

Kanol, Eylem

**Article — Published Version**

## Explaining Unfavorable Attitudes Toward Religious Out-Groups Among Three Major Religions

Journal for the Scientific Study of Religion

**Provided in Cooperation with:**

WZB Berlin Social Science Center

*Suggested Citation:* Kanol, Eylem (2021) : Explaining Unfavorable Attitudes Toward Religious Out-Groups Among Three Major Religions, Journal for the Scientific Study of Religion, ISSN 1468-5906, Wiley, Oxford, Vol. 60, Iss. 3, pp. 590-610, <https://doi.org/10.1111/jssr.12725>

This Version is available at:

<https://hdl.handle.net/10419/234831>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<http://creativecommons.org/licenses/by/4.0/>

# Explaining Unfavorable Attitudes Toward Religious Out-Groups Among Three Major Religions

EYLEM KANOL   
WZB Berlin Social Science Center

*Considering intensifying sectarian conflicts in recent years and increasing interreligious violence around the globe, there is a need to further our understanding of negative attitudes toward religious out-groups. To investigate the driving factors behind these negative attitudes among members of the three major Abrahamic religions, I employ original data derived from a survey fielded among 10,046 respondents in eight countries (Cyprus, Germany, Israel, Kenya, Lebanon, Palestine, Turkey, and the USA). A rich body of literature documents the relationship between religious fundamentalism and prejudice. Other scholars have investigated out-group hostility using an intergroup relations perspective, focusing on contact theory, and more recently, on discrimination. While controlling for other relevant factors such as demographic and socioeconomic variables, I investigate the role of religiosity and intergroup relations in explaining unfavorable interreligious attitudes. The results suggest that unfavorable attitudes toward religious out-groups are most strongly associated with religious fundamentalism. This finding is robust across religious groups.*

**Keywords:** fundamentalism, out-group hostility, Islam, Christianity, Judaism, attitudes.

## INTRODUCTION

In recent years, we have witnessed a global rise in religious intolerance and an increase in hostile actions motivated by religion (Pew Research Center 2017). Many of these religiously motivated conflicts involve confrontations among Muslims, and confrontations between Muslims and non-Muslims. Examples for the intrareligious conflicts include the ongoing civil wars in Syria, Yemen, or Libya, where members of different Muslim denominations (e.g., Alevites, Shiites, and Sunnis) combat each other and attacks by militant Islamist groups (e.g., al-Qaeda, Isis) target Muslim civilians. Examples for interreligious conflicts include outbursts of violence between Christians and Muslims in Sub-Saharan Africa, or the intermittent Islamist terror attacks targeting purported unbelievers in the West. The list of conflicts today involving religion is long and not limited to the few examples listed here. As societies experience increasing religious diversity through migration and globalization, it is highly likely that tensions between religious groups will continue to rise (Ciftci, Nawaz, and Sydiq 2016). As a recent study of diversity in British society finds, religious prejudice has overtaken other forms of intolerance, such as racism or xenophobia, and is considered to be the “‘final frontier’ for diversity, a place where individuals are willing to express negative attitudes” (Hargreaves et al. 2020:10). Given this intensification of religion-related prejudice and conflicts around the globe, there is a need to further our understanding of the drivers of religious intolerance. However, there is a considerable lack of comparative evidence regarding the determinants of religious prejudice.

*Correspondence should be addressed to Eylem Kanol, WZB Berlin Social Science Center, Reichpietschufer 50, D-10785, Berlin, Germany. E-Mail: eylem.kanol@wzb.eu*

*Journal for the Scientific Study of Religion* (2021) 60(3):590–610

© 2021 The Authors. *Journal for the Scientific Study of Religion* published by Wiley Periodicals LLC on behalf of Society for the Scientific Study of Religion

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

One influential line of literature, primarily based on Christianity, has focused on the role of religious factors in shaping prejudiced attitudes. This scholarship has explored different dimensions of Christian religiosity, and the findings suggest that a particular dimension of religiosity, namely, religious fundamentalism, is most strongly and robustly associated with out-group hostility (Hunsberger and Jackson 2005). Recently, it has been shown that this relationship is also true for Muslims living in the West (Koopmans 2015). However, the available empirical evidence consists predominantly of samples from Western countries. A few earlier studies have observed whether these findings generalize to other cultural contexts, albeit with very small sample sizes (e.g., Hunsberger 1996). To my knowledge, no study has thus compared attitudes toward religious out-groups across the three major Abrahamic religions both within and outside the Western context.

Another large body of literature focuses on theories concerning intergroup relations and relates these to prejudiced attitudes. Harmonious intergroup behavior, particularly in the form of close and pleasant intergroup contact, can contribute to favorable intergroup attitudes (Paluck, Green, and Green 2019; Pettigrew and Tropp 2000; Pettigrew et al. 2011). On the other hand, problematic intergroup relations, for instance, in the form of experienced or perceived discrimination, can have a significant negative impact on intergroup attitudes (Branscombe, Schmitt, and Harvey 1999; Craig and Richeson 2012; Dion 2002; Kanas, Scheepers, and Sterkens 2015).

In relevant investigations, the most frequently studied targets of prejudice are ethnic, racial, and sexual out-groups; by contrast, much less attention has been given to religious groups as both sources and targets of prejudiced attitudes. For instance, out of the numerous intergroup contact studies reviewed by Paluck, Green, and Green (2019), only three examined religious prejudice. Similarly, a review by Hunsberger and Jackson (2005) contains only three studies that focus on the relationship between religious fundamentalism and attitudes toward religious out-groups.

In the following, I review the relevant theoretical literature as well as the existing empirical evidence and propose hypotheses linking unfavorable attitudes toward religious out-groups to dimensions of religiosity and variables concerning intergroup relations. To test these hypotheses, I analyze original survey data on more than 10,000 respondents from eight countries (Cyprus, Germany, Israel, Kenya, Lebanon, Palestine, Turkey, and the USA), representing the three major Abrahamic religions (Christians, Jews, and Muslims). To estimate the effects of the explanatory variables on unfavorable attitudes toward members of religious out-groups (in this case, atheists, Christians, Jews, and Muslims), I run a series of ordinary least squares (OLS) regression models. The results suggest that religious fundamentalism is the strongest predictor of unfavorable attitudes toward religious out-groups. This finding is robust across religious groups. Having more contact with members of religious out-groups is likely to alleviate negative views, but the effect sizes are comparably much smaller. Experiences of discrimination, on the other hand, are only relevant where respondents are a minority, but here, too, the coefficients are quite small.

## THEORETICAL FRAMEWORK

In the following, I discuss in detail the existing literature concerning religious and intergroup explanations for unfavorable attitudes toward religious out-groups, as well as the available empirical evidence.

### Religion-Based Explanations

As Allport (1954:444) pointed out, the “role of religion is paradoxical.” On the one hand, religions preach tolerance, love, and brotherhood across religions. Such messages can be found in the holy scriptures of all Abrahamic religions. For example, the Christian parable of the Good Samaritan teaches people to be helpful and merciful toward those in need, regardless of their race

or religion (*Luke* 10:25–37). In Hebrew scriptures, prophecies foretell times when the peoples of the world will peacefully live side by side, each following their own religion (*Micah* 4:3–5). Similarly, in Islam, there are Koranic verses that promote religious tolerance, e.g., “for you is your religion, and for me is my religion” (*Surah Al-Kafirun* 109:6). At the same time, hostility, violence, and conflict have characterized the relationships between denominations and religions down throughout the years (Coward 1986:419).

Just as we can find passages encouraging peace and tolerance, there are also plenty of messages in religious scriptures that advocate violence and hostility. For instance, in the Christian Old Testament and in the Jewish Torah, it is stated that: “If a man or woman living among you [...] is found doing evil in the eyes of the Lord your God in violation of his covenant, and contrary to my command has worshiped other gods, [...] take the man or woman who has done this evil deed to your city gate and stone that person to death” (*Book of Deuteronomy* verse 17:2–5). A similar quote can be found in the Koran: “Indeed, the penalty for those who wage war against Allah and His Messenger and strive upon earth [to cause] corruption is none but that they be killed or crucified” (*Surah Mai’dah* 5:33).

This paradoxical role is not only evident in the religious scriptures, but it is also reflected in research findings. Although some scholars have documented a positive effect of religiosity on prosocial attitudes and behavior (Monsma 2007; Saroglou et al. 2005), others have shown that religious individuals tend to share or cooperate more than others only if the recipient is a member of their religious in-group (Shariff et al. 2016). Batson, Schoenrade, and Ventis (1993:296) reviewed the earlier body of research on the relationship between religion and prejudice and found that the evidence overwhelmingly documented a positive association between Christian religiosity and out-group hostility. More recently, experimental studies from the United States have also illustrated this association: individuals who were primed with Christian religious concepts displayed more negative views of racial minorities (Johnson, Rowatt, and LaBouff 2010). The same authors subsequently replicated their research design using various religious out-groups and demonstrated that religious priming not only increases racial prejudice, but also intensifies negative attitudes of Christian respondents toward atheists and Muslims (Johnson, Rowatt, and Labouff 2012).

The majority of the studies discussed here were conducted in Western countries, and it is safe to assume that the vast majority of respondents were Christians. In this study, I investigate if this documented relationship between Christian religiosity and prejudice applies to other major religious groups, particularly to Muslims both within and outside the Western context. In accordance with the literature, I thus test the following hypothesis:

H1: Religious observance is positively associated with unfavorable attitudes toward religious out-groups.

Focusing on the link between religiosity and problematic intergroup attitudes, scholars have puzzled over the question: What is it about religion that makes people prejudiced? The pioneering work by Allport and Ross (1967) was the first to address this question. They attempted to disentangle different dimensions or facets of religion and their associations with hostile attitudes. The authors contended that the ways people experience and express their religiosity can be divided into two distinct categories—intrinsic and extrinsic religiosity—and that these orientations present disparate relationships with prejudice. Intrinsic religiosity, an internally motivated and more sincere form of faith, is associated with lower levels of prejudice, whereas extrinsic religiosity, an externally motivated and conformist form of faith, predicts higher levels of prejudice. A third dimension, religious quest, was proposed by Batson and Schoenrade (1991a, 1991b). According to the authors, those with a quest orientation have a more questioning and open approach to religion and are more tolerant. However, the research following this study has not always confirmed the hypothesized link between these orientations and intolerance. Due to validity issues

and inconclusive findings produced by these measures, they were later dismissed (Altemeyer 1996, Hunsberger and Jackson 2005, Küpper and Zick 2010).

Finally, another religious orientation, religious fundamentalism, has been linked with religious prejudice and intolerance (Altemeyer and Hunsberger 1992). Religious fundamentalists possess certain characteristics that distinguish them from their mainstream counterparts. First, religious fundamentalism is defined as a defensive reaction to modernization and secularization (Almond, Sivan, and Appleby 1995, Emerson and Hartman 2006). Fundamentalists believe that secularism forces religion to the margins of society and brings about moral decay (Gregg 2014:8). In this perspective, God's rule is favored over humanity's rule and religion is understood as the expression of a divine order (Tibi 1998:20). A second characteristic associated with fundamentalism is strict literalism and a belief in the inerrancy of scripture. According to Altemeyer and Hunsberger (1992:188), an essential component of fundamentalist attitudes is the belief "that there is one set of religious teachings that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity; [...] and] that this truth must be followed today according to the fundamental, unchangeable practices of the past." Other characteristics of religious fundamentalists include their adherence to a dualistic worldview and to messianism (Emerson and Hartman 2006:134). Juergensmeyer (2003) highlights how fundamentalist activists employ religious images of divine struggles and how they draw on metaphysical conflicts between good and evil to frame contemporary issues. Current-day events, in which religious values are in decline, are interpreted as the work of evil forces and as signs that the messianic end is near. These forces of evil include, among others, those who are accused of corrupting the religion. Accordingly, participation in the final battle against evil forces is necessary for good to triumph and for the eternal salvation of these apocalyptic warriors (Gregg 2014:11–13).

So far, studies on religious fundamentalism have delivered the most robust and conclusive findings. An extensive body of literature focusing primarily on Christianity has emphasized a strong relationship between religious fundamentalism and prejudice toward a wide variety of groups, including racial and ethnic minorities, women, homosexuals, Jews, Muslims, and immigrants (Altemeyer 2003, Altemeyer and Hunsberger 1992, Hunsberger 1996, Hunsberger and Jackson 2005, Kirkpatrick 1993, Koopmans 2015, Küpper and Zick 2010, Laythe et al. 2002). This association was demonstrated across various countries using representative samples. However, the notion of religious fundamentalism was developed from within a Christian context, and accordingly, very few studies have so far investigated the association between fundamentalism and prejudice for religious traditions outside of Christianity (Hunsberger and Jackson 2005, Koopmans 2015, Pratt 2018). Most of them do not involve any cross-cultural or interreligious comparisons. Notable exceptions include a study by Hunsberger (1996), who compared hostile attitudes toward homosexuals among Canadian Muslims, Hindus and Jews with Canadian Christians in Toronto. According to his findings, religious fundamentalists across all groups tended to be more hostile toward homosexuals. However, the study was quite limited in terms of the sample size of the religious groups. Using a significantly larger sample of around 6,000 respondents, Koopmans (2015) provided observational evidence from Western Europe by comparing native Christians with Sunni and Alevite Muslims of Turkish and Moroccan origin. Multivariate analysis suggests that religious fundamentalism was the strongest predictor of out-group hostility for both religious groups, even after controlling for various background variables. Outside of the Western context, comparative evidence on this relationship is even scarcer. Hunsberger, Owusu, and Duck (1999) attempted to address the lack of cross-cultural research on this topic by comparing Ghanaian and Canadian samples as well as Muslim and Christian respondents within the Ghanaian sample. Results revealed a positive link between religious fundamentalism and hostile attitudes toward homosexuals. But yet again, these findings were also based on a small number of respondents. This discussion leads to the following hypothesis:

H2a: Religious fundamentalism is positively associated with unfavorable attitudes toward religious out-groups.

Another central finding from previous studies on Christian fundamentalism is that the association between religiosity and prejudice diminishes or even disappears among respondents when controlling for religious fundamentalism (Altemeyer and Hunsberger 1992). Outside of Christianity, Koopmans (2015) shows that this observation is only partially true for Muslims within the Western context. Including religious fundamentalism measures in the regression model considerably curtails the effect of religiosity for both groups. However, although the effect is no longer significant among Christians, it still remains significant among Muslims (albeit with a very small effect size). Thus, I expect that:

H2b: Once religious fundamentalism is controlled for, associations between religious observance and unfavorable attitudes toward religious out-groups diminishes.

## Intergroup Relations

Intergroup relations “refers to the way in which people in groups perceive, think about, feel about, and act toward people in other groups” (Hogg 2003:479). Sherif (1966:12) contends that “whenever individuals belonging to one group interact, collectively or individually, with another group or its members in terms of their group identifications we have an instance of intergroup behavior.” Harmonious intergroup behavior, for instance in the form of close and pleasant intergroup contact, can contribute to favorable intergroup attitudes, whereas problematic intergroup relations, for instance in the form of discrimination, can have a negative impact on intergroup attitudes. In his seminal work, Allport (1954) put forward the assertion that, under certain conditions, interpersonal contact could help reduce unfavorable views against out-group members. According to Allport’s (1954:281) theoretical considerations, prejudice: “may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom, or local atmosphere), and provided it is of a sort that leads to the perception of common interests and common humanity between members of the two groups.”

Since then, the so-called “contact hypothesis” has been rigorously scrutinized by a range of scholars. Meta-analyses of the staggering volume of empirical research dedicated to testing this hypothesis have repeatedly revealed the prejudice-reducing effect of intergroup contact across various social groups in a variety of settings and locations around the world (Paluck, Green, and Green 2019; Pettigrew and Tropp 2006; Pettigrew et al. 2011). To understand how intergroup contact works to diminish prejudice, scholars have proposed a number of different mechanisms (Pettigrew and Tropp 2008). First, as Allport initially emphasized, knowledge about the out-group acquired through close contact can act as a key mediator. By coming into contact and interacting with one another, the parties can learn more about the out-group and deconstruct their preconceptions. Second, experiences of contact can lead to lower levels of perceived threat and anxiety about the out-group. Finally, intergroup contact and “especially close, cross-group friendship, may enable one to take the perspective of out-group members and empathize with their concerns” (Pettigrew and Tropp 2008:923). As Pettigrew et al. (2011:276) argue “friendship invokes many of the optimal conditions for positive contact effects: it typically involves cooperation and common goals as well as repeated equal-status contact over an extended period and across varied settings.” Reviewing a total of 135 studies, Davies et al. (2011:332) conclude that there is sufficient experimental and longitudinal evidence to be confident of a causal relationship whereby cross-group friendship improves attitudes. The extent to which contact diminishes hostile attitudes depends to some degree on the target of prejudice (Paluck, Green, and Green 2019, Pettigrew and Tropp



2006). So far, scholarship on contact hypothesis has primarily addressed minority-majority relationships with a particular focus on ethnic and racial groups as targets of prejudice. Recently, more attention is being paid to the relationship between interreligious contact and negative attitudes toward religious out-groups (Kanas, Scheepers, and Sterkens, 2015, 2017, Scacco and Warren 2018). For instance, Kanas, Scheepers, and Sterkens (2015) examine the relationship between interreligious contact and negative attitudes toward the religious out-group among Christians and Muslims in Indonesia. They find evidence that frequent contact with religious out-groups significantly reduces prejudice toward them. Based on the above discussion, I generate the following hypothesis:

H3: Individuals with more religious out-group contact are less likely to express unfavorable attitudes toward religious out-groups.

Another prominent intergroup relations perspective focuses on the role of discrimination. Discriminatory behavior or unfair treatment from an out-group may lead group members to heighten their in-group identification, but it can also provoke out-group derogation (Branscombe, Schmitt, and Harvey 1999, Hewstone, Rubin, and Willis 2002, Tajfel and Turner 1986). Being a target of discrimination or prejudice can be a frustrating experience and can cause victims to feel anger and resentment toward the perpetrating group (Dion 2002). Similarly, discrimination against a religious group can cause that group to form grievances. These grievances are likely to contribute to the emergence of interreligious hostilities and lead to conflict situations between religious groups (Fox 2000). Few studies have so far empirically examined the role of discrimination and intergroup relations among different religious groups. Unlike the literature on contact hypothesis, which links intergroup contact with positive attitudes toward out-groups, longitudinal, experimental, and even observational evidence on the role of discrimination is scarce. A dated but nevertheless relevant study focusing on interreligious relations conducted among Jewish high-school students in the United States in the 1960s, found that Catholics were perceived as the most discriminatory group toward Jews (Bannan 1965). Accordingly, they received the most negative evaluations from the Jewish participants. Based on cross-sectional survey data from Muslim and Christian respondents in Indonesia, Kanas, Scheepers, and Sterkens (2015) have shown that perceived group discrimination increases negative attitudes toward the religious out-group. This discussion leads to the following hypothesis:

H4a: Individuals who report higher levels of perceived discrimination are more likely to express unfavorable attitudes toward religious out-groups.

Earlier research on interracial attitudes from the United States suggests that perceptions of discrimination are often a defining feature of the interracial relationship among members of racial minority groups, while they are generally unrelated to interracial attitudes among members of the racial majority group (Tropp 2007:71). Based on a content analysis of essays written by White and Black Americans on intergroup attitudes, Monteith and Spicer (2000) found that negative opinions held by Black participants were primarily defined by their reactions to perceived prejudice and discrimination. Similarly, ethnic minorities who report discrimination are more likely to express hostile attitudes toward majority out-group members (Jasinskaja-Lahti, Liebkind, and Solheim 2009). Around the globe, religious minorities face government restrictions and harassment and are confronted with increasing levels of social hostilities (Fox 2016). Both anti-Muslim discrimination and anti-Semitism in Western countries are very well documented (Anti-Defamation 2018, Bergmann 2008, Ciftci 2012, European Monitoring Centre on Racism and Xenophobia 2006, Kaplan 2006). Similarly, there is convincing evidence of anti-Christian discrimination in the Middle East (Akyol 2017; Chapman 2012:121–39, Fox 2016). Confronted with these intergroup tensions, religious groups living as minorities are more likely to make in-group versus out-group

Table 1: Distribution of the sample across countries and religious groups

Country	<i>N</i>	Christian	Muslim	Jewish
Cyprus	1,357	684	673	-
Germany	1,281	765	516	-
Israel	1,212	64	343	805
Kenya	1,197	600	597	-
Lebanon	1,190	491	699	-
Palestine	843	32	811	-
Turkey	1,546	40	1506	-
USA	1,420	520	600	300
Total	10,046	3,196	5,745	1,105

biases more salient than they might be when this group constitutes the religious majority (Victoroff, Adelman, and Matthews 2012:794). Previously, only one study has examined the effect of discrimination on interreligious attitudes (Kanas, Scheepers, and Sterkens 2015). However, contrary to the expected relationship, the authors of the study found that perceived discrimination predicted negative out-group attitudes less among members of the Christian minority than among the Muslim majority in Indonesia. Despite this finding, I derive and test a version of this hypothesis as it is stated in the theoretical and empirical literature focusing on ethnic and racial minorities:

H4b: The relationship between perceived and experienced discrimination and out-group hostility is stronger among religious minority status groups than among religious majority status groups.

DATA AND METHODS

The primary data used in this study are drawn from a survey conducted in 2016 among members of the three largest Abrahamic religious groups in eight countries across Europe, North America, the Middle East, and Africa. Respondents were assigned to the three religious groups on the basis of self-identification, i.e., no assumptions were made about people from a certain country belonging to a certain religion or even identifying with any religion at all. Respondents indicating no religious affiliation were dropped from the analysis.<sup>1</sup> Table 1 shows the distribution of the respondents across survey countries and religious groups.<sup>2</sup> The sample totals over 10,000 observations and consists of 3,196 Christian, 5,745 Muslim, and 1,105 Jewish respondents.

Dependent Variable

To measure how respondents view members of religious out-groups, they were asked to rate each group on a feeling thermometer ranging from 0 to 100 in which 0 represents the coldest, least favorable rating and 100 the warmest, most favorable rating. For the purpose of this study

<sup>1</sup>There were theoretical and methodological reasons for excluding respondents without a religious affiliation from the analysis. First of all, the primary research question concerns determinants of unfavorable attitudes toward religious out-groups across adherents of the three major Abrahamic religions. Second, the sample size was very small and would not have been suitable as a control group for meaningful comparisons.

<sup>2</sup>Detailed information on the research design, the sample, and the sampling procedures can be found in the Online Appendix S2.



Table 2: Respondents' scores on the feeling thermometer (0 = most favorable rating, 100 = most unfavorable rating)

	Mean	SD	Min	Max	N	Missing
<i>Entire sample's score for:</i>						
Atheists	72	34.0	0	100	9,330	716
Christians	42	34.2	0	100	9,417	629
Jews	60	37.5	0	100	9,361	685
Muslims	33	32.7	0	100	9,504	542
<i>Christian respondents' score for:</i>						
Atheists	68	34.5	0	100	2,997	199
Christians	18	21.4	0	100	3,062	134
Jews	53	35.6	0	100	3,008	188
Muslims	53	30.8	0	100	3,027	169
<i>Jewish respondents' score for:</i>						
Atheists	42	29.1	0	100	1,105	0
Christians	35	26.1	0	100	1,104	1
Jews	14	18.8	0	100	1,105	0
Muslims	55	28.8	0	100	1,104	1
<i>Muslim respondents' score for:</i>						
Atheists	80	30.6	0	100	5,228	517
Christians	57	33.5	0	100	5,251	494
Jews	73	32.8	0	100	5,248	497
Muslims	17	24.4	0	100	5,373	372

and to make the interpretation of the results easier, I reverse coded the survey items so that 100 indicates the coldest most unfavorable rating, whereas 0 indicates the most positive rating. Feeling thermometers are a valid tool that have been commonly and successfully used in various studies to measure interethnic and interreligious attitudes (e.g., Johnson, Rowatt, and LaBouff 2010, Martinovic and Verkuyten 2016, Nelson 2008, Schmid, Hewstone, and Ramiah 2013, Verkuyten 2007). Across the entire sample, atheists (mean score 72) and Jews (60) received on average more unfavorable ratings than Muslims (33) and Christians (42). Table 2 depicts mean ratings given to each religious group by respondents on the feeling thermometer.<sup>3</sup>

Overall, religious groups rated their own group members more warmly than members of other religious groups. Jewish respondents, for example, gave Jews the most favorable rating of 14, whereas Christian and Muslim respondents rated their in-group members at 18 and 17, respectively. Jews were viewed very negatively by Muslims (73 on average). When asked about Christians, Jews expressed favorable opinions with an average rating of 35. Atheists were rated negatively by Christians, who assigned them an average rating of 68 and they were rated very negatively by Muslims, who gave them an average rating of 80, which is the lowest average score across the groups. In contrary, Jewish respondents responded more warmly toward theists (42 on average). Both Muslim and Christian respondents were on the whole more negative toward religious out-groups, whereas Jewish respondents held more positive views of their religious out-groups. Particularly Muslim respondents expressed very unfavorable attitudes toward Jews and atheists.

<sup>3</sup>The distribution of these rating scores across religious groups can be found in the Online Appendix S1 Figure A.

## Independent Variables

Descriptive statistics of the independent and control variables for the Christian sample are shown in Online Appendix S1 Table A, for the Jewish sample in Table B, and for the Muslim sample in Table C. I calculated correlation coefficients to test whether the independent variables measure distinct phenomena (see Online Appendix S1 Figures B, C, and D for correlation matrices). The results indicate that the independent variables are in general weakly correlated. However, there are some variables that are moderately correlated. For instance, among the Christian sample, there is a moderate positive correlation between religious observance and religious fundamentalism (.45). Similarly, these variables are moderately correlated among the Muslim sample (.4). However, they are more strongly correlated among the Jewish sample (.63). To detect multicollinearity, I estimate the variance inflation factor (VIF) for each regressor in the regression model. The VIFs for the predictors are all well below the threshold value of 10.

### *Religious observance*

I used two survey items to measure respondent's religious observance. Respondents were asked how often they prayed and how often they visited a religious service in a house of worship (mosque, church, or synagogue), with the following answer categories: *several times a day*, *daily*, *weekly*, *rarely* (for visiting religious service in a house of worship: *rarely / on special occasions*, and *never*. Around 60 percent of the Christian, 37 percent of the Jewish, and 74 percent of the Muslim respondents stated that they prayed at least once a week. Around 50 percent of the Christian, 20 percent of the Jewish respondents, and 45 percent of the Muslim respondents reported that they visited a house of worship at least once a week. These two items were averaged to create the *religious observance index* with a Cronbach's  $\alpha$  of .67 for Christians, .78 for Jews, and .61 for Muslims). Christian respondents scored, on average, 2.0 points ( $SD = .8$ ), Jewish respondents 1.3 points ( $SD = 1.1$ ), and Muslim respondents 2.2 points ( $SD = 1.1$ ) on this scale.

### *Religious fundamentalism*

The following seven well-established survey items were used to measure religious fundamentalism (see, e.g., Altemeyer and Hunsberger 2004, Koopmans 2015): (1) "[Islam/Christianity/Judaism] is superior to other religions," (2) "What we are seeing in the world today is the final battle between [Islam/Christianity/Judaism] and the forces of evil," (3) "There is only one correct interpretation of the [Koran/Bible/Torah] to which every [Muslim/Christian/Jew] should stick," (4) "Those who do not strictly follow the rules prescribed in the [Koran/Bible/Torah] can no longer be called [Muslims/Christians/Jews]," (5) "There is only one perfectly true religion," (6) "It is more important to be a good person than to have the right religion," (7) "Religious leaders should play a larger role in politics." The answer categories ranged from 1, *completely agree* to 5, *completely disagree*. Responses were reverse coded, except for item (6), such that a higher number indicated a higher level of religious fundamentalism (i.e., 1, *completely disagree*, 5, *completely agree*). These seven items were averaged to create a summary scale of religious fundamentalism (*religious fundamentalism index*) with a Cronbach's  $\alpha$  of .73 for Christians, .87 for Jews, and .71 for Muslims). Christian respondents scored, on average, 2.8 points ( $SD = .8$ ), Jewish respondents 2.3 points ( $SD = .9$ ), and Muslim respondents 3.2 points ( $SD = .8$ ) on this scale. Overall, religious fundamentalist attitudes were more strongly represented among the Muslim respondents and less prevalent among Jewish respondents.

### *Religious out-group contact*

I used two items to measure contacts with religious out-groups. First, individuals were asked how many of their close friends did not belong to the same religion or denomination as them. Second, they were asked how many people in their family married people who did not belong to the same religion or denomination as them. Possible answer categories ranged from 1, one,

to 5, all. The items were averaged to generate an index of religious out-group contact (*religious out-group contact index*); Cronbach's  $\alpha$  of .55 for Christians, .67 for Jews, and .64 for Muslims). Jewish (average score of 2.0 points on the scale,  $SD = .9$ ) and Christian respondents (2.0,  $SD = .8$ ) reported higher frequency of contact with religious out-groups than Muslim respondents (1.8,  $SD = .9$ ).

### **Religious discrimination**

I operationalized religious discrimination using eight indicators. First, respondents were asked how often they experienced hostility, discrimination, or unfair treatment in the previous 12 months in the respective survey country because of their religion, with answer categories ranging from 1, never, to 4, all the time. Then, they were asked if they had experienced any hostility, discrimination, or unfair treatment in the respective survey country in one of the following six contexts: at work, looking for housing, while going out at night to restaurants/bars, etc., at school, by the police, or by public institutions, with answer categories yes and no. Finally, they were asked how often they thought members of their own religious group (Muslims, Christians, etc.) in their respective survey country experienced hostility, discrimination, or unfair treatment, with the same answer categories as in question one. To harmonize the descriptive findings across the answer categories, the items were scaled to a range from 0 to 1. Christian respondents scored, on average, .1 points ( $SD = .1$ ), Jewish respondents .2 points ( $SD = .1$ ), and Muslim respondents .2 points ( $SD = .2$ ) on this scale. For the regression analyses, all eight variables were standardized and averaged to generate an index of religious discrimination (*religious discrimination index*; with a Cronbach's  $\alpha$  of .73 for Christians, .74 for Jews, and .80 for Muslims).

### **Control Variables**

I used three variables to determine the socioeconomic status of respondents. First, participants were asked to estimate their monthly household net income (i.e., the sum that all people in your household have at their disposal after taxes) into one of the categories: below 500 EUR (1); 500–1,000 EUR (2); 1,000–2,000 EUR (3); 2,000–3,000 EUR (4); 3,000–4,000 EUR (5); 4,000–5,000 EUR (6); more than 5,000 EUR (7). In the U.S. participants were asked to estimate their yearly family gross income into the following categories: less than 10,000 USD (1); 10,000–19,999 USD (2); 20,000–29,999 USD (3); 30,000–39,999 USD (4); 40,000–49,999 USD (5); 50,000–59,999 USD (6); 60,000–69,999 USD (7); 70,000–79,999 USD (8); 80,000–99,999 USD (9); 100,000–119,999 USD (10); 120,000–149,999 USD (11); 150,000–199,999 USD (12); 200,000–249,999 USD (13); 250,000–349,999 USD (14); 350,000–499,999 USD (15); and 500,000 USD or more (16). A total of 18,17 (18 percent) respondents did not state an income. Missing values were imputed using a linear regression model. Age, gender, employment status, level of education, and survey country were included in the model as predictors. The imputed income variable was standardized within each survey country.

Second, respondents were asked to state whether they had a paid job, whether they were unemployed, or whether they were not in the labor force (e.g., students, housewives, pensioners, etc.). Fifty-four percent of the Christian sample was employed, 38 percent was not in the labor force, whereas almost 8 percent was unemployed. Seventy-two percent of the Jewish sample was employed, 25 percent was not in the labor force, and around 4 percent was unemployed. Forty-eight percent of the Muslim sample was employed, 44 percent was not in the labor force, and 8 percent was unemployed.

Third, respondents were asked about their level of education. This was measured as the highest achieved level, using the following categories: no education (0), primary education (1), lower secondary education (2), upper secondary education (3), postsecondary nontertiary education (4); short-cycle tertiary education (5); Bachelor's or equivalent (6); and Master's or equivalent (7). The mean level of education of the Christian sample was 3.9 ( $SD = 1.8$ ), for the Jewish sample it was

5.1 ( $SD = 1.5$ ), and for the Muslim sample it was 3.2 ( $SD = 2.0$ ). The education variable was standardized within each survey country. Age is measured in years. The mean age of the Christian sample was 43 ( $SD = 18.1$ ), for the Jewish sample it was 41 ( $SD = 15.1$ ), and for the Muslim sample it was 37 ( $SD = 14.7$ ).

Gender is a binary variable, where male is coded as (1) and female as (0). Forty-seven percent of the Christian sample, 49 percent of the Jewish sample, and 51 percent of the Muslim sample stated that they were males. Marital status is a dummy variable, indicating if the respondent is married (1) or not (0). Fifty-four percent of the Christian sample, 56 percent of the Jewish sample, and 61 percent of the Muslim sample stated that they were married.

The survey country is recorded with dummy variables for the eight countries, with USA as the reference category. After stating their religion, participants were asked to specify their religious denomination. Among Christians, the survey distinguished between Roman Catholics (33 percent), Protestants (28 percent), Greek-Orthodox (30 percent), and other denominations (9 percent). Jewish participants were distinguished among Conservative (25 percent), Secular/Hiloni (36 percent), Reformist (16 percent), Orthodox/Dati (10 percent), Ultra-Orthodox/Haredi (9 percent), and other denominations (5 percent). Among Muslims, Sunnis (73 percent), Shias (8 percent), Alevites (6 percent), and other denominations (13 percent) were differentiated. The "other denominations" category also includes those respondents who did not know or state any denomination. I used a dummy variable to control for conversion. A total of 232 (7 percent) Christian respondents, 22 (2 percent) Jewish respondents, and 349 Muslim respondents (6 percent) stated that they were not raised by their parents into their stated religious denomination.

## RESULTS

For the analyses, I estimate OLS regression models and use heteroskedasticity robust standard errors. In the first step of the analysis, I investigate the effect of the explanatory variables on each religious out-group using pooled data while controlling for a range of covariates. In the second step of the analysis, I estimate stepwise regression models to investigate whether the effect of religious observance diminishes once religious fundamentalism is included in the regression models. In the third step of the analysis, I assess whether perceived and experienced discrimination is a stronger predictor of prejudice among minority status groups than among majority status groups by investigating the effect of discrimination on the reciprocal attitudes of minority and majority group members. Finally, I run a series of additional analyses to investigate the robustness of the results.

Tables 3, 4, 5, and 6 present the results of the OLS regressions. Each table depicts the relationship between the independent variables and unfavorable attitudes toward a religious out-group of each respective religious group, while controlling for religion, survey country, age, education, employment status, income, gender, marital status, and conversion status. Table 3 concerns the attitudes of the Jewish and the Muslim sample toward Christians, Table 4 concerns the attitudes of the Christian and the Muslim sample toward Jews, Table 5 concerns the attitudes of the Christian and the Jewish sample toward Muslims, and Table 6 concerns the attitudes of all religious groups toward atheists.

The first hypothesis predicts that religious observance is positively associated with unfavorable attitudes toward religious out-groups. Overall, the results indicate that the relationship between religious observance and attitudes toward religious out-groups is not consistent across religious groups and is dependent on the particular religious out-group. There is a significant positive correlation between religious observance and attitudes toward Christians among the Jewish and Muslim samples (Table 3) and toward atheists among the entire sample (Table 6). A one-unit change in the religious observance index increases unfavorable attitudes toward Christians by 1.5

Table 3: OLS regression results for negative attitudes toward Christians

	Religious Out-Group: Christians
Religious observance	1.48*** (.44)
Religious fundamentalism	10.41*** (.47)
Contact	-3.70*** (.46)
Discrimination	1.12** (.38)
Covariates	YES
Observations	5,887
Adjusted $R^2$	.34

*Note:* Standardized regression coefficients, robust standard errors are in parentheses. Covariates: religion, age, education, employment status, gender, income, marital status, conversation status, and survey country. See Online Appendix Table Q for the full regression model. \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .

Table 4: OLS regression results for negative attitudes toward Jews

	Religious Out-Group: Jews
Religious observance	.53 (.38)
Religious fundamentalism	8.06*** (.40)
Contact	-1.70*** (.38)
Discrimination	.37 (.35)
Covariates	YES
Observations	7,752
Adjusted $R^2$	.48

*Note:* Standardized regression coefficients, robust standard errors are in parentheses. Covariates: religion, age, education, employment status, gender, income, marital status, conversation status, and survey country. See Online Appendix Table R for the full regression model. \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .

points and toward atheists by 2.6 points. Results from Tables 4 and 5 suggest no significant association between religious observance and negative attitudes toward Jews or Muslims. Additional robustness checks further indicate that religious observance is a significant predictor of negative attitudes toward atheists but not toward other religious out-groups (Online Appendix S1 Tables L, M, and N). Based on these contrasting findings, I reject *Hypothesis 1*. Possible explanations for the distinct bias toward atheists are discussed below.

In line with *Hypothesis 2a*, the results show that religious fundamentalism is significantly associated with and is the strongest predictor of unfavorable attitudes toward each religious out-group. Religiously fundamentalist respondents are significantly more likely to report unfavorable attitudes toward Christians (10.4 points), Jews (8.1 points), Muslims (8.5 points), and atheists (11.5 points). So far, an extensive body of research on Christian fundamentalism, particularly within the Western context, has shown that religious fundamentalism is a strong predictor of ethnic, racial, and sexual prejudice. These results demonstrate, for the first time, that religious fundamentalism is powerfully correlated with unfavorable attitudes toward religious out-groups, both within and outside of the Western context, and that the relationship holds true across three major religions. Across the regression models, religious fundamentalism emerged as the strongest explanatory factor, even in comparison to intergroup contact, a well-established predictor of prejudice.

*Hypothesis 2b* predicts that once religious fundamentalism is controlled for, associations between religious observance and out-group hostility will diminish. As the first regression Model

Table 5: OLS regression results for negative attitudes toward Muslims

	Religious Out-Group: Muslims
Religious observance	−.79 (.63)
Religious fundamentalism	8.45*** (.56)
Contact	−2.32*** (.53)
Discrimination	1.18 (.66)
Covariates	YES
Observations	4,020
Adjusted <i>R</i> <sup>2</sup>	.22

*Note:* Standardized regression coefficients, robust standard errors are in parentheses. Covariates: religion, age, education, employment status, gender, income, marital status, conversation status, and survey country. See Online Appendix Table S for the full regression model. \**p* < .05 \*\**p* < .01 \*\*\**p* < .001.

Table 6: OLS regression results for negative attitudes toward atheists

	Religious Out-Group: Atheists
Religious observance	2.56*** (.33)
Religious fundamentalism	11.50*** (.36)
Contact	−1.71*** (.33)
Discrimination	−.29 (.29)
Covariates	YES
Observations	8,804
Adjusted <i>R</i> <sup>2</sup>	.52

*Note:* Standardized regression coefficients, robust standard errors are in parentheses. Covariates: religion, age, education, employment status, gender, income, marital status, conversation status, and survey country. See Online Appendix Table T for the full regression model. \**p* < .05 \*\**p* < .01 \*\*\**p* < .001.

in Online Appendix S1 Tables D, E, F, and G show, respondents who are religiously observant are significantly more likely to express unfavorable attitudes toward religious out-groups. However, once religious fundamentalism is included in the analysis, the coefficient sizes diminish markedly among each religious group. The relationship between observance and prejudice toward Jews and Muslims even ceases to be significant. These findings confirm *Hypothesis 2b* and further highlight how religious fundamentalist beliefs strongly contribute to explaining prejudiced attitudes among religious individuals.

In the following, I turn my attention to the intergroup relations variables. According to the third hypothesis, individuals with more religious out-group contact exhibit lower levels of unfavorable attitudes toward religious out-groups. The results suggest a significant and negative relationship between intergroups contact and prejudiced attitudes. However, the regression coefficients are comparably small. Respondents who state that they have close friends or family members who belong to other religious groups or denominations express significantly less unfavorable attitudes toward Christians (3.7 points), Jews (1.7 points), Muslims (2.3 points), and atheists (1.7 points). Overall, these findings provide some convincing evidence in line with *Hypothesis 3* and demonstrate how harmonious intergroup interactions can contribute to positive intergroup attitudes.

The coefficients of the religious discrimination index in Tables 3, 4, 5, and 6 demonstrate that there is no significant correlation between experienced or perceived discrimination and out-group hostility toward Jews, Muslims, or atheists. Only unfavorable attitudes toward Christians



appear to be marginally affected by discrimination: A one-unit change in the discrimination index increased prejudice by 1 point. Overall, these findings contradict *Hypothesis 4a*. Individuals who report higher levels of discrimination do not report unfavorable opinions at significantly higher levels, than individuals who report lower levels of discrimination.

*Hypothesis 4b* predicts that experienced or perceived discrimination is a defining feature of intergroup attitudes for minorities, but not for majorities. To test *Hypothesis 4b*, I investigate reciprocal attitudes of religious groups that constitute both a minority and a majority status group in different country contexts. I focus only on country contexts where both groups coexist: Muslims are a minority in the Christian majority countries Germany, USA, and Kenya; Christians are a minority in the Muslim majority countries Lebanon, Palestine, and Turkey; Jews are a minority in the Christian majority country USA; Christians are a minority in the Jewish majority country Israel. Regression models 1, 3, 5, and 7 in Table 7 represent the results for unfavorable attitudes of minority groups toward the majority group, whereas models 2, 4, 6, and 8 represent the results for majority groups' attitudes toward minority groups. Overall, the results indicate that perceived or experienced discrimination is a significant predictor of negative attitudes among minorities but not among majorities. These findings confirm *Hypothesis 4b*.<sup>4</sup>

### Robustness Checks

In this final step of the analysis, I run a series of additional regression models to investigate the robustness of the results. First, I split the pooled sample into three religious groups (i.e., Christians, Jews, and Muslims) and investigate the effects of the explanatory variables on religious out-groups across the three religious groups, while controlling for religious denominations. Online Appendix S1 Tables L, M, and N show the results of the regression analyses among the religious groups. Across all three religious groups, religious observance appears to be significantly associated with negative attitudes toward atheists. The largest substantive effect is associated with religious fundamentalism and the effect remains robust for each religious out-group. For instance, among Jewish respondents, a one unit increase in the religious fundamentalism index is associated with a 14-point increase on the unfavorable opinions measure toward atheists. Similarly, among Muslim respondents, a one-unit change in the religious fundamentalism index is related to an increase of more than 10-points on the unfavorable opinions measure toward both atheists and Christians. The weakest correlation between fundamentalism and hostility is registered for the attitudes of Christians toward Jews. Contact significantly reduces hostility toward atheists and Muslims for Christians, whereas for Muslims, this effect is universally significant for all out-groups. Among Jewish respondents, however, contact is not a significant predictor for attitudes toward any of the out-groups. Overall, these results further buttress the findings from the main analyses.

Second, since the income variable was imputed, I estimate and compare three regression models for each religious out-group: one without the income variable; one with the income variable, excluding cases with missing values; and one with the imputed income variable (Online Appendix S1 Tables H, I, J, and K). The comparisons show that the imputed income variable does not distort the findings.

Third, since the Cronbach's  $\alpha$  of the disaggregated *out-group contact index* is low for the Christian sample, I disaggregate the index and estimate the regression models using the two items separately (Online Appendix S1 Table O). While both items of the out-group contact index are negatively associated with unfavorable attitudes, the friendship measure is the strongest predictor.

<sup>4</sup>The effect of discrimination among minority groups is significant across all models with the exception of the attitudes of the Christian minority in Israel. This can be explained by the very small sample size.

Table 7: OLS regression results for negative attitudes among religious minorities and majorities

	Sample: Christian Minority DV: Majority (1)	Sample: Muslim Majority DV: Christian Minority (2)	Sample: Muslim Minority DV: Christian Majority (3)	Sample: Christian Majority DV: Muslim Minority (4)	Sample: Jewish Minority DV: Christian Majority (5)	Sample: Christian Majority DV: Jewish Minority (6)	Sample: Christian Minority DV: Jewish Majority (7)	Sample: Jewish Majority DV: Christian Minority (8)
Discrimination	4.29** (1.43)	1.04 (.66)	2.29*** (.62)	1.69 (1.04)	4.32* (2.01)	-1.18 (1.37)	4.49 (3.64)	1.10 (1.31)
Covariates	YES	YES	YES	YES	YES	YES	YES	YES
Observations	516	2,391	1,563	1,729	296	512	30	767
Adjusted R <sup>2</sup>	.13	.28	.26	.18	.05	.06	.10	.24

Note: Standardized regression coefficients, robust standard errors are in parentheses. Covariates include religious observance, religious fundamentalism, intergroup contact, age, conversion status, education, employment status, income, male, marital status, and survey country. See Online Appendix 1 Table P. \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .

This finding is perhaps not so surprising as a large body of literature demonstrates how cross-group friendships can particularly promote positive attitudes and reduce prejudice (e.g., Davies et al. 2011).

## CONCLUSION

I used original survey data on 10,046 respondents from eight countries (Cyprus, Germany, Israel, Kenya, Lebanon, Palestine, Turkey, and the USA), representing three major Abrahamic religions (Christians, Jews, and Muslims) to estimate the effects of religion-based and intergroup relations variables on unfavorable attitudes toward religious out-groups. Results from OLS regression analyses show that religious fundamentalism is the strongest predictor of unfavorable attitudes toward religious out-groups regardless of whether the studied out-group is Christian, Jewish, Muslim, or atheist. The effect sizes are also remarkably large: For instance, a one-unit increase in the religious fundamentalism index is associated with a 12-point increase on unfavorable attitudes toward atheists, an 11-point increase toward Christians, a 9-point increase toward Muslims, and an 8-point increase toward Jews. Compared to the regression coefficients of the religious fundamentalism index, the coefficients for the intergroup relations variables are much smaller and less robust. Yet, having more contact with religious out-groups is likely to alleviate negative views toward religious out-groups. Intergroup contact is particularly associated with lower levels of prejudice toward Christians (−3.7 points) and Muslims (−2.3 points). In contrast, results from the regression analyses suggest that experienced or perceived discrimination is not significantly associated with unfavorable attitudes toward any of the religious out-groups, except among minority status groups. Religious minority groups facing discrimination are, in fact, more likely to express biased opinions of religious majority group members, but not *vice versa*.

This study advances the literature on intergroup attitudes and religion in a number of ways. First, the findings contribute to a growing body of literature that investigates the role of interreligious contact on interreligious attitudes (e.g., Kanas, Scheepers, and Sterkens, 2015, 2017). In line with this literature, the study shows how interreligious contact, particularly in the form of friendships, can reduce negative attitudes toward religious out-group. Second, as it has been previously demonstrated by studies on racial and ethnic minorities, the study shows how discrimination also deteriorates attitudes toward members of religious majorities among religious minorities (e.g., Jasinskaja-Lahti, Liebkind, and Solheim 2009; Tropp 2007).

Third, the results do not suggest a strong and robust association between religious observance and prejudiced attitudes toward religious out-groups, with one exception: religiously observant respondents are significantly more likely to express unfavorable attitudes toward atheists. The findings provide empirical evidence in-line with earlier research which suggests that religious Christian individuals are prejudiced toward nonreligious groups but not toward religious groups (Jackson and Hunsberger 1999). According to the selective intolerance hypothesis, religiousness is particularly linked with prejudice toward groups perceived to be inconsistent with one's religious values and teachings (Rowatt et al. 2009). Similarly, Mavor and Gallois (2008) argue that religious intolerance is primarily pronounced toward value-violating out-groups. Atheists, who doubt the existence of God and reject religious beliefs, certainly fall into this category.

Finally, the findings demonstrate that religious fundamentalist respondents were significantly more likely to express unfavorable attitudes toward *all* the studied out-groups. By employing a comparative cross-sectional design, I show that this relationship holds true both within and outside of the Western context and across three major religions. Therefore, the study advances a body of literature, which has, so far, primarily focused on Christianity and predominantly drawn on samples from within the Western context (Hunsberger and Jackson 2005). Religious fundamentalism consistently emerged as the strongest predictor despite including established predictors of prejudice, most notably intergroup contact, in the regression analyses. Religious fundamentalism

represents an adherence to a set of beliefs that characterizes one's own religion as the absolute, inerrant, and superior religion. Accordingly, religious fundamentalists believe "that there is a clearly correct religion and so have bright lines separating and identifying members of their religious coalition" (Brandt and Van Tongeren 2017:94). This absolutism, inherent to the religious fundamentalist paradigm, "results in an exclusionary stance with respect to any 'other' deemed to be unacceptable or in some sense invalid." (Pratt 2018:48). Previous research, typically focused on value-violating "others," e.g., homosexuals, and to some extent on ethnic and racial groups, as out-groups (Hunsberger and Jackson 2005). My findings demonstrate how religious fundamentalists are not only prejudiced against atheists, a group that is evidently inconsistent with values and principles of religious fundamentalism, but also against members of other Abrahamic religions, who are arguably more similar in terms of their beliefs and practices.

As contemporary societies gradually become more religiously diverse and multicultural through migration and globalization, the religious fundamentalists' reactionary and exclusionary response to diversity is likely to pose a challenge to social cohesion. The contempt of the denied "other" can manifest itself in terms of various forms of actions including discrimination, exclusion, and in some extreme cases, violence (Pratt 2018). Although the leap from exclusionary attitudes to actual violent behavior is long, widespread prejudice can provide an enabling environment for potential perpetrators.

The conclusions discussed here are based on observational survey data and therefore, have some limitations. For instance, I operationalized intergroup contact using only two variables that were available in the survey questionnaire. Incorporating further dimensions of intergroup contact would certainly improve the precision and the validity of the measurement. Moreover, one should be cautious in interpreting the findings presented in this study as definitive causal claims. It is possible that prejudiced individuals actively avoid intergroup contact or that more open-minded individuals might actively seek out intergroup contact thus biasing the results. Similarly, the strong positive associations between religious fundamentalism and unfavorable attitudes toward religious out-groups demonstrated here should serve as an imperative for further research. One possible direction is to apply the same framework to investigate attitudes toward members of non-Abrahamic traditions, such as Buddhists or Hindus and vice versa. Another line of research should focus on establishing causality using longitudinal or experimental data, not only between the set of variables tested here and religious prejudice, but also concerning the particular determinants of religious fundamentalism. Given its central role as a predictor of prejudice, it is of utmost importance that we better understand the driving mechanisms behind the emergence and prevalence of fundamentalist beliefs and attitudes.

## ACKNOWLEDGMENTS

Comments by Ruud Koopmans, Peter Wetzels, Dietlind Stolle, Sarah Carol, Ines Michalowski, Susanne Veith, Ruta Yemane, and my colleagues at the Migration and Diversity department at the WZB, and anonymous reviewers for *JSSR* are gratefully acknowledged.

Open access funding enabled and organized by Projekt DEAL.

## NOTES

The data collection in Cyprus, Germany, Israel, Kenya, Lebanon, Palestine, and Turkey was funded by the WZB, whereas the data collection in the USA was funded by the Social Sciences and Humanities Research Council of Canada (#435-2012-0922). Replication data is available online (see Kanol, Koopmans, and Stolle, 2021).

## REFERENCES

- Akyol, Mustafa. 2017. *Why the Middle East's Christians are under attack*. New York Times. <https://www.nytimes.com/2017/05/26/opinion/why-the-middle-east-s-christians-are-under-attack.html> (accessed May 26, 2017).
- Allport, Gordon W. 1954. *The nature of prejudice*. New York: Basic Books.
- Allport, Gordon W. and J. Michael Ross. 1967. Religious orientation and prejudice. *Journal of Personality and Social Psychology* 5(4):432–43.
- Almond, Gabriel A., Emmanuel Sivan, and Scott R. Appleby. 1995. Fundamentalisms: Genus and species. In *Fundamentalisms comprehended*, edited by Martin E. Marty and R. Scott Appleby, pp. 399–421. Chicago: University of Chicago Press.
- Altemeyer, Bob. 1996. *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Altemeyer, Bob. 2003. RESEARCH: Why do religious fundamentalists tend to be prejudiced? *International Journal for the Psychology of Religion* 13(1):29–47.
- Altemeyer, Bob and Bruce Hunsberger. 1992. Authoritarianism, religious fundamentalism, quest, and prejudice. *International Journal for the Psychology of Religion* 2(2):113–33.
- Altemeyer, Bob and Bruce Hunsberger. 2004. RESEARCH: A revised religious fundamentalism scale: The short and sweet of it. *International Journal for the Psychology of Religion* 14(1):47–54.
- Anti-Defamation League. 2018. Audit of anti-semitic incidents. <https://www.adl.org/resources/reports/2017-audit-of-anti-semitic-incidents> (accessed January 14, 2019).
- Bannan, Rosemary S. 1965. The other side of the coin: Jewish student attitudes toward Catholics and Protestants. *Sociological Analysis* 26(1):21–29.
- Batson, C. Daniel and Patricia A. Schoenrade. 1991a. Measuring religion as quest: 1) Validity concerns. *Journal for the Scientific Study of Religion* 30(4):416–29.
- Batson, C. Daniel and Patricia A. Schoenrade. 1991b. Measuring religion as quest: 2) Reliability concerns. *Journal for the Scientific Study of Religion* 30(4):430–47.
- Batson, C. Daniel, Patricia Schoenrade, and W. Larry Ventis. 1993. *Religion and the individual: A social-psychological perspective*. New York, Oxford: Oxford University Press.
- Bergmann, Werner. 2008. Anti-semitic attitudes in Europe: A comparative perspective. *Journal of Social Issues* 64(2):343–62.
- Brandt, Mark J. and Daryl R. Van Tongeren. 2017. People both high and low on religious fundamentalism are prejudiced toward dissimilar groups. *Journal of Personality and Social Psychology* 112(1):76–97.
- Branscombe, Nyla R., Michael T. Schmitt, and Richard D. Harvey. 1999. Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology* 77(1):135–49.
- Chapman, Colin. 2012. Christians in the Middle East—Past, present and future. *Transformation: An International Journal of Holistic Mission Studies* 29(2):91–110.
- Ciftci, Sabri. 2012. Islamophobia and threat perceptions: Explaining anti-Muslim sentiment in the West. *Journal of Muslim Minority Affairs* 32(3):293–309.
- Ciftci, Sabri, Muhammad Asif Nawaz, and Tareq Sydiq. 2016. Globalization, contact, and religious identity: A cross-national analysis of interreligious favorability. *Social Science Quarterly* 97(2):271–92.
- Coward, Harold. 1986. Intolerance in the world's religions. *Studies in Religion/Sciences Religieuses* 15(4):419–31.
- Craig, Maureen A. and Jennifer A. Richeson. 2012. Coalition or derogation? How perceived discrimination influences intraminority intergroup relations. *Journal of Personality and Social Psychology* 102(4):759–77.
- Davies, Kristin, Linda R. Tropp, Arthur Aron, Thomas F. Pettigrew, and Stephen C. Wright. 2011. Cross-group friendships and intergroup attitudes: A meta-analytic review. *Personality and Social Psychology Review* 15(4):332–51.
- Dion, Kenneth L. 2002. The social psychology of perceived prejudice and discrimination. *Canadian Psychology* 43(1):1–10.
- Emerson, Michael O. and David Hartman. 2006. The rise of religious fundamentalism. *Annual Review of Sociology* 32(1):127–44.
- European Monitoring Centre on Racism and Xenophobia. 2006. Muslims in the European Union: Discrimination and Islamophobia. <http://fra.europa.eu/en/publication/2012/muslims-european-union-discrimination-and-islamophobia> (accessed March 12, 2019).
- Fox, Jonathan. 2000. The effects of religious discrimination on ethno-religious protest and rebellion. *Journal of Conflict Studies* 20(2):1–14.
- . 2016. *The unfree exercise of religion: A world survey of discrimination against religious minorities*. New York: Cambridge University Press.
- Gregg, Heather Selma. 2014. Three theories of religious activism and violence: Social movements, fundamentalists, and apocalyptic warriors. *Terrorism and Political Violence* 28(2):1–23.
- Hargreaves, Julian, Edward Kessler, David Zamoje, and Alissa Symon. 2020. *We get along: The diversity study of England and Wales 2020: Executive summary*. Cambridge: Woolf Institute.

- Hewstone, Miles, Mark Rubin, and Hazel Willis. 2002. Intergroup bias. *Annual Review of Psychology* 53(1):575–604.
- Hogg, Michael A. 2003. Intergroup relations. In *Handbook of social psychology*, edited by John Delamater, pp. 479–501. New York: Springer.
- Hunsberger, Bruce. 1996. Religious fundamentalism, right-wing authoritarianism, and hostility toward homosexuals in non-Christian religious groups. *International Journal for the Psychology of Religion* 6(1):39–49.
- Hunsberger, Bruce and Lynne M. Jackson. 2005. Religion, meaning, and prejudice. *Journal of Social Issues* 61(4):807–26.
- Hunsberger, Bruce, Vida Owusu, and Robert Duck. 1999. Religion and prejudice in Ghana and Canada: Religious fundamentalism, right-wing authoritarianism, and attitudes toward homosexuals and women. *International Journal for the Psychology of Religion* 9(3):181–94.
- Jackson, Lynne M. and Bruce Hunsberger. 1999. An intergroup perspective on religion and prejudice. *Journal for the Scientific Study of Religion* 38(4):509–23.
- Jasinskaja-Lahti, Inga, Karmela Liebkina, and Erling Solheim. 2009. To identify or not to identify? National disidentification as an alternative reaction to perceived ethnic discrimination. *Applied Psychology* 58(1):105–28.
- Johnson, Megan K., Wade C. Rowatt, and Jordan LaBouff. 2010. Priming Christian religious concepts increases racial prejudice. *Social Psychological and Personality Science* 1(2):119–26.
- . 2012. Religiosity and prejudice revisited: In-group favoritism, out-group derogation, or both? *Psychology of Religion and Spirituality* 4(2):154–68.
- Juergensmeyer, Mark. 2003. *Terror in the mind of God: The global rise of religious violence*. Berkeley, CA: University of California Press.
- Kanol, Eylem, Ruud Koopmans, and Dietlind Stolle. 2021. Religious Fundamentalism and Radicalization Survey. Version 2.0.0. WZB Berlin Social Science Center. Data set. <https://doi.org/10.7802/2259>.
- Kanas, Agnieszka, Peer Scheepers, and Carl Sterkens. 2015. Interreligious contact, perceived group threat, and perceived discrimination: Predicting negative attitudes among religious minorities and majorities in Indonesia. *Social Psychology Quarterly* 78(2):102–26.
- . 2017. Positive and negative contact and attitudes towards the religious out-group: Testing the contact hypothesis in conflict and non-conflict regions of Indonesia and the Philippines. *Social Science Research* 63:95–110.
- Kaplan, Jeffrey. 2006. Islamophobia in America?: September 11 and Islamophobic hate crime. *Terrorism and Political Violence* 18(1):1–33.
- Kirkpatrick, Lee A. 1993. Fundamentalism, Christian orthodoxy, and intrinsic religious orientation as predictors of discriminatory attitudes. *Journal for the Scientific Study of Religion* 32(3):256–68.
- Koopmans, Ruud. 2015. Religious fundamentalism and hostility against out-groups: A comparison of Muslims and Christians in Western Europe. *Journal of Ethnic and Migration Studies* 41(1):33–57.
- Küpper, Beate and Andreas Zick. 2010. *Religion and prejudice in Europe: New empirical findings*. London: Network of European Foundations.
- Laythe, Brian, Deborah G. Finkel, Robert G. Bringle, and Lee A. Kirkpatrick. 2002. Religious fundamentalism as a predictor of prejudice: A two-component model. *Journal for the Scientific Study of Religion* 41(4):623–35.
- Martinovic, Borja and Maykel Verkuyten. 2016. Inter-religious feelings of Sunni and Alevi Muslim minorities: The role of religious commitment and host national identification. *International Journal of Intercultural Relations* 52:1–12.
- Mavor, Kenneth I. and Cindy Gallois. 2008. Social group and moral orientation factors as mediators of religiosity and multiple attitude targets. *Journal for the Scientific Study of Religion* 47(3):361–77.
- Monsma, Stephen V. 2007. Religion and philanthropic giving and volunteering: Building blocks for civic responsibility. *Interdisciplinary Journal of Research on Religion* 3:1–28.
- Monteith, Margo J. and C. Vincent Spicer. 2000. Contents and correlates of whites' and blacks' racial attitudes. *Journal of Experimental Social Psychology* 36:125–54.
- Nelson, Shannon C. 2008. Feeling thermometer. In *Encyclopedia of survey research methods*, edited by Paul J. Lavrakas, 275–77. Thousand Oaks: SAGE Publications, Inc.
- Paluck, Elizabeth Levy, Seth A. Green, and Donald P. Green. 2019. The contact hypothesis re-evaluated. *Behavioural Public Policy* 3(2):129–58.
- Pettigrew, Thomas F. and Linda R. Tropp. 2000. Does intergroup contact reduce prejudice? Recent meta-analytic findings. In *Reducing prejudice and discrimination*. (pp. 93–114). Mahwah, NJ: Lawrence Erlbaum Associates.
- . 2006. A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology* 90(5):751–83.
- . 2008. How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology* 38(6):922–34.
- Pettigrew, Thomas F., Linda R. Tropp, Ulrich Wagner, and Oliver Christ. 2011. Recent advances in intergroup contact theory. *International Journal of Intercultural Relations* 35(3):271–80.
- Pew Research Center. 2017. *Global restrictions on religion rise modestly in 2015, reversing downward trend*. Washington, DC: Pew Research Center. <https://www.pewforum.org/wp-content/uploads/sites/7/2017/04/Pew-Research-Center-Religious-Restrictions-2017-FULL-REPORT.pdf>. (accessed January 20, 2019).
- Pratt, Douglas. 2018. *Religion and extremism. Rejecting diversity*. London: Bloomsbury.



- Rowatt, Wade C., Jordan LaBouff, Megan Johnson, Paul Froese, and Jo-Ann Tsang. 2009. Associations among religiousness, social attitudes, and prejudice in a national random sample of American adults. *Psychology of Religion and Spirituality* 1(1): 14–24.
- Saroglou, Vassilis, Isabelle Pichon, Laurence Trompette, Marijke Verschueren, and Rebecca Dernelle. 2005. Prosocial behavior and religion: New evidence based on projective measures and peer ratings. *Journal for the Scientific Study of Religion* 44(3):323–48.
- Scacco, Alexandra and Shana S. Warren. 2018. Can social contact reduce prejudice and discrimination? Evidence from a field experiment in Nigeria. *American Political Science Review* 112(3):654–77.
- Schmid, Katharina, Miles Hewstone, and Ananthi Al Ramiah. 2013. Neighborhood diversity and social identity complexity: Implications for intergroup relations. *Social Psychological and Personality Science* 4(2):135–42.
- Shariff, Azim F., Aiyana K. Willard, Teresa Andersen, and Ara Norenzayan. 2016. Religious priming: A meta-analysis with a focus on prosociality. *Personality and Social Psychology Review* 20(1):27–48.
- Sherif, Muzafer. 1966. *In common predicament: Social psychology of intergroup conflict and cooperation*. Boston: Houghton Mifflin.
- Tajfel, Henri and John C. Turner. 1986. The social identity theory of intergroup behaviour. In *The social psychology of intergroup relations*, edited by S. Worchel and W. Austin, pp. 33–48. CA: Brooks/Cole: Pacific Grove.
- Tibi, Bassam. 1998. *The challenge of fundamentalism: Political Islam and the new world disorder*. Berkeley, LA; London: University of California Press.
- Tropp, Linda R. 2007. Perceived discrimination and interracial contact: Predicting interracial closeness among black and white Americans. *Social Psychology Quarterly* 70(1):70–81.
- Verkuyten, Maykel. 2007. Religious group identification and inter-religious relations: A study among Turkish-Dutch Muslims. *Group Processes & Intergroup Relations* 10(3):341–57.
- Victoroff, Jeff, Janice R. Adelman, and Miriam Matthews. 2012. Psychological factors associated with support for suicide bombing in the Muslim diaspora. *Political Psychology* 33(6):791–809.

### SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Figure A: Distribution of the scores on the feeling thermometer for each religions group and rated group (0 = most favorable rating, 100 = most unfavorable rating)

Table A: Descriptive statistics of the Christian sample

Table B: Descriptive statistics of the Jewish sample

Table C: Descriptive statistics of the Muslim sample

Figure B: Correlation matrix for the independent and control variables among the Christian sample

Figure C: Correlation matrix for the independent and control variables among the Jewish sample

Figure D: Correlation matrix for the independent and control variables among the Muslim sample

Table D: Stepwise OLS regression results for negative attitudes towards Christians

Table E: Stepwise OLS regression results for negative attitudes towards Jews

Table F: Stepwise OLS regression results for negative attitudes towards Muslims

Table G: Stepwise OLS regression results for negative attitudes toward atheists

Table H: OLS regression results for unfavorable attitudes towards Christians to test if imputation of income variable changes results

Table I: OLS regression results for unfavorable attitudes towards Jews to test if imputation of income variable changes results

Table J: OLS regression results for unfavorable attitudes towards Muslims to test if imputation of income variable changes results

Table K: OLS regression results for unfavorable attitudes towards atheists to test if imputation of income variable changes results

Table L: OLS regression results for unfavorable attitudes towards religious out-groups among the Christian sample

Table M: OLS regression results for unfavorable attitudes towards religious out-groups among the Jewish sample

Table N: OLS regression results for unfavorable attitudes towards religious out-groups among the Muslim sample

Table O: OLS regression results for unfavorable attitudes towards religious out-groups with disaggregated out-group contact index

Table P: OLS regression results for negative attitudes among religious minorities and majorities (full model)

Table Q: OLS regression results for negative attitudes towards Christians (full model)

Table R: OLS regression results for negative attitudes towards Jews (full model)

Table S: OLS regression results for negative attitudes towards Muslims (full model)

Table T: OLS regression results for negative attitudes towards atheists (full model)

Table S1: Descriptive statistics for gender and age variables of the RFR-Survey

Table S2: Sampling strategy and surveying methods of the RFR-Survey