingroup preference, the inclusion of organizations potentially associated with religious values, although not strictly churches themselves, is problematic if the goal is to determine whether giving is universal and unaffected by group preference. Effects obtained in such a context are likely to be situation dependent and may say little about any universally prosocial qualities of individuals generalizable to other contexts. It is for these reasons that naturalistic studies of charitable giving are not optimal for a rigorous test of the religious prosociality hypothesis. As is the case in other areas of social psychology, designs in which contextual effects can be better controlled (e.g., quasi-experimental) are the least biased way in which to address religious prosociality because actual prosocial behaviors (e.g., sharing, cooperation) can be observed as a function of participant religiosity while minimizing confounds.

**Review of Controlled Behavioral Economics Studies**

The present review of controlled studies included published and unpublished works obtained from initial searches of PsycINFO, EconLit, and Google Scholar, followed by secondary searches of cited studies. Several studies were excluded from the present review due to their inability to provide a clear test of the religious prosociality hypothesis. For example, some studies only included religious participants and made comparisons between religious affiliations and denominations (e.g., Ben-Ner et al., 2009, Study 1; Johansson-Stenman, Mahmud, & Martinsson, 2009). Others, although related to religiosity, did not allow clear comparisons of behavior as a function of participant religiosity. Notably, Ruffle and Sosis (2006) studied cooperation by comparing Israeli kibbutz members to city residents, but the design did not allow a comparison of religious versus secular kibbutz members. As seen in Table 1, the most pertinent information includes the following: (a) study author citation, (b) type of prosociality assessed (e.g., sharing, cooperation), (c) participant religiosity, (d) target characteristics, and (e) results. The participant and target characteristics are discussed with particular attention to both participant religiosity effects and whether target religious identity was available to the participants (i.e., ingroup effects).

The most frequently used paradigms to measure prosocial sharing, generosity, trust, and cooperation involve controlled interactions, primarily in the form of economic games. The dictator game measures generosity or sharing; the first player is given the opportunity to send some amount, part, or all of an allocation to another player. This second player must accept or veto the offer and is later given any money offered by the first player. The prisoner’s dilemma, for example, is a trust game in which the first player can send some portion of an amount to a second player which is doubled by the experimenter. Without knowing what amount was sent, the second player then decides how much he or she wants to return to the first player (Kagel & Roth, 1995). The public goods game measures cooperation. Players can contribute money to a public fund; contributions are doubled and distributed equally among all the players regardless of their individual contribution. The trust game involves player A and B. At the first stage, player A is given a fixed amount of money and is asked to decide whether to transfer part of it to player B. The amount transferred is automatically tripled, and player B then decides how much he or she wants to transfer back to player A. Player A typically sends a positive amount of money to player B, who often returns an even larger amount. In such an experiment, the amount that player A transfers to player B serves as an indication of trust or cooperation between them. Thus, whenever a player is more trusted or there is more cooperation between players, the overall pie is larger.

A general summation of results is difficult due to differences in design. Overall, the proportion of studies that find some effect of religiosity is roughly equal to those finding no effect. However the most evident trend in the results regards the interaction between the participant’s religiosity and the target’s depicted religiosity (in those cases when the design made these clearly discernible). That is, across the range of studies of sharing, cooperation, generosity,
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or trust, when the religiosity of the target was clearly labeled as different from the religiosity of the participant, the prosocial behavior of religious participants was lower relative to when there was a shared religious identity. For example, Ahmed (2009) found that clergy students extended greater monetary offers than nonclergy students, but only to those from their own group. One caveat to this is that the overall assessment of religious prosociality is not able to be properly tested in most of the studies due to a lack of labeled in- and outgroup targets, thus preventing a clear assessment of whether prosociality is displayed equally to all targets. Therefore, caution must be used because typically the target partner in the majority of studies is not identified or is anonymous, obviating any ingroup effect comparison. For example, Sosis and Ruffle (2003) found that males from the religious kibbutz cooperated more than those from the secular kibbutz, but the partners with whom participants were paired had been depicted to them as being from their own type of kibbutz, preventing a religious versus secular participant and target comparison (i.e., to determine whether there was greater cooperation among the religious kibbutzim beyond their fellow members).

Nonetheless, when examining only those studies with identifiable target characteristics, the general trend clearly indicates that religious individuals did share or cooperate more than nonreligious participants—but only when the target shared a religious identity (Ben-Ner et al., 2009, Study 2; Fershtman, Gneezy, & Verboven 2005). In one of the only designs in which participant and target religious identity were independently varied, Tan and Vogel (2008) found that religious targets were trusted by all levels of religious participants, but more religious participants trusted religious targets more than did nonreligious participants. These findings suggest that any prosociality shown by more religious participants may be attributable to an assumption that the target is another religious individual. These results also indicate that within an ingroup trend there is also evidence of a shared social stereotype such that religious targets are shown preference (in the form of greater offers or trust) over nonreligious targets by all participants, regardless of religiosity (Orbell, Goldman, Mulford, & Dawes, 1992; Paciotti et al., 2011). Conversely, there does not appear to be any evidence demonstrating that religious individuals extend universal prosociality beyond their group to labeled outgroup targets. Rather, any religious prosociality in these quasi-experimental studies is extended only to ingroup members.

Review of Controlled Studies of Religious Priming

One area of the experimental literature that has garnered increasing attention in recent years includes the use of activation or priming of religious concepts in order to examine prosocial and other effects. Priming effects have been obtained by processes ranging from the use of subliminal presentation of words in a lexical decision task to conducting the study in a religious versus secular context. The most common experimental design typically compares one group shown religious words in a scrambled sentence task to another group with scrambled neutral words. Although some studies have included measures of participant religiosity, others have not. Table 2 contains similar information to Table 1 but with the addition of the nature of the religious prime. The methodology of literature searching was identical to the one described earlier of the behavioral economics literature. Some
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<tr>
<td>Ahmed &amp; Hammarstedt (2011)</td>
<td>Public goods</td>
<td>Multiple dimensions</td>
<td>Scrambled religious versus control sentences</td>
<td>Anonymous</td>
<td>Self-reported level of religiosity unrelated to cooperation. Religious priming increased cooperation regardless of participant religiosity.</td>
</tr>
<tr>
<td>Ahmed &amp; Salas (2011a)</td>
<td>Trust and public goods</td>
<td>Self-reported religious versus nonreligious and atheist</td>
<td>Chapel versus lecture hall context</td>
<td>Anonymous</td>
<td></td>
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<tr>
<td>Ahmed &amp; Salas (2011b)</td>
<td>Dictator and prisoner’s dilemma</td>
<td>Self-reported religious versus nonreligious and atheist</td>
<td>Scrambled religious versus control sentences</td>
<td>Anonymous</td>
<td>Religious primes increased cooperation regardless of self-reported religiosity. Protestants contributed more to public good following religious priming. No effect of priming in dictator sharing.</td>
</tr>
<tr>
<td>Benjamin et al. (2010)</td>
<td>Public goods and dictator</td>
<td>Religious denomination</td>
<td>Scrambled religious versus control sentences</td>
<td>Anonymous</td>
<td>Both God and people priming increased public self-awareness only for high believers.</td>
</tr>
<tr>
<td>Gervais &amp; Norenzayan (2012), Study 1</td>
<td>Public self-awareness</td>
<td>Intrinsic religiosity (median split)</td>
<td>Rating words as relevant to God versus how others view them</td>
<td>No target</td>
<td>God primes increased public self-consciousness. No effect of personal belief.</td>
</tr>
<tr>
<td>Gervais &amp; Norenzayan (2012), Study 2</td>
<td>Public self-awareness</td>
<td>Belief versus nonbelief</td>
<td>Scrambled religious versus control words</td>
<td>No target</td>
<td>Religious priming increased socially desirable responding for high believers.</td>
</tr>
<tr>
<td>Gervais &amp; Norenzayan (2012), Study 3</td>
<td>Socially desirability</td>
<td>High versus low belief in God</td>
<td>Scrambled religious versus control words</td>
<td>No target</td>
<td>Religious priming increases cooperation but only among believers in God.</td>
</tr>
<tr>
<td>Horton et al. (2010), Study 3</td>
<td>Prisoner’s dilemma</td>
<td>Affiliation and previous religious experience</td>
<td>Bible passage on charity versus neutral prime</td>
<td>Anonymous</td>
<td>God primes increased temptation resistance. Effects present regardless of participant religiosity.</td>
</tr>
<tr>
<td>Laurin et al. (2011), Studies 3–6</td>
<td>Temptation resistance</td>
<td>Multiple dimensions</td>
<td>Religious versus neutral sentence completion; reading God-related passages</td>
<td>No target</td>
<td></td>
</tr>
<tr>
<td>Mazar et al. (2008)</td>
<td>Honesty/cheating</td>
<td>Not applicable</td>
<td>Recall of Ten Commandments versus books</td>
<td>No target</td>
<td>Priming with Ten Commandments decreased cheating relative to priming with neutral books. Number of commandments recalled was unrelated.</td>
</tr>
<tr>
<td>Paciotti et al. (2011), Study 2</td>
<td>Dictator and trust</td>
<td>Religious versus secular group members and individual measures (intrinsic, quest)</td>
<td>Religious versus secular meeting context</td>
<td>Described as religious believer versus nonbeliever</td>
<td>Dicator: No group differences in sharing, but religious targets received greater offers. Trust: Religious members sent greater offers postreligious meeting than seculars. Religious targets received greater offers. Intrinsic, quest (+), and extrinsic (−) religiosity predicted sharing.</td>
</tr>
<tr>
<td>Pichon et al. (2007), Study 1</td>
<td>Charity intentions (taking pamphlets)</td>
<td>Not measured</td>
<td>Lexical decision with religious versus nonreligious and positive versus neutral words</td>
<td>Charity</td>
<td>Participants primed with positive religious, but not neutral religious or nonreligious words, took more charity pamphlets.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Study</th>
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<tbody>
<tr>
<td>Pichon &amp; Saroglou (2009)</td>
<td>Self-reported helping</td>
<td>Multiple dimensions</td>
<td>Target context religious (church) versus</td>
<td>Homeless person versus illegal immigrant</td>
<td>Intentions to help were greater when target was presented in religious context but only when target was homeless, not illegal immigrant. Participant religiosity not reported separately across conditions.</td>
</tr>
<tr>
<td></td>
<td>intentions</td>
<td></td>
<td>secular (gym)</td>
<td></td>
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</tr>
<tr>
<td>Randolph-Seng &amp; Nielsen (2007),</td>
<td>Honesty/cheating</td>
<td>Not applicable</td>
<td>Scrambled religious versus</td>
<td>No target</td>
<td>Greater honesty for religious than control primes.</td>
</tr>
<tr>
<td>Study 1</td>
<td></td>
<td></td>
<td>control sentences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randolph-Seng &amp; Nielsen (2007),</td>
<td>Honesty/cheating</td>
<td>Intrinsic religiosity</td>
<td>Scrambled religious versus</td>
<td>No target</td>
<td>Religious priming increased honesty regardless of personal level of religiosity.</td>
</tr>
<tr>
<td>Study 2</td>
<td></td>
<td></td>
<td>control sentences</td>
<td></td>
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<tr>
<td>Sasaki &amp; Kim (2001), Study 2</td>
<td>Personal self-control</td>
<td>Religious European and Asian</td>
<td>Writing religious versus</td>
<td>No target</td>
<td>Religiously primed European American expressed less discontent and more self-control in a distressing situation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Americans</td>
<td>nonreligious values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sasaki et al. (2011)</td>
<td>Volunteering for</td>
<td>Continuous religiosity measure</td>
<td>Scrambled religious versus</td>
<td>No target</td>
<td>Religiously primed volunteered at a higher rate regardless of religiosity level.</td>
</tr>
<tr>
<td></td>
<td>environmental cause</td>
<td></td>
<td>control sentences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shariff &amp; Norenzayan (2007),</td>
<td>Dictator/sharing</td>
<td>Theist (affiliated with religion)</td>
<td>Scrambled religious versus</td>
<td>Anonymous target</td>
<td>Religious priming increased sharing equally for theists and atheists.</td>
</tr>
<tr>
<td>Study 1</td>
<td></td>
<td>versus atheist (&quot;none&quot; for religion and below midpoint on belief)</td>
<td>control sentences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shariff &amp; Norenzayan (2007),</td>
<td>Dictator/sharing</td>
<td>Self-labeled theists versus</td>
<td>Scrambled religious versus</td>
<td>Anonymous</td>
<td>Both religious and secular priming increased sharing. Effect of religious primes limited to religious participants.</td>
</tr>
<tr>
<td>Study 2</td>
<td></td>
<td>atheists/agnostics</td>
<td>secular civic or neutral words</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tsang et al. (2011)</td>
<td>Gratitude/reciprocity</td>
<td>Intrinsic analysis only on moderately religious or higher</td>
<td>Scrambled religious versus neutral words</td>
<td>Generous partner</td>
<td>Religiously primed distributed more money. Intrinsic religiosity unrelated to behavioral or self-reported gratitude</td>
</tr>
</tbody>
</table>
priming studies were not included because the behaviors of interest were not unequivocally prosocial, such as task persistence (Toburen & Meier, 2010) or rewarding sacrificial punishment (Bulbulia & Mahoney, 2008).

One clear finding is that in almost all studies, religious priming has the effect of increasing prosocial behavior in the same behavioral economic interactions discussed in the previous section (i.e., sharing, trust, and cooperation). That is, priming with religious concepts nearly always resulted in more generous offers to game partners and more sharing of funds. In addition to the standard economic games, studies have found religious priming effects in promoting honesty (Randolph-Seng & Nielsen, 2007) and charitable intentions (Pichon, Boccato, & Saroglou, 2007). It therefore appears fairly conclusive that priming religious concepts activates prosocial behaviors in participants.

**Review of Controlled Studies of Priming: Nonprosocial Effects**

In addition to studies of behaviors that, when present, are unequivocally positive (e.g., sharing, generosity), other studies of religious priming have measured nonprosocial behaviors such as such as cheating, aggression, or prejudice (recognizing that behavior such as cheating vs. honesty could be characterized as either prosocial or nonprosocial depending on how one categorizes the presence or absence of the measured phenomenon). As can be seen in Table 3, priming with religious concepts has elicited a range of such behaviors. For example, priming individuals with Christian concepts increases covert prejudice and negative affect toward African Americans (Johnson, Rowatt, & LaBouff, 2010). In another example, Vilaythong Tran, Lindner, and Nosek (2010) found that priming Christians with the Christian version of the Golden Rule did not reduce their explicit or implicit homophobia. However, priming the Christians with the Buddhist equivalent of the Golden Rule (“Never hated is hatred appeased, but it is appeased by kindness”) resulted in Christians becoming more homophobic in their explicit attitudes, possibly because the message was seen as coming from an outgroup source. Other work suggests that aggressive actions are potentiated when they are primed by religious contextualization. Bushman, Ridge, Das, Key, and Busath (2007) exposed participants to a violent passage from an “ancient text,” which in one condition was specifically identified as the Bible. Participants who were given a version of this Bible story in which God is depicted as sanctioning the violent act later gave a partner higher levels of sound blasts.

Another trend in this literature is that the nonprosocial priming effects have been found to interact with participant characteristics. For example, Saroglou, Corneille, and Van Cappellen (2009) found that the subjects who were encouraged by an experimenter to take revenge on a critical confederate, and who also tended to be high in levels of submissiveness, were most likely to behave vengefully when primed by religious words. Therefore, a comparison of the prosocial priming studies in Table 2 with the nonprosocial studies in Table 3 indicates that religiosity has effects on both types of behaviors, dependent on the variables of interest in the specific study. For example, religious priming increased sharing (Ahmed & Salas, 2008) and honesty (Randolph-Seng & Nielsen, 2007), but it also increased retaliatory aggression and prejudice. Likewise, Laurin, Kay, and Fitzsimons (2011) found that religious priming simultaneously increases temptation resistance but also decreases active goal pursuit. In sum, activation of religious concepts via priming appears to involve a mixture of associations promoting prosociality with ingroup familiar but also heightened awareness of outgroups and increased authoritarianism.

**Heterogeneity of Religiosity**

One factor that contributes to the variation in effect obtained across controlled studies pertains to the different ways in which religiosity can be conceptualized. For example, some studies found prosocial effects as a function of the participants’ denominational (e.g., Catholic, Protestant, none) affiliation (Anderson & Mellor, 2009; E. Fehr, Fischbacher, Von Rosenbladt, Schupp, & Wagner, 2003), whereas others found prosocial effects as a function of religious service attendance but not denomination (Anderson, Mellor, & Milyo, 2010) or effects of different types of religiosity for different prosocial domains (Tan, 2006). In addition to affiliation and religious attendance, research in the psychology of religion has identified religious orientations that conceptualize the ways in which individuals hold religious beliefs rather than merely the presence or absence of belief. For example, Allport’s dimensional model of religious orientation distinguishes the personal importance of religion (“intrinsic religiosity”) from that based upon utilitarian motivations (“extrinsic”; Allport & Ross, 1967). Another conceptualization that has received attention is Batson’s “quest” religiosity, which is characterized by an open-ended and complex approach that stands in contrast to religious fundamentalism, in which belief is more fixed and rigid (Altemeyer & Hunsberger, 1992). The minority of controlled studies of prosociality that have included separate dimensional measures often have found differing effects for differing conceptualizations of religiosity. For example, Paciotti et al. (2011, Study 2) found prosocial effects (sharing) for those higher in intrinsic and quest religiosity but lower prosociality for those high in extrinsic religiosity. Similarly, Leach, Berman, and Eubanks (2008) found a distinction between self-reported and actual aggression as a function of intrinsic versus extrinsic religiosity. Other work has found differing prosocial associations for religious group affiliation as opposed to spiritual or belief endorsement (Preston et al., 2010). In sum, these results indicate that different conceptual forms of religiosity have quite varied and complex associations with both prosocial and nonprosocial behavior, which may explain why activation of religious concepts by priming, for example, can produce opposing effects.

**Implications of Controlled Studies for the Religious Prosociality Literature**

Taken as a whole, the work using controlled methodology to study religious prosociality has effects that are somewhat paradoxical. The behavioral economics paradigms indicate that religiosity appears to be associated with increased generosity but is also marked by ingroup bias. In a similar manner, the evidence indicates that the effects elicited by religious priming are a mixture of both prosocial and nonprosocial associations, possibly dependent upon the type of religious concept being activated and the behavior being assessed. As was covered earlier in the description of the impression formation literature, the appearance of religious prosog-
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</tr>
</thead>
<tbody>
<tr>
<td>Bushman et al. (2007), Study 1</td>
<td>Aggression/shock</td>
<td>All religious</td>
<td>Passage from Bible versus ancient scroll; containing violence either God-sanctioned or not sanctioned</td>
<td>Anonymous</td>
<td>Contextualizing passage as Biblical and violence as God-sanctioned increased aggression.</td>
</tr>
<tr>
<td>Bushman et al. (2007), Study 2</td>
<td>Aggression/shock</td>
<td>Believers in God and Bible versus nonbelievers</td>
<td>Passage from Bible versus ancient scroll; containing violence either God-sanctioned or not sanctioned</td>
<td>Anonymous</td>
<td>Regardless of personal belief, God-sanctioned violent passages increased aggression but greater effect for believers.</td>
</tr>
<tr>
<td>Carpenter &amp; Marshall (2009)</td>
<td>Moral hypocrisy versus congruence</td>
<td>Christian students, Intrinsic religiosity</td>
<td>Intrinsic Bible verses (e.g., God’s love) versus neutral verses</td>
<td>Anonymous</td>
<td>Greater religiosity predicted moral congruence only in the intrinsic priming condition.</td>
</tr>
<tr>
<td>Ginges et al. (2009)</td>
<td>Support for suicide attacks</td>
<td>Jewish settlers</td>
<td>Frequency of synagogue attendance versus frequency of prayer</td>
<td>Support for attacks on Palestinians</td>
<td>Settlers primed with synagogue attendance supported suicide attacks on Palestinians more than those primed with prayer or control.</td>
</tr>
<tr>
<td>Johnson et al. (2010)</td>
<td>Racial prejudice</td>
<td>Multiple measures</td>
<td>Lexical decision task with Christian versus neutral words</td>
<td>Attitudes toward African Americans</td>
<td>Controlling for religiosity and spirituality, priming with Christian words increased racial prejudice and negative affect toward African Americans.</td>
</tr>
<tr>
<td>LaBouff &amp; Johnson (2012)</td>
<td>Outgroup prejudice</td>
<td>Multiple measures</td>
<td>Church versus civic building context</td>
<td>Attitudes toward ethnic, racial, and religious outgroup members</td>
<td>Attitudes toward all outgroups except Christians were more negative in religious versus civic context.</td>
</tr>
<tr>
<td>Laurin et al. (2011), Studies 1, 2, and 6</td>
<td>Goal pursuit</td>
<td>Multiple dimensions</td>
<td>Religious versus neutral sentence completion; reading God-related passages</td>
<td>No targets</td>
<td>God priming decreased active goal pursuit regardless of participant religiosity level.</td>
</tr>
<tr>
<td>Leach et al. (2008)</td>
<td>Aggression/shock level</td>
<td>Protestant Christians, Multiple measures (e.g., intrinsic).</td>
<td>Read Bible or meditated on “higher power” or read magazine</td>
<td>Anonymous</td>
<td>No effect of religious reading on actual shock level. Intrinsic religiosity predicted self-reported aggression (−) but not actual aggression. Extrinsic–personal predicted self-reported and actual aggression (+).</td>
</tr>
<tr>
<td>McKay et al. (2011)</td>
<td>Punishment/retaliation for unfair offer</td>
<td>Multiple measures</td>
<td>Subliminal exposure to either: Religious, punishment, religious–punishment, or control words</td>
<td>Anonymous</td>
<td>Religious priming increased punishment of unfair offer but only for those who donated to religious group in past year.</td>
</tr>
<tr>
<td>Saroglou et al. (2009), Study 2</td>
<td>Submissive vengeance/retaliation</td>
<td>Multiple measures</td>
<td>Lexical decision task: Religious versus neutral primes</td>
<td>Anonymous</td>
<td>Those higher in submissiveness behaved more vengefully when primed with religious words and encouraged by the experimenter. No effect for personal level of religiosity.</td>
</tr>
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</table>
ciality manifested in the ratings of individuals is in most studies actually contaminated by the religion–morality stereotype and ingroup bias. This bias becomes apparent when examined with controlled studies in which the identity of targets can be manipulated. What appears to be greater prosociality in the behavioral economics and priming studies is, when examined in controlled circumstances, actually indicative of a selective type of prosociality, including ingroup favoritism.

This more circumscribed prosociality pattern is also reflected in the general literature beyond the controlled experimental studies (Norenzayan & Shariff, 2008). Saroglou (2006) has suggested the term minimal prosociality to refer to greater helping on the part of the religious that is extended to friends and ingroup members but not to outgroup members and those who threaten religious values. For example, in the series of four studies by Saroglou et al. (2005), the type of prosociality measured (i.e., helping peers and family) referred to a willingness to help close rather than unknown targets. In another example, experimental results regarding covert prejudice elicited by priming with Christian concepts (Johnson et al., 2010) match nonexperimental findings in which religiosity is associated with ethnic prejudice via social conformity and traditionalism, such that greater religious humanitarianism is reserved only for fellow ingroup members (Hall, Matz, & Wood, 2010). Thus, one qualification of religiosity-based prosociality is that the primary beneficiaries are ingroup members. This qualification, however, is often lost in broader coverage of religion and prosociality, as exemplified by summations of the literature referred to earlier. For example, although Baumeister et al. (2010) stated that religious precepts such as the Ten Commandments assist in channeling self-control to “do what is good for the collective society” (p. 74), the evidence illustrated in the studies reviewed here indicates that any prosocial effect is often dependent on factors such as the group identity of the recipient of the assistance rather than society as a whole.

This finding of “minimal” or particular prosociality in the experimental literature is also reflected in the types of social values held by the religious and nonreligious as found in correlational studies. McCullough and Willoughby (2009) correctly pointed out that research using the Schwartz Value Survey indicates that religiousness is positively associated with valuing tradition (“respectful,” “helpful,” and “responsible”) and conformity (“politeness,” “self-discipline,” “honoring parents and elders”). But arguably, the Schwartz value dimensions most relevant to prosociality are benevolence (the enhancement of the welfare of the people with whom one is in frequent personal contact) and universalism (protection of the welfare of all people). A large body of work across different cultures and religions has shown that religiosity is weakly but positively correlated with benevolence but negatively related with the value of universalism (Pepper, Jackson, & Uzzell, 2010; Saroglou, Delpierre, & Dernelle, 2004). Schwartz and Huismans (1995) suggested that the particularism and ingroup-binding function of religion reduces the importance attributed to concern for others outside the group. Thus, although McCullough and Willoughby are correct in suggesting that religiosity directs people toward “families and larger social collectives,” it is more accurate to conclude that religiosity is positively associated with ingroup value but negatively associated with universal cooperation with heterogeneous groups or outgroup affiliation.

<table>
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<tr>
<td>Van Cappellen et al. (2011)</td>
<td>Conformity</td>
<td>Self-reported importance of religion</td>
<td>Religious priming increased conformity for more religious individuals, no effect for personal level of religiosity.</td>
<td>No target</td>
</tr>
<tr>
<td>Vilaythong Tran et al. (2010)</td>
<td>Implicit and explicit homophobia</td>
<td>Christian or Buddhist version of Golden Rule</td>
<td>Christians more explicitly homophobic following Buddhist prime; no effect of Christian prime.</td>
<td>No target</td>
</tr>
</tbody>
</table>
This has been observed in the experimental and quasi-experimental literature by employing designs that vary the context of the study, such as the targets. For example, Orbell et al. (1992) found that behavioral cooperation was greater among members of the Latter Day Saints church (i.e., Mormons or LDS) when the study was conducted in Utah (an area with an overwhelming LDS majority) than in Oregon (where LDS individuals were in the minority). Again, this qualification based on target status is often not mentioned in the overall conclusion that religious individuals are more generous with charity and volunteering. It is more accurate to state that religious individuals tend to be more generous in naturalistic studies in which there is an inability to control for the context and target characteristics. Often ingroup effects are simply not apparent due to religiously homogeneous contexts with the absence of comparison groups (as observed in the controlled studies), but are more visible in situations wherein religious individuals perceive a conflict of interest between their group and other religious groups.

This effect can also be observed in the naturalistic studies pertaining to charitable giving and volunteering. It was mentioned that there are often problems distinguishing religious and secular influences on giving due to a lack of control over the religious identity of targets, such that religious giving appears to be preferentially directed toward religious ingroup targets. A broader but related problem is seen when comparing charitable giving across nations as a function of the social and political orientation of givers. There are systematic differences in attitudes toward giving such that political conservatives (who tend to be more religious) tend to view charity as a private matter (Brooks, 2006). In contrast, liberals are more likely to view charity as a collective governmental responsibility, and therefore advocate societal redistribution through higher taxes and greater national aid (Jost, Glaser, Kruglanski, & Sulloway, 2003; Wiepking, 2010), which would not be identified in a study focused on reports of private charitable giving or volunteering. Thus, the selection of findings indicating that religious individuals tend to report higher rates of planned prosociality, such as charity and volunteering, represents a methodological confound based on a preference for the type or manner of prosocial giving. For example, as indicated by the Commitment to Development index (Center for Global Development, 2004, 2005), the least religious nations—those in Scandinavia and northern Europe—tend to have lower rates of private charity allocations relative to the United States but much greater per capita public allocations. Indeed, national church attendance in a given country is inversely related to support for governmental spending on developing nations (Center for Global Development, 2005).

A similar effect has been observed at the national level; support for charitable giving often varies as a function of the predominant religiosity of the region or country. For example, when comparing support for welfare spending across different nationalities, religiosity predicts greater welfare support when government spending can assist members of state churches or direct money to religious groups (Chen & Lind, 2007). Similarly, the more polarized the religious context in a country, the more religious individuals, relative to seculars, oppose income redistribution by the state (Stegmueller, Scheepers, Rossteutscher, & de Jong, 2011). That is, religious people may appear more charitable because of their higher levels of giving and support for agencies that predominate in religious contexts, when in fact they show greater particularism in preferring religious over secular causes, in accordance with greater ingroup favoritism (Monsma, 2007). In fact, greater religious particularism is related to lower willingness to donate money (Reitsma, Scheepers, & te Grotenhuis, 2006). Even within religious groups, giving by church members is a function of the solidarity they feel toward that particular congregation (Peifer, 2007). Thus, findings are a reflection of what is found in the quasi-experimental and priming literature such that greater generosity in some contexts may actually contain ingroup favoritism when target characteristics are different.

One caveat pertains to the various conceptualizations of religiosity. The overall findings of ingroup bias, such as is seen in the studies in Tables 1–3, vary as a function of the type of religiosity in question as well as traits such as authoritarianism (Hunsberger & Jackson, 2005). As a general trend, ingroup bias is greater and individuals discriminate more on the basis of the target’s religious group similarity to the degree that their religiosity is defined by fundamentalism and authoritarianism (Johnson et al., 2011). Conversely, those who are higher on quest religiosity or low fundamentalism appear to behave prosocially with less regard to group identification. This presents a “glass half empty, glass half full” situation for religious prosociality in that religiosity itself (i.e., with the variance due to fundamentalism and authoritarianism removed) is unrelated, or negatively related to ingroup bias, and any associated prosociality is more universal (Laythe, Finkel, & Kirkpatrick, 2001). However, it is well established that religiosity is moderately correlated with authoritarianism; subsequently, those with the least prejudice and the most universal prosociality have consistently been those high on quest religiosity (low fundamentalist) and those who are completely nonreligious (Altemeyer & Hunsberger, 1992). Therefore, the nonprosocial effects of religious priming are likely the result of an activation of authoritarianism, submission, or traditionalism in religious individuals. These studies indicate that religiosity could have nonprosocial effects in situations in which it disinhibits aggression or activates the tendency of some individuals to acquiesce to nonbenevolent social norms (e.g., authoritarian aggression, racial or sexual prejudice, parochialism).

**Religious Effects Versus General Psychological Processes**

As mentioned above, the religious prosociality hypothesis posits that religious content, such as doctrines or reminders of moralistic monitoring, act as the mechanism of action. Priming, for example, has been suggested to have pronounced effects within religious believers (Koole et al., 2010). That is, the hypothesized mechanism of action is often assumed to be sui generis and a function of religious concepts and their effect on religious individuals who endorse them. However, as indicated in Tables 2 and 3, in the majority of cases in which participant religiosity was measured continuously, a religious priming effect was present regardless of the level of participant religiosity (or present even with individual religiosity controlled): Ahmed and Hammarstedt (2011); Ahmed and Salas (2008); Ahmed and Salas (2011a, 2011b); Gervais and Norenzayan (2012, Study 2); Johnson et al. (2010); LaBouff and Johnson (2012); Laurin et al. (2011); Pichon and Saroglou (2009); Randolph-Seng and Nielson (2007, Study 2); Saroglou et al. (2009, Study 2); Sasaki et al. (2011); Shariff and Norenzayan (2007, Study 2); Sasaki et al. (2011); Shariff and Norenzayan (2007, Study 2).
Study 1); Van Cappellen, Corneille, Cols, and Saroglou (2011). For example, in both Shariff and Norenzayan (2007, Study 1) and Randolph-Seng and Nielsen (2007, Study 2), religious priming resulted in the reduction of cheating behavior; however, this was true of both religious and nonreligious participants. In contrast, only a minority of studies feature an effect of religious priming that is dependent on participants’ religiosity level: Carpenter and Marshall (2009); Gervais and Norenzayan (2012, Studies 1 and 3); Horton, Rand, and Zeckhauser (2010, Study 3); McKay, Efferson, Whitehouse, and Fehr (2011); Paciotti et al. (2011, Study 2); Shariff and Norenzayan (2007, Study 2). A few studies have identified main effects for religious primes on all participants as well as a significantly stronger effect for religious participants (e.g., Bushman et al., 2007, Study 2). Some studies are difficult to assess in this regard because of highly nonnormal distributions of religiosity (e.g., truncation at the low end to exclude the completely nonreligious). For example, although Tsang, Schulwitz, and Carlisle (2011) found greater behavioral reciprocity for the religiously primed, the analysis on the range of intrinsic religiosity only included those at least moderately religious (i.e., midpoint and above). Additionally, there are a number of studies that included multidimensional measures of religiosity with priming effects for some, but not other dimensions (e.g., Leach et al., 2008).

The results of these controlled studies have several implications for the religious prosociality hypothesis. In their review, Baumeister et al. (2010) suggested that the priming effects are driven by a moralistic audience such that

the belief that one’s actions are constantly and inescapably being observed by a divine being may be a strong stimulus and reminder to be aware of one’s actions. . . . The idea that a god is watching one’s every move supports self-control beyond the simple fact of fostering public self-consciousness. (p. 76)

McCullough and Willoughby (2009) suggested that the perception of being watched by supernatural entities can increase conscientious behavior via increased self-awareness. Indeed, Gervais and Norenzayan (2012) found that conceptual God-related primes increased public self-awareness and socially desirable responding among believers. However, in the priming literature, the use of secular primes (e.g., Shariff & Norenzayan, 2007, used words like civil and court) have yielded results identical to religious primes. In their review, Norenzayan and Shariff (2008) pointed out several examples in which a reminder of any watchful third party promotes honesty and lowers hypocrisy. Priming with the category of superhero increases future volunteering behavior (Nelson & Norton, 2005). Other contextual primes found to function in this manner include a mirror (Batson, Thompson, Seuferling, Whitney, & Strongman, 1999), eyespots (Bateson, Nettle, & Roberts, 2006), and even suggesting to participants that a dead student’s ghost might haunt the laboratory (Bering, McLeod, & Shackelford, 2005).

This equivalence between religious and secular priming can be observed in the domain of compensatory control, in which belief in either God or secular authority (i.e., government) concepts appear to be equally useful in compensating with a loss of personal control (Kay, Shepherd, Blatz, Chua, & Galinsky, 2010). Similarly, priming with secular authority concepts reduces distrust of the nonreligious, implying that the stereotype regarding lower morality of nonbelievers is due to a lack of endorsement of supernatural monitoring, because this can be ameliorated to the extent that individuals can be reminded that morality can be monitored in other ways (Gervais & Norenzayan, in press). Therefore, when Baumeister et al. (2010) referred to prosociality in the context of belief in a “divine being” or stated that the religious stimuli “prompted participants to evaluate their behaviors against a higher religious ideal” (p. 76), this is only partially true; any secular ideal standard or increase in self-awareness can achieve similar effects, and this mechanism is not uniquely dependent on the religiosity of a given prime. Likewise, several authors have argued that these effects are activated via a unique mechanism in religious individuals. For example, in their review, Koole et al. (2010) contended that “the effects of religious [primes] are most pronounced among religiously identified individuals” (p. 100). However, in the majority of studies, religious priming appears to have an effect regardless of the participant’s level of religiosity.

Therefore, taken together, the fact that the effects of priming typically do not depend on the religiosity of the participant and, when secular primes are used, similar prosocial effects are attained, this indicates that the mechanism of prosociality is not due primarily to religious content or individuals’ endorsement of beliefs. As Randolph-Seng and Nielsen (2008) themselves pointed out in a commentary on Shariff and Norenzayan (2007), a more parsimonious explanation is that any words sharing a stereotypical connection with prosociality lead to honest behavior due to the priming of general, commonly held cultural associations with morality (Laurin et al., 2011). For example, some have suggested that such priming activates evolved mechanisms that promote prosociality via the activation of third-party watchfulness or reputational concerns (Norenzayan & Shariff, 2008). This is relevant to the aforementioned general stereotype that religiosity is tantamount to morality, which is consensually endorsed by both religious and nonreligious individuals alike. The dependence of prosocial effects on a general stereotype is more consistent with the majority of literature using behavioral measures of honesty, cheating, and generosity under controlled conditions that has consistently failed to find religious effects either way (e.g., R. E. Smith, Wheeler, & Diener, 1975; Williamson & Assadi, 2005)—because personal religiosity as a participant trait is less relevant than a proximal activation of any prosocial association including, but not limited to, religiosity.

In addition to the nonspecific nature of religious priming is a dearth of studies that subdivide religious primes to determine which aspects of religious concepts are efficacious at activating prosocial associations. In one of the only studies to do so, Pichon et al. (2007) found that priming with positive religious words (heaven, miracle, bless), but not neutral religious words (bible, disciple, chapel), increased behavioral intentions to help (i.e., taking a pamphlet regarding volunteering). In a second study, prosocial words were more accessible after positive, but not neutral, religious priming. Given that only positive religious, but not general religious, content activated a prosocial schema, this would seem to indicate that the priming mechanism consisted of a general social stereotype of prosociality, rather than a unique capacity of religion in general to create or activate a prosocial schema.

Some have suggested that such a merely stereotypical association is not sufficient to explain the apparent prosocial effect of religious priming. McCullough and Willoughby (2009) reported
An ongoing debate in the literature concerns the relationship between religiosity and religious individuals’ tendency to have elevated scores on measures of social desirability or self-enhancement. One view suggests that there is evidence that religious individuals tend to self-enhance and may inflate their responses in a socially desirable direction (Sedikides & Gebauer, 2010). McCullough and Willoughby (2009) also conceded that religiousness is positively correlated with public self-consciousness (e.g., “making a good impression”). In a meta-analysis of social desirability literature, intrinsic religiosity correlated moderately and positively with measures of self-deceptive enhancement and impression management (Trimble, 1997). However, Trimble (1997) argued that the greater scores on standard social desirability scales shown by those higher in intrinsic religiosity were an artifact of content overlap. This contrary view, represented by Trimble and others, such as Watson, Morris, Foster, and Hood (1986), posits that the intrinsically religious actually do perform more moral actions and thus social desirability measures reflect actual prosocial characteristics. Others have argued that, even controlling for religious content, intrinsic religiosity is associated with both self-deception and impression management (Leak & Fish, 1989). Thus, debate is ongoing regarding the interpretation of enhanced or desirable responding in relation to religiosity.

However, higher quality controlled studies (i.e., those in which either religiosity or enhancement tendencies can be manipulated), rather than those using correlational measures (e.g., impression management questionnaires), suggest that greater social desirability scores on the part of the religious are not a function merely of content overlap but instead represent self-enhancement. For example, priming highly religious believers with God concepts results in greater socially desirable responding (Gervais & Norenzayan, 2012), indicating that there is an associative connection between the two domains. Priming of such associations also works in the opposite direction. Christians with experimentally induced high self-esteem believed they lived up to core Christian principles more than their fellow believers (Alicke & Sedikides, 2009). Burris and Navara (2002) found that the high intrinsically religious, following an induced negative self-disclosure, showed a greater shift in self-deception as a compensatory response than low intrinsics, indicating that the highly religious may have a particular need to defend a positive self-image. Similarly, Burris and Jackson (2000) found that high-intrinsic religious individuals increased religious self-stereotyping when false feedback disconfirmed participants’ self-perceived helpfulness. This is consistent with a pattern such that highly religious individuals may be motivated to maintain the appearance of prosociality and are threatened by information that would disconfirm this. Therefore, the experimental evidence supports the hypothesis that the correlation between religiosity and self-reported prosociality is artificially elevated due to a contamination of self-enhanced and socially desirable responding.

Bias in Self-Reports Versus Behavioral Measures of Prosociality

There is a general tendency for individuals to overreport prosocial actions based on introspective intentions (Batson, 1991; Wilson, 2002). As such, self-reports of hypothetical actions or future intentions are positively biased in most individuals and often do
not predict actual behavior. However, a strong endorsement or internalization of the religious prosociality stereotype (e.g., “religiosity should make me more moral”) and self-enhancement tendencies likely lead to a greater disjunction between self-reports of prosociality and actual prosocial behavior. Indeed, the most problematic aspect to the religious prosociality hypothesis is the disjunction in results obtained by methodology in controlled or experimental contexts using actual behavioral observations versus those obtained via self-report measures. The data based on self-reports of prosocial behavior (e.g., planned charitable giving, hypothetical helping) typically show a stronger correlation between religiosity and prosociality than the data based on actual behaviors, in which there is no general religious prosociality effect. This pattern shows that religious individuals self-report in a manner consistent with the expectations of the social stereotype or activation of religious frame rather than according to actual behavioral tendencies. For example, measures more linked with actual behaviors (e.g., time diaries) produce a lower frequency of church attendance than self-reports (Brenner, 2011a, 2011b), a disjunction that is wider in the religiously normative United States than in Europe. This is consistent with an interpretation of self-reporting as reflecting an attempt to portray an identity reflective of religious stereotypes such that more religious individuals self-report (i.e., overreport) what should be the case. In contrast, behavioral studies of spontaneous helping, conducted contexts in which a religious frame is not activated, using targets who are not ingroup members, are much less likely to show prosocial effects. For example, everyday behavioral interactions with strangers such as blood donation, financial transactions, tipping, or anonymous payment on the “honors system” do not show a religious prosociality effect (Gilliam & Masters, 2010; Grossman & Parrett, 2011; Pruckner & Sausgruber, 2008).

In his programmatic exploration of the relationship between religiosity and motivation for helping, Batson has argued that self-reported intrinsic religiosity is more associated with the need to appear helpful than with actual helpful behaviors (Batson & Flory, 1990). For example, in the “Good Samaritan” bystander assistance study, individuals high in intrinsic religiosity were no more likely to offer assistance than moderate intrinsics or individuals high in quest religiosity (characterized by open-ended or uncertain beliefs), but those high intrinsics that assisted did so in a more “insistent” manner that disregarded the victim’s stated wishes (Darley & Batson, 1973). In a series of studies designed to separate different motivations for helping, intrinsic religiosity was more strongly related to the appearance of helping than an actual desire to assist others (Batson & Gray, 1981; Batson et al., 1989). This pattern is also seen in the disjunction between reports of planned helping behavior (e.g., volunteer work or charitable giving), which is more associated with self-presentation, and reports of unplanned or spontaneous helping. As is the case with other studies of religiosity, differing measures often yield different patterns of prosociality (e.g., the stronger relationship between intrinsic religiosity and planned helping vs. quest religiosity and spontaneous helping; Hansen, Vandenberg, & Patterson, 1995). These findings are consistent with the hypothesis that religiosity promotes a self-stereotype of prosociality, such that more religious individuals defend this stereotype to preserve the appearance of prosociality (Burris & Jackson, 2000).

Therefore, the evidence indicates that endorsement of the religious prosociality hypothesis allows a discrepancy between merely holding altruistic or prosocial beliefs regarding one’s self and actually engaging in prosocial actions. For example, statistical analyses of religious measures often indicate an orthogonal relationship between “vertical faith” (concerning one’s relationship with God) and “horizontal faith” (relationship with others; Ji, Pendergraft, & Perry, 2006). Indeed, Ji et al. (2006) found that greater intrinsic religiosity was associated with a greater discrepancy between altruistic beliefs and actual altruistic behavior. The stereotype of religious prosociality partially explains the existence of this gap because greater vertical religiosity would promote the endorsement of moral teaching in the abstract without necessarily resulting in an increase in actual prosocial behavior associated with horizontal religiosity. In another example, although greater religiosity is associated with greater valuation of forgiveness (McCullough & Worthington, 1999), its association with actual forgiveness of transgressions is negligible (Brown, Barnes, & Campbell, 2007), accounting for around 3%–4% of variance, similar to the effect size of social desirability (R. Fehr, Gelfand, & Nag, 2010; Tsang, McCullough, & Hoyt, 2005). Similarly, although those high in intrinsic religiosity self-report as having a more grateful disposition, this is not associated with actual reciprocal behavioral gratitude (Tsang et al., 2011). In their review of the religiosity and forgiveness literature, McCullough and Worthington (1999) suggested that religious people are conscious that they should value forgiveness highly in order to be consistent with religious teachings, and “even if religious people are no more facile at forgiving in real-life situations than are less religious people, they do desire to be forgiving” (p. 1152). However, it may be the case that endorsement of prosociality based on religious motivation acts as a distractor or barrier to an accurate appraisal of one’s behavior.

Given the link between religiosity, impression management, and self-deception, any evidence based on self-report methodology must be heavily qualified. However, McCullough and Willoughby (2009) based much of their argument regarding religiously based self-control on self-report. For example, the authors cited research based on “perceived likelihood of future criminal activity” and “predictions of likelihood of engaging in several crimes” (Welch, Tittle, & Grasmick, 2006), indices that are obviously contaminated by self-deception. Many similar studies are equally problematic because their measures consist of predicting hypothetical prosocial behavior (e.g., planned charitable donations) rather than using actual behavioral measures (Reitsma et al., 2006). As cited earlier, given that those higher in intrinsic religiosity rate themselves as superior on a wide range of behaviors, there is every reason to think that future predictions of behavior are subject to similar self-serving bias. Taken as a whole, the evidence indicates that religiosity has an effect only on self-reports of prosociality rather than actual behaviors in most contexts. As the standard textbook in the psychology of religion field (Hood et al., 2009) concludes, “There are indications that religious people say they are more honest, but the data do not always bear this out for actual behavior in a secular setting” (p. 434).

Personality research regarding religious prosociality is also subject to the same stereotypic and ingroup effects as is the case with the impression formation literature due to the same reliance on
self- and peer reports. For example, McCullough and Willoughby (2009) pointed to the higher levels of rated Agreeableness in religious individuals (e.g., judged in interviews as being more cooperative and “nicer”) as constituting veridical and objective qualities. Similarly, McCullough and Willoughby cited ratings of cooperativeness such as in Walker (1999), in which individuals rated the prototype of a “religious person” as being high in Agreeableness and Conscientiousness. However, the religious perceive themselves and fellow religious individuals as being more agreeable than nonreligious individuals in part because they believe that these traits should be associated with religiosity. As mentioned earlier, when targets are portrayed as religious, they are judged to be more likable, intelligent, trustworthy, kind, and moral (Bailey & Doriot, 1985; Galen et al., 2011; Widman et al., 2009), characteristics associated with Agreeableness. Conversely, the nonreligious are rated as being hedonistic, cynical, and judgmental (Harper, 2007), characteristics central to the (reversed) traits of Agreeableness and Conscientiousness. When Saroglou et al. (2005) and McCullough and Willoughby cited the association between religiosity and self-control, it must be qualified that the measures in the reviewed studies were almost always self-, peer, and parental reports unblinded to the religious status of the target. As Saroglou (2010) pointed out in a meta-analysis of personality and religiosity, “The personality profile of religious people as being high in Agreeableness and Conscientiousness . . . constitutes stereotypical and metastereotypical knowledge that is shared, to some extent, by both religious and nonreligious people” (p. 117). Responses to personality inventories in general are susceptible to both self-deception and impression management (Barrick & Mount, 1996) such that anyone with a “moralistic bias” would self-report and be rated by others as being specifically higher in Agreeableness and Conscientiousness (Paulhus & John, 1998). Indeed, those two personality factors (along with Emotional Stability) are significantly higher in individuals assessed while attempting to project a positive response set (Furnham, 1997). Therefore self- and peer ratings of prosocial personality traits are tantamount to the well-established impression formation bias of religiosity mentioned earlier, since merely changing a target’s identity to “religious” results in increased peer ratings of Agreeableness and Conscientiousness.

Stereotypical associations are also relevant to the literature on mental well-being because religiosity is presumed to be associated with subjective well-being and eudaimonia, which contaminate any nonblinded or self-rated reports. The degree of association between religiosity and mental well-being is dependent upon the domain of mental well-being being measured. For example, in a comprehensive meta-analysis of religiosity and mental health by Hackney and Sanders (2003), religious devotion was found to be more strongly associated with “existential well-being” than with actual low levels of distress. This is also consistent with stereotype fulfillment, as the more objectively defined presence of disorder or pathology is less related to religiosity than the more subjectively defined and stereotypic measure of self-actualization. In sum, the same processes that are associated with elevated social desirability in the religious are involved in the assessed relationship between religiosity and Agreeableness–Conscientiousness.

**Contextual Effects**

Another indication that ratings of personality are contaminated by religious stereotype association rather than veridical reflections of actual prosociality is that the association between religion and prosociality is influenced by prevailing cultural and stereotypic environment. There is evidence that rather than a universal association with prosocial effects, religiosity shows prosocial effects as a function of its normative predominance in the particular culture, consistent with a stereotypic effect. For example, Sasaki and Kim (2011) found that religious priming increased self-control for European Americans but not Asian Americans, indicating that religion’s effect on self-control is based on cultural stereotypes about how religion ought to function, rather than constituting a general or intrinsic property (contra McCullough & Willoughby, 2009). In the same way that the association between prosocial phenomena (such as social desirability, life satisfaction, happiness, or church attendance) and religiosity is greater in more religious contexts such as the United States, relative to less religious contexts, such as the United Kingdom and northern Europe (Brenner, 2011a, 2011b; Diener et al., 2011; Eichhorn, 2011; Sabatier, Mayer, Friedline, Labiwska, & Trommsdorff, 2011; Sedikides & Gebauer, 2010), the strength of association between religiosity and Agreeableness is greater in the United States than it is in Europe (Saroglou, 2010). In the United States, when participants are asked to form impressions of personal characteristics based only on photographs of faces, smiling faces were judged to be more religious than nonsmiling faces (Naumann, Vazire, Rentfrow, & Gosling, 2009). However, in the United Kingdom (where religiosity is less normative), the opposite was true (Highfield, Wiseman, & Jenkins, 2009). These findings indicate that religiosity in the United States has a stronger association with the prosocial stereotype than it does in the more irreligious societies in Europe, and this cultural association contaminates the process of impression formation. Conversely, contexts in which nonreligiosity is more normative are associated with lower endorsement of the religious prosociality stereotype (Gervais, 2011). This is consistent with the hypothesis of religious prosociality as stereotype fulfillment and social desirability. This effect may also reflect a phenomenon that more socially integrated or better adjusted people might, in highly religious societies, be more likely to enjoy the ancillary social benefits of religious institutions (Lavrinc & Flere, 2008), whereas in less religious cultures, religiosity is unrelated, or even negatively related to well-being and social support (Diener et al., 2011). A nearly identical effect was identified by Gebauer, Sedikides, and Neberich (2012), who found that psychological adjustment was higher for believers only in countries that valued religiosity but did not differ from nonbelievers in countries that did not value religiosity. In a meta-analysis, Saroglou (2010) acknowledged that “religiosity is best predicted by the interaction between personality traits and contextual factors” (p. 116). These factors include the cultural milieu in which the associations are assessed.

As with personality research, the apparent relationship between religiosity and well-being is affected by the broader cultural or regional context in which a given study is conducted. The relationship between happiness and religiosity is essentially zero in irreligious countries such as Denmark and the Netherlands (Snoep, 2008). Similarly, Canadian students from a nonreligious back-
ground did not differ in mental adjustment from religious students (Hunsberger, Pratt, & Pancer, 2001). Some studies have found the religiosity/well-being association entirely reversed as a function of culture, such as Zhang and Jin (1996), who found depression and suicidality to be negatively correlated with religiosity in American college students but positively correlated in Chinese students. A higher level of life satisfaction is associated with personal religiosity only in societies in which average religiosity is greater (Eichhorn, 2011). These findings suggest that the mechanism linking religiosity and well-being is affected by factors such as conformity to the majority religious status in the particular context. Given that the majority of studies have been conducted in the religiously normative context of the United States, more information is needed regarding whether prosociality is as strongly associated with religiosity in less religiously normative contexts or whether the content of the stereotype differs as a function of culture.

**Definitional Issues: Belonging, Not Belief**

The religious prosociality literature has included a range of conceptual definitions of religiosity. It is widely acknowledged that the construct of religion involves multiple dimensions, including cognitive, affective, and behavioral components (Saroglou, 2011). Social scientists have often employed the alliterative phrase “belief, belonging, and behavior” to conceptualize the most relevant and important components of the phenomenon. Studies have employed different methods of measurement in these various domains (Hill & Hood, 1999). For example, religious belief—cognitive conviction regarding metaphysical entities—has been measured in terms of personal importance or strength of conviction (i.e., intrinsic religiosity). Other methods of assessment have used group denominational affiliation (belonging) or attendance and involvement (behavior) at services or rituals. Although these domains have substantial overlap, there can be a range of intensity or commitment among religious believers. For example, despite high levels of nominal belief, actual weekly religious attendance in the United States is somewhere in the 30%–40% range, depending on the survey method (Brenner, 2011a, 2011b). Also, the association between indices may be stronger at the high end of the religiosity continuum than at the low end or may vary due to moderators (Gorsuch, 1984).

Due to recent trends of decreased religious affiliation in the United States and Europe, the disjunction between belief and belonging appears to be increasing, resulting, for example, in more “unchurched believers” (Halman & Draulans, 2006; Hout & Fischer, 2002; Pew Forum on Religion and Public Life, 2008). This may be particularly true in groups with a communal or ethnic identity (e.g., secular Jews, cultural Irish Catholics, Swedish Lutherans) who may “belong without believing” or in more religiously heterogeneous contexts such as in Europe where there may be relatively more “believing without belonging” (Dave, 1990). The latter pattern may also characterize those with religious beliefs who may be disaffected with formal religious group affiliation (Hout & Fischer, 2002). Although 15% of those in the United States self-identify their religion as “none” (Pew Forum on Religion and Public Life, 2008), only 6% say they believe either there is no God or there is no way to know, indicating that the majority of “none” are, in fact, religious “believers but not belonging” and are merely denominationally unaffiliated. Equally important, some individuals have strong secular convictions and high levels of social engagement but have no religious belief; in effect “belonging and behaving without believing” (Hunsberger & Altemeyer, 2006; Saroglou, 2011; Zuckerman, 2008). Taken together these patterns indicate that although studies of religiosity typically have employed conceptually related measures, caution must be observed when presuming that religious belief content is the causal mechanism of prosociality and that relationships with religiosity are equivalent across the entire range of that construct.

Separating belief from factors relating to group participation is crucial in the religious prosociality literature because the religious variable often most robustly related to prosocial behavior is belonging—social and group engagement—not personal conviction or metaphysical beliefs, although this distinction is often elided in coverage of the “effect of religion” on prosociality. In the studies of charitable giving and volunteering mentioned earlier, church attendance or social factors in religious organizations are typically stronger predictors of these forms of prosociality than is personal devotion (Brooks, 2006; Monsma, 2007). For example, Reitsma et al. (2006) demonstrated that church attendance was predictive of charitable intentions, whereas other religious variables (frequency of prayer, religious experiences) were nonsignificant. In another example, Gallup survey results (B. G. Smith & Stark, 2009) indicated that the differences in generosity when measured as a function of religious importance were smaller than those measured as variation in religious attendance. There are several mechanisms that have been suggested to account for these group attendance effects on giving and volunteering, none of which are necessarily dependent on religious belief. One may be that religious groups offer structure to giving (e.g., tithing, offerings, pledging) such that planned prosocial activity is easier. As mentioned earlier, religiosity is associated with planned rather than spontaneous helping. There is evidence that religiously motivated empathic concern may require church attendance to mediate the relationship with actual generous giving (Bekkers, 2006). Religious groups or settings may increase the ease of social networking (Putnam, 2000) and include contextual factors such as a greater likelihood of being asked for donations or greater social pressure to conform to group standards (Bekkers & Schuyt, 2008; Campbell & Yonish, 2003).

Distinguishing the effects of religious behavior from beliefs is relevant to the present critique because it appears that even those without religious belief, such as unaffiliated or secular individuals who report attendance at religious events, report more prosocial behaviors. Putnam and Campbell (2010) found numerous associations across multiple measures demonstrating the “good neighborliness” of “religiously engaged believers.” However, when controlling for frequency of church attendance, the authors found that “religious beliefs . . . turn out to be utterly irrelevant to explaining the religious edge in good neighborliness” (p. 465). Rather, Putnam and Campbell found that it was the religiously based social network that 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” (pp. 472–473). If church attendance is more related to generosity than are religious beliefs, and if even secular individuals who happen to attend church tend to report more generous behavior, then the effect is more aptly described as a “general group involvement.”
than a “religious prosociality” effect. Despite the lesser relevance of belief when the primary association between group socialization effects and prosociality (belonging) is taken into account, this complexity is often lost in the transmission of the findings. Putnam and Campbell’s own summary phrasing (e.g., “Religious Americans Are Better Neighbors”) lends the impression that the belief or content component of religion (or simply religion itself) is the efficacious component of prosociality.

As with charitable giving, perhaps the most influential methodological mechanism between religiosity and psychological well-being is greater social integration via belonging to a group of like-minded individuals. Having a strong religious social identity has been found to mediate the association between attendance at religious services and psychological well-being (Greenfield & Marks, 2007). There is evidence that, separate from church attendance itself, church social ties and activities are the components most associated with prosocial engagement outside the church itself and into the broader secular community (Beyerlein & Hipp, 2006; Jackson, Bachmeier, Wood, & Craft, 1995). Frequent churchgoers report larger social networks, greater contact with network members, and a higher degree of social support than nonchurchgoers (Ellison & George, 1994), and in this study, each of these social factors is also significantly related to mental well-being. In a meta-analysis based on over 100 studies of religiosity and depression, T. B. Smith et al. (2003) found a modest, but significant, overall effect (−0.096) between the two domains. However, the association between depression and religiosity as defined by church attendance was greater (−0.124) than that for religiosity as defined by beliefs (−0.053). Strong within-group social contacts formed by shared activities (not merely religious belief) have been found to account for most, if not all, of the relationships between religiosity and mental well-being variables such as life satisfaction (Lim & Putnam, 2010). Because the relationships of prosociality and well-being to religiosity often appear to differ, depending on whether the latter domain is conceptualized as subjective belief as opposed to organized social behavior, this raises important questions regarding the actual mechanisms of effect.

**Group Comparison and Criterion Contamination**

A methodological problem present in the majority of the religious prosociality literature thus pertains to the comparison group used to test the hypothesis that religious belief itself is the primary causal factor. This problem is present in studies regarding religious prosociality in domains ranging from charitable giving to mental well-being. In the typical study, participants with high levels of religiosity are compared to those with low religiosity, yet the language framing the conclusion often implies that a contrast was made with the complete absence of religiosity. For example, Koole et al. (2010) stated that “religious individuals on average display higher levels of emotional well-being compared to nonreligious [emphasis added] individuals” (p. 95) and “religious individuals generally display fewer ruminative positive thoughts, lower levels of inner conflict, and higher levels of positive emotion compared to nonreligious [emphasis added] individuals” (p. 95). However, in this example, two of the three studies cited for this statement (Neyrinck, Vansteenkiste, Lens, Duriez, & Hutsebaut, 2006; Ryan, Rigby, & King, 1993) consisted of samples that included only religious individuals (i.e., self-identified Christians, Catholic or Protestant students from Christian colleges, and church members). None of the participants in these studies were nonreligious. In the third study cited for that statement, the meta-analysis of religion and depression (T. B. Smith et al., 2003), approximately one fifth of the studies specifically excluded nonreligious individuals, sampling instead from churches or religious groups.

Also, in the broader literature, it is well founded that that highly religious people generally report more charity and volunteering (Pelham & Crabtree, 2008), or greater subjective well-being and life satisfaction than less religious individuals (Hackney & Sanders, 2003; Koenig & Larson, 2001). But the majority of this literature consists of comparisons between highly religious individuals and weakly or nominally religious individuals. The previously mentioned study on forgiveness by McCullough and Worthington (1999), for example, compares more and less religious individuals. There is a distinction, however, between weak or unsure belief and complete nonbelief, which is one reason why comparisons such as median splits dividing religiosity into high and low groups are inappropriate to test religious effects (Gorsuch, 1984). For example, one common use of the intrinsic religiosity scale and its counterpart the extrinsic scale (e.g., religion used for personal or social advantages) is to designate those who are above or below the median on both scales as “indiscriminately pro-religious” or “antireligious,” respectively. But some studies have found that a majority of those below the midpoint are still theistic believers and are not in any sense antireligious or even nonreligious (Richards, 1991). Therefore, any study using such categorizations cannot properly describe results as representing a difference between the presence and absence of religious belief. Rather, they represent comparisons in strength of belief. Most of those at the low end of the religiosity continuum, such as the unaffiliated, do not self-identify as completely nonreligious (atheists or agnostics), but rather are religious-but-unaffiliated, a group consisting of those unwilling to join a church or who are indifferent believers (Pew Forum on Religion and Public Life, 2008). However, surveys also indicate that atheists and agnostics are markedly different from the unaffiliated on a wide range of important demographic variables (higher proportion of males, higher education level) as well as in religious knowledge (Pew Forum on Religion and Public Life, 2010). In fact, differences between the nonaffiliated and the religious in prosocial domains are often found to be spurious when controlling for demographics (Reitsma et al., 2006). For example, controlling for the greater proportion of women in religious groups (who are more likely to be religious as well as to volunteer) diminishes or eliminates the relationship between religious denomination and volunteering (Manning, 2010). Therefore, using the mere absence of religious affiliation (i.e., “none”) as a grouping category confounds complete nonbelievers together with the unsure; these groups differ substantially on factors having nothing to do with religious belief.

Similarly, when using religious attendance, what is likely being measured in a comparison between the religiously active and nonattenders is not belief itself, but rather characteristics such as the ability to conscientiously commit to groups, the desire for social integration, social support, life stability, and other similar characteristics. Because religious belonging and behavior are not always equivalent to belief, it is equally problematic to use behavioral or participatory measures such as infrequent church atten-
dance to represent the complete absence of religious belief. For example, Bloodgood, Turnley, and Mudrack (2008) found less cheating behavior in “relatively high” compared to “relatively low” church attenders. This is often presented as an effect of religious belief itself, such as existential comfort, faith, or hope. But again, “never-attender” is not equivalent to “irreligious.” The majority of the personality and religiosity literature is also marked by inappropriate group comparisons that confound religious group membership with belief. Much of the religious prosociality work has suggested that since religious individuals have greater Agreeableness and Conscientiousness than those low in religiosity, religious belief itself is connected to these traits. However, again, strongly religious church attenders are often compared to the predominantly weakly religious nonattendees. For example, A. Taylor and MacDonald (1999) found that Conscientiousness distinguished the religiously “involved” from the “not involved,” which is perhaps not surprising given its association with dutifulness and diligence. But once demographic differences (sex, age, socioeconomic status) are controlled, there is frequently little difference found between church members and secular group members in personality as a function of religious belief itself (Galen & Kloet, 2011b).

Interestingly, Myers (2008) made a point in addressing the evidence of nonprosocial behavior among the religious (e.g., higher divorce rate and higher prejudice among members of conservative religious denominations) by correctly noting the distinction between being nominally religious and religiously active (the former defined by infrequent, and the latter defined by regular, church attendance). Obviously, if the distinction between mere denominational membership and devout religious activity or confident belief is valid on the religious end of the spectrum, this distinction should also be made at the nonreligious end of the spectrum. Similarly, the previously mentioned meta-analysis of religiosity and depression by T. B. Smith et al. (2003) contains studies representative of much of the literature in the area of religiosity and mental health. Although the meta-analysis found an inverse relationship between “religiousness” and depression, a majority of the studies included in the meta-analysis either specifically excluded nonreligious individuals or the analyses did not permit a distinction between completely nonreligious individuals and religious individuals and infrequent church attendance or uncertain beliefs. A more accurate description of the findings would be “committed or devout religious individuals tend to have lower incidence of depression than uncommitted or uninvolved religious individuals.” By defining low religiosity as low levels of belief or commitment or the absence of group attendance, one is virtually certain to find lower levels of well-being and prosocial commitment in this group relative to frequent group attenders or the religiously involved. However, despite such findings having been discussed in terms of religious belief (or similar constructs such as “faith” and “spirituality”) rather than the effect of social group integration, there is often not sufficient evidence to indicate that religious belief is the efficacious component. In studies that posit religious belief as the causal mechanism, the appropriate comparison for confident religious believers who are group members should be confidently nonreligious individuals who are members of a nonreligious or secular group, not those who are indifferent or who attend church infrequently.

A comparison of frequent church attenders with the unaffiliated represented as a distinction in religious belief is essentially tautological compared to contamination of the predicted prosociality with the predictor, social commitment. This is, in effect, hypothesizing that those who are socially engaged, as evidenced by their religious group behaviors, will be socially engaged in other ways as well. Stating the hypothesis in this manner is, if not particularly surprising, also not necessarily problematic in itself. This methodological problem can also be observed in many studies that use measures of spirituality, such as the Spiritual Transcendence Scale (Piedmont, 1999), which, in addition to a Prayer Fulfillment scale, contains Universality (“I believe there is a larger meaning to life”; “I feel an emotional bond to all humanity”) and Connectedness (“It is important for me to give something back to my community”; “I believe that humanity as a whole is basically good”; “I am concerned about those who will come after me in life”). In another spirituality measure, the majority of items make no reference to nonmaterial concepts, but rather constructs such as mindfulness, meaning, and security (Hardt, Schultz, Xander, Becker, & Dragan, 2012). One problem is that such measures do not measure spirituality in a metaphysical sense that would necessarily distinguish a prosocial religious believer from a prosocial agnostic or atheist (Koenig, 2008). But more related to the present point, if the measure is used, as has been the practice, to predict prosocial outcomes such as social helpfulness or mental well-being, there would clearly be an inflated relationship due to criterion contamination, and the design would be unable to address the issue of whether religious belief itself is related to prosocial outcomes in a way that nonreligious belief is not. For example, Murphy et al. (2000) measured religious belief with the Religious Well-Being Scale (Paloutzian & Ellison, 1982), which contains items such as “I believe that God is concerned about my problems” to predict depression and hopelessness. Clearly, this does not address merely whether religious belief is associated with lower depression but rather whether “nondepressed religious people are not depressed.”

In their meta-analysis of religiosity and mental health, Hackney and Sanders (2003) noted that the relationship found between the two domains may have been due to semantic and conceptual overlap such that personal devotion as a category of religiosity contains within it ideas such as commitment to a worldview and the utilization of that worldview as the individual’s source of meaning and value. . . . This overlap could be one explanation for the strong relationship found between personal religious devotion and self-actualization. (p. 53)

In another example, Mahoney et al. (1999) used measures of “sanctification” of marriage (e.g., viewing one’s marriage as having sacred qualities) and “manifestations of God” (e.g., “My marriage is influenced by God’s actions in our lives”) to predict marital conflict. This study found that although these measures were robust predictors of marital adjustment, the individual religious beliefs of the partners were essentially unrelated to adjustment. Again, using predictors such as religious sanctification that blur with the predicted criterion of marital adjustment is not itself inherently problematic if the implications are discussed in a narrow and accurate manner. But such results are often described as implicating religious belief itself. In this case, for example, Rossano (2008) cited Mahoney et al. as implying that “religious couples communicate more effectively and use better conflict
resolution strategies compared to nonreligious couples” (p. 182), when in fact religious belief was unrelated to the criterion. Therefore, measures of religiosity (as with religious groups) should be selected such that they contain belief content (or believers) in a manner that is distinct from the prosociality that they are being used to predict.

**Curvilinear Relationships**

As mentioned above, although they are often combined together, the less religious or nominally religious individuals are distinct from the completely nonreligious in many ways. But studies using only linear measures such as correlation coefficient, regression, or a median split are not able to distinguish between the two groups. Interestingly, studies of prosociality that have used the full continuum of religiosity have frequently found curvilinear effects in which the confidently nonreligious resemble the confidently religious. The domains often involve situations in which prosocial behaviors are facilitated by strong conviction, self-control, and nonconformity. For example, Bock and Warren’s (1972) replication of the Milgram obedience paradigm dichotomized participants into “extreme nonbelievers,” “moderates,” and “extreme believers.” Results indicated that both ends of the religious continuum disobeyed (i.e., gave lower shock), whereas the moderates displayed the highest level of obedience (i.e., greatest level of shock administered). These authors reasoned that the extremes of religiosity consisted of persons having arrived at strong commitments consistent with moral conscience, whereas the moderates were more conforming and thus more likely to obey the experimenter. Other self-control behaviors that have exhibited a curvilinear pattern with religiosity include personal health behavior such as favorable health perceptions and low body mass, with the highly religious and nonreligious scoring similarly (Masters & Knestel, 2011). Nonlinear or curvilinear effects are often seen in the domain of altruism and helping. In Oliner and Oliner’s (1988) study of rescuers of Jews during World War II, the proportion of rescuers to nonrescuers was greater among both the highly religious and the completely nonreligious, with the nonrescuers predominating in the moderately religious. Similarly, physicians’ likelihood of practicing among the underserved exhibits a curvilinear relationship with intrinsic religiosity (Curlin, Dugdale, Lantos, & Chin, 2007). Nonlinear relationships between religiosity and personality are often found (Jorm & Christensen, 2004) such that strongly secular individuals are equivalent in Conscientiousness to strongly religious individuals (Galen & Kloet, 2011b). Although a focus on the religious belief component of the religious prosociality model predicts that any level of religiosity is more beneficial to prosociality than the absence of religiosity, this does not appear to be the case.

As has been shown in different domains, religiosity involves a large element of social conformity and ingroup favoritism. Therefore, in situations wherein the norms are nonprosocial (e.g., prejudice, denying assistance to a nonnormative or value-violating target), having only a moderate level of religiosity is likely associated with a negative type of conformity. Those less affected by obedience to social norms, whether very religious or completely nonreligious, are likely to act according to personal conscience. For example, civil rights protesters in the 1960s consisted of a mixture of highly religious and completely nonreligious or secularly motivated individuals; many mainstream religious denominations were indifferent or hostile to civil rights (Rokeach, 1969).

Unfortunately, given that so few studies actually differentiate completely nonreligious individuals from the nominally religious, it is likely that other curvilinear relationships between religiosity and prosociality remain undetected. Additionally, given the recent growth in the “nones”—those declaring no religious affiliation (Kosmin & Keysar, 2008)—studies that fail to distinguish at the low end of the religiosity continuum will become increasingly less valid and useful.

Little effort has been made to assess curvilinear relationships in the voluminous literature on religion and mental well-being/mental illness. However, the studies in the mental health literature that have actually distinguished between the completely nonreligious and weakly religious have often detected curvilinear patterns. The highest levels of mental distress are typically found in the weakly religious, whereas the highly religious as well as the nonreligious tend to be the least distressed (Eliassen, Taylor, & Lloyd, 2005; Ross, 1990). In one study of older adults, although the religious had a greater number of social supports relative to atheists and agnostics, life satisfaction was equivalent between these groups (Horning, Hasker, Stirrat, & Cornwall, 2011). Similarly, another study of elderly individuals found that the strongly nonreligious had equivalent coping with negative stressors to the strongly religious, indicating that the strength of the belief system was more relevant than the religious content (Wilkinson & Coleman, 2010). If religious belief itself was the central mechanism of well-being, one would expect that even lukewarm believers would have greater mental well-being than the complete nonbelievers or atheists, but this is not the case; the highest rates of depression or distress are in nominal believers, not atheists (Buggle, Bister, Nohe, Schneider, & Uhmann, 2000; Riley, Best, & Charlton, 2005; Shaver, Lenauer, & Sadd, 1980). Similarly, in regard to affiliation, when religiously affiliated individuals are compared to nonreligious or secularly affiliated individuals (i.e., both being instances of confident believers who are affiliated with like-minded groups), there are no differences in mental well-being. Rather, it is the unsure or nominal believers who have the poorest mental health (Galen & Kloet, 2011a; Meltzer, Dogra, Vostanis, & Ford, 2011; Mochon, Norton, & Ariely, 2011). The World Values Survey, which consists of data from 50 nations, also demonstrates a curvilinear effect such that those for whom religion is either “very important” or “not at all important” indicate a greater level of happiness than those for whom religion is “rather important” and “not very important” (Rees, 2009). Therefore, in order to appropriately test for nonlinear effects, studies should include the abilities to separate these groups and utilize analyses of curvilinear effects rather than overall correlations.

Finally, even when curvilinear effects are detected, the problems posed by the effects for the religious prosociality hypothesis in regard to mental well-being are often downplayed. For example, a poll commissioned by Gallup-Healthways (Newport, Agrawal, & Witters, 2010) found curvilinear effects for a range of mental health measures as a function of religiosity. The authors even suggested that ambivalence or lack of commitment regarding religious views in the moderately religious groups may have had an adverse effect relative to the committed very religious and nonreligious. However, the report (entitled “Very Religious Americans Report Less Depression, Worry”) nonetheless stated, “The
best explanation for the observed relationship between religion and more positive states of emotional health may be the most straightforward—that being religious in fact produces a salutary effect on one’s mental health” (“Implications,” para. 2). This is representative of the literature in that, though partially accurate, the title and description give the impression that religiosity itself is responsible for better mental well-being, while downplaying the curvilinear effect that the moderately religious were the most depressed, and the more nuanced explanation that it entails. There is sufficient evidence of curvilinear effects that any adequate test of religious influence on personality or well-being should include measures allowing for the distinction between nominal, indifferent, and uninvolved religious believers from completely secular nonbelievers.

Nonprosocial Effects: The Negative Influence of Religious Prosocial Stereotype

As mentioned previously, there is evidence that religiosity can lead to a certain level of self-enhancement via endorsement of the religious prosociality stereotype, greater socially desirable responding, and a disjunction between self-reports of prosociality and actual behavioral effects. There is also evidence of ingroup favoritism demonstrated in both controlled studies and naturalistic ones, and that this is particularly true of religiosity as conceptualized by fundamentalism and authoritarianism. Taken together, this implies not only that religiosity can play a role in greater self-deception regarding prosocial behaviors but also a lack of full recognition of negative behaviors. For example, in the domain of prejudice, Batson, Flink, Schoenrade, Fultz, and Pych (1986) demonstrated that the intrinsically religious were reluctant to appear to behave in an overtly racially prejudiced manner, but this relationship disappeared when the prejudice could be masked in a covert way. The nontraditionally religious, high-quest individuals did not show this overt–covert distinction and behaved in a nonjudged manner regardless of self-presentation concerns. Batson, Floyd, Meyer, and Winner’s (1999) work regarding prejudice toward homosexuals also suggested that high intrinsically religious individuals are partially unaware of their own prejudice. A comparison of experimental conditions indicated that high intrinsics helped homosexual individuals less relative to a control condition, yet made an erroneous appeal to “fairness” as a reason for their lower assistance rather than a moral objection to sexuality. Similarly, high fundamentalists have been found to be willing to help friends or like-minded individuals but not unknown people or those with different values; however, they perceive themselves as being universally altruistic (Błogowska & Saroglou, 2011). Such results indicate that greater religiosity appears to be associated with a greater bias in the lack of self-perception of nonprosociality.

Likewise, in the domain of retributive aggression, self-reported intrinsic religiosity predicts lower self-reported vengeance attitudes (i.e., the more religious report that they are less vengeful in general) but does not predict actual retaliatory behavior (Greer, Berman, Varan, Bobrycki, & Watson, 2005). In contrast, Greer et al. (2005) found that those high on a measure of nontraditional quest religiosity did not self-report as particularly “nonvengeful,” but they actually had lower behavioral vengefulness retaliation. In a nearly identical result, Leach et al. (2008) found that although intrinsic religiosity was associated with lower self-reported aggression, the behavioral measure (retaliatory aggression via shock) indicated no relationship between intrinsic religiosity and actual shock delivered. These results are consistent with other research indicating that some measures of religiosity (e.g., biblical literalism) predict greater acceptance of vengefulness (Cota-McKinley, Woody, & Bell, 2001). The evidence reviewed up to this point suggests several mechanisms that may explain why religiosity contributes to the labeling of behavior as prosocial, even in cases where the effects may be negative.

One reason is that a religiously based stereotype defense may lead to the rationalization of gaps between explicit self-reports and actual behaviors, such as a need to seek reasons to justify nonprosociality. For example, Tsang, McCullough, and Hoyt (2005) suggested that those with little benevolence toward a transgressor were less likely to endorse a concept of God as forgiving, whereas those motivated by benevolence showed the opposite pattern. These results are consistent with a rationalization process such that initially forgiving or vengeful motives are then justified by religious values (e.g., aligning with forgiving or retributive God concepts, respectively). Thus, religiosity may inoculate individuals who act vindictively by allowing them to maintain a self-perception of morality and bring their beliefs into alignment with their behavior rather than vice versa.

Thus, not only does the presence of a religious prosociality stereotype act as an impediment to accurate assessment of one’s actual likelihood of prosocial behavior, it may exacerbate moral lapses because any disjunction is minimized or rationalized. For example, Garos, Beggan, and Kluck (2004) found that greater religious commitment was associated with a “temptation bias” (i.e., a predicted ability that one can resist temptation better than others), particularly in sexual domains. Although such a belief may enhance self-esteem, it is problematic regarding the actual ability to detect moral contradiction or hypocrisy. Individuals with a greater restraint bias—the tendency to overestimate one’s capacity for impulse control—overexpose themselves to temptation, thereby promoting impulsive behavior (Nordgren, van Harreveld, & van der Pligt, 2009). For example, this can be observed in such issues as religiously based abstinen ce pledges for sexual behavior, in which the vast majority of plegers will nonetheless have premarital intercourse, but more worrying, have increased risk for unprotected sex due to lack of planning for actual sexual behavior. If religiosity leads to a sense of moral imperviousness (“I will act morally because I am religious”), this is likely to have greater negative consequences than if the individual did not assume that religiosity would yield any moral benefits. Thus, Koole et al. (2010) are correct that “practicing religious principles in a part-time or compartmentalized manner violates the basic principles of most religions” (p. 97). However, contrary to these authors’ supposition that the content of religion would promote more self-regulation, there is evidence that religion may actually promote compartmentalization in part through a focus on stereotypic content or transcendent intentions rather than on reasoning regarding the actual moral effect of the behavior.

The religious prosociality hypothesis focuses on religious content as the causal mechanism, suggesting that religious precepts provide moral guidance. For example, Baumeister et al. (2010) argued that encouragement of the resistance to temptation, as exemplified in the Ten Commandments, enhances self-control to do what is good for the collective society. However the evidence
suggests that broad moral precepts result in little actual behavioral change or are as likely to result in a rationalization of negative action as in a prosocial action. Further, having a moral identity based on the stereotypical religion–prosocial association is not necessarily as helpful as possessing actual moral judgment in a given situation. Those who view themselves as moral individuals tend to pursue more moral extremes (e.g., either never cheating or regularly cheating; Reynolds & Ceramic, 2007). Although previous work has implied that having a moral self-identity is beneficial because it provides a motivation to engage in socially desirable outcomes, in actuality, without specific guidance or consensus as to a moral course of action in a given situation, moral identity can lead to socially undesirable behaviors. This is likely a relevant mechanism for many of the findings regarding moral domains such as prejudice and helping behavior in which religiosity has been found to have little relationship, or even negative effects.

Although both positive secular and positive religious priming appear to activate associations with prosocial behavior, there are indications that the effect of activating a religiously prosocial influence, such as a divine sanction, may be more problematic than an equivalent secular sanction. McCullough and Willoughby (2009) suggested that religion improves self-regulation in part via the sanctification of goals. That is, they suggested that consulting one’s religious scriptures or teachings can enhance compliance with social norms because religious prosociality is perceived as emanating from a sacred source. However, the priming literature shows that this is, at best, a double-edged sword because both positive and negative goals can be sanctioned. As Bushman et al. (2007) demonstrated, activation of sanctification can have a negative effect when the prevailing religious norm is not prosocial or the target group violates religious values, or is merely a religious outgroup. In a different example, Burris and Jackson (1999) found that the more religious a participant was, the more the participant sympathized with a target victim in a depiction of partner abuse, but only when the victim affirmed his or her religious values. Participants higher in religiosity actually rated the perpetrator of the partner abuse as relatively more likable when the recipient of the abuse was a religious value violator. In other words, activation of religious ingroup identity influences moral judgment, but this effect is not necessarily prosocial. Tamarim’s classic 1966 study also demonstrated that individuals evaluate violent actions differently depending on shared religious identity. Israeli schoolchildren viewed the biblical Joshua’s violent actions in Jericho as justified, but when the identical actions were decontextualized into a different religious identity, they disapproved of them. Therefore, the antisocial outcomes in these cases are potentiated, not impeded, by religious particularism.

The dual nature of the priming findings suggests that religiously motivated prosociality is more likely to be affected by ingroup favoritism than nonreligiously motivated or recipient-motivated helping. Activating or priming a religious frame in order to enhance prosociality is as likely to potentiate particularism as it is to activate any general humanitarianism. As seen in studies such as Bushman et al. (2007) or Saroglou et al. (2009), religiosity may have an activating effect on submissive or conformist attitudes. One implication of this also seen in other areas of the literature is that relying on compliance or conformity with sanctified external norms in order to promote prosocial behavior is often antithetical to the development of more sophisticated moral reasoning. The most religiously conforming individuals (e.g., conservatives, fundamentalists) have lower scores on tests of moral reasoning, reflecting conventional stage morality according to Kohlberg’s system (Cottone, Drucker, & Javier, 2007; Getz, 1984; Narvaez, Getz, Rest, & Thoma, 1999). That is, they make moral decisions on the basis of authority or rules rather than attempting to delineate underlying principles. For example, intrinsic religiosity has been found to be unrelated or even inversely related to principled moral reasoning (Sapp & Jones, 1986). This is relevant because moral reasoning itself is more predictive of prosocial behavior than is religiosity (Maclean, Walker, & Matsuba, 2004). More importantly though, situations requiring prosocial actions are often vague and not amenable to general rules, but rather require reasoning from principles. The factors most predictive of real-world altruistic helping include high levels of abstract moral reasoning, high internal conviction (i.e., low conformity), victim empathy, and social responsibility (Midlarsky, Jones, & Corley, 2005).

Another way that the activation and perpetuation of a religious prosocial stereotype may in fact be counterproductive is via the process of “moral licensing.” Research suggests that engagement in virtuous activities that help establish a prosocial self-concept subsequently liberates the person to make self-indulgent choices (Merritt, Effron, & Monin, 2010). For example, charitable donations can establish a prosocial self-concept (e.g., “I am a helpful person”), but can subsequently increase the chances of an indulgent consumer choice (e.g., purchase designer jeans) without any decrease in positive self-attributions (Khan & Dhar, 2006). Priming people with positive traits that increase moral self-concept can actually decrease prosocial behavior through moral licensing (Sachdeva, Iliev, & Medin, 2009). These “moral credentials” can also be vicariously gained. Beliefs regarding past moral behavior (i.e., behaving without prejudice) performed by members of one’s group can lead to decreased prosociality such as individual prejudicial behavior (Kouchaki, 2011). In this way, activating a stereotype of religious prosociality may lead to nonprosocial behavior. When concepts of previous religious prosociality are primed, this increases the moral self-concept of those with strong religious ingroup allegiance, liberating them to engage in morally inconsistent or questionable behavior. Therefore, licensing research shows that activation of a religious prosocial self-concept can actually allow individuals to act in ways that are antithetical to prosociality but without the accompanying sense of moral hypocrisy.

Finally, relying on religiously sanctified prosocial motivations can shift individuals’ focus onto a transcendent goal (i.e., personal salvation) rather than on empathy for the target in need (Rokeach, 1969). However, because a religious actor may perceive his or her attitudes or actions as religiously sanctified, this discrepancy is not noticed. As is the case with the self-report versus behavior gap, an endorsement of the religion–morality stereotype may result in self-reports that are biased and at odds with actual behavior. Taken together with the priming literature, it is likely that activating a religious frame may induce individuals to believe their actions are sanctified, and thus justified because they focus on the motivation or intention (i.e., religious) rather than the behavior itself. That is, it is precisely because religious actions are considered sanctified that may explain why there is a disjunction between religious intention and behavioral outcome. For example, Biogowska and Saroglou (2011) found that it was specifically the high levels of religiosity present in high fundamentalists that predicted their...
greater prosociality to targets who did not threaten their values but lower prosociality to value-threatening targets.

Conclusion

The literature regarding religion and prosociality is characterized not only by its size but also by the diversity of methods used to assess the domains in question. These have included impression formation studies, covert behavioral observations, economic games, and many others. It is therefore not surprising that overall summaries have often arrived at discrepant or contradictory conclusions. Nevertheless, some general statements can be made. Religious individuals self-report a higher degree of prosociality, particularly when the latter is assessed as planned behavior, such as charitable giving, and the targets of prosociality are familiars, such as friends or family—so-called minimal prosociality. There is also little question that priming or contextual reminders of religiosity have a prosocial effect. These results have led many to conclude that religiosity has a causal relationship to prosociality. However, to the degree that studies assess prosociality in a non-planned, spontaneous context (e.g., bystander helping) and to the degree that religious cues are not immediately relevant to the context, particularly in the case where the target of prosociality is not a familiar or is an outgroup member, the relationship between religiosity and prosociality is essentially zero, or even negative. Moreover, priming effects appear not to depend on the level of religiosity of the individual (consistent with the activation of general social stereotypes) and can include nonprosocial effects such as ingroup bias. However, effects can offer differing substantially based on what type of religiosity is the focus of investigation (e.g., quest vs. fundamentalism).

The more theoretically interesting questions pertain to the reasons why the religiosity–prosociality relationship shows these paradoxic characteristics, such as a self-report versus behavioral gap. As has been shown in the present review, studies connecting religiosity and prosociality depend heavily on self and peer ratings of morally relevant characteristics. These are almost always contaminated by lack of blindness to the religious status of the target and therefore are subject to ingroup bias and cultural stereotypes of religion–morality halo effects. Experimental studies using priming or similar interventions to activate a religious frame must also be heavily qualified. Often prosocial secular or equivalent stimuli (which can activate a stereotype of prosociality equivalent to religious priming) are not used as controls. Further, antisocial effects such as particularism, vindictiveness, and prejudice are activated by religious priming. Religiosity appears to be associated with a discrepancy between self-report and behavior in prosocial domains, likely because of social desirability or stereotypic effects. The mental well-being and personality literatures are affected by similar problems.

The other methodological problem that renders a clear interpretation of results difficult involves improper group comparisons and the absence of controls for group or social effects. Strongly religious individuals or those with high religious group attendance are frequently compared with weakly religious individuals or those with little or no affiliation. Findings resulting from these comparisons are not valid assessments of whether religiosity itself is a unique causal influence in prosociality. As Graham and Haïdtt (2010) pointed out in their review, the hypotheses that “religious people are happier than nonreligious people” and “religious people give more to charity” are often based on effects that are reducible to the ingroup binding effects of religious communities or social networks. However, in benign social contexts, individuals experience social support independent of religiosity (Diener et al., 2011). Therefore, the prosocial effects presumed to come from religiosity are not sui generis and are present in any closely bound community, such as those that exist in which group formation has a secular basis. Given the unprecedented growth of the religiously unaffiliated in both Europe and, more recently, the United States, it is increasingly necessary for research to focus on these individuals, whose numbers were previously quite small even a decade ago.

A set of general criteria is needed to properly evaluate whether religious belief itself has a causal role in prosocial behavior. Studies that can yield the most valid conclusions on prosocially related topics such as morality, mental health, and personality are ones that (a) use raters blind to religious status of the target and objective target behaviors rather than self-reports; (b) utilize the full range of religiosity with the low end represented by the completely nonreligious separated from the weakly or nominally religious or the nonchurch attending; (c) test for potential curvilinear effects (e.g., the quadratic function in regressions); (d) cross-reference the religious identity of the participant with that of the target in studies of helping, bystander assistance, charitable giving, or other social behavior; and (e) take into account the relative representativeness or majority–minority status of the participant’s own religious identification in its relationship to the broader cultural milieu. Only by following these controls can characteristics such as universal helpfulness or altruism be separated from ingroup favoritism. Studies that have been conducted under similar conditions to these have largely found no differences in prosocial behavior as a function of religiosity; however, the number of studies that fully meet such criteria are relatively few. Studies are also needed that examine the role of cultural context and the relative normativity of religiosity in order to determine whether stereotypical associations with prosociality are uniform across cultures.

In his presidential address to the Society for the Scientific Study of Religion, Chaves (2010) warned against the “congruence fallacy.” This refers to researchers’ mistaken assumption that consistency exists between individuals’ religious beliefs and behaviors and that a causal connection exists between religiosity and other phenomena despite the evidence of tenuous or situation-specific effects. The religious prosociality hypothesis, though popular in the literature and among the general public, is a manifestation of such a fallacy.

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