God Values the Lives of My Out-Group More Than I Do: Evidence from Fiji and Israel

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ABSTRACT

Does God want people to favor co-religionists or to treat in-group and out-group members equally? To test people's beliefs about God's moral preferences, we conducted three preregistered studies. Study 1 was a field study with Christian and Muslim Fijians ($N = 188$). Study 2 was an online study with Jewish Israelis ($N = 384$). Study 3 was a field study with Christian and Hindu Fijians ($N = 539$). Across studies, participants indicated whether an in-group member should sacrifice his life to save five in-group members (in one dilemma) or out-group members (in a second dilemma). For each dilemma, they then reported what God would prefer. Participants believed that, compared with themselves, God would more strongly approve of an in-group member saving out-group members. Results generalize Ginges et al. (2016) to new populations, providing cross-cultural evidence that religious believers think God prefers more universal moral reasoning than they do themselves.

Keywords: Religion, Intergroup Relations, Cooperation, Dehumanization

God Cares About My Out-group More Than I Do: Evidence from Fiji and Israel

In *The God Delusion*, Richard Dawkins describes God as "a vindictive, bloodthirsty ethnic cleanser" (Dawkins, 2006, p. 51). This perspective reflects a widely shared view that religion and belief in God promote intergroup conflict (Armstrong, 2014; Harris, 2006; Huntington, 1993; Kaplan, 2007). Understanding the nuanced relation between religious cognition and intergroup conflict is difficult because religion and religious belief are complex and multifaceted (Ng & Gervais, 2016). The present research focuses on one significant aspect of religious belief—God. We report three preregistered studies—two field studies conducted in Fiji and one online study conducted in Israel—that investigate whether people agree with Dawkins and other public intellectuals (e.g., Dawkins, Dennet, Harris, & Hitchens, 2007) who view God as a parochial moral agent that encourages people to value the lives of in-group members more than out-group members, or conversely, whether individuals believe God wants people to apply moral norms more universally.

Recent theoretical and empirical work argues that a suite of supernatural beliefs has become widespread because they encourage cooperative behavior between strangers bound by shared identities. Common to Karmic and Abrahamic faiths, these include belief in omnipresent, omniscient deities that police human behavior. We hereafter refer to this suite of beliefs as "Big God" beliefs (Gervais & Norenzayan, 2012; D. Johnson, 2005; D. Johnson & Bering, 2006; Laurin, Shariff, Henrich, & Kay, 2012; Norenzayan, 2013; Norenzayan & Shariff, 2008; Norenzayan et al., 2016; Purzycki et al., 2016; Shariff & Norenzayan, 2011; Shariff, Norenzayan, & Henrich, 2010). Although there is considerable debate about the role these beliefs play in the formation of large-scale societies, they are widely thought to encourage prosociality, facilitating the ability of people to live in and sustain such societies. A key question is whether

such a prosocial orientation is parochial in nature, or whether it generalizes towards members of other religious groups.

The present research aims to contribute to our understanding of how Big God beliefs influence intergroup relations. Because people perceive Big Gods as anthropomorphic (Heiphetz, Lane, Waytz, & Young, 2016) and as policing human moral behavior (D. Johnson, 2005; D. Johnson & Bering, 2006; Norenzayan et al., 2016), a first step in elucidating how Big God beliefs influence intergroup behavior is to investigate lay beliefs about the moral preferences of such a deity, as they apply in intergroup contexts. We ask whether individuals believe God prefers humans to make moral choices in a more universal or parochial manner. We refer to universal reasoning as the application of moral norms regardless of the social identity of people involved in a given situation (Ginges, Sheikh, Atran, & Argo, 2016; Obeid, Argo, & Ginges, 2017). By parochial moral, we mean the application of moral norms in a manner that favors the religious in-group over religious out-groups.

If Big God beliefs proliferated by cultural evolution due to the advantage they provide in intergroup conflict, such beliefs should be associated with parochial moral reasoning (Norenzayan, 2013; Norenzayan & Shariff, 2008; Norenzayan et al., 2016). However, an alternative hypothesis—also grounded in cultural evolutionary theory—seems equally viable. When incentives for aggression are low (e.g., in low-threat contexts), cultural institutions that encourage intergroup tolerance may carry distinct evolutionary advantages (Pisor & Surbeck, 2019). As ideas can be selected for reasons other than helping groups prosper in violent competition, Big God beliefs might have plausibly spread because groups for which such beliefs were normative might have prospered economically and culturally, thereby attracting converts (migration) or becoming absorbed by other groups (imitation) (Boyd & Richerson, 2010). For

example, prosocial behavior towards religious out-group members may encourage conversion (Norenzayan et al., 2016; Stark, 1996). In line with this account, Big God beliefs may have gained a cultural-evolutionary advantage by encouraging people to apply these norms in between-group as well as within-group contexts.

At the outset we acknowledge religious beliefs are often vague and contradictory and that they are translated or interpreted into specific norms and behavior that change over time and space (Atran & Ginges, 2012). For example, the experience of intergroup conflict is associated with the image of a punishing god (Caluori, Jackson, Gray, & Gelfand, in press) and lay beliefs about God may reflect beliefs and norms of a population (Epley, Converse, Delbosc, Monteleone, & Cacioppo, 2009). Thus, the experience of more of less conflict may be associated with views of God that are more or less parochial, to some extent reproducing local attitudes. However, religious people also share beliefs about norms and values that derive from deities that are to some extent independent of the local context. Our question, then, is whether people believe that God encourages more or less parochial universal moral reasoning than they themselves do.

While the present research examines links between religious beliefs and intergroup relations, we do not intend to adjudicate whether religious cognition, more broadly, motivates conflict or tolerance. Rather, we ask whether individuals attribute to God a preference for humans to behave in a more parochial or universal manner. Thus, the present research diverges from a broader literature investigating direct links between religious cognition and intergroup attitudes. Although a full review of this literature is beyond the scope of the present paper, we briefly review key findings that inform hypotheses.

Theorists have long highlighted religion's paradoxical role in intergroup relations (Allport, 1954; Ng & Gervais, 2016). A half-century of research suggests that certain aspects of

religion (e.g., fundamentalism, coalitional motives) promote intergroup intolerance, whereas others (e.g., intrinsic belief, value signaling) promote intergroup tolerance (e.g., Allport & Ross, 1967; Altemeyer & Hunsberger, 2005; Everett, Haque, & Rand, 2016; Ginges, Hansen, & Norenzayan, 2009; Hall, Cohen, Meyer, Varley, & Brewer, 2015; Hunsberger & Jackson, 2005; M. K. Johnson, Labouff, Rowatt, Patock-Peckham, & Carlisle, 2012; Neuberg et al., 2014).

Despite a rich literature linking belief in God to in-group prosociality (Shariff, Willard, Andersen, & Norenzayan, 2016), few studies directly investigate how belief in God influences intergroup relations. Some evidence suggests priming the notion that God sanctions violence increases aggression among believers (Bushman, Ridge, Das, Key, & Busath, 2007). While this links individual behavior to the moral values people attribute to God, it does not elucidate whether religious beliefs naturally increase violence, or whether individuals believe God sanctions violence. To the contrary, some evidence suggests priming belief in God increases prosocial intergroup behavior, whereas priming religion does the opposite (Preston & Ritter, 2013). An implication is that people associate God with universal motives, even when religion evokes parochialism.

One study directly examined the moral preferences attributed to God in the context of the Israeli-Palestinian conflict, an intractable conflict that falls on religious lines (Ginges et al., 2016). Palestinian youth were presented variants of a moral dilemma involving trading the life of one Muslim Palestinian man to save either five Muslim Palestinian or Jewish Israeli children. In all conditions, participants were asked to respond to a scenario in which a Palestinian man was sacrificed (either by someone else or in the form of altruistic suicide). Participants were more willing to approve of the sacrifice to save in-group children than out-group children, implying they valued Palestinian lives more than Jewish-Israeli lives. However, when asked to consider

Allah's perspective, in-group bias decreased. That is, participants believed God was more willing than they were to sacrifice the life of a Muslim Palestinian to save a Jewish Israeli. This provides early evidence that individuals believe God prefers humans to reason in a more universal, as opposed to parochial, fashion.

Present Research

To further investigate the moral values individuals attribute to God in intergroup settings, we conducted three preregistered studies, conceptually replicating and extending Ginges et al. (2016). Study 1 was a field experiment conducted in Fiji with Christian iTaukei and Muslim Indo-Fijians, a novel political context with non-WEIRD (Western, educated, industrialized, rich, democratic) samples (Henrich, Heine, & Norenzayan, 2010; Rad, Martingano, & Ginges, 2018). Study 2 sought to replicate our particular paradigm in an online study with religious Jewish Israelis—members of a descent religion (Cohen & Hill, 2007; Morris, 1996). Study 3 sought to replicate and extend results using a field study in Fiji with Christian iTaukei and Hindu Indo-Fijians. Preregistrations are filed on the Open Science Framework (OSF, see https://osf.io/b2xct/?view_only=9735f34dad0d42849605d91468cf4781).

Because the Israeli-Palestinian conflict is widely recognized as a prototypical religious conflict (and for this reason is a common site for research on religion and intergroup relations), for the sake of brevity, we do not review this context here (see Tessler, 2009 for one historical description). However, because knowledge about ethno-religious conflict in Fiji is less common, we briefly describe this context. The majority of Fijians are indigenous iTaukei who are almost exclusively Christian (Fiji Bureau of Statistics, 2019). A significant minority are descendants of Indian indentured servants forced to migrate during British rule to work sugarcane fields (Bedford, 1988). Since 1987, Fiji has experienced four violent military coups, each orchestrated

to remove Indo-Fijian leaders from government to preserve indigenous control. These coups involved great suffering of Indo-Fijians, who were subject to violence (Trnka, 2008). Today, Fiji oscillates between political conflict and peaceful day-to-day relations. While iTaukei and Indo-Fijians often have friendly and cooperative interactions, there is much prejudice and discrimination (Ramesh, 2008).

We test two competing hypotheses. The parochial hypotheses would be supported if people think that, compared to themselves, God would be *less* likely to want an in-group man to save out-group children, and/or if participants believe God would show greater in-group favoritism. The universal hypothesis would be supported if people see God as having a greater desire, compared to themselves, to save out-group members. This could manifest as extended prosociality (i.e., God encourages people to save both in-group and out-group members) or as a reduction in bias (i.e., the difference between participants' own preferences and those attributed to God is greater in the out-group than in-group condition).

Study 1

Method

Participants. Participants (N = 188, 57% female, M_{age} = 44.20, SD_{age} = 16.11) were 128 Christian iTaukei (55% female, M_{age} = 43.61, SD_{age} = 15.53) and 60 Muslim Indo-Fijians (63% female, M_{age} = 40.98, SD_{age} = 16.39). See OSF for power analysis.

Procedure and materials. Approval was granted by Fiji's Ministries of iTaukei Affairs and Education. Between June and August of 2018, we recruited and trained local research assistants (RAs) who participated in focus groups, translated materials, and conducted interviews. We began with the Christian community and conducted additional workshops with

Muslim RAs. Interviews were conducted house-to-house. For more information on field methods, see OSF.

In focus groups with Christian RA's, discussion of a trolley car problem led RAs to develop a functionally equivalent burning building dilemma, which is more relevant in Fiji, where trolleys/trains are rare. In this paradigm, participants hear a story about an in-group man, traveling somewhere else in Fiji, who approaches a burning house. A child tells him that five children are trapped inside. The actor can save them, but he will die. Participants responded to this dilemma four times in a two (in-group vs out-group children) x two (self vs God's preference) within-person experiment. Questions were grouped by children's religion (counterbalanced). Participants indicated what the actor should do, and then what God would prefer. Christians and Muslims were each other's target out-group. Response options were binary (save or do not save the children).

Interviewers confirmed participants' religion before commencing.[1] RAs recorded participants' gender (-0.5 = female, 0.5 = male). Participants indicated their age. Religiosity was measured with prayer frequency[2] (0 = do not pray, 1 = almost never, 2 = about once a year, 3 = several times a year, 4 = about once a month, 5 = about once a week, 6 = about every day, 7 = several times each day; $M = 6.06$, $SD = 1.26$). For complete measures, see OSF.

Results

Analytic plan and missing data. We planned to compute a binary score in which participants who preferred to save in-group but not out-group children would be coded 1 (others coded 0). Unfortunately, a randomization error led 38 and 37 Christians, respectively, to receive

[1] We confirmed participants' religion in the survey. One participant with an inconsistent religious identification was removed and is not included in our final sample.

[2] See Supplemental Materials for more information on religiosity measures.

only the out-group or in-group conditions. This error did not occur in the Muslim sample. To maximize data usage, instead of regressing a bias score on perspective, we predicted decision to save (1) vs to not save (0) with perspective (self = 0, God = 1), intergroup condition (out-group = -0.5, in-group = 0.5), and their interaction. All participants were included because missingness was random. Multilevel logistic models were conducted in R (R Core Team, 2016) using lme4 (Bates, Mächler, Bolker, & Walker, 2015). Participant intercept was included as a random effect. The perspective x intergroup condition interaction tests for a difference in bias between individuals' own beliefs and beliefs attributed to God. This approach also allows for estimation of a main effect of perspective (whether God is more likely to want to save children, across target groups).

Nearly all Muslims (> 96%) thought the children should be saved, regardless of identity, in the self and God conditions. Thus, for Muslims we find no in-group bias in the self condition and no change in bias in the God condition (see Figure 1). Because of ceiling effects, we report results for the Christian sample only, having preregistered our intention to recruit enough Christians to analyze results among Christians alone. Despite a lack of variability among Muslims, combining the two populations (as preregistered) yields consistent results (see Supplemental Materials).

Because the response scale is binary, we first report raw, descriptive, results. These display the percentage of participants by condition who indicated save or don't save. We then report fixed-effect parameter estimates.

Raw results. Christians wanted to save in-group and out-group children 64% and 47% of the time, respectively (mean across groups = 56%). However, they believed God would prefer

in-group and out-group children be saved 84% and 90% of the time, respectively (mean across groups = 87%). See Figure 1.

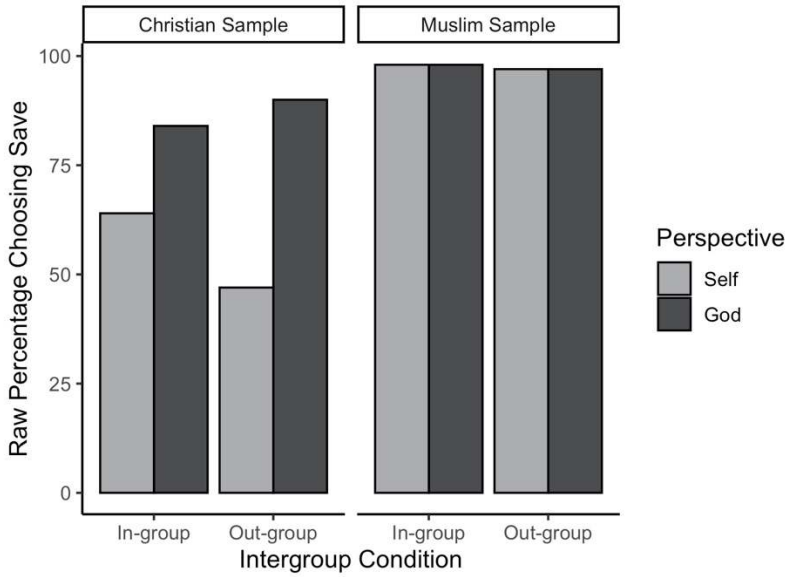

Figure 1. Raw data showing participants' own preferences and their beliefs about God's preferences from Study 1. Figures were made using ggplot2 (Wickham, 2016).

Estimated fixed effects. Collapsed across intergroup conditions, Christians thought God—compared with themselves—would be more likely to want their in-group member to save others, (log odds increase $B_1 = 2.62$, $Z = 5.90$, $p < .001$, 95% CI[1.83, 3.60]). This held whether children were in-group ($B_{1\ \text{in-group}} = 1.69$, $Z = 3.42$, $p < .001$, 95% CI[0.78, 2.75]) or out-group members ($B_{1\ \text{out-group}} = 3.55$, $Z = 5.63$, $p < .001$, 95% CI[2.43, 4.93]). The perspective x intergroup condition interaction was significant ($B_3 = 1.85$, $Z = 2.64$, $p = .008$, 95% CI[0.52, 3.30]). Although Christians were biased in the self condition ($B_{2\ \text{self}} = 1.17$, $Z = 2.60$, $p = .009$, 95% CI[0.32, 2.10]), they saw God as being unbiased ($B_{2\ \text{God}} = -0.68$, $Z = -1.21$, $p = .228$, 95% CI[-1.84, 0.41]). Results were robust to the inclusion of preregistered covariates (see Table 1).

Secondary analyses. In line with previous theorizing (e.g., Norenzayan & Shariff, 2008), we also investigated whether results only hold for individuals who perceive tolerant relations with Muslims and believe Christians and Muslims share common beliefs and values. We find no support for these hypotheses. See Supplemental Materials.

Table 1: Results of multilevel logistic regressions predicting decision to save for Christian iTaukei sample in Study 1

	Primary Model			Covariate Model		
	Estimate	SE	Z	Estimate	SE	Z
Level 1						
B_0: Intercept	0.41	0.27	1.49	0.43	0.27	1.61
B_1: Perspective	2.62	0.44	5.90***	2.64	0.45	5.90***
B_2: Intergroup Condition	1.17	0.45	2.60**	1.11	0.44	2.50*
B_3: Perspective x Intergroup Condition	-1.85	0.70	-2.64**	-1.84	0.71	-2.60**
Level 2						
y_{01}: Age				0.01	0.02	0.36
y_{02}: Religiosity				0.37	0.22	1.65
y_{03}: Gender				0.24	0.47	0.51
Random intercept SD		1.86			1.74	
Observations		356			350	
Groups		128			126	

Note: Perspective is dummy coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Age and religiosity are mean centered. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.

*p <.05, **p < .01, ***p<.001

Discussion

Results of Study 1 reveal that Christian iTuakei believe that God is less biased than they are when considering whether in-group members should sacrifice their lives to save religious in-group or out-group children. This held even for participants who perceived higher levels of intergroup threat and lower levels of religious commonality with Muslims. Thus, results support the universal hypothesis.

Nearly all Muslims in our sample believed the children should be saved across all conditions. This may reflect a real difference in intergroup attitudes and values between Muslim Indo-Fijians, a disadvantaged group, and Christian iTaukei, an advantaged group. Consistent with this interpretation, prior work finds Christian iTaukei endorse stronger ethnic superiority beliefs than Indo-Fijians (De Vries, 2002). Alternative explanations could be that (1) our dilemma was developed by Christians, and thus was not appropriately tailored, or (2) our binary response scale masked underlying variance.

Study 2

Findings from Study 1 among Christian iTaukei dovetail with previous findings among Muslim Palestinians, showing that people perceive God as encouraging humans to value in-group and out-group lives more equally (Ginges et al., 2016). However, a perception that God equally favors all people may be unique to ascent religions, such as Christianity and Islam, which are more open to converts than descent religions, such as Judaism and Hinduism (Morris, 1996). Descent religions place more emphasis on their community (Cohen & Hill, 2007) and consequently may perceive that their Gods have preferences that are particular, rather than universal. The purpose of Study 2 was to examine whether members of a descent religion, such as Israeli Jews, also perceive God's preferences as more universal. In addition, Study 2 tested

whether findings using a moral dilemma developed in Fiji generalize to a WEIRDer context with violent interreligious conflict.

Method

Participants. The final sample consisted of 384 religious Jewish Israelis (47% female, M_{age} = 30.80, SD_{age} = 9.54).[3] See OSF for power analysis.

Procedure and materials. Participants were recruited for an online study through www.iPanel.co.il and completed (1) a general survey containing self-report measures and demographics, and (2) the moral dilemma experiment. Most (80%) completed the general survey with another experiment and were re-contacted two months later to participate in this study. Due to attrition, we recruited additional participants (20%) who completed the general survey after the moral dilemma. This experiment was conducted in March of 2019.

The moral dilemma was identical to Study 1, except that in-group members were Jewish Israelis and out-group members were Muslim Palestinians. Relevant measures include age, gender (-0.5 = female, 0.5 = male), and religiosity (prayer frequency: 1 = once a year or less; 2 = several times a year, 3 = about once a month, 4 = about once a week, 5 = several times a week, 6 = about every day, 7 = several times a day; M = 6.14, SD = 1.39). The experiment was administered in Hebrew. For additional measures see OSF.

Results

Raw results were analyzed with the same multilevel model described in Study 1.

[3] We collected 457 observations. We excluded 44 duplicate IP addresses. Sixteen additional observations were excluded because participants did not meet inclusion criteria. Seven more participants were excluded because they were missing all burning building data.

Raw results. Jewish Israelis wanted to save in-group and out-group children 55% and 24% of the time, respectively (mean across groups = 40%). They believed God would want in-group and out-group children to be saved 54% and 29% of the time, respectively (mean across groups = 42%). See Figure 2.

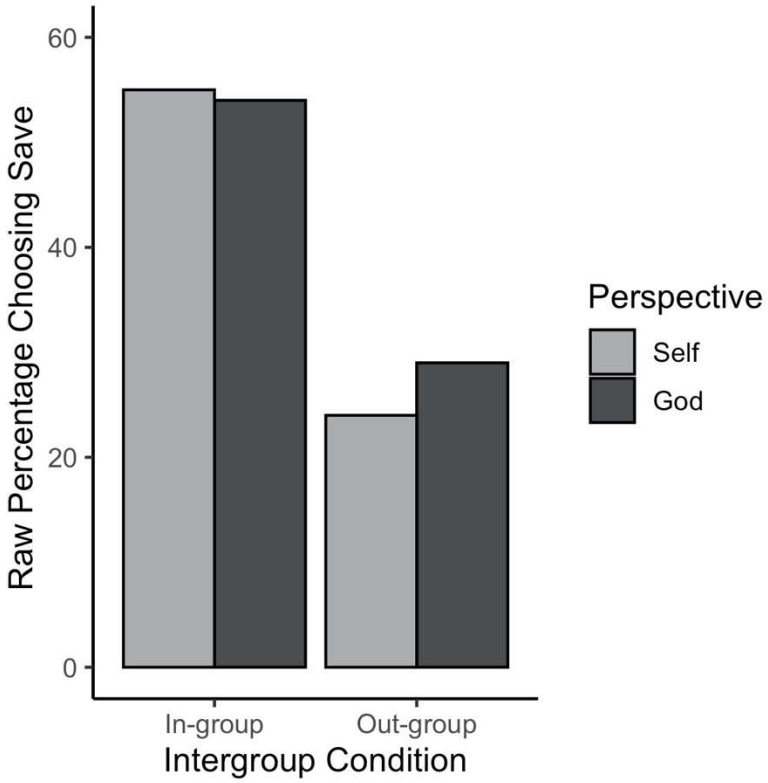

Figure 2. Raw data showing Jewish Israeli's own preferences and their beliefs about God's preferences from Study 2.

Estimated fixed effects. We find no main effect of perspective, but a perspective x intergroup condition interaction (B_3 = -0.76, Z = -2.12, p = .034, 95% CI[-1.47, -0.06]). Participants saw God's preferences as aligned with their own when considering whether in-group members should be saved ($B_{1\ \text{in-group}}$ = -0.10, Z = -0.40, p = .688, 95% CI[-0.56, 0.37]), but saw God as more likely than they were to approve of an in-group man sacrificing himself to save Palestinian Muslim children ($B_{1\ \text{out-group}}$ = 0.67, Z = 2.48, p = .013, 95% CI[0.14, 1.20]).

Although participants saw God as being less biased than they themselves were, they still saw God as valuing the lives of in-group members more than out-group members ($B_{2\ God} = 2.91$, $Z = 9.29$, $p < .001$, 95% CI[2.32, 3.54]). Results were robust after including preregistered covariates (see Table 2).

Secondary analyses. We again tested whether intergroup threat and perceived religious commonality meaningfully moderate results. Although participants higher in threat, and lower in commonality, were more biased at baseline, these participants still saw God as expressing a greater preference, compared to themselves, for saving out-group members. See Supplemental Materials.

Table 2: Results of multilevel logistic regressions predicting decision to save for Jewish Israeli sample in Study 2

	Primary Model			Covariate Model		
	Estimate	SE	Z	Estimate	SE	Z
Level 1						
B_0: Intercept	-1.34	0.28	-4.82***	-1.36	0.28	-4.87***
B_1: Perspective	0.28	0.18	1.59	0.29	0.18	1.62
B_2: Intergroup Condition	3.67	0.34	10.70***	3.70	0.34	10.73***
B_3: Perspective x Intergroup Condition	-0.76	0.36	-2.12*	-0.77	0.36	-2.13*
Level 2						
y_{01}: Age				-0.02	0.03	-0.75
y_{02}: Religiosity				-0.94	0.21	-4.51
y_{03}: Gender				1.06	0.54	1.97
Random intercept SD		4.00			3.96	
Observations		1,517			1,517	
Groups		384			384	

Note: Perspective is dummy coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Age and religiosity are mean centered. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.

*p <.05, **p < .01, ***p<.001

Discussion

As in Study 1, participants in Study 2 thought God, compared to themselves, would be more likely to prefer that an in-group member sacrifice his life to save five children belonging to their out-group. Interestingly, individual preferences and perceived preferences of God in the in-group condition were aligned. Perhaps the nature of our scenario was such that many respondents inferred that other options were available to the character in the story, which would make their self-sacrifice immoral and thus set a ceiling on the percentage of participants who would approve, or thought God would approve, of the sacrifice. Also consistent with study 1, perceived threat and commonality did not moderate results. We note, however, that in this high-conflict setting, Jewish Israelis—like Muslim Palestinians in Ginges et al. (2016)—did not see God as being unbiased. Yet, even in a high-conflict setting, and with members of a descent religion, we find that people believe God would prefer in-group members to value the lives of out-group members more than they do themselves.

Study 3

The purpose of Study 3 was to replicate and extend the previous studies by altering three features of the experimental paradigm: (1) to maximize variance, we used a continuous outcome measure; (2) to reduce potential ceiling effects, we changed the moral dilemma so that adults, as opposed to children, were in need of saving; and (3) we sampled Christians and Hindus, but not Muslims. Like Judaism, Hinduism is also a descent religion. We note that Hindus in Fiji believe Bhagwan to be a unifying supernatural deity. Thus, we used Bhagwan in place of God for Hindus.

Method

Participants. The sample (N = 539, 58% female, M_{age} = 43.41, SD_{age} = 15.73) included 328 Christians (52% female, M_{age} = 40.80, SD_{age} = 15.72) and 211 Hindus (67% female, M_{age} = 47.53, SD_{age} = 14.88).[4] See OSF for power analysis.

Procedure and materials. This study was administered in June and July of 2019 using similar procedures to Study 1, except that; (1) Christians' out-group members were Hindu, and Hindus' out-group members were Christians; (2) participants answered the moral dilemma on a scale from 1 (definitely should not save) to 10 (definitely should save), and (3) individuals trapped in the house were adults. Gender (-0.5 = female, 0.5 = male), religion (-0.5 = Hindu. 0.5 = Christian), age, and religiosity (prayer frequency) were measured as in Study 1. Average prayer frequency was almost every day (M = 5.88, SD = 0.99). For information on field methods, and all materials, see OSF.

Results

We used the same model presented in Studies 1 and 2 with two modifications. Because responses were continuous, we used linear models. As preregistered, religion was included as a covariate. Significance was calculated using lmerTest (Kuznetsova, Brockhoff, & Christensen, 2017). Most variance (68%) resided between-person. Estimated means by condition are provided based on fixed-effects models (see Figure 3).

[4] As preregistered, we planned to exclude suspect interviews. This sample excludes all 69 interviews conducted by one Hindu RA who had a median completion time of under 15 minutes and an additional 61 interviews (55 Hindu and 6 Christian) that were completed in under 15 minutes. This cut-off time was based on an assessment that this is the shortest time it could take to complete an interview while reading each question fully. Results without these exclusions are substantively unchanged (see Supplemental Materials).

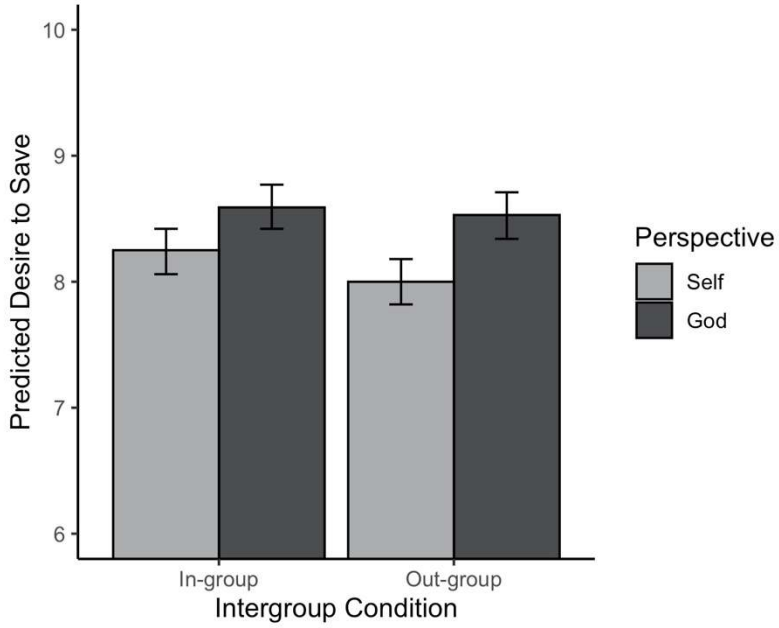

Figure 3. Model-estimated means by condition collapsed across Christians and Hindus from Study 3. Y axis is truncated to show effect. Scale ranges from 1 (definitely should not save) to 10 (definitely should save). Error bars are 95% CI.

Fixed effects tests reveal that, although participants showed a strong preference (collapsed across intergroup conditions) for their in-group member to save others (M = 8.12, SE = 0.08), they thought God would be even more likely to endorse this action, (M = 8.56, SE = 0.08), B_1 = 0.44, t(1574.94) = 8.75, p < .001, 95% CI[0.34, 0.54]. Participants wanted to save in-group members (M = 8.25, SE = 0.09) more than out-group members (M = 8.00, SE = 0.09), $B_{2\,self}$ = 0.24 t(1575.11) = 3.45, p < .001, 95% CI[0.11, 0.38], but believed God would be unbiased, $B_{2\,God}$ = 0.07, t(1575.24) = 0.97, p = .332, 95% CI [-0.07, 0.21]. Despite this difference, the perspective x intergroup condition interaction was not significant, B_3 = -0.18, t(1575.42) = -1.75, p = .080, 95% CI[-0.37, 0.02], likely because baseline bias was minimal. Results were robust after adding preregistered covariates (see Table 3).

Secondary analyses. Ancillary analyses indicate that Christians, but not Hindus, were biased at baseline, and that baseline bias was driven by 31 outliers. Notably, the minority of participants who were biased saw God as being unbiased. Exploratory tests indicated that the discrepancy between participants' own preferences and those ascribed to God was greater among Christians than Hindus, although present among both samples. To examine potential boundary effects, we also tested whether results held for participants who perceived higher levels of intergroup threat and/or perceived less commonality with Muslim Palestinians. We find no evidence for these boundary conditions. These analyses are presented in Supplemental Materials.

Table 3: Results of multilevel regressions predicting desire to save for Fijian samples from Study 3

	Primary Model			Covariate Model		
	Estimate	SE	*t*	Estimate	SE	*t*
Level 1						
B_0: Intercept	8.12	0.08	97.14***	8.15	0.09	95.73***
B_1: Perspective	0.44	0.05	8.75***	0.45	0.05	8.76***
B_2: Intergroup Condition	0.24	0.07	3.45***	0.25	0.07	3.49***
B_3: Perspective x Intergroup Condition	-0.18	0.10	-1.75	-0.18	0.10	-1.80
Level 2						
y_{01}: Religion	0.69	0.16	4.30***	0.52	0.18	2.92**
y_{02}: Age				0.00	0.00	0.68
y_{03}: Religiosity				0.18	0.05	2.08*
y_{04}: Gender				0.22	0.16	1.37
Random intercept SD		1.71			1.68	
Observations		2,113			2,078	
Groups		538			529	

Note: Perspective is dummy coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Religion is contrast coded (-0.5 = Hindu, 0.5 = Christian). Age and religiosity are mean centered. DV is desire to save (1 = definitely should not save, 10 = definitely should save).
*p <.05, **p < .01, ***p<.001

Discussion

Christian iTaukei and Hindu Indo-Fijians believed that, compared with themselves, God would be more likely to want an in-group member to sacrifice his life to save both in-group and out-group members. Thus, results from Studies 1 and 2 replicate when using a continuous outcome measure, and when the individuals to be saved are adults, as opposed to children. As in Study 1 and Study 2, we find no evidence for the secondary hypothesis that effects would only hold for individuals who perceive more tolerant relations and greater commonality with religious out-group members. Holistically, results provide further evidence that Christian iTaukei and Hindu Indo-Fijians believe God prefers humans to act in a more universal, as opposed to parochial, moral manner.

General Discussion

Three studies show that Christian iTaukei and Hindu Indo-Fijians in Fiji, as well as Jews from Israel, believe that God is less likely than they are to reason parochially in moral dilemmas. Results were not moderated by variability in how threatened participants felt by relevant out-groups, nor by the perception of religious commonalities between groups.

These results replicate findings of Ginges et al. (2016) and carry two intriguing theoretical implications that require further investigation. First, people who believe in powerful Gods who define and police moral human behavior also believe that God prefers humans to act in a more universal, as opposed to more parochial moral manner. If true, this has significant implications for the cultural evolution and the proliferation of Big God beliefs. Second, if people perceive God to be an entity that encourages more universal moral reasoning, such beliefs may influence their behavior, encouraging more, rather than less prosociality towards members of other groups. If true, it is possible that belief in such a God may sometimes mitigate intergroup

conflict rather than, as many presume, cause or exacerbate such conflict (e.g., Dawkins, 2006; Dawkins et al., 2007; Huntington, 1993; Kaplan, 2007). Such a finding would, in turn, be relevant to our understanding of how people manage religious diversity and elucidate the extent to which such diversity necessarily begets conflict. In this light, the present research contributes to a small, but growing, body of research highlighting the potential for certain aspects of religion to facilitate more positive intergroup relations (e.g., Everett et al., 2016; Ginges et al., 2016; Hall et al., 2015; Preston & Ritter, 2013).

Notwithstanding these important theoretical implications, the present study contains several limitations. First, it is limited by the use of moral hypotheticals. Behavioral studies could provide greater insight regarding how beliefs about God's preferences influence moral choices in intergroup contexts. Second, while a strength of this paper is that the dilemma used was generated by iTaukei research assistants, we are uncertain whether this dilemma had similar meanings for the other groups tested in Fiji, or for Jewish Israelis. This contributes to difficulty in understanding variability between studies from different cultures. For example, Jewish Israeli participants were the only group who did not believe that God's preferences differed from their own in within-group contexts, and we find no intergroup bias among Hindu and Muslim participants in Fiji. Such variation across samples may be due to religious belief, political context, or the meaning of the dilemma in each population.

Conclusion

Three preregistered cross-cultural conceptual replications of Ginges et al. (2016) support the hypothesis that, in comparison with their own moral preferences, individuals attribute more universal, as opposed to parochial, moral values to God. Whether in Fiji or Israel, with Christian, Muslim, Hindu, or Jewish participants, we present consistent evidence that (1) when individuals

expressed in-group favoritism, they saw God as preferring them to value the lives of in-group and out-group members more equally, and (2) when individuals did not uniformly believe that an in-group member should sacrifice his life to save out-group members, they thought God would more strongly support this action. Results challenge the widely held belief, endorsed by Dawkins and others (Dawkins, 2006; Dawkins et al., 2007), that portray God as a parochial moral agent that antagonizes intergroup relations. Instead, consistent with a growing psychological literature, results suggest belief in God may help to facilitate religious tolerance and cooperation, even in religiously diverse societies with histories of ethno-religious conflict.

References

Allport, G. W. (1954). The nature of prejudice. Reading, MA: Addison-Wesley.

Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. Journal of Personality and Social Psychology, 5(4), 432–443.

Altemeyer, B., & Hunsberger, B. (2005). Fundamentalism and authoritarianism. In R. F. Paloutzian & C. L. Park (Eds.), Handbook of the psychology of religion and spirituality (pp. 378–393). New York: Guilford Press.

Armstrong, K. (2014). Fields of blood. New York: Knopf.

Atran, S., & Ginges, J. (2012). Religious and sacred imperatives in human conflict. Science, 336(6083), 855–857. https://doi.org/10.1126/science.1216902

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. Journal of Statistical Software, 67(1), 1–48. https://doi.org/10.18637/jss.v067.i01

Bedford, R. D. (1988). Population movement in post-colonial Fiji: Review and speculation. GeoJournal, 16(2), 179–192.

Boyd, R., & Richerson, P. J. (2010). Transmission coupling mechanisms: Cultural group selection. Philosophical Transactions of the Royal Society B: Biological Sciences, 365(1559), 3787–3795. https://doi.org/10.1098/rstb.2010.0046

Bushman, B. J., Ridge, R. D., Das, E., Key, C. W., & Busath, G. L. (2007). When God sanctions killing: Effect of scriptural violence on aggression. Psychological Science, 18(3), 204–207. https://doi.org/10.1111/j.1467-9280.2007.01873.x

Caluori, N., Jackson, C. J., Gray, K., & Gelfand, M. (in press). Conflict changes how people view God. Psychological Science.

Cohen, A. B., & Hill, P. C. (2007). Religion as culture: Religious individualism and collectivism among American Catholics, Jews, and Protestants. Journal of Personality, 75(4), 709–742. https://doi.org/10.1111/j.1467-6494.2007.00454.x

Dawkins, R. (2006). The God delusion. Boston: Houghton Mifflin Co.

Dawkins, R., Dennet, D., Harris, S., & Hitchens, C. (2007). The Four Horseman—Hitchens, Dawkins, Dennet, Harris. Retrieved from https://www.youtube.com/watch?v=n7IHU28aR2E

De Vries, R. E. (2002). Ethnic tension in paradise: Explaining ethnic supremacy aspirations in Fiji. International Journal of Intercultural Relations, 26(3), 311–327. https://doi.org/10.1016/S0147-1767(02)00006-8

Epley, N., Converse, B. A., Delbosc, A., Monteleone, G. A., & Cacioppo, J. T. (2009). Believers' estimates of God's beliefs are more egocentric than estimates of other people's beliefs. Proceedings of the National Academy of Sciences, 106(51), 21533–21538. https://doi.org/10.1073/pnas.0908374106

Everett, J. A. C., Haque, O. S., & Rand, D. G. (2016). How good is the Samaritan, and why? An experimental investigation of the extent and nature of religious prosociality using economic games. Social Psychological and Personality Science, 7(3), 248–255. https://doi.org/10.1177/1948550616632577

Fiji Bureau of Statistics. (2019). Religion. Retrieved November 27, 2019, from https://www.statsfiji.gov.fj/index.php/statistics/social-statistics/religion

Gervais, W., & Norenzayan, A. (2012). Like a camera in the sky? Thinking about God increases public self-awareness and socially desirable responding. Journal of Experimental Social Psychology, 48(1), 298–302. https://doi.org/10.1016/j.jesp.2011.09.006

Ginges, J., Hansen, I., & Norenzayan, A. (2009). Religion and support for suicide attacks. Psychological Science, 20(2), 224–230. https://doi.org/10.1111/j.1467-9280.2009.02270.x

Ginges, J., Sheikh, H., Atran, S., & Argo, N. (2016). Thinking from God's perspective decreases biased valuation of the life of a nonbeliever. Proceedings of the National Academy of Sciences, 113(2), 316–319. https://doi.org/10.1073/pnas.1512120113

Hall, D. L., Cohen, A. B., Meyer, K. K., Varley, A. H., & Brewer, G. H. (2015). Costly signaling increases trust, even across religious affiliations. Psychological Science, 26(9), 1368–1376. https://doi.org/10.1177/0956797615576473

Harris, S. (2006). Letter to a Christian nation. New York: Knopf.

Heiphetz, L., Lane, J. D., Waytz, A., & Young, L. L. (2016). How children and adults represent God's mind. Cognitive Science, 40(1), 121–144. https://doi.org/10.1111/cogs.12232

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. Nature, 466(7302), 29. https://doi.org/doi:10.1038/466029a

Hunsberger, B., & Jackson, L. M. (2005). Religion, meaning, and prejudice. Journal of Social Issues, 61(4), 807–826. https://doi.org/10.1111/j.1540-4560.2005.00433.x

Huntington, S. (1993). The clash of civilizations? Foreign Affairs, 72(3), 22–49.

Johnson, D. (2005). God's punishment and public goods. Human Nature, 16(4), 410–446.

Johnson, D., & Bering, J. (2006). Hand of God, mind of man: Punishment and cognition in the evolution of cooperation. Evolutionary Psychology, 4, 219–233. https://doi.org/10.1177/147470490600400119

Johnson, M. K., Labouff, J., Rowatt, W. C., Patock-Peckham, J. A., & Carlisle, R. D. (2012). Facets of right-wing authoritarianism mediate the relationship between religious

fundamentalism and attitudes toward Arabs and African Americans. Journal for the Scientific Study of Religion, 51(1), 128–142. https://doi.org/10.1111/j.1468-5906.2011.01622.x

Kaplan, B. (2007). Divided by faith: Religious conflict and the practice of toleration in early modern Europe. Cambridge, MA: Harvard University Press.

Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). lmerTest package: Tests in linear mixed effects models. Journal of Statistical Software, 82(13). https://doi.org/10.18637/jss.v082.i13

Laurin, K., Shariff, A. F., Henrich, J., & Kay, A. C. (2012). Outsourcing punishment to God: Beliefs in divine control reduce earthly punishment. Proceedings of the Royal Society B: Biological Sciences, 279(1741), 3272–3281. https://doi.org/10.1098/rspb.2012.0615

Morris, P. (1996). Detraditionalization: Critical reflections on authority and identity. Cambridge, MA: Blackwell.

Neuberg, S. L., Warner, C. M., Mistler, S. A., Berlin, A., Hill, E. D., Johnson, D. J., … Schober, J. (2014). Religion and intergroup conflict: Findings from the global group relations project. Psychological Science, 25(1), 198–206. https://doi.org/10.1177/0956797613504303

Ng, B., & Gervais, W. M. (2016). Religion and prejudice. In C. G. Sibley & F. K. Barlow (Eds.), The Cambridge handbook of the psychology of prejudice (pp. 344–370). Cambridge, UK: Cambridge University Press.

Norenzayan, A. (2013). Big gods: How religion transformed cooperation and conflict. Princeton, NJ: Princeton University Press.

Norenzayan, A., & Shariff, A. F. (2008). The origin and evolution of religious prosociality. Science, 322(5898), 58–62. https://doi.org/10.1126/science.1158757

Norenzayan, A., Shariff, A. F., Gervais, W. M., Willard, A. K., McNamara, R. A., Slingerland, E., & Henrich, J. (2016). The cultural evolution of prosocial religions. Behavioral and Brain Sciences, 39, 1–65. https://doi.org/10.1017/S0140525X14001356

Obeid, N., Argo, N., & Ginges, J. (2017). How moral perceptions influence intergroup tolerance: Evidence from Lebanon, Morocco, and the United States. Personality and Social Psychology Bulletin, 43(3), 381–391. https://doi.org/10.1177/0146167216686560

Pisor, A. C., & Surbeck, M. (2019). The evolution of intergroup tolerance in nonhuman primates and humans. Evolutionary Anthropology: Issues, News, and Reviews, 28(4), 210–223. https://doi.org/10.1002/evan.21793

Preston, J. L., & Ritter, R. S. (2013). Different effects of religion and God on prosociality with the in-group and out-group. Personality and Social Psychology Bulletin, 39(11), 1471–1483. https://doi.org/10.1177/0146167213499937

Purzycki, B. G., Apicella, C., Atkinson, Q., Cohen, E., McNamara, R. A., Willard, A. K., … Henrich, J. (2016). Moralistic gods, supernatural punishment and the expansion of human sociality. Nature, 530(7590), 327–330. https://doi.org/10.1038/nature16980

R Core Team (2018) R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. https://www.R-project.org/

Rad, M. S., Martingano, A. J., & Ginges, J. (2018). Toward a psychology of Homo sapiens: Making psychological science more representative of the human population. Proceedings of the National Academy of Sciences, 115(45), 11401–11405. https://doi.org/10.1073/pnas.1721165115

Ramesh, S. (2008). Fiji: Inter-group competitions and in-group fragmentation. Peace and Conflict Review, 2(2), 1–14.

Shariff, A. F., & Norenzayan, A. (2011). Mean gods make good people: Different views of God predict cheating behavior. The International Journal for the Psychology of Religion, 21(2), 85–96. https://doi.org/10.1080/10508619.2011.556990

Shariff, A. F., Norenzayan, A., & Henrich, J. (2010). The birth of high Gods: How the cultural evolution of supernatural policing influenced the emergence of complex, cooperative human societies. In M. Schaller, A. Norenzayan, S. J. Heine, T. Yamagishi, & T. Kameda, Evolution, culture, and the human mind (pp. 119–136).

Shariff, A. F., Willard, A. K., Andersen, T., & Norenzayan, A. (2016). Religious priming: A meta-analysis with a focus on prosociality. Personality and Social Psychology Review, 20(1), 27–48. https://doi.org/10.1177/1088868314568811

Stark, R. (1996). The rise of Christianity: How one obscure, marginal, Jesus movement became the dominant religious force. Princeton, NJ: Princeton University Press.

Tessler, M. (2009). A history of the Israeli-Palestinian conflict. Bloomington, IN: Indiana University Press.

Trnka, S. (2008). State of suffering: Political violence and community survival in Fiji. Ithica, NY: Cornell University Press.

Wickham, H. (2016). ggplot2: Elegant graphics for data analysis. Springer-Verlag New York. http://ggplot2.org

Supplemental Materials

Study 1

In the main text, we report fixed-effect results for the Christian iTaukei sample alone due to ceiling effects observed among the Muslim Indo-Fijian sample. Here, we report results, as preregistered, collapsed across the Christian iTaukei and Muslim Indo-Fijian samples. We also provide additional details on religiosity measures, descriptive statistics on intergroup contact, intergroup threat/conflict, and perceived religious commonality, in addition to reporting secondary models in which we tested whether threat/conflict and perceived religious commonality moderate results. Finally, we report a model investigating how order of presentation (in-group vs out-group condition) influences results.

Method

Materials.

Religiosity. In addition to prayer frequency, which is reported in the main text, we also assessed (1) the importance of God in participants' lives and (2) religious attendance. We preregistered our intent to form a composite religiosity measure based on these items, but there was almost no variability in the importance of God in participants' lives and religious attendance was confounded with gender for Muslims. A composite scale (created after converting scales reported below to 0 to 1 ranges) had poor reliability ($\alpha = .25$). Thus, we use prayer frequency for statistical models in which we planned to control for religiosity. Here, we report for descriptive purposes the other religiosity measures.

Importance of God. Participants indicated whether or not they believed in God. If they responded yes they were asked "How important is God in your life?" Response options were 1 = Not at all important, 2 = Moderately important, and 3 = Very important. Participants who did not

believe in God were coded 0. For Muslim participants, "God" was replaced with "Allah." Our sample was very religious; 100% of participants believed in God, 95% said God was very important in their lives and 5% said God was moderately important in their lives ($M = 2.95$, $SD = 0.23$).

Attendance. Participants indicated whether or not they attended a place of worship (church/mosque). Those who did were asked "How often do you go to church/mosque?" Response options were: 1 = Almost never, 2 = About once a year, 3 = Several times a year, 4 = About once a month, 5 = About once a week, 6 = About every day, and 7 = Several times each day. Participants who did not pray received a score of 0. Religious attendance was also high; 89% of participants attended a place of worship (average frequency of attendance about once per week, $M = 4.26$, $SD = 1.85$). Christians attended church ($M = 4.97$, $SD = 1.11$) more frequently than Muslims attended mosque ($M = 2.78$, $SD = 2.30$), $t(184) = 8.75$, $p < .001$. Further inspection revealed attendance to be lower among Muslim women ($M = 1.47$, $SD = 1.67$) than Muslim men ($M = 5.05$, $SD = 1.21$), $t(58) = -8.76$, $p < .001$. Attendance did not differ by gender among Christians, $t(124) = -0.68$, $p = .497$. The difference among Muslims is likely the result of religious rules prohibiting women from entering the central mosque.

Intergroup threat and conflict. Two items measured perceived threat from and conflict with the target religious out-group. For Christians, the first asked whether participants thought Muslim Fijians posed "some threat", "a lot of threat", or "no threat at all" to the rights of Christian iTaukei. The second question was similar, but asked about whether the tradition and culture of Christian iTaukei is ever threatened by Muslim Fijians. An additional two questions measured perceived conflict with Muslim Fijians. For Christians, the first asked participants how peaceful they thought relations were between Christian iTaukei and Muslims. Response options

were “Very peaceful,” “Somewhat peaceful,” and “Not at all peaceful.” The second asked how much conflict they thought there was between the two groups. Response options were “No conflict,” “Some conflict,” and “A lot of conflict.” These same items were also adapted to measure Muslims’ threat from and conflict with Christians.

Participants perceived low levels of threat from and conflict with the target religious out-groups, resulting in a floor effect. Scale anchors also are not necessarily equidistant. Thus, we dichotomized scores on each item so that 0 conceptually represented the complete absence of threat and conflict (or that relations were very peaceful) and 1 represented the presence of at least some threat and conflict and absence of complete peace. Scale reliability across groups was assessed with the Kuder-Richardson 20 (Kuder & Richardson, 1937), a measure equivalent to Cronbach’s alpha for binary variables (reliability = .59). Christians felt more threat from Muslims ($M = 0.27$, $SD = 0.26$) than Muslims felt from Christians ($M = 0.10$, $SD = 0.19$), $t(186) = 4.57$, $p < .001$.

Perceived religious commonality. We measured perceived religious commonality with the target religious out-group with two questions. For Christians, the first asked “Do you think that Christian iTaukeis and Muslim Fijians pray to the same God?” The second question asked “Do Christian iTaukei and Muslim Fijians share common religious values? Response options were “Yes” = 2, “Don’t know/unsure” = 1, and “No” = 0. These measures were adapted to also assess Muslims’ perceived religious commonality with Christians. Although these two items were significantly correlated across religious groups ($r = .30$, $t[185] = 4.28$, $p < .001$), the size of the correlation was still relatively small, with just 9% of shared variance. Thus, we opted to treat these items as separate measures.

Christians (M = 0.89, SD = 0.96) and Muslims (M = 0.95, SD = 0.96) reported feeling similarly unsure whether their target out-group prayed to the same God, $t(185) = -0.40$, $p = .690$. Christians (M = 0.75, SD = 0.83) and Muslims (M = 0.93, SD = 0.95) also felt similarly unsure about whether members of the other religious group shared common religious values, $t(185) = -1.36$, $p = .175$.

Intergroup contact. We measured intergroup contact to better understand interreligious relations in Fiji. Specifically, we measured contact in three ways. First, we measured the general frequency with which individuals came into contact with religious out-group members. Second and third, we measured the frequency with which individuals respectively had positive and negative experiences interacting with religious out-group members. We report these measures for descriptive purposes.

General contact. We measured general contact with the target religious out-group with two questions. For Christians, the first item asked, "How often do you chat casually with someone who is a Muslim?" The second asked "How often do you visit someone who is Muslim in their home, or host someone who is Muslim in your home?" These items were adapted to also measure Muslim's contact with Christians. Scale options were 1 = Never, 2 = Once a year or less, 3 = A few times per year, 4 = About once per month, 5 = About once per week, 6 = A few times per week, and 7 = Every day. Across groups, these items were significantly correlated, $r = .60$, $t(186) = 10.32$, $p < .001$. Christians reported less contact with Muslims (M = 2.98, SD = 2.03) than Muslims reported with Christians (M = 4.26, SD = 1.63), $t(186) = -4.28$, $p < .001$.

Positive and negative contact. Christians were asked "How often do you have a pleasant or nice [negative or bad] experience interacting with people who are Muslim?" Muslims were asked the same two questions about interactions with Christians. Scale options were 1 = Never, 2

= Once a year or less, 3 = A few times per year, 4 = About once per month, 5 = About once per week, 6 = A few times per week, and 7 = Every day. Positive and negative contact did not correlate, $r = .05$, $t(186) = 0.71$, $p = .477$.

Christians reported less positive contact with Muslims ($M = 3.04$, $SD = 2.04$) than Muslims reported with Christians ($M = 4.90$, $SD = 1.88$), $t(186) = -5.99$, $p < .001$. Christians also reported less negative contact with Muslims ($M = 1.14$, $SD = 0.51$) than Muslims reported with Christians ($M = 1.66$, $SD = 1.30$), $t(186) = -3.95$, $p < .001$.

Results

Results for full sample. Although Muslims had little variability in responses, we reconducted the (fixed effect?) analyses reported in the article using the full sample. An ICC of .49 indicated 49% of the variance to reside between-person.

Do results hold across full sample? Yes. Participants were more likely to say that the children should be saved and less likely to endorse intergroup bias when thinking from God's perspective. To analyze results, the same model specified in Study 1 was conducted, with data from Christians and Muslims, and with a level-2 covariate added to control for religion (-0.5 = Muslim, 0.5 = Christian). Results of the fixed-effects model reveal that, collapsed across intergroup condition, Participants believed that God—compared to themselves—would be more likely to want their in-group member to save the children, $B_1 = 2.53$, $Z = 5.97$, $p < .001$, 95% CI[1.76, 3.45]. In the self condition, participants were more likely to favor saving in-group as opposed to out-group children, $B_{2\ Self} = 1.18$, $Z = 2.70$, $p = .007$, 95% CI[0.36, 2.10]. Participants did not think that God would show in-group favoritism, -0.50, $Z = -0.91$, $p = .363$, 95% CI[-1.61, 0.58]. Results, which were robust when including preregistered covariates, are displayed in Supplemental Table 1.

Supplemental Table 1: Results of multilevel logistic regressions predicting decision to save for full sample in Study 1

	Primary Model			Covariate Model		
	Estimate	SE	Z	Estimate	SE	Z
Level 1						
B_0: Intercept	2.73	0.45	6.05***	2.71	0.45	5.96***
B_1: Perspective	2.53	0.42	5.97***	2.52	0.42	5.95***
B_2: Intergroup Condition	1.18	0.44	2.70**	1.13	0.43	2.61**
B_3: Perspective x Intergroup Condition	-1.68	0.68	-2.49*	-1.66	0.68	-2.44*
Level 2						
y_{01}: Christians v Muslims	-4.34	0.78	-5.57***	-4.32	0.79	-5.47***
y_{02}: Age				0.01	0.02	0.45
y_{03}: Religiosity				0.19	0.19	1.00
y_{04}: Gender				0.28	0.48	0.59
Random intercept SD		2.18			2.06	
Observations		594			584	
Groups		188			185	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Religion is contrast coded (+0.5 = Christian, -0.5 = Muslim). Gender is contrast coded (-0.5 = female, +0.5 = male). Age and religiosity are mean centered. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Does intergroup threat/conflict moderate effects for Christians? No. We reconducted the primary model from Study 1 (Christians only) adding perceived threat from/conflict with Muslims (mean-centered), the interactions between threat/conflict and perspective, intergroup condition, and the three-way interaction. As shown in Supplemental Table 2, threat did not moderate effects.

Supplemental Table 2: Results of multilevel logistic regression predicting decision to save with threat and interactions for Christians in Study 1

	Estimate	SE	Z
Level 1			
B_0: Intercept	0.42	0.28	1.48
B_1: Perspective	2.72	0.48	5.69***
B_2: Intergroup Condition	1.19	0.46	2.58**
B_3: Perspective x Intergroup Condition	-1.94	0.73	-2.67**
Level 2			
y_{01}: Threat	0.47	1.08	0.44
y_{02}: Threat x Perspective	-1.60	1.48	-1.08
y_{03}: Threat x Intergroup Condition	-0.68	1.41	-0.40
y_{04}: Threat x Perspective x Intergroup Condition	2.03	2.69	0.75
Random intercept SD		1.95	
Observations		356	
Groups		128	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Threat is mean centered. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Does perceived religious commonality moderate results for Christians? No. We reconducted the above model two more times, with each measure of perceived religious commonality separately tested as moderators to see if they influenced baseline intergroup bias or the effectiveness of the perspective manipulation at reducing bias. One tested whether the perception that Muslims prayed to the same God as Christians moderated effects. A second model tested whether the perception that Muslims and Christians shared common religious values moderated effects. As shown in Supplemental Table 3, neither of the perceived commonality measures predicted decisions, moderated baseline intergroup bias or the effect of

the perspective manipulation in reducing bias. However, on both measures, an unexpected marginal interaction emerged such that main effect of thinking from God's perspective (across intergroup conditions) trended to be weaker for Christians who perceived greater commonality with Muslims.

Supplemental Table 3: Results of multilevel logistic regressions predicting decision to save for Christians including perceived commonality measures

	Pray to Same God			Share Common Religious Values		
	Estimate	SE	Z	Estimate	SE	Z
Level 1						
B_0: Intercept	0.05	0.35	0.13	-0.02	0.36	-0.07
B_1: Perspective	3.23	0.58	5.61***	3.22	0.57	5.70***
B_2: Intergroup Condition	0.95	0.57	1.68	1.82	0.62	2.95**
B_3: Perspective x Intergroup Condition	-1.99	0.99	-2.01*	-2.62	0.97	-2.70**
Level 2						
y_{01}: Commonality	0.46	0.28	1.64	0.64	0.34	1.89
y_{02}: Commonality x Perspective	-0.69	0.37	-1.87	-0.82	0.43	-1.90
y_{03}: Commonality x Intergroup Condition	0.31	0.45	0.69	-0.90	0.55	-1.64
y_{04}: Commonality x Perspective x Intergroup Condition	0.10	0.72	0.15	1.15	0.84	1.38
Random intercept SD		1.80			1.84	
Observations		354			354	
Groups		127			127	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Age, religiosity, and commonality measures are mean centered. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Does the order of presenting the in-group or out-group condition influence results?

Yes. To test order effects, we computed two contrast codes to compare (A) participants who received only one condition (-1) to participants who received both conditions (0.5), and (B) participants who received the in-group condition before the out-group condition (0.5) to participants who received the out-group condition before the in-group condition (-0.5). In the second contrast, participants who only received one condition were coded 0. We then reconducted our statistical model regressing decision to save (binary) on perspective (self = 0, God = 1), condition (out-group = -0.5, in-group = 0.5), and these contrasts, with all two- and three-way interactions.

A marginally significant three-way interaction emerged for the contrast comparing participants who received the in-group condition before the out-group condition, $y_{08} = 3.08$, $Z = 1.80$, $p = .072$, 95% CI[-0.28, 6.43]. No three-way interaction emerged between the contrast comparing participants who saw both conditions and participants who only saw one condition, $y_{07} = 7.10$, $Z = 0.09$, $p = .927$, 95% CI[-145.12, 159.30].[5]

To better understand effects, we conducted simple effects tests for participants who saw the in-group condition before the out-group condition, and for participants who saw the out-group condition before the in-group condition. Notably, participants who saw the in-group condition before the out-group condition were not biased at baseline, $B_{2\ \text{In-group First Self}} = 0.21$, $Z = 0.26$, $p = .795$, 95% CI[-1.36, 1.59]. However, they did report believing that God would be more likely, than themselves, to want an in-group member to save others, $B_{1\ \text{In-group First}} = 1.92$, $Z =$

[5] Models reported here had convergence warnings in R. Alternative indices and methods of convergence, using the converge_ok and allFit commands, from the R packages sjstats (Lüdecke, 2019) and lme4 (Bates, Mächler, Bolker, & Walker, 2015), indicated that these warnings were not problematic and that estimates were reliable. Additionally, throughout, we calculated confidence intervals using the Profile method. Unfortunately, this method manifested an error message in R. For confidence intervals reported here, we instead used the Wald method.

2.75, p = .006, 95% CI[1.14, 3.29]. As there was no bias at baseline, there was also no perspective x condition interaction, $B_{3\ \text{In-group First}}$ = 0.24, Z = 0.18, p = .855, 95% CI[-2.29, 2.77].

Participants who saw the out-group condition before the in-group condition, in contrast, were significantly more likely to say that an in-group member should sacrifice his life to save in-group as opposed to out-group members, $B_{2\ \text{Out-group First Self}}$ = 1.64, Z = 2.26, p = .024, 95% CI[0.23, 3.05]. There was also a perspective x condition interaction, $B_{3\ \text{Out-group First}}$ = -2.66, Z = -2.33, p = .020, 95% CI[-4.89, -0.43]. These participants did not think that God would be biased, $B_{2\ \text{Out-group First God}}$ = -1.05, Z = -1.24, p = .216, 95% CI[-2.72, 0.62].

Results suggest that once participants already indicated that they would want to save in-group members, they were hesitant to revert to saying that they would not want to save out-group members.

Supplemental Table 4: Results of multilevel regression predicting desire to save with order effect moderation in Study 1

	Estimate	SE	Z
Level 1			
B_0: Intercept	0.33	0.28	1.19
B_1: Perspective	4.15	19.41	0.21
B_2: Intergroup Condition	1.00	0.45	2.21*
B_3: Perspective x Intergroup Condition	-4.65	38.83	-0.12
Level 2			
y_{01}: Order Contrast 1	0.06	0.36	0.17
y_{02}: Order Contrast 2	0.05	0.75	0.07
y_{03}: Perspective x Order Contrast 1	-4.40	38.83	-0.11
y_{04}: Perspective x Order Contrast 2	-0.04	0.87	-0.05
y_{05}: Intergroup Condition x Order Contrast 1	-0.33	0.62	-0.53
y_{06}: Intergroup Condition x Order Contrast 2	-1.58	1.07	-1.48
y_{07}: Perspective x Intergroup Condition x Order Contrast 1	7.10	77.66	0.09
y_{08}: Perspective x Intergroup Condition x Order Contrast 2	3.08	1.71	1.80
Random intercept SD		1.82	
Observations		350	
Groups		126	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Order is contrast coded (contrast 1: -1 = received both conditions, 0.5 = received only one condition; contrast 2: -0.5 = out-group first, 0.5 = in-group first, 0 = received both conditions). DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Study 2

We preregistered our intention to test whether (1) removing participants who failed a manipulation check, and (2) controlling for survey completion time influences results. We also preregistered secondary models to test whether intergroup threat and perceived commonality with the out-group moderated results. We include these analyses, and a writeup of related measures, here. We also provide more information on religiosity measures, as well as descriptive statistics on these as well as on measures of intergroup threat, perceived commonality, and

intergroup contact. Finally, we report a model investigating how order of presentation (in-group vs out-group condition) influences results.

Method

Materials.

Quality screeners. We included a manipulation check in this study, in which participants were asked to indicate whose preferences they were asked to report. Response options were Roi's parents, God, the average person, and Roi himself. Out of 384 participants with included data, 360 correctly identified the answer, 5 incorrectly said Roi's parents, three incorrectly said the average person, and nine incorrectly said Roi himself. The remaining seven participants did not answer this question. To be conservative, we coded answers such that participants who skipped this question were coded as having answered it incorrectly. We also preregistered our intent to test whether controlling for time modified results. Due to a heavy skew (a result of some surveys that were left open for a very long time), we winsorized survey duration before entering it as a covariate. Median completion time was 725 seconds. Mean and standard deviation pre winsorization were $M = 968.18$, $SD = 1125.75$ and post winsorization were $M = 838.22$, $SD = 430.65$.

Religiosity. In addition to prayer frequency, which is reported in the main text, we also assessed (1) the importance of God in participants' lives and (2) religious attendance. Importance of God in participants' lives was answered on a scale from 1 (*Not at all important*) to 5 (*Extremely important*). Religious attendance was measured on the same scale as religious prayer frequency: 1 = once a year or less, 2 = several times a year, 3 = about once a month, 4 = about once a week, 5 = several times a week, 6 = about every day, 7 = several times a day. We preregistered our intent to form a composite religiosity measure based on these items. As with

Study 1, there was almost no variability in the importance of God in participants' lives. There was a modest correlation (r = .53) between religious prayer and attendance. However, religious attendance was heavily confounded with gender in this sample, with men attending on average once a day (M = 6.24, SD = 1.12), and women attending about once a month (M = 3.12, SD = 1.33), $t(382) = 24.92$, $p < .001$. Prayer frequency was slightly confounded with gender, but not nearly as much so, with men praying between daily and more than once a day (M = 6.65, SD = 0.90) and women prayer between multiple times each week and daily (M = 5.56, SD =1.61), $t(382) = 8.29$, $p < .001$. Thus, we elected to use just the measure of prayer frequency as our religiosity covariate, also creating consistency between our measure in Study 1.

Intergroup threat. Five items assessed intergroup threat from and conflict with Muslim Palestinians. Items (e.g., "Palestinians pose a threat to the security of the state of Israel") assessed (1) security, (2) economic, (3) existential, and (4) symbolic threat. Threat items were adapted from Canetti-Nisim, Ariely, & Halperin (2008) and were measured on a scale from 1 (not at all true) to 5 (very true). An additional item ("How would you describe the relationship between Palestinians and Jewish Israelis?") measured perceived conflict on a scale from 1 (very peaceful) to 6 (there is an extreme amount of conflict). All items were converted to a 0-1 scale to form a composite measure (α = .78; M = 0.53, SD = 0.17).

Perceived commonality. Commonality was measured with four items.[6] These items assessed whether participants thought Jews and Muslims (1) prayed to the same God, and (2) share common religious values, as well as whether Jewish Israelis and Palestinians share (3) common values and (4) a common identity. Items were measured on a 1 (not at all true) to 5 (very true) scale (α = .73; M = 2.43, SD = 0.88).

[6] In our preregistration, we mistakenly said there would be a 6-item scale. Only four questions were included.

Intergroup contact. Intergroup contact with Muslims was measured with the same items described in Study 1. The two general contact items were moderately correlated (r = .32, t[367] = 6.44, p < .001) and were averaged. Average general contact was about once per year or less (M = 2.12, SD = 1.10). Participants reported low levels of positive contact (M = 2.28, SD = 1.49) and slightly higher levels of negative contact (M = 2.90, SD = 1.75). Positive and negative contact did not correlate (r = .05, t[367] = 1.03, p = .304).

Results

Do results change when (1) removing participants who failed the manipulation check and (2) controlling for survey duration? No. Results are robust (see Supplemental Table 5).

Supplemental Table 5: Results of multilevel logistic regression predicting decision to save removing failed attention checks and controlling for duration for Study 2

	Estimate	SE	Z
Level 1			
B_0: Intercept	-1.44	0.30	-4.81***
B_1: Perspective	0.36	0.19	1.92
B_2: Intergroup Condition	3.78	0.36	10.39***
B_3: Perspective x Intergroup Condition	-0.74	0.37	-1.98*
Level 2			
y_{01}: Duration	-0.00	0.00	-0.83
Random intercept SD		1.95	
Observations		1439	
Groups		360	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Duration is mean-centered. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Does intergroup threat/conflict moderate results? Not the effects of interest.[7] There was no three-way interaction between threat/conflict, perspective, and intergroup condition (see Supplemental Table 6). Significant two-way interactions revealed that participants who were higher in threat were (1) more parochial at baseline and (2) saw God as being especially more likely (compared with themselves) to want a fellow in-group member to save others (collapsed across intergroup conditions). Notably, participants low in threat (-1 SD) were still biased ($B_{2\ Low\ Threat} = 2.38$, $Z = 5.79$, $p < .001$, 95% CI[1.58, 3.18]), but did not see God as having discrepant beliefs ($B_{1\ Low\ Threat} = -0.25$, $Z = -0.80$, $p = .425$, 95% CI[-0.77, 0.27]). Participants high in threat (+1 SD) thought that, compared with themselves, God would be more likely to want a fellow in-group member to sacrifice his life to save others ($B_{1\ High\ Threat} = 0.95$, $Z = 3.29$, $p < .001$, 95% CI[0.38,1.52]).[8]

[7] Models reported here had convergence warnings in R. Alternative indices and methods of convergence, using the converge_ok and allFit commands from the R packages sjstats (Lüdecke, 2019) and lme4 (Bates et al., 2015), indicated that these warnings were not problematic and that estimates were reliable.

[8] The profile method manifested in an error message in R. For these confidence intervals, we instead used the Wald method.

Supplemental Table 6: Results of multilevel logistic regression predicting decision to save with threat and interactions in Study 2

	Estimate	SE	Z
Level 1			
B_0: Intercept	-1.45	0.30	-4.84***
B_1: Perspective	0.35	0.19	1.83
B_2: Intergroup Condition	3.91	0.38	10.20***
B_3: Perspective x Intergroup Condition	-0.91	0.38	-2.38*
Level 2			
y_{01}: Threat	-3.26	1.72	-1.90
y_{02}: Threat x Perspective	3.54	1.18	2.99**
y_{03}: Threat x Intergroup Condition	8.92	1.99	4.49***
y_{04}: Threat x Perspective x Intergroup Condition	-3.51	2.34	-1.50
Random intercept SD		4.17	
Observations		1457	
Groups		369	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Threat is on a 0-1 scale and was mean centered, with higher scores indicated more threat. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Does perceived commonality moderate results for Jewish Israelis? The more commonality participants perceived with Palestinian Muslims, (1) the less in-group bias participants displayed at baseline, and (2) the less likely participants were to see God as having a greater preference, compared with themselves, for saving others. Perceived commonality did not moderate the perspective x intergroup condition interaction. See Supplemental Table 7.

Supplemental Table 7: Results of multilevel logistic regression predicting decision to save with commonality and interactions in Study 2

	Estimate	SE	Z
Level 1			
B_0: Intercept	-1.44	0.30	-4.83***
B_1: Perspective	0.32	0.19	1.72
B_2: Intergroup Condition	3.89	0.38	10.29***
B_3: Perspective x Intergroup Condition	-0.91	0.38	-2.40*
Level 2			
y_{01}: Commonality	0.72	0.32	2.25*
y_{02}: Commonality x Perspective	-0.47	0.22	-2.18*
y_{03}: Commonality x Intergroup Condition	-1.49	0.36	-4.13***
y_{04}: Commonality x Perspective x Intergroup Condition	0.43	0.43	1.00
Random intercept SD		4.16	
Observations		1457	
Groups		369	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Commonality is mean centered and on 5-point scale with higher scores indicating more commonality. DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Does the order of presenting the in-group or out-group condition influence results?

No. We created a contrast code comparing participants who received the in-group condition first (0.5) to those who received the out-group condition first (-0.5). We then tested this contrast as a moderator (all two- and three-way interactions).[9] There was no three-way interaction. Order did not influence bias at baseline. Nor did it moderate the effect of perspective. See Supplemental Table 8.

[9] Model reported here had convergence warnings in R. Alternative indices and methods of convergence, using the converge_ok and allFit command from the R packages sjstats (Lüdecke, 2019) and lme4 (Bates et al., 2015), indicated that this warning was not problematic and that estimates were reliable.

Supplemental Table 8: Results of multilevel regression predicting desire to save with order effect moderation in Study 2

	Estimate	SE	Z
Level 1			
B_0: Intercept	-1.32	0.28	-4.72***
B_1: Perspective	0.30	10.18	1.64
B_2: Intergroup Condition	3.68	0.34	10.68***
B_3: Perspective x Intergroup Condition	-0.76	0.36	-2.09*
Level 2			
y_{01}: Order	-0.59	0.53	-1.13
y_{02}: Perspective x Order	-0.37	0.36	-1.02
y_{03}: Intergroup Condition x Order	-0.13	0.59	-0.22
y_{04}: Perspective x Intergroup Condition x Order	-0.33	0.72	-0.46
Random intercept SD		3.99	
Observations		1503	
Groups		376	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Order is contrast coded (-0.5 = out-group first, 0.5 = in-group first). DV is decision to save (1 = save, 0 = don't save). Estimates are in log odds.
*p <.05, **p < .01, ***p<.001

Study 3

In the main text, we refer to supplemental materials for ancillary analyses regarding (1) outliers and (2) exploratory tests investigating differences between Christians and Hindus. These are reported below. We also report, in the main text, results based on a preregistered decision to remove data from 69 participants who were interviewed by one Hindu RA who had a median completion time of less than 15 minutes and an additional 61 interviews (55 Hindu and 6 Christian) that were completed in under 15 minutes. This cutoff time was based on observation as the shortest time it could take to complete an interview reading each question fully. We report below results without these exclusions. We also report secondary analyses testing whether intergroup threat and perceived religious commonality moderate result (using the sample reported in the main text), and provide descriptive information on these measures as well as on

measures of intergroup contact. Finally, we report a model investigating whether the order of presenting the in-group and out-group conditions influenced results.

Method

Participants. The full sample, without exclusions (N = 669, 56% female, M_{age} = 43.69, SD_{age} = 15.60) consisted of 334 Christians (52% female, M_{age} = 40.76, SD_{age} = 15.64) and 335 Hindus (60% female, M_{age} = 46.63, SD_{age} = 15.02). Below we report analyses using the sample from the main text (to investigate outlier diagnostics, differences by religion, and moderation). We also report results from primary analyses reported in the main text with this full sample.

Materials.

Religiosity. Unlike with Studies 1 and 2, we preregistered our intent to use prayer frequency as our measure of religiosity. We also included measures of whether participants believed in God (>99% did), how important God was in participants' lives (1 = not at all important to 10 = most important thing; M = 9.72, SD = 1.09), and frequency of religious attendance (same scale as Study 1; M = 4.38, SD = 1.36). Average attendance was between once a month and once a week, and was higher among Christians (M = 4.87, SD = 1.17) than among Hindus (M = 3.60, SD = 1.26), $t(534) = 11.94$, $p < .001$.

Intergroup threat. As preregistered, we included items assessing realistic and symbolic threat (adapted from Stephan, Ybarra, & Morrison, 2009). Realistic threat was measured with four items that assessed the degree to which participants through their out-group had (1) too much economic influence, (2) political influence, (3) power in the government, and (4) power in the army. Symbolic threat was assessed with three items that measured whether participants thought their out-group had (1) inferior values, (2) offensive cultural practices, and (3) too much influence over the Fijian way of life. Items were rated on an anchored scale from 1 (strongly

disagree) to 10 (strongly agree). Two sub-scales were formed for realistic (α = .78; *M* = 6.37, *SD* = 2.50) and symbolic (α = .53; *M* = 6.29, *SD* = 2.22) threat. The symbolic threat item assessing degree to which out-group members have too much influence over the way of life loaded less well onto the scale (removing this item increases two-item reliability to .67), but was retained for theoretical purposes. Realistic threat was higher among Hindus (*M* = 8.32, *SD* = 2.04) than Christians (*M* = 5.12, *SD* = 1.89), *t*(536) = 18.59. *p* < .001. Symbolic threat levels did not differ between Hindus and Christians, *t*(536) = -0.83, *p* = .404. Symbolic and realistic threat were moderately correlated, *r* = .21, *t*(536) = 5.05, *p* < .001. These scales were this analyzed separately as moderators.

Perceived commonality. Commonality was measured in two ways. Two items assessed religious commonality. The first asked whether participants thought they shared common religious values (1 = religious values are very different to 10 = religious values are the same). The second asked whether participants thought Christians and Hindus prayed to different forms of the same God or different Gods (1 = they are really different Gods to 10 = they are praying to the same God). These items were surprisingly negatively correlated (*r* = -.27, *t*[531] = -6.54, *p* < .001). Christians thought they shared more religious values in commons with Hindus (*M* = 4.84, *SD* = 2.86) than Hindus thought they did with Christians (*M* = 2.16, *SD* = 2.32), *t*(535) = 11.40, *p* < .001. To the contrary, Christians were less inclined to believe that prayed to the same God as Hindus (M = 2.07, *SD* = 2.27) than Hindus were to believe the reverse (*M* = 8.02, *SD* = 3.67), *t*(532) = -23.15, *p* < .001.

Three items also assessed superordinate identity by asking the degree to which participants thought their in-group and out-group (1) shared a common future, (2) are all Fijian, and (3) are one people. Items were rated on a scale from 1 (strongly disagree) to 10 (strongly

agree). Although we anticipated these items would form a scale, they were not consistently correlated. The belief that Christian iTaukei and Fiji Hindus are one people was correlated at .38 with the belief that these groups share a common future (t[531] = 9.45, $p < .001$) but not significantly correlated with the belief that these groups are all Fijian ($r = .07$, t[533] = 1.54, $p = .125$). The belief that these groups share a common future was moderately correlated with the belief that these groups are all Fijian ($r = .26$, t[532] = 6.28, $p < .001$). Whereas Christians (M = 6.49, $SD = 3.33$) were more inclined than Hindus ($M = 3.80$, $SD = 3.56$) to think that their in-group and out-group were one people (t[534] = 8.87, $p < .001$), Hindus ($M = 9.58$, $SD = 1.79$) were more inclined than Christians ($M = 6.84$, $SD = 3.45$) to think that their in-group and out-group were all Fijian (t[535] = 10.59, $p < .001$). Christians (M = 6.09, SD = 3.10) were also slightly more inclined to believe that they shared a common future with Hindus than Hindus ($M = 5.51$, $SD = 3.31$) thought in reverse (t[533] = 2.05, $p = .041$).

Thus, we opted not to form scales from items intended to measure commonality. Instead, to be consistent with reporting from Study 1, we analyze results by separately testing whether each of our two items assessing religious commonality (but not superordinate identity) moderate results.

Intergroup contact. Contact with respective out-group members was measured with the same four variables used in Study 1 and Study 2. The two general contact items were (1) how often do you chat casually with someone who is [out-group] and (2) how often do you visit someone who is [out-group] in their home, or host someone who is [out-group] in your home? Response options were 1 = Never, 2 = Once a year or less, 3 = A few times per year, 4 = About once per month, 5 = About once per week, 6 = A few times per week, and 7 = Every day. Items were correlated (r = .57, t[537] = 16.00, $p < .001$), and averaged ($M = 4.31$ [between once per

month and once per week], *SD* = 1.83). General contact was higher among Hindus (*M* = 5.47 [between once per week and a few times per week], *SD* = 1.43) than among Christians (*M* = 3.56 [between a few times per year and once per month], *SD* = 1.66), $t(537) = 13.75$, $p < .001$. Positive (*M* = 4.86, *SD* = 2.23) and negative (*M* = 1.53, *SD* = 1.42) contact were also measured on the same 7-point scales. Hindus (*M* = 6.40, *SD* = 1.60) reported more positive contact with Christians than Christians (*M* = 3.86, *SD* = 2.00) did with Hindus, $t(536) = -15.58$, $p < .001$. Although negative contact was quite low, Christians reported more negative contact with Hindus (*M* = 1.66, *SD* = 1.51) than Hindus did with Christians (*M* = 1.33, *SD* = 1.24), $t(536) = 2.62$, $p = .009$.

Results

Outlier diagnostics. Diagnostics—using influence.ME (Nieuwenhuis, te Grotenhuis, & Pelzer, 2012)—revealed 31 participants with Cook's D scores greater than 4/n. Excluding these participants does not substantively change the main effect of perspective, $B_1 = 0.39$, $t(1483.60) = 9.84$, $p < .001$, 95% CI[0.31, 0.47]. However, when these participants are excluded, intergroup bias at baseline is not significant, $B_{2\ Self} = 0.10$, $t(1483.68) = 1.76$, $p = .079$, 95% CI[-0.01, 0.21]. Supplemental Table 9 reports descriptive statistics by condition for participants retained and excluded from this model. Results suggest intergroup bias was uncommon, but that participants who were biased at baseline (i.e., those who manifested as outliers) saw God as unbiased.

Supplemental Table 9. Descriptive data for Study 3 comparing non-outliers to outliers.

	Non-Outliers (*n* = 507)		Outliers (*n* = 31)	
	In-group	Out-group	In-group	Out-group
Self *M* (*SD*)	8.39 (1.99)	8.29 (2.07)	7.24 (3.57)	4.61 (3.79)
God *M* (*SD*)	8.77 (1.69)	8.70 (1.76)	7.13 (3.63)	7.07 (3.58)

Do results differ between Christians and Hindus? Yes. In exploratory analyses, we included religion as a moderator, with two- and three-way interactions. No three-way interaction emerged, $y_{04} = -0.16$, $t(1571.56) = -0.77$, $p = .439$, 95% CI[-0.56, 0.24]. However, significant two-way interactions revealed (1) in-group bias at baseline to be stronger among Christians than Hindus, $y_{03\ Self} = 0.29$, $t(1571.30) = 2.05$, $p = .041$, 95% CI[0.01, 0.58) and (2) that Christians were more likely than Hindus to view God as having discrepant preferences, $y_{02} = 0.47$, $t(1571.24) = 4.60$, $p < .001$, 95% CI[0.27, 0.67]. See Supplemental Table 10.

Christians were biased at baseline, $B_{2\ Christians\ Self} = 0.36$, $t(1573.59) = 3.99$, $p < .001$, 95% CI[0.18, 0.54]. Hindus were not, $B_{2\ Hindus\ Self} = 0.07$, $t(1569.77) = 0.61$, $p = .542$, 95% CI[-0.15, 0.29]. Both Christians ($B_{1\ Christians} = 0.63$, $t[1573.21] = 9.73$, $p < .001$, 95% CI[0.50, 0.75]) and Hindus ($B_{1\ Hindus} = 0.16$, $t[1569.93] = 2.00$, $p = .046$, 95% CI [0.00, 0.31]) reported God to have a stronger preference for their in-group member to save others. Among Christians, participants did not think that God would be biased, $B_{2\ Christians\ God} = 0.12$, $t(1573.61) = 1.34$, $p = .180$, 95% CI[-0.06, 0.30].

Supplemental Table 10: Results of multilevel regressions predicting desire to save for Fijian samples from Study 3 with religion moderation

	Primary Model			Covariate Model		
	Estimate	SE	*t*	Estimate	SE	*t*
Level 1						
B_0: Intercept	8.15	0.08	97.30***	8.18	0.09	95.91***
B_1: Perspective	0.39	0.05	7.70***	0.40	0.05	7.68***
B_2: Intergroup Condition	0.22	0.07	3.00**	0.21	0.07	3.02**
B_3: Perspective x Intergroup Condition	-0.16	0.10	-1.59	-0.17	0.10	-1.63
Level 2						
y_{01}: Religion	0.45	0.17	2.70**	0.28	0.18	1.51
y_{02}: Religion x Perspective	0.47	0.10	4.60***	0.48	0.10	4.60***
y_{03}: Religion x Intergroup Condition	0.29	0.14	2.05*	0.29	0.15	2.00*
y_{04}: Religion x Perspective x Intergroup Condition	-0.16	0.20	-0.77	-0.16	0.21	-0.77
y_{05}: Age				0.00	0.00	0.68
y_{06}: Religiosity				0.18	0.09	2.09*
y_{07}: Gender				0.22	0.16	1.38
Random intercept SD		1.71			1.68	
Observations		2113			2078	
Groups		538			529	

Note: Perspective is dummy coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Religion is contrast coded (-0.5 = Hindu, 0.5 = Christian). Age and religiosity are mean centered. DV is desire to save (1 = definitely should not save, 10 = definitely should save).
*p <.05, **p < .01, ***p<.001

Do results differ without exclusions? Results were consistent without exclusions (see Supplemental Table 11). Although participants showed a strong preferences (collapsed across intergroup conditions) for their in-group member to save others (M = 8.40, SE = 0.07), they thought God would be even more likely to endorse this action (M = 8.80, SE = 0.07), t(1957.23) = 9.12, p < .001, 95% CI[0.29, 0.45]. Participants wanted to save in-group members (M = 8.52, SE = 0.08) more than out-group members (M = 8.32, SE = 0.08), t(1957.00) = 3.49, p < .001, 95 % CI[0.09, 0.31], but they believed God would not show this in-group favoritism, $B_{2\ God}$ = 0.05, t(1957.00) = 0.89, p = .376, 95% CI[-0.06, 0.16]. Despite this difference, the perspective x intergroup condition interaction was not significant, B_3 = 0.15, t(1957.22) = 1.84, p = .066, 95% CI[-0.01, 0.31]. Results were robust when including covariates (see Supplemental Table 11).

Supplemental Table 11: Results of multilevel regressions predicting desire to save for Fijian samples from Study 3 without exclusions

	Primary Model			Covariate Model		
	Estimate	SE	*t*	Estimate	SE	*t*
Level 1						
B_0: Intercept	8.42	0.07	118.64***	8.41	0.07	95.73***
B_1: Perspective	0.37	0.04	9.12***	0.38	0.04	8.76***
B_2: Intergroup Condition	0.20	0.06	3.49***	0.21	0.06	3.49***
B_3: Perspective x Intergroup Condition	-0.15	0.08	-1.84	-0.16	0.08	-1.80
Level 2						
y_{01}: Religion	0.17	0.14	1.27	0.08	0.15	2.92**
y_{02}: Age				0.00	0.00	0.68
y_{03}: Religiosity				0.14	0.08	2.08*
y_{04}: Gender				-0.23	0.14	-1.69
Random intercept SD		1.68			1.65	
Observations		2624			2589	
Groups		667			658	

Note: Perspective is dummy coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Religion is contrast coded (-0.5 = Hindu, 0.5 = Christian). Age and religiosity are mean centered. DV is desire to save (1 = definitely should not save, 10 = definitely should save).
*p <.05, **p < .01, ***p<.001

Does intergroup threat/conflict moderate results? To investigate this question, we conducted two separate analyses: one testing realistic threat and one testing symbolic threat. Threat was tested with all two- and three-way interactions.

There was no three-way perspective x intergroup condition x realistic threat interaction (see Supplemental Table 10). Realistic threat did not moderate the effect of intergroup condition (i.e., participants higher in realistic threat were not more likely to express bias at baseline). However, participants high in realistic threat saw God as having less discrepant views (compared with themselves) about whether an in-group member should save others. Collectively, results here do not suggest there to have been a meaningful effect of realistic threat on results. See Supplemental Table 10.

There was no three-way perspective x intergroup condition x symbolic threat interaction (see Supplemental Table 12). Non-significantly, participants higher in symbolic threat trended to endorse more in-group bias at baseline. Symbolic threat did not moderate the effect of perspective, but participants higher in symbolic threat were less inclined to believe that they and God would want an in-group member to sacrifice his life to save others (regardless of their identity). See Supplemental Table 12.

Supplemental Table 12: Results of multilevel regressions predicting desire to save for Fijian samples from Study 3 with threat moderation

	Realistic Threat			Symbolic Threat		
	Estimate	SE	*t*	Estimate	SE	*t*
Level 1						
B_0: Intercept	8.19	0.08	98.65***	8.19	0.08	99.57***
B_1: Perspective	0.44	0.05	8.86***	0.44	0.05	8.74***
B_2: Intergroup Condition	0.25	0.07	3.48***	0.45	0.07	3.45***
B_3: Perspective x Intergroup Condition	-0.18	0.10	-1.77	-0.18	0.10	-1.75
Level 2						
y_{01}: Threat	-0.01	0.03	-0.19	0.13	0.04	3.51***
y_{02}: Threat x Perspective	-0.08	0.02	-4.16***	0.00	0.02	0.03
y_{03}: Threat x Intergroup Condition	-0.02	0.03	-0.85	0.05	0.03	1.66
y_{04}: Threat x Perspective x Intergroup Condition	-0.03	0.04	-0.63	-0.05	0.05	-1.11
Random intercept SD		1.74			1.72	
Observations		2109			2109	
Groups		537			537	

Note: Perspective is dummy coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Threat is measured on a 10-point scale and is mean centered. DV is desire to save (1 = definitely should not save, 10 = definitely should save).
*p <.05, **p < .01, ***p<.001

Does perceived commonality moderate results? To investigate this question, we conducted two separate analyses: one testing the perception that Christians and Hindus pray to the same God as a moderator, and one testing the perception that Christians and Hindus share common religious values as a moderator. These were tested with all two- and three-way interactions.

As shown in Supplemental Table 13, the more that participants believed their in-group and out-group prayed to the same God, the less biased they were at baseline. This perception was also associated with a lower propensity to want in-group members to save others, in general, and with a weaker belief that God would have discrepant views on the matter. There was no three-way interaction with this measure of religious commonality. See Supplemental Table 13.

The perception that one's in-group and out-group share common religious values did not moderate intergroup bias at baseline, but was associated with a greater perception that God (compared with the self) would be more inclined to want an in-group member to save others. Again, there was no three-way interaction with this measure of commonality. See Supplemental Table 13.

Supplemental Table 13: Results of multilevel regressions predicting desire to save for Fijian samples from Study 3 with commonality moderation

	Pray to Same God			Share Common Religious Values		
	Estimate	SE	*t*	Estimate	SE	*t*
Level 1						
B_0: Intercept	8.20	0.08	101.22***	8.19	0.08	98.66***
B_1: Perspective	0.44	0.05	8.81***	0.44	0.05	8.80***
B_2: Intergroup Condition	0.25	0.07	3.47***	0.45	0.07	3.47***
B_3: Perspective x Intergroup Condition	-0.17	0.10	-1.73	-0.18	0.10	-1.77
Level 2						
y_{01}: Commonality	-0.09	0.02	-4.75***	0.03	0.03	1.07
y_{02}: Commonality x Perspective	-0.04	0.01	-3.12**	0.05	0.02	3.13**
y_{03}: Commonality x Intergroup Condition	-0.05	0.02	-2.60**	0.00	0.02	0.18
y_{04}: Commonality x Perspective x Intergroup Condition	0.00	0.02	0.16	-0.03	0.03	-0.77
Random intercept SD		1.68			1.74	
Observations		2093			2105	
Groups		533			536	

Note: Perspective is dummy coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Gender is contrast coded (-0.5 = female, +0.5 = male). Commonality is measured on a 10-point scale and is mean centered. DV is desire to save (1 = definitely should not save, 10 = definitely should save).
*p <.05, **p < .01, ***p<.001

Does the order of presenting the in-group or out-group condition influence results?

In part. We created a contrast code comparing participants who received the in-group condition first (0.5) to those who received the out-group condition first (-0.5). We tested this contrast as a moderator (all two- and three-way interactions). As shown in Supplemental Table 14, there was no three-way interaction, nor was the effect of perspective moderated by order. However, intergroup bias was weaker among participants who received the in-group condition first, and participants who received the in-group condition first also endorsed a stronger general preference for their fellow in-group member to save others. Simple effects tests reveal that, among participants who received the in-group condition first, there was no intergroup bias at baseline, $B_{2\ \text{In-group First}} = 0.07$, $t(1572) = 0.75$, $p = .455$, 95% CI[-0.12, 0.27]. However, among participants who received the out-group condition first, there was a significant tendency at baseline to want to save in-group members more than out-group members, $B_{2\ \text{Out-group First}} = 0.42$, $t(1572) = 4.18$, $p < .001$, 95% CI[0.22, 0.62]. Notably, as shown in Supplemental Table 14, irrespective of order and intergroup condition, there was a significant perspective effect, such that, compared with themselves, participants thought God would be more approving of an in-group member saving others.

Supplemental Table 14: Results of multilevel regression predicting desire to save with order effect moderation in Study 3

	Estimate	SE	*t*
Level 1			
B_0: Intercept	8.19	0.08	99.02***
B_1: Perspective	0.44	0.05	8.79***
B_2: Intergroup Condition	0.25	0.07	3.50***
B_3: Perspective x Intergroup Condition	-0.17	0.10	-1.74
Level 2			
y_{01}: Order	0.43	0.17	2.57*
y_{02}: Perspective x Order	-0.14	0.10	-1.40
y_{03}: Intergroup Condition x Order	-0.35	-0.14	-2.44*
y_{04}: Perspective x Intergroup Condition x Order	-0.01	-0.20	0.04
Random intercept SD		1.74	
Observations		2113	
Groups		538	

Note: Perspective is contrast coded (0 = self, 1 = God). Intergroup condition is contrast coded (-0.5 = out-group, 0.5 = in-group). Order is contrast coded (-0.5 = out-group first, 0.5 = in-group first). DV is desire to save (1 = definitely should not save, 10 = definitely should save).

*p <.05, **p < .01, ***p<.001

References

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, *67*(1), 1–48. https://doi.org/10.18637/jss.v067.i01

Canetti-Nisim, D., Ariely, G., & Halperin, E. (2008). Life, pocketbook, or culture: The role of perceived security threats in promoting exclusionist political attitudes toward minorities in Israel. *Political Research Quarterly*, *61*(1), 90–103. https://doi.org/10.1177/1065912907307289

Lüdecke, D. (2019). *sjstats: Statistical functions for regression models (version 0.17.4)*. Retrieved from https://CRAN.R-project.org/package=sjstats

Nieuwenhuis, R., te Grotenhuis, H. F., & Pelzer, B. J. (2012). Influence.ME: tools for detecting influential data in mixed effects models. *The R Journal*, *4*(2), 38–47.

Stephan, W. G., Ybarra, O., & Morrison, K. R. (2009). Intergroup threat theory. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 43–59). New York, NY: Psychology Press.