Available online at www.sciencedirect.com

ScienceDirect

Current Opinion in Psychology

Prosociality and religion

Jo-Ann Tsang, Rosemary L Al-Kire and Juliette L Ratchford

Although self-reports suggest that religious individuals consider themselves universally prosocial, behavioral measures suggest a more limited prosociality and priming studies suggest a small causal relationship. Recent research has uncovered new moderators, with religiousness being more strongly related to prosociality under self-image threat, and when faced with a needier recipient. One major moderator remains the identity of the recipient: religious prosociality often favors religious ingroups over outgroups. Mechanisms of religious prosociality include supernatural monitoring and moral identity, with secular analogues such as priming civic institutions also having comparable effects. Further research is needed on determinants of parochial versus universal religious helping, and the circumstances under which each type of helping might be most adaptive.

Address
Baylor University, Department of Psychology and Neuroscience, One Bear Pl. #97334, Waco, TX, 76798-7334, United States

Corresponding author: Tsang, Jo-Ann (JoAnn_Tsang@Baylor.edu)

Current Opinion in Psychology 2021, **40**:67–72

This review comes from a themed issue on **Religion**

Edited by **Vassilis Saroglou** and **Adam B Cohen**

For a complete overview see the Issue and the Editorial

Available online 10th September 2020

https://doi.org/10.1016/j.copsyc.2020.08.025

Introduction

Does religion encourage prosociality? Theories of cultural evolution suggest that religion proliferated because of its ability to encourage cooperation between non-kin, creating larger, well-functioning societies where people could successfully engage in agricultural and other work that smaller groups could not [1]. This suggests a positive relationship between religion and prosociality. Religious doctrines from major world religions mirror this suggestion; for example, some version of the 'Golden Rule' (treating others as you would like to be treated) exists in several religions across cultures. Yet research suggests that this relationship may be parochial rather than universal in nature [2]. The question, 'Does religion encourage prosociality?' appears to be overly broad; instead, research suggests we should be asking, 'Under what circumstances does religion encourage prosociality?' and 'Toward whom?' To address these questions, we review recent research on religiousness and prosociality, with an emphasis on behavioral research conducted in the past two to three years.

Self-report measures: what do religious people say?

Studies utilizing self-report measures suggest a positive relationship between religiousness and prosociality. Recent research shows that various aspects of religion such as religious affiliation [3••,4,5••], frequency of religious attendance and practice [4,6–8], and religious commitment [9,10,11••] are positively associated with self-reported charity donations [6], kindness and generosity [7,9,11••], empathy [10,12•; *c.f.* 13], emotional support [10], and reported volunteering [3••,5••,8,14].

Yet, self-report studies of religious prosociality are confounded by self-presentation [15,16]. Because religions strongly advocate for prosociality, religious individuals may desire to portray themselves as more helpful than they actually are. Consistent with this idea, religiousness is positively associated with socially desirable responding [17,18]. Self-reports are easily biased by social desirability because surveys are often transparent, and self-reports are a low-cost way to self-present as helpful [15]. To get a clearer understanding of religious prosociality, other methods are needed.

Peer-reports are one alternative to self-reports. Friends, family members, and acquaintances of religious individuals report that they display greater empathy [12•], agreeableness [19] and prosociality [20]. Although religious individuals may truly be more prosocial, another possibility is that peers are answering based on stereotypes about the helpfulness of religious people [21••,22,23,24••]. We therefore need behavioral measures to address issues of stereotypical and socially desirable responding when studying religious prosociality.

Behavioral measures: what do religious people do?

Behavioral measures address social desirability and religious stereotypes by providing costly and covert assessments of prosociality. Some behavioral studies find relationships between religiousness and behaviors such as donating to charity [5••], completing uncompensated online work [5••], and allocating resources [25••,26,27••,28,29••].

However, the positive relationship between religiousness and prosocial self-reports is less consistent in behavioral

research [11••,30••,31••,32••,33••]. For example, Galen *et al.* [30••] found intrinsic religiousness was positively related to self-reports of agreeableness, but religious participants gave significantly less money in a social dilemma, and were no more likely to engage in prosocial punishment or compensate a victim than were nonreligious individuals.

Priming religiousness is another covert and experimental way to test the relationship between religiousness and prosociality. Priming research suggests that salience of religious concepts may be causally related to prosociality [26,29••, *c.f.* 31••,34], but the effect is small and needs further replication [26,35].

Moderators may explain some of the inconsistency in behavioral study findings. On a country level, Guo *et al.* [36] found that economic development moderated the relationship between national religiosity and helping, with religiousness related to self-reports of helping in less affluent nations. Other moderators relate to aspects of the helper. For instance, individual differences in initial levels of prosociality and religious belief are important moderators of religious primes, with increased prosociality emerging for those who are initially selfish [29••], and those who report higher belief in the religious concept being primed [26,29••,34]. For example, Friedman and Jack [37•] demonstrated that dogmatism was positively related to prosocial intentions and empathic concern among religious individuals, but negatively related to prosociality in the nonreligious.

Situational moderators also exist: religiousness is more strongly related to prosociality after self-image threat [38••], and spirituality is related to prosocial attitudes about money after mortality salience [39•]. Other moderators relate to the person needing help. Sabato and Kogut [40••] found in children aged 7–11, religiousness was related to increased generosity only when presented with a needy recipient, compared to one who was not needy.

Parochial helping: who do religious people help?

The most consistent moderator of religious prosociality is group membership. Several studies suggest some aspects of religiousness relate to prosociality toward ingroups over outgroups [2,3••,41••,42,43••, *c.f.* 44; see Refs. 45, 46; 47 for reviews]. Especially in economic games, where the person in need is often a stranger and the need is unspecified, religious individuals tend to help members of religious ingroups over outgroups. Relatedly, religiousness is associated with valuing benevolence more and universalism less [2,45,46,47].

It is important to note that much of what is known regarding religion and prosociality is based in WEIRD (Western, educated, industrialized, rich, democratic; [48]) populations. However, some findings regarding parochial helping extend to other cultural contexts. Willard [49••] also found complex patterns of parochial helping in indigenous Fijians and Indo-Fijians. Participants distributed more resources in an economic game to individuals sharing their religion, over those sharing their ethnicity. Additional studies utilizing non-WEIRD populations suggest preferences for local over distant co-religionists [43••], another manifestation of parochialism. Some research suggests that contextual religious primes, such as the presence of a Bible, can increase prosociality to outgroups [27••]. Others find that despite displays of parochial helping, religious individuals believe that God endorses universal helping, regardless of group membership [41••].

Religious parochial helping may itself be moderated by other variables. Preston and Ritter [42] noted that 'religion' primes lead to parochial helping, whereas 'God' primes increase helping toward outgroup members. Recent research suggests that this difference might be due to different construal levels of the terms 'God' and 'religion'. Karataş and Gurhan-Canli [50••] demonstrated that God primes increased helping for abstractly described groups, whereas religion primes increased helping for concretely described groups, regardless of ingroup or outgroup status.

Individual differences, such as God concept, might also moderate parochial helping. Shepherd *et al.* [51••] found that although religious individuals gave more to ingroup charities, those with traditional God concept showed an increased relationship between religious attendance and endorsement of the fairness moral foundation, which was related to increased giving to a religious outgroup. Thus, research reveals a complicated relationship between religion and helping, with certain aspects of religion related to parochial helping, but others related to more universal helping.

Yet, even parochial prosociality should not be dismissed off-hand. Parochial prosociality might be similar to pro-group sacrificial behaviors arising from identity fusion [52], sacred values [53], and the quest for personal significance [54]. Research in these areas suggests that, under certain circumstances, individuals are willing to make extreme self-sacrifices on behalf of their group, from giving resources [54,55] to enduring familial suffering [53], even to a willingness to fight and die for the group [52,53,55].

Although self-sacrifice for a group is not uniquely religious, religious groups show these same effects [54,56]. Extreme pro-group behaviors can lead to negative outcomes, like intergroup violence, but other forms of pro-group behavior can be oriented toward care [55]. Parochial

helping might be similarly framed as a pro-group, self-sacrificial behavior, which from the perspective of the ingroup would clearly be considered prosocial. Such helping may present itself in similar ways, but intrinsic motivations and mechanisms may vary.

Mechanisms: what helps religion be helpful?

What mechanisms underlie religious prosociality? Researchers have identified several variables which help explain this relationship [see Refs. 2,57 for reviews] including: emotions (i.e. gratitude and awe [13], empathy [*c.f.* 13,58], social connectedness [59]), role modeling of spiritual exemplars [60,61], supernatural monitoring and punishment [62], and characteristics such as submissiveness [63]. For example, Van Cappellen *et al.* [59] found that increases in social connectedness and love felt after Sunday Mass mediated the relationship between religion and sharing.

Trait-level variables may also predispose religious individuals to prosocial tendencies and values, including secure attachment [64] and personality domains associated with prosociality, such as agreeableness and the altruism facet [65]. Lastly, contextual variables are also important. Ward and King [38••] found that moral identity explained the relationship between religiosity and prosocial behavior, but only when moral self-image was threatened.

Notably, prosocial mechanisms are not necessarily exclusive to religion, but often have secular counterparts [21••,45]. For instance, secular manipulations such as civic primes [66,67], a secular benevolence prime [68], a reward prime [69], and a magnanimous values prime [70] increase prosocial behavior in ways similar to religion. Additionally, Cohen *et al.* [27••] found that, in the absence of religious primes, positive attitudes toward police were associated with resource distribution to distant co-religionists. Together, this suggests that religious mechanisms of prosociality such as supernatural monitoring and religious moral identity, for example, often have secular analogues in civic monitoring and secular moral identities. Thus, the mechanisms of religious prosociality appear to be more mundane than mysterious.

Conclusions: what next?

Is religiousness related to increased prosociality? Probably yes, but not always toward everyone. Religious individuals and their peers tend to believe that they are helpful. Behavioral assessments suggest small, possibly causal, relationships between religiousness and helping. Often, this helping favors ingroups over outgroups, although some religious dimensions encourage universal prosociality. Researchers should continue to expand research beyond Western, Christians populations to investigate prosociality in additional cultures and religions.

Fruitful areas of research might be to uncover additional boundary conditions to the religion-prosociality relationship, as well as further investigation of facilitators of universal prosociality. Concepts such as religious cultural orientation [71], God representation [72,73] and the way religiosity is conceptualized [14] may be promising areas for future research.

Additional studies might elaborate on the consequences of engaging in religious prosociality. Some work suggests religious individuals may exhibit moral licensing after engaging in ostensibly prosocial acts such as prayer [31••], which then could decrease subsequent prosociality. Our lab is currently examining the effect of vicarious moral licensing on the expression of prosocial and antisocial behavior by religious individuals.

Although many religions encourage a more universal prosociality, religious prosociality often favors the ingroup. Many Western psychologists, too, might be partial to universal prosociality; yet, others may consider parochial prosociality to be just as moral [74]. Moral questions aside, the adaptability of parochial prosociality may depend on the specific circumstances. Whereas universal prosociality might be ideal for times of peace and in heterogenous populations; parochial prosociality might be more adaptive when high group cohesion is needed, for instance when a group is under threat. Perhaps an additional, group-level question is needed when approaching the puzzle of religion and prosociality: to which entity are we directing our help — the one, or the many?

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest statement

Nothing declared.

CRediT authorship contribution statement

Jo-Ann Tsang: Conceptualization, Investigation, Writing - original draft. **Rosemary L Al-Kire:** Investigation, Writing - review & editing. **Juliette L Ratchford:** Investigation, Writing - review & editing.

References and recommended reading

Papers of particular interest, published within the period of review, have been highlighted as:

- • of special interest
- •• of outstanding interest

1. Lenfesty H, Morgan TJ: **By reverence, not fear: prestige, religion, and autonomic regulation in the evolution of cooperation**. *Front Psychol* 2019, **10**:2750 http://dx.doi.org/10.3389/fpsyg.2019.02750.

2. Saroglou V: **Religion, spirituality, and altruism**. In *APA Handbook of Psychology, Religion, and Spirituality (Vol 1): Context, Theory, and Research.* Edited by Pargament KI, Exline JJ, Jones JW. Washington D.C: American Psychological Association; 2013: 439-457.

3. •• Gore R, Zuckerman P, Galen LW, Pollack D, Shults L: **Good without God? Connecting religiosity, affiliation and pro-sociality using world values survey data and agent-based simulation**. *SocArXiv* 2019 http://dx.doi.org/10.31235/osf.io/jnpe9.
Individuals who endorsed supernatural worldviews and those affiliated with religion were more actively prosocial (e.g. volunteering), but not more passively prosocial (e.g. tolerant) compared to those with naturalist worldviews or not affiliated with religion. When omitting tribal prosociality, those with naturalist worldviews were more prosocial than supernaturalists. Naturalists were more passively prosocial than supernaturalists and those affiliated with religion.

4. Moulin-Stożek D, de Irala J, Beltramo C, Osorio A: **Relationships between religion, risk behaviors and prosociality among secondary school students in Peru and El Salvador**. *J Moral Educ* 2018, **47**:466-480 http://dx.doi.org/10.1080/03057240.2018.1438250.

5. •• Van Tongeren DR, DeWall CN, Chen Z, Sibley CG, Bulbulia J: **Religious residue: Cross-cultural evidence that religious psychology and behavior persist following deidentification**. *J Pers Soc Psychol* 2020 http://dx.doi.org/10.1037/pspp0000288. Advance online publication.
Religiousness was related to self-reports and behavioral measures of prosociality. Also, people who were formerly religious showed higher prosociality than people who were never religious, but less than the currently religious.

6. Herzog PS, Yang S: **Social networks and charitable giving: trusting, doing, asking, and alter primacy**. *Nonprofit Volunt Sect Q* 2018, **47**:376-394 http://dx.doi.org/10.1177/0899764017746021.

7. Hur YM, Jeong HU, Ajose F, Knafo-Noam A: **Religious attendance moderates the environmental effect on prosocial behavior in Nigerian adolescents**. *Twin Res Hum Genet* 2019, **22**:42-47 http://dx.doi.org/10.1017/thg.2018.71.

8. Yeung JW: **Religion, volunteerism and health: are religious people really doing well by doing good?** *Soc Indic Res* 2018, **138**:809-828 http://dx.doi.org/10.1007/s11205-017-1671-8.

9. Ayten A, Korkmaz S: **The relationships between religiosity, prosociality, satisfaction with life and generalised anxiety: a study on Turkish Muslims**. *Ment Health Relig Cult* 2020, **22**:980-993 http://dx.doi.org/10.1080/13674676.2019.1695246.

10. Krause N, Ironson G, Hill P: **Religious involvement and happiness: assessing the mediating role of compassion and helping others**. *J Soc Psychol* 2018, **158**:256-270 http://dx.doi.org/10.1080/00224545.2017.1331992.

11. •• Schnitker S, Shubert J, Houltberg B, Fernandez N: **Bidirectional associations across time between entitativity, positive affect, generosity, and religiousness in adolescents training with a religiously affiliated charity marathon team**. *Int J Environ Res Public Health* 2020, **17**:686 http://dx.doi.org/10.3390/ijerph17030686.
In context of training for charity marathon, intrinsic religiousness at three time points positively correlated with self-reported generosity and fundraising behavior. Looking at an SEM with intrinsic religiousness, entitativity, positive affectivity, intrinsic religiousness at time 2 predicted self-reported generosity at time 3. However, intrinsic religiousness did not predict fundraising behavior directly or indirectly in this model.

12. • Łowicki P, Zajenkowski M: **Religiousness is associated with higher empathic concernEvidence from self- and other-ratings**. *Psychol Relig Spirituality* 2019 http://dx.doi.org/10.1037/rel0000299. Advance online publication.
Using both self- and peer-reports, researchers found that religious individuals displayed higher emotional empathy, and were perceived as more empathic.

13. Vishkin A, Schwartz SH, Ben-Nun Bloom P, Solak N, Tamir M: **Religiosity and desired emotions: belief maintenance or prosocial facilitation?** *Pers Soc Psychol Bull* 2019, **46** http://dx.doi.org/10.1177/0146167219895140.

14. Petrovic K, Chapman CM, Schofield TP: **Religiosity and volunteering over time: religious service attendance is associated with the likelihood of volunteering, and religious importance with time spent volunteering**. *Psychol Relig Spiritual* 2018 http://dx.doi.org/10.1037/rel0000236. Advance online publication.

15. Batson CD, Schoenrade PA, Ventis WL: *Religion and the Individual*. New York/Oxford: Oxford University Press; 1993.

16. de Oliveira Maraldi E: **Response bias in research on religion, spirituality and mental health: a critical review of the literature and methodological recommendations**. *J Relig Health* 2020, **59**:772-783 http://dx.doi.org/10.1007/s10943-018-0639-6.

17. Gebauer JE, Sedikides C, Schrade A: **Christian self-enhancement**. *J Pers Soc Psychol* 2017, **113**:786-809 http://dx.doi.org/10.1037/pspp0000140.

18. Kramer SR, Shariff AF: **Religion, deception, and self-deception**. In *Cheating, Corruption, and Concealment: The Roots of Dishonesty.* Edited by van Prooijen J, van Lange PAM. New York: Cambridge University Press; 2016:233-249.

19. McCullough ME, Tsang J, Brion S: **Personality traits in adolescence as predictors of religiousness in early adulthood: findings from the Terman longitudinal study**. *Pers Soc Psychol Bull* 2003, **29**:980-991 http://dx.doi.org/10.1177/0146167203253210.

20. Saroglou V, Pichon I, Trompette L, Verschueren M, Dernelle R: **Prosocial behavior and religion: new evidence based on projective measures and peer ratings**. *J Sci Study Relig* 2005, **44**:323-348 http://dx.doi.org/10.1111/j.1468-5906.2005.00289.x.

21. •• Galen LW: **Focusing on the nonreligious reveals secular mechanisms underlying well-being and prosociality**. *Psychology Relig Spiritual* 2018, **10**:296-306 http://dx.doi.org/10.1037/rel0000202.
The association between spirituality and well-being is limited by lack of adequate control/comparisons; these observed effects may be due to other demographic and psychological differences.

22. Galen LW, Williams TJ, Ver Wey AL: **Personality ratings are influenced by religious stereotype and ingroup bias**. *Int J Psychol Relig* 2014, **24**:282-297 http://dx.doi.org/10.1080/10508619.2013.837658.

23. Gervais WM, Xygalatas D, McKay RT, van Elk M, Buchtel EE, Aveyard M, Schiavone SR, Dar-Nimrod I, Svedholm-Häkkinen AM, Riekki T *et al.*: **Global evidence of extreme intuitive moral prejudice against atheists**. *Nat Hum Behav* 2017, **1**:0151 http://dx.doi.org/10.1038/s41562-017-0151.

24. •• Ward SJ, King LA: **Moral stereotypes, moral self-image, and religiosity**. *Psychol Relig Spiritual* 2019 http://dx.doi.org/10.1037/rel0000263. Advance online publication.
Following moral self-image threats, participants who endorsed intrinsic religiosity and God beliefs demonstrated greater prosocial task completion and decreased cheating on a word-solving task. Findings indicate that religiosity-moral self-image link was best explained by prosocial traits.

25. •• Berninas R, Dranseika V, Tserendamba D: **Between karma and Buddha: Prosocial behavior among Mongolians in an anonymous economic game**. *Int J Psychol Relig* 2019, **30**:142-160 http://dx.doi.org/10.1080/10508619.2019.1696497.
In a sample of Mongolians, participants were overall very generous, but this was uninfluenced by a karma prime. Buddhists were more generous than non-religious Mongolians.

26. Billingsley J, Gomes CM, McCullough ME: **Implicit and explicit influences of religious cognition on dictator game transfers**. *R Soc Open Sci* 2018, **5**:170238 http://dx.doi.org/10.1098/rsos.170238.

27. •• Cohen E, Baimel A, Purzycki BG: **Religiosity and resource allocation in Marajó, Brazil**. *Relig Brain Behav* 2018, **8**:168-184 http://dx.doi.org/10.1080/2153599X.2016.1267029.
Attitudes about God being omniscient and punishing, and positive attitudes about police, were related to increased distribution to distant over local co-religionists in the absence of religious prime; in the presence of a religious prime participants were more likely to distribute fairly to distant others regardless of attitudes.

28. Haruvy EE, Ioannou CA, Golshirazi F: **The religious observance of Ramadan and prosocial behavior**. *Econ Inq* 2018, **56**:226-237 http://dx.doi.org/10.1111/ecin.12480.

29. •• White CJM, Kelly JM, Shariff AF, Norenzayan A: **Supernatural norm enforcement: Thinking about karma and God reduces selfishness among believers**. *J Exp Soc Psychol* 2019, **84**:103797 http://dx.doi.org/10.1016/j.jesp.2019.03.008.
Both priming karma, and God, led to increased fairness in a dictator game. This effect was moderated by initial distribution tendencies–the effect only occurred among participants who were initially selfish, and did not increase generosity among those who were initially more fair. This suggests that the karma/God primes increased adherence to fairness norms, and not generosity.

30. •• Galen LW, Kurby CA, Fles EH: **Religiosity, shared identity, trust, and punishment of norm violations: No evidence of generalized prosociality**. *Psychol Relig Spiritual* 2020 http://dx.doi.org/10.1037/rel0000320. Advance online publication.
Religious affiliation was negatively related to distribution in a social dilemma. Intrinsic religiousness was unrelated to altruistic punishment or victim compensation in the face of unequal distribution. Participants high in intrinsic religiousness saw unequal distribution between two participants as being more fair relative to less intrinsically religious participants.

31. •• Greenway TS, Schnitker SA, Shepherd AM: **Can prayer increase charitable giving? Examining the effects of intercessory prayer, moral intuitions, and theological orientation on generous behavior**. *Int J Psychol Relig* 2018, **28**:3-18 http://dx.doi.org/10.1080/10508619.2017.1406790.
A prayer intervention was associated with lower generosity in giving, regardless of whether the recipient was part of the ingroup or outgroup.

32. •• Kirchmaier I, Prufer J, Trautmann ST: **Religion, moral attitudes, and economic behavior**. *J Econ Behav Org* 2018, **148**:282-300 http://dx.doi.org/10.1016/j.jebo.2018.02.022.
Religious people self-reported less acceptance of unethical behavior and more volunteerism. In contrast, religious people were just as likely to engage in betrayal during the experimental trust game and demonstrated lower preference for redistribution.

33. •• Manesi Z, Van Lange PA, Van Doesum NJ, Pollet TV: **What are the most powerful predictors of charitable giving to victims of typhoon Haiyan: Prosocial traits, socio-demographic variables, or eye cues?** *Person Individ Differ* 2019, **146**:217-225 http://dx.doi.org/10.1016/j.paid.2018.03.024.
Religiousness was unrelated to spending time on a fundraising task to help outgroup members in need, and negatively related to amount donated when help was given.

34. Shariff AF, Willard AK, Andersen T, Norenzayan A: **Religious priming: a meta-analysis with a focus on prosociality**. *Pers Soc Psychol Rev* 2016, **20**:27-48 http://dx.doi.org/10.1177/1088868314568811.

35. van Elk M, Matzke D, Gronau Q, Guang M, Vandekerckhove J, Wagenmakers EJ: **Meta-analyses are no substitute for registered replications: a skeptical perspective on religious priming**. *Front Psychol* 2015, **6**:1365 http://dx.doi.org/10.3389/fpsyg.2015.01365.

36. Guo Q, Liu Z, Tian Q: **Religiosity and prosocial behavior at national level**. *Psychol Relig Spiritual* 2018, **12**:55-65 http://dx.doi.org/10.1037/rel0000171 Advance online publication.

37. • Friedman JP, Jack AI: **What makes you so sure? Dogmatism, fundamentalism, analytic thinking, perspective taking and moral concern in the religious and nonreligious**. *J Relig Health* 2018, **57**:157-190 http://dx.doi.org/10.1007/s10943-017-0433-x.
Among religious individuals, dogmatism was negatively related to prosocial intentions and empathic concern. This may be due to religious individuals' increased reliance on moral/social systems, rather than analytical systems.

38. •• Ward SJ, King LA: **Religion and moral self-image: The contributions of prosocial behavior, socially desirable responding, and personality**. *Person Individ Differ* 2018, **131**:222-231 http://dx.doi.org/10.1016/j.paid.2018.04.028.
Religious individuals were more likely to donate to American Red Cross and other secular charities, after moral self-image threat (but not without threat).

39. • Dong M, Van Prooijen JW, Wu S, Zhang Y, Jin S: **Prosocial attitudes toward money from terror management perspective: Death transcendence through spirituality**. *Int J Psychol Relig* 2019, **29**:1-17 http://dx.doi.org/10.1080/10508619.2018.1532267.
Across four studies, researchers found that participants engaged in more prosocial versus pro-self spending after a mortality salience prime. This effect was smaller among t hose high in spirituality and those primed with spirituality.

40. •• Sabato H, Kogut T: **The association between religiousness and childrens altruism: The role of the recipients neediness**. *Dev Psychol* 2018, **54**:1363-1371 http://dx.doi.org/10.1037/dev0000526.
In a dictator game, childrens religiousness was unrelated to helping when need was unspecified; however, when the target was portrayed as needy, religiousness was related to increased resource allocation. This effect increased with age.

41. •• Pasek M, Shackleford C, Smith JM, Vishkin A, Lehner A, Ginges J: **God values the lives of my outgrEoup more than I do: evidence from Fiji and Israel**. *Soc Psychol Pers Sci* 2020 http://dx.doi.org/10.1177/1948550620904516. Advance online publication.
Across three different religious samples in two different countries, individuals presented with a moral dilemma stated that God would want them to engage in more universal sacrifice (rather than favoring the ingroup) compared to their own inclinations. Authors argue that the cultural evolution of Big Gods may have spread through intergroup cooperation, rather than ingroup favoritism.

42. Preston JL, Ritter RS: **Different effects of religion and God on prosociality with the ingroup and outgroup**. *Pers Soc Psychol Bull* 2013, **39**:1471-1483 http://dx.doi.org/10.1177/0146167213499937.

43. •• Purzycki BG, Kulundary V: **Buddhism, identity, and class: Fairness and favoritism in the Tyva Republic**. *Relig Brain Behav* 2018, **8**:205-226 http://dx.doi.org/10.1080/2153599X.2016.1267031.
In a sample of Buddhists, researchers found support for the selective prosociality hypothesis rather than the expanded sociality hypothesis. Other social characteristics such as class and education also predicted in-group favoritism. A religious prime did not produce any main effects, but did interact with other aspects of religion.

44. Morton RB, Ou K, Qin X: **The effect of religion on Muslims' charitable contributions to members of a non-Muslim majority**. *J Public Econ Theory* 2020, **22**:433-448 http://dx.doi.org/10.1111/jpet.12352.

45. Galen LW: **Does religious belief promote prosociality?: a critical examination**. *Psychol Bull* 2012, **138**:876-906 http://dx.doi.org/10.1037/a0028251.

46. Galen LW, Sharp M, McNulty A: **Nonreligious group factors versus religious belief in the prediction of prosociality**. *Soc Indic Res* 2015, **122**:411-432 http://dx.doi.org/10.1007/s11205-014-0700-0.

47. Tsang J, Rowatt WC, Shariff AF: **Religion and prosocial behavior**. In *Handbook of Prosocial Behavior*. Edited by [illegible] D, Graziano R. Oxford: Oxford University Press; 2015: 609-625.

48. Henrich J, Heine S, Norenzayan A: **The weirdest people in the world?** *Behav Brain Sci* 2010, **33**:61-83 http://dx.doi.org/10.1017/S0140525X0999152X.

49. •• Willard AK: **Religion and prosocial behavior among the Indo-Fijians**. *Relig Brain Behav* 2018, **8**:227-242 http://dx.doi.org/10.1080/2153599X.2016.1267032.
In a sample of indigenous Fijians and Indo-Fijians, religious primes affected prosociality, and local forms of parochialism manifested. Specifically, religious primes made women favor distant co-religionist, over local co-religionist. In a second study without primes, individuals preferred to help those who shared religious ingroup status over those sharing ethnic ingroup status, especially among Indo-Fijians, who are both an ethnic and religious minority.

50. •• Karataş M, rhan-Canli Z: **A construal level account of the impact of religion and God on prosociality**. *Pres Soc Psychol Bull* 2020, **46**:1107-1120 http://dx.doi.org/10.1177/0146167219895145.
God primes produced a more abstract mindset compared to religion primes, which produced a more concrete mindset. In turn, God primes increased helping for abstractly described groups, whereas religion primes increased helping for concretely described groups regardless of ingroup/outgroup status.

51. •• Shepherd AM, Schnitker SA, Greenway TS: **Religious service attendance, moral foundations, God concept, and in-group**

giving: Testing moderated mediation. *Rev Relig Res* 2019, **61**:301-322 http://dx.doi.org/10.1007/s13644-019-00384-z.
Traditional God-concept as well as religious attendance predicted increased endorsement of fairness and decreased discrepancy between spontaneous helping of ingroup vs. outgroup members.Traditional God-concept as well as religious attendance predicted increased endorsement of fairness and decreased discrepancy between spontaneous helping of ingroup vs. outgroup members.

52. Swann WBJ, Gómez Á, Seyle DC, Morales JF, Huici C: **Identity fusion: the interplay of personal and social identities in extreme group behavior**. *J Pers Soc Psychol* 2009, **96**:995-1011 http://dx.doi.org/10.1037/a0013668.

53. Sheikh H, Gómez Á, Atran S: **Empirical evidence for the devoted actor model**. *Curr Anthropol* 2016, **57**:S204-S209 http://dx.doi.org/10.1086/686221.

54. Dugas M, Bélanger JJ, Moyano M, Schumpe BM, Kruglanski AW, Gelfand MJ, Touchton-Leonard K, Nociti N: **The quest for significance motivates self-sacrifice**. *Motiv Sci* 2016, **2**:15-32 http://dx.doi.org/10.1037/mot0000030.

55. Carnes NC, Lickel B: **Moral binding: how emotions, convictions, and identity fusion shape progroup behavior**. *Self Identity* 2018, **17**:549-573 http://dx.doi.org/10.1080/15298868.2018.1451362.

56. Bortolini T, Newson M, Natividade JC, Vázquez A, Gómez Á: **Identity fusion predicts endorsement of pro-group behaviours targeting nationality, religion, or football in Brazilian samples**. *Br J Soc Psychol* 2018, **57**:346-366 http://dx.doi.org/10.1111/bjso.12235.

57. Saleam J, Moustafa AA: **The influence of divine rewards and punishments on religious prosociality**. *Front Psychol* 2016, **7**:1149 http://dx.doi.org/10.3389/fpsyg.2016.01149.

58. Markstrom CA, Huey E, Stiles BM, Krause AL: **Frameworks of caring and helping in adolescence: are empathy, religiosity, and spirituality related constructs?** *Youth Soc* 2010, **42**:59-80 http://dx.doi.org/10.1177/0044118X09333644.

59. Van Cappellen P, Saroglou V, Toth-Gauthier M: **Religiosity and prosocial behavior among churchgoers: exploring underlying mechanisms**. *Int J Psychol Relig* 2016, **26**:19-30 http://dx.doi.org/10.1080/10508619.2014.958004.

60. King PE: **Religion and identity: the role of ideological, social, and spiritual contexts**. *Appl Dev Sci* 2003, **7**:197-204 http://dx.doi.org/10.1207/S1532480XADS0703_11.

61. King PE, Abo-Zena MM, Weber JD: **Varieties of social experience: the religious cultural context of diverse spiritual exemplars**. *Br J Dev Psychol* 2017, **35**:127-141 http://dx.doi.org/10.1111/bjdp.12181.

62. Atkinson QD, Bourrat P: **Beliefs about God, the afterlife and morality support the role of supernatural policing in human cooperation**. *Evol Hum Behav* 2011, **32**:41-49 http://dx.doi.org/10.1016/j.evolhumbehav.2010.07.008.

63. Van Cappellen P, Corneille O, Cols S, Saroglou V: **Beyond mere compliance to authoritative figures: religious priming increases conformity to informational influence among submissive people**. *Int J Psychol Relig* 2011, **21**:97-105 http://dx.doi.org/10.1080/10508619.2011.556995.

64. Granqvist P: **Attachment and religiosity in adolescence: cross-sectional and longitudinal evaluations**. *Pers Soc Psychol Bull* 2002, **28**:260-270 http://dx.doi.org/10.1177/0146167202282011.

65. Lee K, Ashton MC, Griep Y, Edmonds M: **Personality, religion, and politics: an investigation in 33 countries**. *Eur J Pers* 2018, **32**:100-115 http://dx.doi.org/10.1002/per.2142.

66. Shariff AF, Norenzayan A: **God is watching you: priming god concepts increases prosocial behavior in an anonymous economic game**. *Psychol Sci* 2007, **18**:803-809 http://dx.doi.org/10.1111/j.1467-9280.2007.01983.x.

67. Yilmaz O, Bahçekapili HG: **Supernatural and secular monitors promote human cooperation only if they remind of punishment**. *Evol Hum Behav* 2016, **37**:79-84 http://dx.doi.org/10.1016/j.evolhumbehav.2015.09.005.

68. Johnson KA, Memon R, Alladin A, Cohen AB, Okun MA: **Who helps the Samaritan? The influence of religious vs secular primes on spontaneous helping of members of religious outgroups**. *J Cogn Cult* 2015, **15**:217-231 http://dx.doi.org/10.1163/15685373-12342147.

69. Harrell A: **Do religious cognitions promote prosociality?** *Ration Soc* 2012, **24**:463-482 http://dx.doi.org/10.1177/1043463112463930.

70. Schumann K, McGregor I, Nash KA, Ross M: **Religious magnanimity: reminding people of their religious belief system reduces hostility after threat**. *J Pers Soc Psychol* 2014, **107**:432-453 http://dx.doi.org/10.1037/a0036739.

71. Cohen AB, Hill PC: **Religion as culture: religious individualism and collectivism among American Catholics, Jews, and Protestants**. *J Pers* 2007, **75**:709-742 http://dx.doi.org/10.1111/j.1467-6494.2007.00454.x.

72. DeBono A, Shariff AF, Poole S, Muraven M: **Forgive us our trespasses: priming a forgiving (but not a punishing) god increases unethical behavior**. *Psychol Relig Spiritual* 2017, **9 (Suppl 1)**:S1-S10 http://dx.doi.org/10.1037/rel0000105.

73. Johnson KA, Cohen AB, Okun MA: **God is watching you . . . but also watching over you: the influence of benevolent God representations on secular volunteerism among Christians**. *Psychol Relig Spiritual* 2016, **8**:363-374 http://dx.doi.org/10.1037/rel0000040.

74. McKay R, Whitehouse H: **Religion and morality**. *Psychol Bull* 2015, **141**:447-473 http://dx.doi.org/10.1037/a0038455.