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RESEARCH

Prodigal Sons: Dual Abrahamic Categorization Mediates the Detrimental Effects of Religious Fundamentalism on Christian–Muslim Relations

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Religious fundamentalism is associated with Christian–Islamic conflicts globally, but the psychological reasons remain unexplored. Here, we show that fundamentalism is detrimental to interreligious relations because it makes Christians and Muslims alike reject common theological grounds and Abrahamic origins. Specifically, Study 1 demonstrated that such dual Abrahamic categories mediated the negative effects of fundamentalism on real monetary donations to outgroup children desperately in need (i.e., Save the Children Syria) among Christians but not Atheists. Of importance, this was the case only to the degree that Syrian children were perceived as Muslims and, hence, as part of an Abrahamic outgroup. Using a double-randomized experimental design, Study 2 demonstrated the causal effects of religious fundamentalism on Abrahamic categorization and of Abrahamic categorization on mutual resource distribution bias among Muslims and Christians. Together, these studies suggest that religious fundamentalism fuels interreligious conflicts because it crucially impacts basic categorization processes, with subsequent negative effects on intergroup relations.

Religious fundamentalism regularly surfaces in public discourse on conflicts of both inter- and intranational scale, such as wars on terror, conflicts in the Middle East, or tense intergroup

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relations in multicultural societies. Although religious fundamentalism is often portrayed as confined to Muslims and the Islamic world, it can be found in virtually any religion (Altemeyer & Hunsberger, 1992). Irrespective of their specific religious denomination, fundamentalists differ from their moderate religious peers in holding particularly preclusive religious conceptions, believing in a single right way to salvation that has to be followed rigidly (Altemeyer, 2003). Possibly to defend their stolid ideological stance (Brandt & Reyna, 2010), individuals high on religious fundamentalism tend to hold negative attitudes toward dissenters (Hall, Matz, & Wood, 2010). Indeed, fundamentalist notions have repeatedly been used to justify extreme acts of violence toward other groups (Emerson & Hartman, 2006), including the 12th-century crusades, atrocities as between Christians and Muslims in Nigeria, or terroristic mass murder, most recently as conducted by Christian fundamentalist Anders Behring Breivik.

Here, we propose that religious fundamentalism is particularly derogative for Christian–Islamic relations because it leads Muslims and Christians to overlook blatant theological commonalities between their religions, reinforcing the division between “us” and “them” that has detrimental effects on intergroup relations, as demonstrated by decades of work within the social identity tradition (Tajfel, 1982; Tajfel & Turner, 1979). Yet, although often ignored in public discourse and religious education (Plante, 2009), Islam and Christianity are theologically related in many ways. Not only do various religious figures, such as Moses, Jesus, Noah, or Jonah, play important roles in both religions, but Islam and Christianity also both trace their origins to the progenitor Abraham/Ibrahim. Some contemporary religious leaders do recognize this common heritage. For instance, King Hussain of Jordan, arguably a descendent of the Prophet Mohammed, emphasized the importance to “bring together the Children of Abraham” (King Hussein I, 1991), while Pope John Paul II depicted Abraham as the “common forefather” in Lisbon in 1982.

Because such dual categories— notions of a shared, superordinate group including the ingroup and immediate outgroups in addition to one’s own subgroup category—generally attenuate intergroup bias (see, e.g., Dovidio, Gaertner, Shnabel, Saguy, & Johnson, 2009; Gaertner & Dovidio, 2000, 2005), here we test if endorsing a common Abrahamic group attenuates mutual intergroup bias among Muslims and Christians. Crucially, we predict that religious fundamentalism will limit the degree to which believers endorse such a dual Abrahamic religious category in the first place, precisely because fundamentalism involves a narrow worldview (Hunsberger & Jackson, 2005) and a tendency to reject alternative religious interpretations (Brandt & Reyna, 2010). This, we propose, is an underlying, mediating process that makes religious fundamentalism fuel hostile group relations in many parts of the world.

In a *cross-national context*, Study 1 tests whether endorsing the common origins of Christianity and Islam mediates the detrimental effects of religious fundamentalism on costly, altruistic helping of outgroup children in dire need. To do so, we gave American workers on Amazon Mechanical Turk an unexpected bonus of \$1 and the opportunity to donate any or none of this amount to Save the Children Syria. In terms of limiting factors, we expected dual Abrahamic categorization to mediate the effect of religious fundamentalism on aid donations (a) only among Christians because it should be irrelevant for Atheists’ self-concepts and (b) only to the degree that Syrians are perceived as Muslim, and hence as part of the Abrahamic group.

In a tense *intranational context*, Study 2 tests the full causal chain of our proposed mediational model among Muslims and Christians in Germany using a double-randomized design (see MacKinnon, Fairchild, & Fritz, 2007; Sherman & Gorkin, 1980). Specifically we test (a) if

manipulating the saliency of religious fundamentalism causes dual Abrahamic categorization to change and (b) if manipulating dual Abrahamic categorization causes reduced mutual bias in Tajfel-like resource distribution scenarios, and leads to more positive feelings toward Abrahamic but not non-Abrahamic outgroups.

STUDY 1

Material and Methods

Participants

As no comparable studies were available to gather information about the expectable effect size, we conducted power analyses for a small effect ($f^2 = .10$) in regression-based analyses. Results indicated that $n = 124$ would be needed to have at least an 80% chance to observe such an effect with a significance criterion of .05. This sample size would also meet the criteria of 100 to 150 participants suggested by Wang and Wang (2012) and a rule of thumb ratio of 10 to 20 participants per variable (see Tanaka, 1987). Although no information is available about the religious affiliation of workers on Amazon Mechanical Turk, we, based on census data, expected most MTurkers to identify as Christians, followed by Atheists and followers of other faiths. To ensure that we would meet the minimum sample for both Christians and Atheists, we collected data from all in all 400 participants through Amazon Mechanical Turk. Of these participants, 179 were Christians, 134 Atheists, and 87 identified with other religious affiliations. Due to the purpose of our study, only Christian and Atheist participants were retained for analyses ($M_{age} = 34.36$, $SD_{age} = 11.82$; male = 60.4%).

Procedure and Measures

Respondents were paid 70 cents for participating in a study on “social issues.” They first answered questions assessing religious fundamentalism as well as strength of religious identification in randomized order, as subgroup identification has been found to negatively predict common categorizations (Gaertner & Dovidio, 2000) so that religious identification is an important control variable. Next, participants answered a measure assessing dual Abrahamic categorization and were then given the opportunity to donate a part or none of a surprise \$1 bonus to Save the Children Syria before answering demographic questions.¹ Unless stated otherwise, all responses were scored on 7-point Likert scales with 1 (*totally disagree*) and 7 (*totally agree*) as endpoints. All analyses were run with SPSS 21 and the PROCESS regression macros (Hayes, 2013).

Religious fundamentalism. The revised religious fundamentalism scale (Altemeyer & Hunsberger, 2004) was used to measure fundamentalist beliefs ($\alpha = .97$). The scale consists of 12 items, such as “To lead the best, most meaningful life, one must belong to the one, fundamentally true religion” or “God has given humanity a complete, unailing guide to happiness and salvation, which must be totally followed.”

¹An emotion measure that also was part of the original survey is not presented here due to reasons of brevity and the behavioral focus of the study.

Religious identification. We used an adapted version of the collective self-esteem scale (Luhtanen & Crocker, 1992) to measure religious identification ($\alpha = .94$). Participants indicated their agreement with four items such as “The religion I belong to is an important reflection of who I am.”

Dual Abrahamic categorization. We wrote four items to reflect the dual identity conceptualization of Dovidio, Gaertner, and Saguy (2007). Specifically, participants indicated their agreement with the statements “Because Abraham is the progenitor of both Islam and Christianity, one can say that Muslims and Christians belong to the same ‘family’ of religions”; “Christians as well as Muslims believe in an Abrahamic religion”; “Christianity and Islam have common roots”; and “Even though Islam and Christianity are different religions, both belong to the same group of religions,” forming a reliable scale ($\alpha = .93$).

Donation task. Participants read information about the conflict in Syria adapted from the Save the Children Syria webpage.² Next, they were told that they had received a payment bonus of \$1 and asked if they would like to donate any given amount between 0 and 100 cents (using a sliding response scale):

4 million Syrian children are suffering as a result of a horrific conflict—one of the worst humanitarian crises of our time—which is now stretching into its third year. Two million people have fled to neighboring countries Iraq, Lebanon and Jordan, but many more remain in dire need of assistance. Save the Children Syria is on the ground helping to keep children safe, providing the basics they need, like food and blankets and offering programs to help them cope with tragedy. We grant you a 1 dollar bonus for your participation in our study. How much of this bonus would you like to donate to Save the Children Syria?

At the very end of the study, after answering demographic questions, we asked participants to indicate the percentage of the Syrian population they believed to be Muslim: “How many percent of the Syrian population do you think is Muslim? (Please do not use the internet to find the right answer, we are only interested in your own, rough estimate.)” This was done to assess the degree to which participants indeed perceived Syrians as a Muslim, hence Abrahamic, outgroup.

Results

Although participants in total donated \$116.69 out of \$398 to Save the Children Syria, Christians on average donated significantly more ($M = 34.62$ cents, $SD = 39.44$) than Atheists ($M = 20.73$ cents, $SD = 30.79$), $t(310.43) = -3.49$, $p = .001$, $\eta^2 = .04$. Also, the donation variable was positively skewed only among Atheists (skewness = 1.49) but not among Christians (skewness = 0.69).

We conducted second-stage moderated mediation analyses (Edwards & Lambert, 2007), with religious fundamentalism as predictor variable, dual Abrahamic categorization as mediator, donation as dependent variable, and percentage of Syrians perceived to be Muslim as moderator of the relation between dual Abrahamic categorization and donation (see Figure 1). As the distinction between Christians and Atheists is central to the hypotheses of the study, the

²<http://www.savethechildren.org/site/c.8rKLIXMGIpI4E/b.7998857/k.D075/Syria.htm>

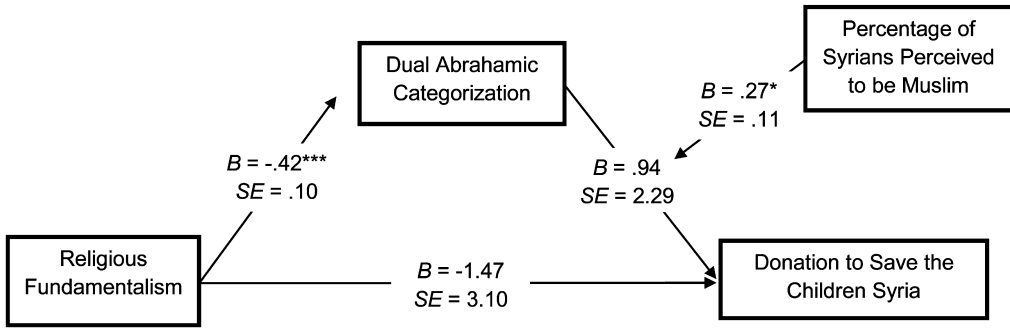


FIGURE 1 Estimated second-stage moderated mediation model in Study 1 is displayed. Religious identification is controlled for. * $p < .05$, *** $p < .001$.

analyses were run separately for both groups. Religious identification, which was positively related to religious fundamentalism ($r = .80, p < .001$), negatively related to dual Abrahamic categorization ($r = -.34, p < .001$) and was unrelated to the remaining variables ($.574 < ps < .581$), was controlled for as covariate in each stage of the analyses.

The results supported our hypotheses. To start with, religious fundamentalism was related to less dual Abrahamic categorization in the first regression for both groups, whereas religious identification remained insignificant as predictor (see Table 1). However, supporting the first limiting factor, the degree to which participants perceived Syrians as a Muslim outgroup moderated the relationship between dual Abrahamic categorization and donation among Christians but not among Atheists for whom Abrahamic categorization does not affect the definition of their group. Specifically, the moderated regression part of the mediational chain and, most importantly, the interaction term between dual Abrahamic categorization and percentage of Syrians perceived to be Muslim were significant *only* among Christians (see Table 2). Put differently, as expected, dual Abrahamic categorization was unrelated to donation among Atheists.

Also our second limiting factor obtained support. Following up on the significant moderation among Christians, analyses of the conditional effects showed that dual Abrahamic categorization lead to more donations only among participants who perceived most Syrians to

TABLE 1
Dual Abrahamic Categorization Regressed on Religious Fundamentalism and Religious Identification

Predictor	Christians $F(2, 176) = 19.27,$ $p < .001, R^2 = .18$				Atheists $F(2, 131) = 8.62,$ $p < .001, R^2 = .11$			
	B	SE	β	p	B	SE	β	p
Religious fundamentalism	-.42	.10	-.51	<.001	-.65	.17	-.34	<.001
Religious identification	.09	.09	.12	.337	-.02	.11	-.02	.863

Note. Variance inflation factor (Christians: 3.04; Atheists: 1.15) and tolerance statistics (Christians: .33; Atheists: .87) indicated absence of collinearity between the predictors.

TABLE 2
Moderated Regression with Donation to Save the Children Syria as Dependent Variable

Predictor	Christians $F(5, 173) = 3.89,$ $p < .002, R^2 = .10$				Atheists $F(5, 128) = 2.03, p = .078$			
	B	SE	β	p	B	SE	β	p
Religious fundamentalism	-1.47	3.10	-.06	.636	-4.24	3.60	-.11	.242
Religious identification	-.32	2.68	-.02	.905	-1.86	2.10	-.08	.377
DAC ^a	.94	2.29	.03	.683	.48	1.75	.03	.785
PSM ^a	.51	.15	.27	.001	.24	.14	.16	.103
DAC × PSM	.27	.11	.18	.014	.06	.08	.06	.497

Note. DAC = Dual Abrahamic categorization, PSM = percentage of Syrians perceived to be Muslims.
^aMean centered.

be Muslim, scoring one standard deviation above the mean on the percentage variable and, hence, saw the donation as clearly supporting an Abrahamic outgroup (see Figure 2). No such effect was observed for scores on the mean or one standard deviation below the mean on the percentage variable. Consistent with this finding, bias-corrected bootstrapping with 5,000 bootstrap resamples confirmed that religious fundamentalism had an indirect negative effect on

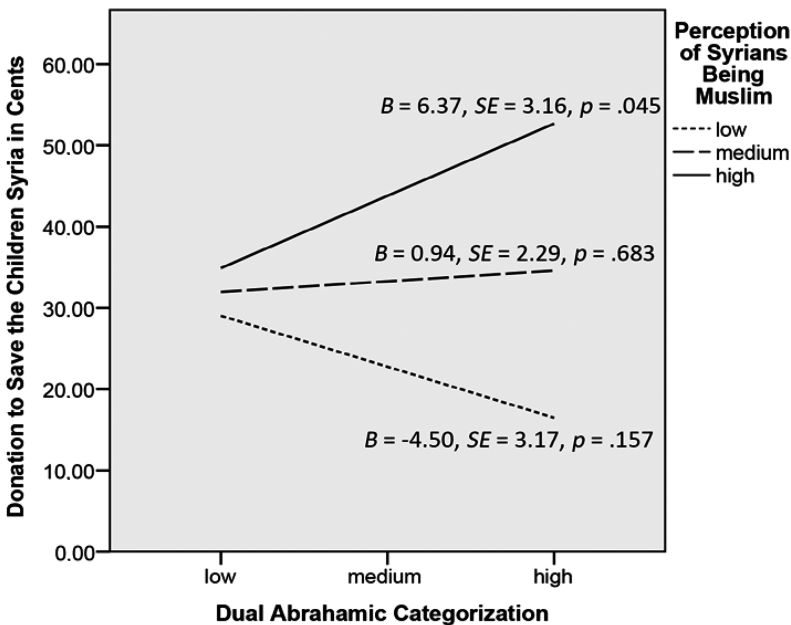


FIGURE 2 Simple slopes for mean donations toward Save the Children Syria regressed on interaction between dual Abrahamic categorization and perception of Syrians being Muslims in Study 1.

donation that was mediated by dual Abrahamic categorization *only* when participants perceived Syrians as predominantly being Muslim, $B = -2.70$, $SE = 1.59$, 95% CI $[-6.36, -.04]$, but not when this perception was moderate, $B = -.40$, $SE = 1.06$, 95% CI $[-2.64, 1.65]$, or low, $B = 1.90$, $SE = 1.34$, 95% CI $[-.25, 5.16]$.

Because our moderated mediational model was based on cross-sectional data, it was important also to test the most plausible alternative model, namely, a model in which dual Abrahamic categorization is the predictor and religious fundamentalism the mediating variable. In this model, dual Abrahamic categorization predicted religious fundamentalism only weakly in the first regression, $\beta = -.19$, $SE = .05$, $p < .001$, $F(2, 176) = 207.37$, $p < .001$, $R^2 = .70$, whereas the control variable religious identification emerged as main predictor, $\beta = .76$, $SE = .04$, $p < .001$. Crucially, in the moderated regression part, $F(5, 173) = 2.59$, $p = .028$, $R^2 = .07$, the interaction term between religious fundamentalism and percentage of Syrians perceived to be Muslims ($\beta = -.07$, $SE = .08$, $p = .696$) as well as all remaining predictors ($.118 < ps < .711$) were insignificant giving support of our hypothesized model in favor of this alternative model.

STUDY 2

Material and Methods

Participants

Because parts of the analyses involved multigroup structural equation modeling, we aimed at recruiting between 100 and 150 participants per group as has been suggested as minimum sample size (see Wang & Wang, 2012). In total, 288 participants from Germany (141 Christians and 147 Muslims) were recruited through advertisement on online social networks and webpages relevant to our study on “interreligious issues,” satisfying this sample size criterion in both groups. The majority of participants consisted of young adults ($M_{age} = 24.27$, $SD_{age} = 7.41$) and were male (63.9%).

Procedure and Measures

As part of the double-randomized experimental design, participants consecutively went through a religious fundamentalism manipulation and a categorization manipulation:

Religious fundamentalism manipulation. In the first part of the experiment, we used an order-manipulation of religious fundamentalism akin to Jost and Kay (2005) to alter the salience of religious fundamentalism. This type of manipulation can be used to activate mental constructs, increasing their accessibility (Schwartz, Bless, Wänke, & Winkielman, 2003), with subsequent effects on causally related constructs. Specifically, participants were assigned to a religious fundamentalism *protrait*, *contrait*, or *control* group. In the *protrait* condition, participants indicated their agreement with five items³ from the scale used in Study 1, for which higher agreement represents more religious fundamentalism (e.g., “The fundamentals of

³Two items of the religious fundamentalism scale that dealt with theologically variant constructs such as Satan were excluded.

God's religion should never be tampered with, or compromised with others' beliefs.") In the *contrait* condition, participants indicated their agreement with five reversed items from the same scale, for which agreement represents less religious fundamentalism (e.g., "All of the religions in the world have flaws and wrong teachings. There is no perfectly true, right religion.") In the *control* condition, no items were presented. Many competing theories have attempted to explain how such salience manipulations affect behavior, and uncertainty about the underlying process remains, where "one of the most critical is the question of how to predict what type of effect will emerge from any single priming event" (Loersch & Payne, 2011, p. 235). Indeed, it is not unusual that the same manipulations have different, sometimes opposing, effects (see Bargh, 2006, for a review). Therefore, this control group was crucial to determine whether respondents would assimilate to the items presented (e.g., by showing *less* endorsement of a dual Abrahamic categorization when primed with protrait fundamentalism items) or contrast to the items (e.g., by showing *more* endorsement of a dual Abrahamic categorization when primed with contrait religious fundamentalism items).

In each condition, participants were then asked to indicate their agreement with the dual Abrahamic categorization measure ($\alpha = .86$) from Study 1 and to complete a Tajfel-like resource allocation task adopted from Sidanius, Haley, Molina, and Pratto (2007).⁴ This task tested the degree to which they maximized relative difference between the ingroup and the outgroup, even at the expense of *absolute* ingroup gains. That is, was maintaining a relative bias that benefitted the ingroup over the outgroup so important for participants that they would even pay for it by accepting lower absolute gains? Specifically, participants had to choose one of seven alternative ways to distribute an unspecified sum of money between Christian and Islamic social organizations for the elderly. Here, a value of 1 (i.e., "190 000€ for [in-group: either Christian or Muslim] organizations and 250 000€ for [out-group: either Christian or Muslim] organizations") represents a preference for absolute ingroup gain, whereas 4 (i.e., "130 000€ for [in-group] and 130 000€ for [out-group] organizations") represents equal distribution between both groups, and a value of 7 (i.e., "70 000€ for [in-group] organizations and 10 000€ for [out-group] organizations") represents maximum ingroup gain *relative* to the outgroup. In other words, the higher individuals scored on this measure, the more they prioritized giving their group more money relative to the outgroup, even when this meant that their group would receive less money in absolute terms.

Categorization Manipulation

Next, individuals were once again randomly assigned to one of three categorization conditions, namely, a separate groups condition, a dual Abrahamic group condition, or a control condition:

- In the *separate groups* condition, respondents first read a text emphasizing theological *differences*, presented on three separate pages, which participants had to click through to ensure that they actually read and not simply skipped the text:

When one reads both the Bible and the Qur'an, one realizes that Islam and Christianity are two very different religions. In Christianity, Jesus is not only the son of God, but God himself. This is not the case in Islam where Jesus is just one of many prophets. In Islam, the last Prophet is Mo-

⁴Participants also responded to a stereotypes and emotions measure, which we chose not to elaborate on because we were primarily interested in behavioral aspects of intergroup bias.

ammed, who is not even part of Christianity. Also in terms of celebrations and traditions, Christians and Muslims are very different. While Christians celebrate the birth of Jesus, Muslims celebrate the feast of sacrifice during the Haddsch. Concluding, one can say that Islam and Christianity are very different religious groups, because Muslims and Christians believe in different things.

After reading the text, participants in this group were asked to categorize themselves as Christian, Muslim, or Atheist.

- In the *dual Abrahamic group condition*, individuals first read a text, again divided on three pages, describing theological *commonalities* that make both Islam and Christianity being Abrahamic religions:

Many Christians and Muslims have forgotten the commonalities between their religions. For instance, both Islam and Christianity refer to the common progenitor Abraham and to the fact that he only believed in one god. This god, Christians and Muslims still believe in today. Also the Qur'an and Bible have many commonalities. In both books, Adam is described as the first human who had to flee from paradise. Moreover, figures such as Jesus, Moses, Noah, Ismael, Jakob, David and Jonah play important roles in both religions. Due to these various commonalities, both religions belong to the group of Abrahamic religions.

After reading the text, participants were asked to categorize themselves as Abrahamic-Christian, Abrahamic-Muslim, or Atheist.

- In the *control condition*, participants neither read a text nor were asked to categorize themselves.

Following each experimental condition, respondents completed a second resource allocation task equal to the one described earlier, with the difference that the target groups this time constituted Christian/Muslim youth clubs. In addition, they were asked to rate their feelings towards the Abrahamic outgroup (i.e., Muslims or Christians) and toward a range of non-Abrahamic groups (i.e., Hindus, Buddhists, Atheists, and Scientologists). Here, to reduce response variations due to cultural differences between the study groups, feelings were measured on a low level of abstraction (see Mesquita & Frijda, 1992) using a feeling thermometer adopted from Verkuyten (2007). Specifically, participants were asked to rate their feelings towards each group, with 0 representing very cold or negative feelings and 100 representing very warm or positive feelings. Of importance, for both the resource distribution task and the feeling thermometer, the ingroups and outgroups simply were termed Muslims or Christians in the control and separate group condition, whereas they were explicitly named Abrahamic-Muslims and Abrahamic-Christians in the dual Abrahamic group condition to underline their fellow group membership. At the end of the study, participants answered demographical questions regarding their age, gender, and religious affiliation.

Results

The Causal Effect of Manipulating the Saliency of Religious Fundamentalism on Dual Abrahamic Categorization

Testing the first causal leg of our mediational model, a 3 (religious fundamentalism saliency condition: Contrast, Protrait, Control) \times 2 (religious group: Muslims, Christians) analysis of

variance with dual Abrahamic categorization as dependent variable and age and gender as covariates indicated a significant main effect of the saliency manipulation, $F(2, 280) = 5.88$, $p = .003$, $\eta_p^2 = .04$; a significant effect of the religious group variable with Muslims showing generally higher degrees of dual Abrahamic categorization, $F(1, 280) = 25.93$, $p < .001$, $\eta_p^2 = .09$; and a significant interaction between the saliency manipulation and religious group, $F(2, 280) = 4.45$, $p = .012$, $\eta_p^2 = .03$.

As predicted, the experimental manipulations of religious fundamentalism caused congruent changes in dual Abrahamic categorization. An inspection of the error bars in Figure 3 suggested that, due to a decrease in the salience of religious fundamentalism, participants in the protrait condition endorsed dual Abrahamic categorization to a greater extent ($M = 4.54$, $SE = .14$) than in the contrait condition ($M = 3.90$, $SE = .14$, $p = .001$) regardless of their religious denomination. However, for whatever reasons, the baseline religious fundamentalism differed between the two religious groups as indicated by the agreement with dual Abrahamic cate-

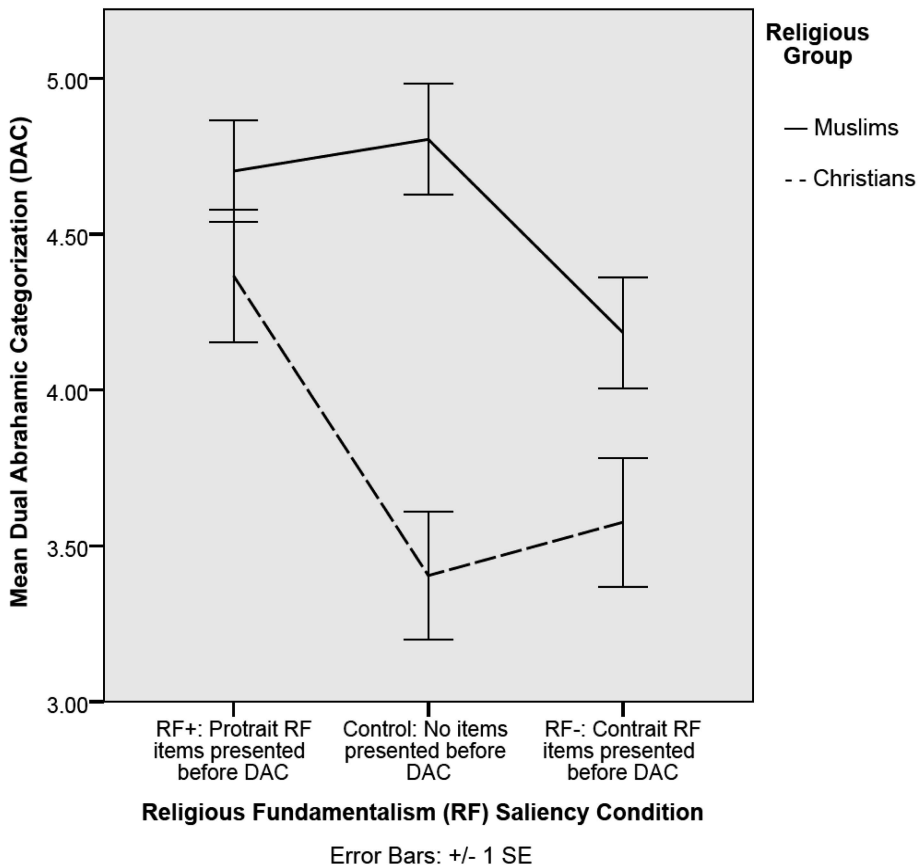


FIGURE 3 Effects of religious fundamentalism (RF) saliency manipulation on dual Abrahamic Categorization (DAC) in Study 2 among Muslims and Christians.

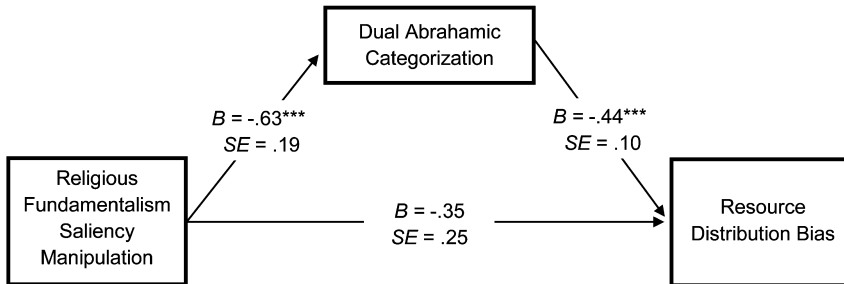


FIGURE 4 Estimated multigroup structural equation model among Muslims and Christians in Study 2 is displayed. *Note.* Structural weights are constrained. *** $p < .001$.

rization among participants in the control condition who had not answered to any religious fundamentalism items. Consequently, we constructed a new experimental dummy variable with 0 constituting antifundamentalism (i.e., the protrait condition) and 1 constituting pro-fundamentalism (i.e., the contrait condition) that consistently resulted in lower dual Abrahamic categorization in both groups.

As no direct effects of the experimental conditions were observed for the first distribution task, $t(185) = .34$, $p = .737$, multigroup path analyses in AMOS 21 was used to test a model with the manifest experimental dummy variable as predictor, the manifest dual Abrahamic categorization variable as mediator and the manifest resource distribution task as dependent variable. A version of the model with constrained structural weights obtained a very close fit to the data, $\chi^2(4, 187) = 1.36$, $p = .851$, root mean square error of approximation $< .001$, 90% CI [$<.001$, .061], PCLOSE: $p = .928$, comparative fit index = 1.00, Tucker-Lewis index = 1.15. Of importance and further underlining the universality of the relations across the samples, no significant model-fit differences were observed between the constrained and an unconstrained version of the model, $\Delta\chi^2 < 0.00$, $\Delta df = 1$, $p = .999$. Hence, as the relationships tested in the model were invariant across the religious groups, the constrained model was estimated. As displayed in Figure 4, *across* the groups, the religious fundamentalism saliency condition negatively predicted dual Abrahamic categorization ($B = -.63$, $SE = .19$; Muslims: $\beta = -.22$, $p < .001$; Christians: $\beta = -.26$, $p < .001$), which in turn negatively related to bias in the first resource distribution task ($B = -.44$, $SE = .10$; Muslims: $\beta = -.33$, $p < .001$; Christians: $\beta = -.33$, $p < .001$). Bootstrapping with 5,000 bootstrap resamples showed that the resulting indirect effect was significant, $B = .52$, $SE = .03$, $\beta = .09$, $p < .001$, 95% CI [.033, .158].

The Effect of Dual Abrahamic Categorization on Resource Distribution Bias

Inspection of the error bars in Figure 5 showed that the separate group condition increased group bias in the second resource distribution task compared to the control group, whereas the dual Abrahamic categorization condition reduced bias, such that the separate and dual Abrahamic group conditions differed significantly from each other. Consequently, we conducted a 2 (experimental condition: separate group, dual Abrahamic group) \times 2 (religious group:

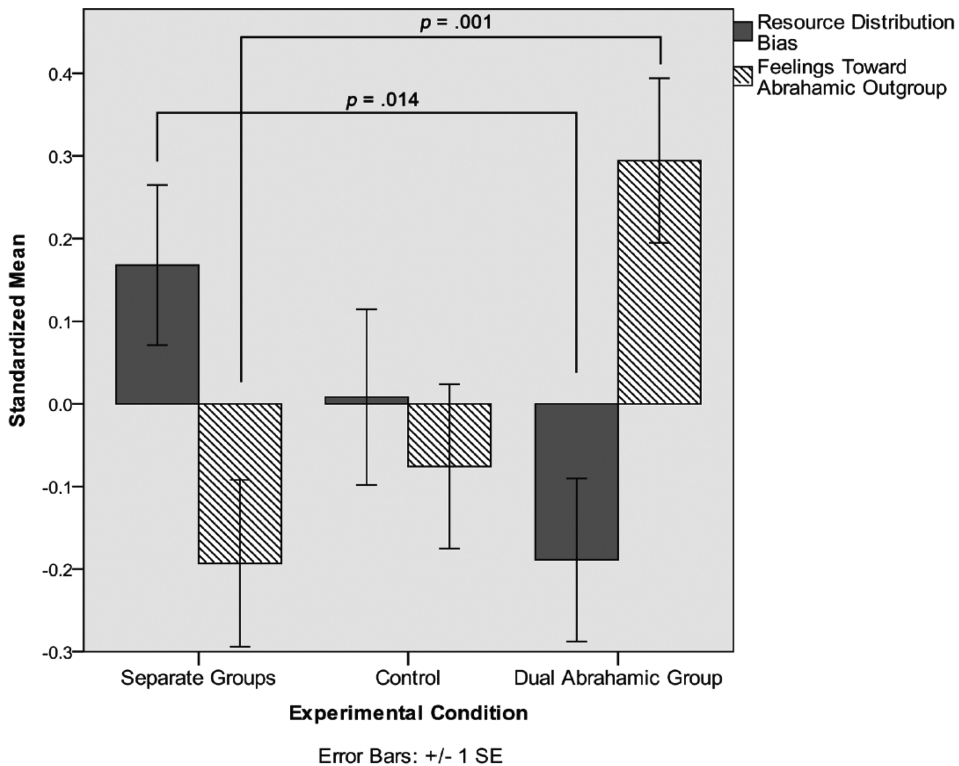


FIGURE 5 Difference between categorization conditions in Study 2 are displayed. Significance estimates are based on multivariate analysis of variance results.

Muslims, Christians) multivariate analysis of variance (MANOVA) with all bias measures as dependent variables. We found two main effects across the bias variables:

1. Muslims generally displayed less bias toward the Abrahamic outgroup than did Christians, $F(6, 175) = 16.35$, $p < .001$, $\eta_p^2 = .35$.
2. As predicted, participants who recategorized themselves into a dual Abrahamic group showed less bias, $F(6, 175) = 2.37$, $p = .031$, $\eta_p^2 = .08$.

An insignificant interaction term between religious group and the recategorization manipulation, $F(6, 175) = .81$, $p = .564$, demonstrated that this pattern did not differ across the two religious groups, and an additional MANOVA showed that the recategorization manipulation did no interact with the preceding religious fundamentalism manipulation, $F(6, 109) = 1.28$, $p = .273$.

Specifically, the between-subjects effects showed that, after recategorization into a *dual* Abrahamic group, participants showed less resource distribution bias on the second resource distribution tasks, $M = 4.01$, $SE = .17$, than those in the *separate* group condition, $M = 4.58$, $SE = .16$, $F(1, 180) = 6.11$, $p = .014$, $\eta_p^2 = .03$. Moreover, they also showed more

positive feelings towards the Abrahamic outgroup, $M = 64.61$, $SE = 2.73$, than their peers in the separate group condition, $M = 51.88$, $SE = 2.63$, $F(1, 180) = 11.26$, $p = .001$, $\eta_p^2 = .06$. Last, again demonstrating the limiting factor that dual Abrahamic categorization only reduces bias toward Abrahamic outgroups, no other significant effects were observed for feelings towards the remaining non-Abrahamic outgroups ($.177 < ps < .607$).

GENERAL DISCUSSION

Two studies, applying different methodological approaches and using samples from different cultures and cross-national and intranational contexts, showed that religious fundamentalism leads Christian and Muslim believers alike to reject dual group categorization despite of obvious common theological grounds. This is unfortunate, because dual Abrahamic categorization, in turn and in accord with previous research on common and dual group categorizations (e.g., Dovidio et al., 2007; Dovidio, Saguy, & Shnabel, 2009; Kunst, Thomsen, & Sam, 2014), consistently led to less bias toward the Abrahamic outgroup in terms of real monetary donations to outgroup children desperately in need, resource distribution scenarios and intergroup feelings.

Yet, although dual Abrahamic categorization emerges here as a promising construct for Christian–Muslim relations, two caveats have to be mentioned: First and as predicted, dual Abrahamic categorization had no effect on group bias among Atheists for whom dual Abrahamic categorization should be irrelevant for their self-concepts and simply represents *knowledge* about Abrahamic groups. Second, although dual categorization led to less group bias among believers as predicted, it did so only when the outgroup was seen as part of the relevant Abrahamic group. Hence, dual Abrahamic categorization seems to leave general religious tolerance unaffected.

Although religious fundamentalism has been associated with conflicts between religious groups in many parts of the world (Emerson & Hartman, 2006), little has been known about the underlying psychological mechanisms of this relationship. The present article suggests that one central reason for why religious fundamentalism is particularly destructive for interreligious relations is that it literally divides religious groups, making believers think less in terms of theological commonalities and more in terms of theological differences, reinforcing social psychological divisions à la “us versus them.”

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