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## Article

# Investigating Attitudes toward Those Who Leave Religion among Christian, Jewish, and Muslim Believers

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**Abstract:** This study investigates the determinants of negative attitudes toward individuals who leave their religion, i.e., converts and apostates, among Christian, Jewish, and Muslim believers. Drawing on the literature from the study of religion and prejudice, we identify and test the explanatory power of three dimensions of religiosity: religious practice, religious fundamentalism, and religious knowledge, while an alternative hypothesis focuses on the role of education. Our data is derived from a cross-sectional survey fielded among more than 8000 Christian, Jewish, or Muslim respondents in 7 countries. Using ordinary least squares regression analyses, we find that, across the three religious groups, both religious practice and religious fundamentalism are strongly associated with negative feelings toward converts and apostates. Although the effect of religious knowledge is negligible, educational attainment significantly predicts lower levels of unfavorable attitudes. We conclude by discussing some notable differences between the three religious groups and between the countries in which these groups and individuals are located.

**Keywords:** apostates; converts; attitudes; fundamentalism; religious knowledge; Islam; Christianity; Judaism



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## 1. Introduction

In many Western countries, people lose their religion. This mostly occurs in a larger societal process of secularization. Often, the decline in religion occurs rather unintendedly from one generation to the next (Voas 2009) and accelerates considerably once a certain tipping point has been passed (Pollack and Rosta 2022, pp. 307–26). The religious “nones” in secularized Western countries may have no connection to religion and no interest in thinking about religion. Their individual loss of religion is not much of an individual decision.

This is different in the case of apostates, who actively take a decision to leave religion and to leave their religious community. Apostasy may occur in secularized and in highly religious social contexts. Historically, the term “apostate” designated a monk—a religiously particularly devoted individual—who broke his vow and left his monastery community. Thus, when speaking of apostates, the focus is not on an inter-generational and potentially unintended loss of religion but on rational, individual decision-making. Apostates have been active members of a religious community, but they decide to reject their religious community, and religion as a whole. This is why Cottee (2018, p. 282) defines apostasy as “more than just an exit or departure; it is an act of renunciation, whereby the exiter disavows the very epistemological and moral tenets of the group”.

By turning their back on their religious community, apostates resemble converts. Converts, however, turn towards another religious community and thus do not negate religion as a whole. The fact that both apostates and converts reject their religious community may foster negative feelings towards them among the members of the religious community they rejected. In this paper, we seek to compare the level of negative attitudes towards

both groups in different religious communities and identify potential explanatory factors for negative feelings towards apostates and converts respectively. In particular, we are interested in individual-level factors that correlate with negative feelings towards either group, taking into consideration that apostates reject religion for good while converts change allegiances to another group.

In the following analysis, we mainly focus on three individual-level dimensions of religiosity, i.e., religious practice, religious knowledge, and religious fundamentalism, to explain attitudes towards apostates in comparison to converts. Moreover, we investigate the potential role of education in alleviating negative attitudes. In our conclusion, we also provide a qualitative discussion on how the three religions studied here (Islam, Christianity, and Judaism) are embedded in different national configurations marked by minority status, inter-group conflict, and secularization and how this, in turn, may relate to observed cross-religious differences in attitudes towards apostates and converts, respectively.

## 2. Theoretical Framework

**Hypothesis 1.** *Several theories seek to explain why individuals hold religious prejudice towards certain groups of people, particularly apostates and converts. Following Cragun and Hammer (2011), we assume that the remaining members of a religious community hold negative feelings towards apostates and converts who turn their back on the religious community. Cragun and Hammer explain that even the term apostate is “often used as a pejorative by those who remain members of a religion to describe those they see as defectors” (ibid., p. 154). According to the authors, the term suggests that “the people who leave a religion are despised by those who remain members of the religion” (ibid.). Additionally, we posit that not all members are equally engaged with their religious community; they may differ in terms of religious identification, religious practice, and orthodoxy. In our theoretical framework, we take into account such differences by expecting that those who identify more strongly with their religious community are more likely to foster hostile feelings towards those rejecting the community. To identify differences in individual religiosity and thus community identification, sociological research on religion often accounts for different dimensions of religiosity. In this paper, we focus on the dimensions of public and private religious practice (participation in rituals versus individual devotion) and on the intellectual dimension of religious knowledge that have been identified by Huber and Huber (2012) based on Glock (1973).<sup>1</sup> As mentioned above, we assume that religious practice impacts individual attitudes towards apostates and converts to the extent that those individuals who practice their religion may more often have a stronger sense of belonging to a religious community and thus may be more likely to harbor negative feelings towards apostates and converts. The public dimension of religious practice—attending religious services—identified by Glock (1973) and Huber and Huber (2012) may be more strongly related to an identification with a given religious community since these public services usually take place among a community of believers. However, the obligation to participate in such services does not only vary across religious communities but it may also vary within religious communities, such as in the case of Islam in which men have a stronger obligation to attend religious services than women. This is why we take into account the dimension of private religious practice, whose relevance may be more equally distributed across and within religious groups. In general, we expect that the more frequent an individual’s public and private religious practice, the higher the individual’s likelihood to reject apostates and converts judged as “defectors”.*

A prominent body of literature identifies *religious fundamentalism* as the most relevant dimension of religiosity for predicting prejudiced attitudes (Hunsberger and Jackson 2005). Religious fundamentalism refers to a system of ideas that declares one’s own religion to be the only true, inerrant, and superior religion. According to Altemeyer and Hunsberger (1992, p. 188), a defining characteristic of religious fundamentalism 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”. Those who adhere to religious fundamentalist ideals believe that theirs is the only correct religion

and thus have sharp boundaries distinguishing and identifying members of their religious community (Brandt and Van Tongeren 2017, p. 97). As a result, this absolutist approach to religion inevitably leads to an exclusionary attitude toward any ‘other’ that is deemed undesirable or unacceptable (Pratt 2018, p. 48). Religious fundamentalists are also characterized by their dualistic worldview and messianic beliefs (Emerson and Hartman 2006, p. 134). Scholars typically describe religious fundamentalism as a reactionary response to modernization and secularization (Almond et al. 1995; Emerson and Hartman 2006). Accordingly, fundamentalists interpret contemporary modernization and secularization processes as the work of evil forces and view these developments as evidence that the messianic end is approaching. Those who corrupt or undermine religion, bring about moral decay, and diverge from the rules of scripture are all considered to be forces of evil. Religious fundamentalists perceive themselves to be part of a divine struggle against these evil forces (Juergensmeyer 2003). This mindset reinforces an us-versus-them mentality and deteriorates attitudes toward perceived ‘others’.

**Hypothesis 2.** *Previous empirical research has documented a strong negative impact of religious fundamentalism on prejudiced attitudes toward homosexuals (e.g., Hunsberger 1996; Hunsberger et al. 1999; Laythe et al. 2001), racial and ethnic minorities (e.g., Altemeyer 2003; Brandt and Reyna 2014), religious outgroups (e.g., Rowatt et al. 2005; Kanol 2021), Jews (e.g., Koopmans 2015), and women (Kirkpatrick 1993; Moore and Vanneman 2003). Overall, the findings concerning the association between religious fundamentalism and prejudice have been strong and robust. However, this literature has been limited in terms of its primary focus on Christianity and its lack of lack of samples from outside the Western context (Hunsberger and Jackson 2005). Moreover, no study has so far investigated the effect of religious fundamentalist attitudes on negative opinions toward those who leave their religion. Given the theoretical discussion and the empirical findings, we expect individuals who adhere to religious fundamentalist views to be more prejudiced toward those who leave their religion.)*

An alternative explanation for religious prejudice is offered by scholars of religious radicalization and violence, who postulate that commitment to and support of radical religious ideas may stem from a lack of intensive religious knowledge (Wiktorowicz 2005; Fair et al. 2017). Based on qualitative and ethnographic work among members of the British radical Islamist organization al-Muhajiroun, Wiktorowicz (2005) argues that religious seekers who are drawn to the movement are commonly not trained in the complexities of Islamic jurisprudence, and, therefore, are ill-equipped to critically evaluate the claims of radical ideologues and recruiters. Rejection of outgroups features prominently among these radical claims. Survey studies investigating the relationship between religious knowledge and radicalization have, so far, produced mixed evidence. Fair et al. (2017) test this assertion using a representative survey fielded in Pakistan. They find that persons who are more knowledgeable about Islam are slightly less likely to support militant Islamist groups, even after controlling for other factors. Using a survey experiment conducted among Christians, Jews, and Muslims in seven countries, Koopmans et al. (2021) document that highly knowledgeable Muslim respondents are more supportive of the use of religious violence. In contrast, high levels of religious knowledge among Jews are associated with lower levels of support for violence. The authors found no difference across different levels of religious knowledge among the Christian respondents.

**Hypothesis 3.** *Another line of literature focusing on Islamophobia has empirically assessed the impact of factual knowledge of Islam on prejudiced opinions against Muslims among Christian respondents in Australia (Mansouri and Vergani 2018). Their findings indicate that possessing more knowledge about other religions seems to improve interreligious attitudes (see also Moritz et al. 2017). However, no study has specifically investigated the relationship between knowledge about one’s own religion and attitudes toward religious others. In contrast to Wiktorowicz (2005) and Fair et al. (2017), we argue that religious knowledge captures the intellectual dimension of religiosity*

*and expect that individuals who are more knowledgeable about their religion are also more likely to identify strongly with their religion. Thus, we expect religiously knowledgeable individuals to express more negative attitudes toward converts and apostates.*

We finally also theorize about the role of *education* for religious prejudice. The relationship between education and prejudice has been widely studied, with the majority of research finding that higher levels of education are associated with less prejudiced attitudes towards ethnic and racial minorities (e.g., [Selznick and Steinberg 1969](#); [Case et al. 1989](#); [Hello et al. 2002](#); [Coenders and Scheepers 2003](#); [Zamora-Kapoor et al. 2013](#); [Kaufmann and Goodwin 2018](#)). In fact, this association is one of the most consistent findings in the field of intergroup attitudes. Studies have shown that the effect of educational attainment on unfavorable opinions remains strong and significant in regression models, even after controlling for a range of covariates such as age, gender, socioeconomic background, etc. ([Hello et al. 2002](#), pp. 5–6). In line with this, quasi-experimental designs and instrumental variable approaches have provided causal evidence showing that higher levels of education lead to a more positive reported attitude toward immigrants among Europeans ([Nunziata 2016](#); [Cavaille and Marshall 2019](#)).

**Hypothesis 4.** *There are a number of possible explanations for this relationship. One mechanism is referred to as ‘cognitive sophistication’ ([Weber 2022](#), p. 230). According to this approach, individuals acquire knowledge and develop cognitive abilities through education, which enable them to be more tolerant of various outgroups. International organizations prominently advocate educational initiatives as a method of preventing radical beliefs. Education is considered an effective intervention since it promotes civic skills, critical thinking, and empathy, which are all traits that can make people more resilient to prejudiced attitudes ([UNESCO 2017](#); [OSCE 2018](#)). Other approaches highlight the role of the education system in the socialization process and the role of educational institutions in providing contexts for more diverse social networks ([Hello et al. 2002](#); [Hainmueller and Hiscox 2007](#)). As [Case et al. \(1989, p. 480\)](#) argue: “Education improves the opportunities to encounter diverse social groups and cultural lifestyles, exposes members to more universalistic and cosmopolitan cultural traditions, and institutionalizes written communication that extends one’s experiences beyond particular reference groups.” Given this strong and robust association found in the literature, we expect respondents with higher levels of educational attainment to express less unfavorable attitudes toward individuals who leave their religion.*

Finally, we also expect differences across the three religious groups studied. Beyond potential theological differences in terms of religious dogma on apostasy and conversion that are outside the scope of this article, we expect that Christians have less hostile attitudes towards apostates and converts than Muslims because, on a global scale, Christians are more likely to be confronted with secularization than Muslims given that countries with a former Christian (and in particular Protestant) majority are among the most secularized countries in the world ([Norris and Inglehart 2004](#)). Additionally—and again on a global scale—Christians are more likely to live in a liberal democracy that cherishes minority rights than Muslims (*ibid.*). Muslims, on the contrary, are more likely to live in a region with violent conflict, where possibilities for education are reduced and processes of in-group identification are intensified. For Jews, expectations about their attitudes towards apostates and converts are mainly driven by their long historic status as a global religious minority, which assures survival by maintaining a religious identity and a strong community ([Glazer 1958](#)).

The specific literature on our topic of interest here—namely, factors driving attitudes towards apostates and converts—is small, to say the least. One part of the existing literature on apostasy is focused on the definition of apostasy. [Cottee \(2018, pp. 283–84\)](#) summarizes this literature as either favoring a very broad definition of apostasy as disaffiliation from any organized religion ([Hadaway and Roof 1988](#); also cf. [Greenwald et al. 2021](#)) or adopting a specific definition of apostasy as opposition to one’s former religion (e.g., [Bromley 1998](#),



p. 284). [Shupe \(1998\)](#) even defines apostasy as an act of political opposition. Beyond questions of definition and distinction of apostasy from other phenomena, much of the literature focuses on the question of how leaving their former religion affects converts and apostates and what the potential driving factors behind this decision may be ([Greenwald et al. 2021](#)). [Kasselstrand \(2020\)](#) discusses how those leaving religion can be identified and studied in quantitative datasets. Another set of studies focuses on apostasy in Islam ([Cottee 2018](#); [van Nieuwkerk 2018](#)). [Phillips and Kelner's \(2006\)](#) study on “ethno-apostasy” among American Jews points to the previously mentioned phenomenon that apostasy and conversion in Judaism need to be understood in broader terms than merely religious ones. To the best of our knowledge, no quantitative analysis of attitudes towards apostates and no comparative analysis of attitudes towards apostates across religious groups exists.

### 3. Data and Methods

In this study, we are particularly interested in explaining the *attitudes* of individuals who belong to certain religious communities. We conducted surveys among representative samples of the target populations to measure their attitudes toward apostates and converts. Survey research enables us to investigate the factors that influence these attitudes ([Ruel et al. 2016](#), p. 57). The original survey data used in this study was collected in 2016. We sampled over 8600 respondents who self-identified as Christian (2676 respondents), Jewish (805), or Muslim (5145) in 7 countries: Cyprus, Germany, Israel, Kenya, Lebanon, the Palestinian territories, and Turkey.<sup>2</sup> The countries were selected to enable a broad range of cross-national and cross-sectional comparisons.<sup>3</sup> First of all, each country had to have a majority of its population belong to one of the three largest Abrahamic religions: Christianity, Islam, and Judaism, which allowed us to investigate similarities and differences between these three religious groups. Moreover, we sampled across different branches of Islam, Christianity, and Judaism so that a variety of religious denominations were also represented in the sample. For instance, we included Cyprus in the sample because of the presence of autochthonous Muslim (Sunnis and Alevites) and Christian (Greek Orthodox Christians) populations on the island. Israel was selected since it is the only Jewish majority country in the world and because different branches of Judaism (e.g., Hiloni, Masorti, Dati, or Haredi) are also represented there. The survey countries are also characterized by their different levels of religious diversity. Some of the countries, such as Turkey, are more homogenous whereas others, such as Lebanon, are more heterogenous. A significant share of the Lebanese population is Christian (e.g., Maronite Catholics) and members of the two of the major Muslim denominations (Sunnis and Shias) constitute the rest of the population. Another selection criterion related to whether the religious communities in a country were predominantly moderate or conservative. For instance, including Kenya ensured that the generally more conservative Christianity of Africa was represented in the sample. We also wanted to include a Christian majority country with a Muslim minority outside the Western context, which is another reason why we selected Kenya. In contrast, Germany is a Western country with a moderate Christian majority (Catholics and Protestants) and a Muslim minority (mostly Sunnis) largely comprised of Turkish immigrants and their descendants. Overall, our country selection enables us to test our hypotheses across a wide range of religious groups and denominations within a variety of national and cultural contexts, which further enhances the generalizability of our findings.

The respondents' self-identification as members of religious groups was assessed using the question, “To which religion do you belong?”. The distribution of the sample across survey countries and religious groups is shown in Table 1. Some religious groups and denominations were oversampled in particular countries; we oversampled religious minorities (e.g., Muslims in Kenya or Germany). In Lebanon, we used quotas to ensure that the various denominations within Islam (Shiite and Sunni) and Christianity (Maronite and Melkite Catholics, Eastern Orthodox, and Protestant) were adequately represented in the sample. Similarly, in Israel, we sampled across the different Jewish denominations (e.g., secular, traditional, orthodox, and ultra-orthodox). Moreover, we enforced gender and age

quotas in all survey countries to ensure that the sample was representative. All surveys were administered nationwide, except in Kenya, where this was not feasible. In Kenya, we recruited the sample from the two largest cities, Nairobi and Mombasa, and from two rural regions, one predominantly Muslim (Malindi), another predominantly Christian (Nakuru). Further detailed information on the research design, sampling strategies, and the sample is included in the Supplementary Materials.

**Table 1.** Distribution of the sample across countries and religious groups.

Country	<i>n</i>	Christian	Jewish	Muslim
Cyprus	1357	684	-	673
Germany	1281	765	-	516
Israel	1212	64	805	343
Kenya	1197	600	-	597
Lebanon	1190	491	-	699
Palestine	843	32	-	811
Turkey	1546	40	-	1506
Total	8626	2676	805	5145

#### 4. Dependent Variables

We used a feeling thermometer ranging from 0 to 100—in which 0 represents the coldest, least favorable rating and 100 represents the warmest, most favorable rating—to measure respondents' attitudes towards those who leave their religion (i.e., converts and apostates). Previous research on intergroup attitudes has widely and reliably utilized feeling thermometers to evaluate interethnic and interreligious sentiments (e.g., Verkuyten 2007; Nelson 2008; Schmid et al. 2013; Johnson et al. 2012; Martinovic and Verkuyten 2016; Kanol 2021). As Nelson (2008, p. 276) notes, feeling thermometers are “important survey instruments because they allow researchers to gather information about the direction, as well as intensity, of respondents' attitudes and feelings toward specific people, groups, and issues.” In this line of research, ratings below 50 are generally considered to be more negative and hostile; conversely, ratings above 50 are interpreted as being more positive and favorable (ibid.). To assess attitudes towards converts and apostates, we asked (Muslim/Christian/Jewish) respondents to rate “[Muslims/Christians/Jews] who have converted to another religion” (i.e., converts); and “people raised as [Muslims/Christians/Jews] who no longer believe in God (i.e., apostates).”<sup>4</sup> We are primarily interested in negative or unfavorable attitudes towards apostates and converts, which is why we reverse-coded the thermometer ratings of both groups so that 100 represents the coldest, most unfavorable rating and 0 represents the most positive rating. This enables us to interpret and discuss the results of the regression analyses more easily.

Across the entire sample, converts were rated unfavorably with an average score of 72 ( $SD = 32$ ), whereas apostates were rated slightly more negatively with 74 points ( $SD = 33$ ). However, there were notable differences across the religious groups. On average, Jewish respondents expressed comparatively positive attitudes towards apostates ( $M = 39$ ,  $SD = 28$ ) and compared to the other religious groups, they also rated converts less unfavorably ( $M = 53$ ,  $SD = 28$ ). In contrast, Muslim respondents expressed the most hostile opinions towards both apostates ( $M = 83$ ,  $SD = 29$ ) and converts ( $M = 80$ ,  $SD = 30$ ). When asked about apostates, Christians assigned them an average rating of 67 ( $SD = 34$ ) and they responded similarly coldly toward converts ( $M = 64$ ,  $SD = 33$ ). Overall, both Muslim and Christian respondents held slightly more negative views toward apostates while Jewish respondents rated converts more unfavorably than apostates (further descriptive findings for religious groups across the survey countries can be found in the Supplementary Materials).

## 5. Independent Variables

Descriptive statistics of the independent and control variables across the religious groups can be found in the Supplementary Materials (see Table S3 for the Christian sample, Table S4 for the Jewish sample, and Table S5 for the Muslim sample). We estimated the correlation coefficients for the independent and control variables among each religious group and plotted them in a correlation matrix. These figures can also be found in the Supplementary Materials (see Figure S3 for the Christian sample, Figure S4 for the Jewish sample, and Figure S5 for the Muslim sample). Overall, the results indicate that the independent variables and the control variables are weakly correlated, barring a few exceptions. For instance, across all three religious groups, religious practice was moderately correlated with religious fundamentalism (0.45 among the Christian sample, 0.67 among the Jewish sample, and 0.38 among the Muslim sample). Given the moderate correlations between these variables, we estimated the variance inflation factor (VIF) for each variable in the regression model to detect multicollinearity. The results indicate that the VIFs are below the threshold value of 10.

## 6. Religious Practice

We use two variables to control for the level of *religious practice* of respondents: We asked respondents how often they prayed (with answer categories ranging from (4) ‘several times a day’ to (0) ‘never’) and how often they visited a religious service in a (mosque/church/synagogue) (with answer categories ranging from (4) ‘several times a day’ to (0) ‘never’). We averaged these two items to create the *religious practice index* with a Cronbach’s  $\alpha$  of 0.65. Christian respondents scored, on average, 2.0 ( $SD = 0.84$ ), Jewish respondents 1.3 ( $SD = 1.1$ ), and Muslim respondents 2.2 ( $SD = 1.1$ ) on the religious practice index.

## 7. Religious Fundamentalism

We use six well-established survey items to measure religious fundamentalism (see, e.g., Altemeyer and Hunsberger 2004; Koopmans 2015; Kanol 2021). These items were: (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”; and (6) “Religious leaders should play a larger role in politics”. Possible answer categories ranged from 1, *completely agree* to 5, *completely disagree*. For the purposes of our analyses, we reverse-coded the survey items, such that a higher score indicated a higher level of religious fundamentalism (i.e., 1, *completely disagree*, 5, *completely agree*). We examined these six items through principal components analysis and Cronbach’s alpha reliability tests. Principal components analysis using pooled data and subsets of the three religious groups returned a one-factor structure (see Supplementary Materials Tables S6–S9). Therefore, we averaged these six items to create the *religious fundamentalism index* with a Cronbach’s  $\alpha$  0.79 (for Christians, 0.75; for Jews, 0.90; and for Muslims, 0.76). Overall, respondents scored, on average, 3.1 ( $SD = 1$ ) on the religious fundamentalism index. There were some differences across the religious groups, as religious fundamentalist attitudes were more strongly represented among Christian ( $M = 2.9$ ,  $SD = 0.9$ ) and Muslim respondents ( $M = 3.3$ ,  $SD = 0.9$ ) than among Jewish respondents ( $M = 2.5$ ,  $SD = 1.1$ ).

## 8. Religious Knowledge

We used three pretested multiple-choice questions to measure religious knowledge. Glock (1973) and Huber and Huber (2012) also include the intellectual dimension (religious knowledge) in their measurement of religiosity, but their measurement is restricted to questions about how interested an individual is in learning about religion; they do not



actually measure religious knowledge as such. This is different in the case of the present data, which actively assesses religious knowledge. The first question about the name of the son that God instructed Abraham to sacrifice (with the following answer categories and the correct answer in italic: '*Isaac*'; 'Jacob'; 'Jonas'; and 'Josef') was presented to all respondents, whereas the remaining two questions were religion specific. We asked Christians what happened on Pentecost (with answer categories: 'Jesus stood up from the grave'; '*The disciples received the Holy Spirit*'; 'Jesus walked on water'; and 'The last supper') and to identify from a list of names who was *not* one of the twelve apostles (with answer categories: 'Peter'; 'Judas'; '*Lukas*'; and 'Simon'). We asked Jews the name of Eshter's uncle from the Purim story (with answer categories: 'Josef'; '*Mordechai*'; 'Schlomo'; 'Yacob') and the name of Moses' brother, who was with him when he led the Jews out of Egypt (with answer categories: 'Shimon'; 'Yochanan'; '*Aharon*'; and 'Benyamin'). We asked Muslims the name of the uncle who raised Mohammad (with answer categories: '*Abu Talib*'; 'Ali'; 'Hussein'; and 'Abd Allāh') and where the Mir'aj took place (with answer categories: 'Mecca'; 'Medina'; '*Al Quds/Jerusalem*'; and 'Damascus'). Using these questions, we constructed an additive *religious knowledge index*, ranging from 0, respondent answered all questions wrong to 3, respondent answered all questions right. Jewish respondents were, on average, more knowledgeable ( $M = 2.8$ ,  $SD = 0.6$ ) than Christian ( $M = 1.7$ ,  $SD = 1.0$ ) and Muslim respondents ( $M = 1.9$ ,  $SD = 1.0$ ).

### Education

We measure respondents' level of *education* by measuring their highest achieved degree using seven 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 respondents was 3.8 ( $SD = 1.9$ ), 5.0 ( $SD = 1.5$ ) for Jewish respondents, and 3.0 ( $SD = 2.0$ ) for Muslim respondents. Considering the various education systems across the survey countries, we standardized the education variable within each survey country for the regression analyses.

## 9. Control Variables

We include a range of demographic and socioeconomic variables as covariates in the regression analyses. We control for respondents' *gender* using a binary variable, where male is coded as (1) and female as (0). In total, 47% of the Christian and Jewish respondents, and 51% of the Muslim sample identified as male. Respondents were asked to state their *age*, which we measured in years. The mean age of the Christian sample was 42 ( $SD = 18$ ); for the Jewish sample, it was 38 ( $SD = 13$ ); and for the Muslim sample, it was 38 ( $SD = 15$ ).

Respondents from all the survey countries were asked to estimate their household net *income* following these seven categories: below 500 EUR (1); 500–1000 EUR (2); 1000–2000 EUR (3); 2000–3000 EUR (4); 3000–4000 EUR (5); 4000–5000 EUR (6); and more than 5000 EUR (7). The mean level of income of the Christian respondents was 3.3 ( $SD = 1.4$ ); for Jewish respondents, it was 4.1 ( $SD = 1.5$ ); and for the Muslim sample, it was 2.7 ( $SD = 1.5$ ). A total of 1817 (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. Similar to the education variable, the imputed income variable was also standardized within each survey country.

Moreover, we controlled for respondents' *employment* status. Specifically, respondents were asked to state whether they had a paid job, were unemployed, or not in the labor force (e.g., students, housewives, pensioners, etc.). Among the Christian sample, 55% of the respondents were employed, 37% were not in the labor force, and around 8% were unemployed. Among the Jewish sample, 76% of the respondents were employed, 20% were not in the labor force, and around 4% were unemployed. Among the Muslim sample, 47% of the Muslim sample were employed, 45% were not in the labor force, whereas 8% were unemployed.

We control for the *survey country* using dummy variables for the seven countries, with Germany as the reference country. We also recorded the *conversion status* of the survey participants. A small minority of respondents across each religious group stated that they were not raised by their parents in their stated religious denomination: 7% of the Christian sample, 0.3% of the Jewish sample, and 5% of the Muslim sample. We removed these respondents from the regression analyses of the attitudes towards converts. Moreover, we controlled for the *marital status* of the respondents. In total, 56% of the Christian sample, 61% of the Jewish sample, and 62% of the Muslim sample stated that they were married.

## 10. Results

We test our hypotheses by estimating ordinary least squares (OLS) regression models. Our analyses consist of three steps. In the first step of the analyses, we measure the effect of the explanatory variables on attitudes toward converts and apostates using pooled data. In the second step of the analyses, we explore whether and to what extent the effects of the explanatory variables differ across the religious groups by including interaction terms in the regression models.

We regress the measure of unfavorable attitudes toward converts and apostates on the operationalization of our four hypotheses and the control variables. In Table 2, we show the results of the OLS regression models using a pooled sample. We find that religious practice is a significant predictor of unfavorable feelings towards both converts and apostates. A one-unit change in the religious practice index increases the negative attitudes toward converts by about 2.6 points ( $p < 0.001$ ) and toward apostates by about 3.0 points ( $p < 0.001$ ). These findings are in line with our expectations concerning Hypothesis 1.

**Table 2.** OLS regression results of unfavorable attitudes toward individuals who leave their religion.

	<i>Dependent Variable:</i>	
	Converts	Apostates
Religious practice	2.60 *** (0.36)	3.04 *** (0.33)
Religious fundamentalism	9.81 *** (0.37)	9.96 *** (0.33)
Religious knowledge	0.10 (0.34)	0.37 (0.31)
Education	−2.11 *** (0.32)	−2.22 *** (0.29)
Religion (reference: Christian)		
Jewish	15.67 *** (1.80)	1.84 (1.67)
Muslim	6.79 *** (0.76)	7.59 *** (0.68)
Age	−0.19 (0.35)	−1.06 *** (0.32)
Convert		−1.20 *** (0.26)
Employment (reference: Employed)		
Unemployed	0.04 (1.14)	−0.11 (1.02)
Other	−0.59 (0.67)	0.22 (0.61)
Income (imputed)	−0.86 ** (0.32)	−0.26 (0.28)
Male	−0.12 (0.31)	−0.43 (0.28)
Married	1.16 *** (0.33)	1.40 *** (0.30)
Survey country (reference: Germany)		
Cyprus	32.52 *** (1.10)	34.62 *** (1.00)
Israel	0.55 (1.72)	0.90 (1.59)
Kenya	24.68 *** (1.24)	33.99 *** (1.11)
Lebanon	31.92 *** (1.14)	43.06 *** (1.04)
Palestine	26.57 *** (1.35)	30.25 *** (1.23)
Turkey	34.87 *** (1.21)	34.71 *** (1.10)
Observations	6990	7409
Adjusted R <sup>2</sup>	0.41	0.54

Note: Standardized regression coefficients. Standard errors are in parentheses. The regression analysis of attitudes toward converts excludes converted respondents. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

Our second hypothesis states that individuals who adhere to religious fundamentalist attitudes are more likely to express unfavorable opinions toward converts and apostates. We find that the religious fundamentalism index correlates significantly and very strongly with unfavorable attitudes. In particular, a one-unit change in the religious fundamentalism index is associated with a 9.9-point increase ( $p < 0.001$ ) in prejudice toward converts and with a 10-point increase ( $p < 0.001$ ) in prejudice toward apostates. Based on these findings, we can confirm Hypothesis 2.

Our third hypothesis investigates the relationship between religious knowledge and prejudice. We find that the effect of religious knowledge on unfavorable attitudes is negligible. The effect sizes are both very small and not significant (for converts, 0.1 and for apostates, 0.4). These results lead us to reject Hypothesis 3.

Our fourth and final hypothesis predicts that individuals with a higher level of educational attainment are less likely to express an unfavorable opinion about individuals leaving their religion. We find that higher levels of education are indeed associated with lower levels of negative attitudes toward converts ( $-2.1, p < 0.001$ ) and apostates ( $-2.2, p < 0.001$ ). These findings are in line with Hypothesis 4.

Before we discuss the results of the regression analyses, including interaction terms, it is important to highlight the differences we observe between the religious groups in the main analysis. Holding all else equal, compared to Christian respondents, both Jewish (15.7,  $p < 0.001$ ) and Muslim (6.8,  $p < 0.001$ ) respondents are significantly more prejudiced toward converts (see Table 2). In contrast, there appears to be no significant differences between Christian and Jewish respondents when it comes to attitudes towards apostates, whereas Muslim respondents also hold significantly less favorable attitudes towards apostates (7.6,  $p < 0.001$ ).

Next, we investigate whether and to what extent the effects of our explanatory variables are homogenous across the three religious groups by interacting the explanatory variables with the religious group variable. The regression models, including the interaction terms, can be found in the Supplementary Materials Tables S10 and S11. For ease of interpretation, we estimate the predicted scores on the feeling thermometer for each value of the religious observance index conditional on the religious group and plot these Figures 1 and 2.

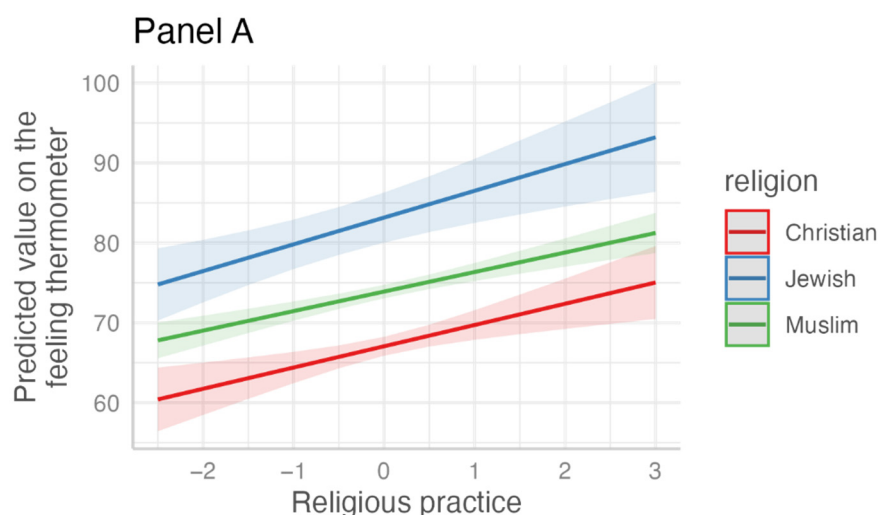
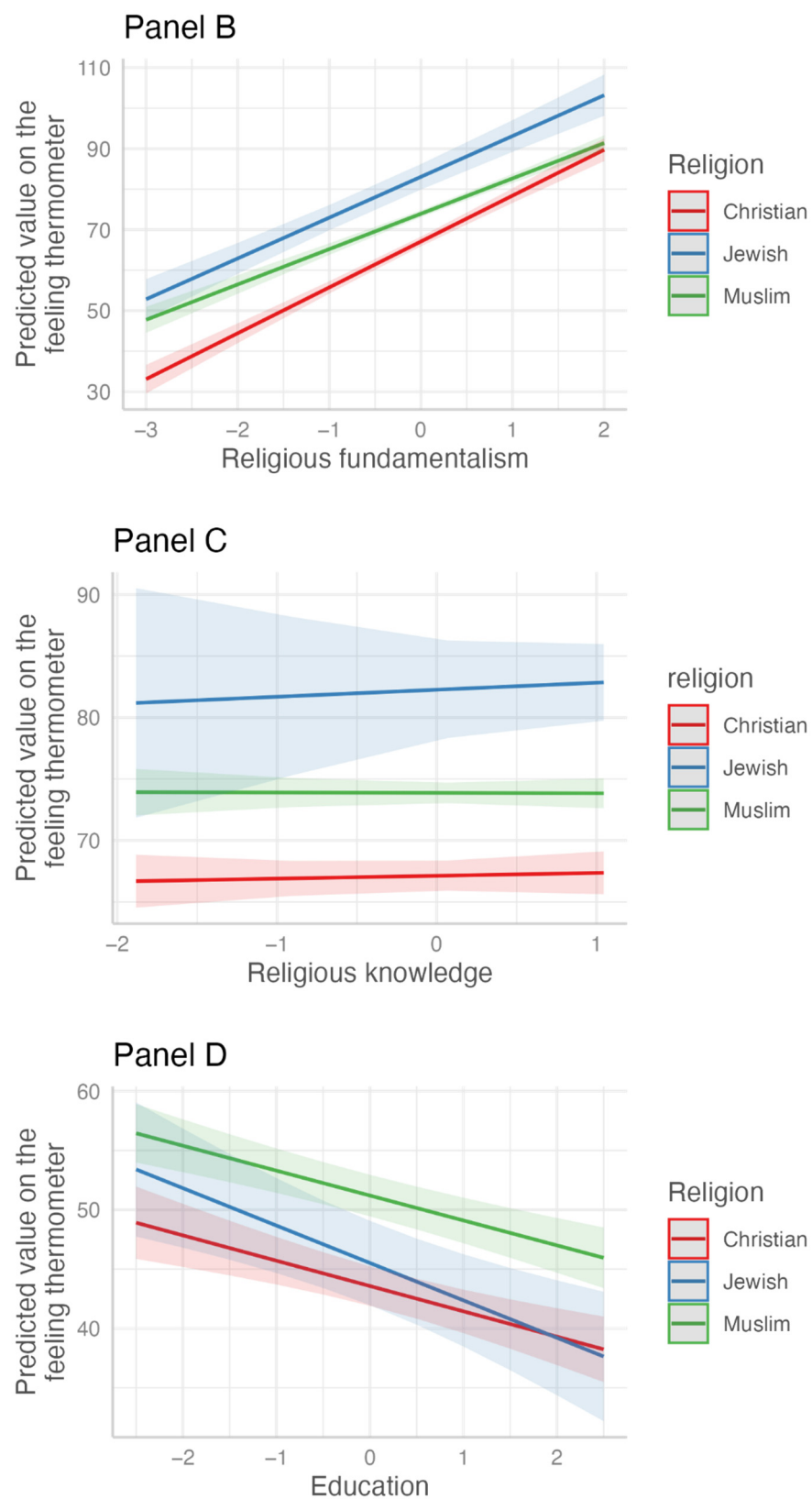
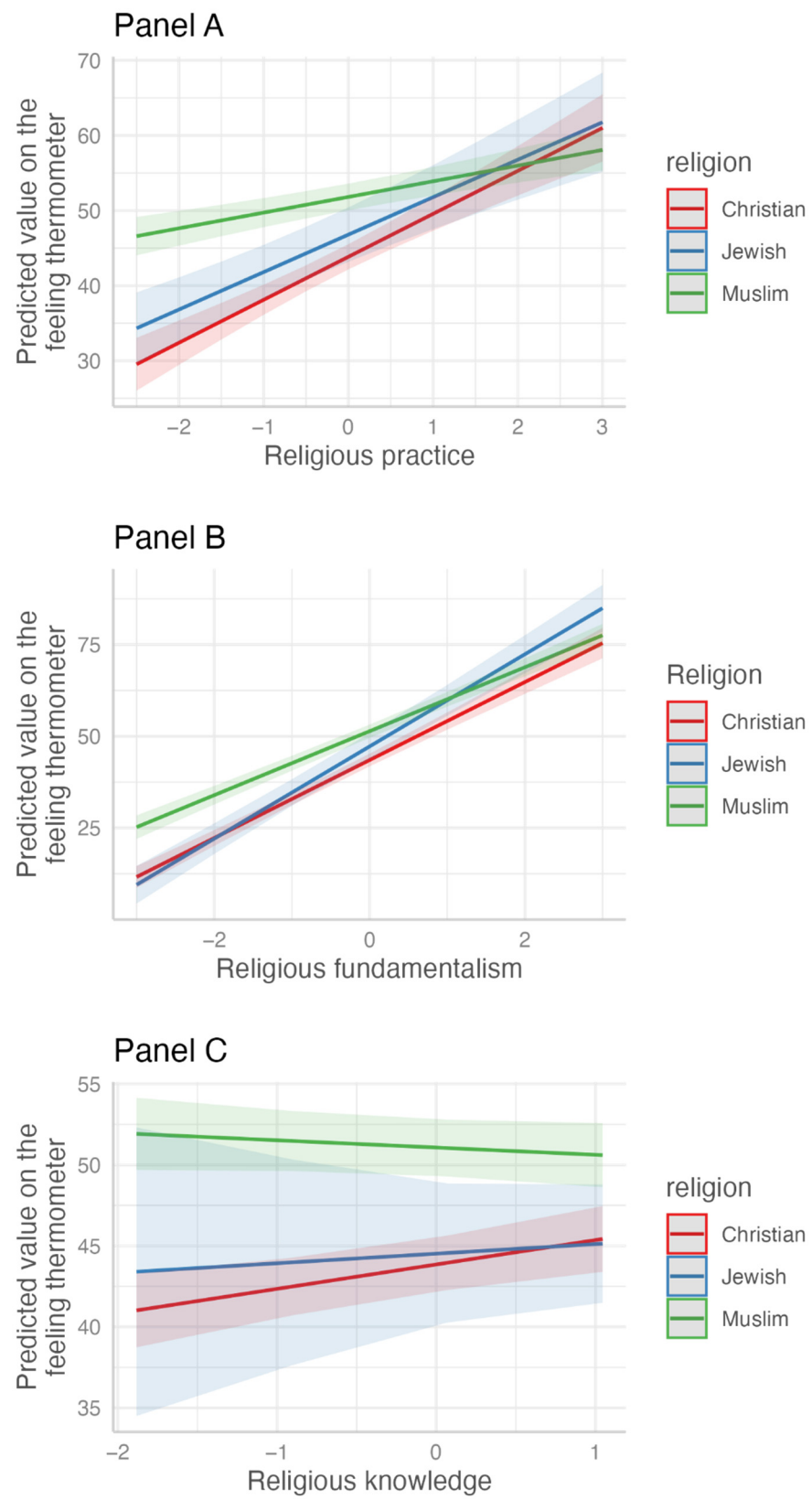


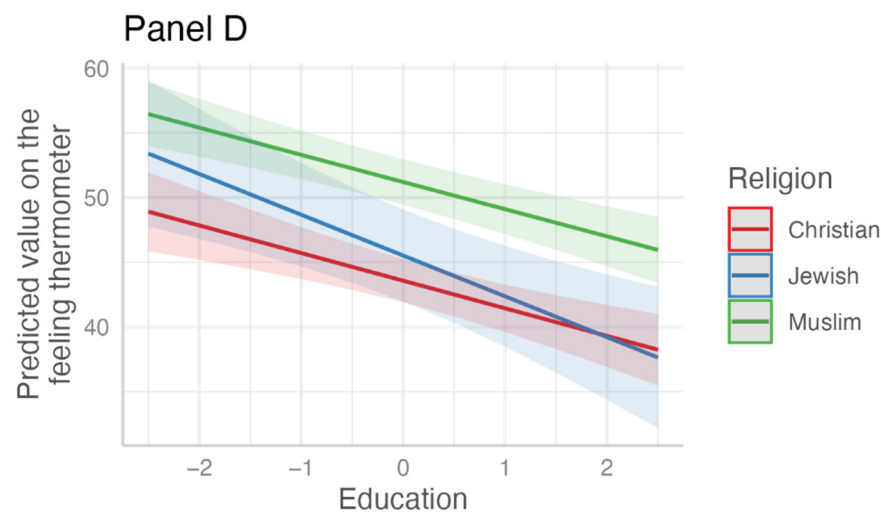
Figure 1. Cont.



**Figure 1.** Predicted feeling thermometer scores for converts conditional on the values of religious practice (**Panel A**), religious fundamentalism (**Panel B**), religious knowledge (**Panel C**), and education (**Panel D**) across religious groups.

**Figure 2.** *Cont.*





**Figure 2.** Predicted feeling thermometer scores for apostates conditional on the values of religious practice (**Panel A**), religious fundamentalism (**Panel B**), religious knowledge (**Panel C**), and education (**Panel D**) across religious groups.

Panel A of Figures 1 and 2 shows that religious practice deteriorates attitudes toward converts and apostates across all three religious groups (see also Supplementary Materials Tables S10 and S11). We also find that both Jewish respondents who are *not very* observant and Jewish respondents who are *very* observant hold more negative feelings towards converts than their respective Christian and Muslim counterparts. On the other hand, although Muslim respondents who do not practice their religion are significantly more hostile toward apostates, there are no differences in the attitudes of highly observant Christians, Jews, and Muslims.

We observe similar patterns concerning the effects of religious fundamentalism on unfavorable attitudes toward those who leave their religion conditional on the religious groups. Religious fundamentalism is a strong predictor of unfavorable attitudes for all three religious groups (panels B of Figures 1 and 2). Moreover, Jewish respondents who strongly adhere to religious fundamentalism are significantly more likely to express negative opinions toward converts than religious fundamentalists among Christian and Muslim respondents (panel B of Figure 1). We do not find any significant differences in attitudes toward apostates among Christian, Jewish, and Muslim respondents who score high on the religious fundamentalism index (Panel B of Figure 2).

Our findings concerning the negligible effect of religious knowledge on unfavorable attitudes appears to be true for all three religious groups (panels C of Figures 1 and 2). We observe no significant differences between religiously knowledgeable and ill-informed Christian, Jewish, or Muslim respondents. However, our findings suggest that highly knowledgeable Jewish and Muslim respondents are more hostile toward converts than highly knowledgeable Christian respondents (Panel C of Figure 1).

Our results also indicate that educational attainment significantly predicts higher scores on the feeling thermometer for Christian and Muslim respondents but not for Jewish respondents (Panel D of Figures 1 and 2). Better educated Jewish respondents still rate converts significantly more negative than better educated Christian and Muslim respondents (Panel D of Figure 1). Similarly, well-educated Muslim respondents also rate apostates more negatively than well-educated Christian and Jewish respondents (Panel D of Figure 2).

Finally, there were also marked differences across the various survey countries. As shown in Figures 1 and 2, respondents from Germany and Israel expressed comparatively warmer feelings toward both converts and apostates than respondents from other survey countries. In contrast, respondents from Kenya, Lebanon and Palestine rated those who leave their religions very unfavorably.

## 11. Additional Country-Level Analyses

Many of the survey countries included in this study are currently experiencing or have previously faced inter-ethnic and/or inter-religious violence and conflict. For instance, in Kenya, a large Christian majority and a small, mainly immigrant Muslim minority are regularly entangled in confrontations; the Palestinian conflict with Israel is framed in ethno-religious terms; in Lebanon, the many different Muslim and Christian groups have a long history of (civil) conflict; and the island of Cyprus is divided into Greek and Turkish parts, where religion may not be the main source of conflict but nevertheless marks a difference between the southern and northern populations. In this sample, only Turkey and Germany are not confronted with ongoing religious conflict. One could argue that these ongoing or previously active conflicts may play an important role in determining the attitudes of respondents from these countries toward religious outsiders. It is plausible that these tensions cause people to adhere more tightly to social norms, including religious beliefs, and to punish norm violators, including converts and apostates, more harshly (Henrich et al. 2019, p. 129).

Our descriptive findings on the *prevalence* of negative attitudes across survey countries also indicate that the country context may determine the extent to which such attitudes are represented among religious communities (see Supplementary Materials Figures S1 and S2). For instance, Muslim respondents in Germany ( $M = 55$ ,  $SD = 40$ ) were, on average, less hostile toward converts than Muslim respondents elsewhere. The differences in attitudes between the religious groups in Cyprus, Germany, and Turkey were comparably larger than the differences in the attitudes among religious groups in Lebanon and Palestine. For example, there were 28-percentage-point difference between German Christians' ( $M = 28$ ,  $SD = 30$ ) and German Muslims' ( $M = 56$ ,  $SD = 40$ ) attitudes toward apostates, whereas the difference was only 1 percentage point between Lebanese Christians ( $M = 94$ ,  $SD = 16$ ) and Muslims ( $M = 93$ ,  $SD = 18$ ). It is interesting to note that Muslims in Germany, who are a small immigrant community in a high-income country, show much lower levels of hostility towards both apostates and converts. We also observe that Christians in the four countries with high levels of conflict are also more likely to hold negative feelings towards those leaving the community. Thus, we assume that our findings on Muslims being the most hostile towards those turning their back on religion may reflect the conflicts and controversies that currently characterize the Muslim world.

Unfortunately, the number of survey countries is too small for us to statistically test and control for such contextual effects. Additionally, case selection followed the principle of maximizing variance (cf. data and methods section) rather than systematically comparing Christians, Jews, and Muslims in high- versus low-conflict countries.

Nevertheless, we conduct a series of explanatory analyses to investigate whether the *impact* of our *explanatory variables* would change depending on whether respondents are living in a country with an ongoing conflict or not. To examine the potential role of ongoing conflicts, we include a dummy variable indicating ongoing religious conflict in the survey country in our regression models. Turkey and Germany are coded as countries with no ongoing religious conflict, whereas Cyprus, Kenya, Lebanon, and Palestine are coded as countries with ongoing religious conflict.<sup>5</sup> We find that compared to respondents from non-conflict countries, respondents from conflict countries score, on average, 12 ( $p < 0.001$ ) and 19 points ( $p < 0.001$ ) higher on the feeling thermometer toward converts and apostates, respectively (see Supplementary Materials Table S14). These results are in line with our descriptive findings discussed above.

In a next step, we interact our explanatory variables with the dummy variable to test whether our findings regarding the effect of the explanatory variables are robust across country contexts (see Supplementary Materials Tables S12 and S13). Overall, these analyses corroborate our main findings using the pooled data. Most importantly, religious fundamentalism appears to be the most robust predictor of unfavorable attitudes towards those who leave their religion both within conflict and non-conflict countries (see Supplementary Materials Panel B in Figures S7 and S8). Although respondents who score lower on the

fundamentalism index are, on average, more hostile toward religious outsiders if they reside in a conflict country, these differences diminish as respondents score higher on the fundamentalism index. In fact, respondents who score the highest on the fundamentalism index are, on average, more prejudiced if they reside in a non-conflict country. Education also appears to be relevant independently of active conflicts (see Supplementary Materials Panel D in Figures S7 and S8). Similar to our main findings, religious knowledge does not reduce negative attitudes and this result holds irrespective of ongoing inter-religious frictions (see Supplementary Materials Panel C in Figures S7 and S8). The only explanatory variable that seems to be dependent on the context is religious practice: while religious practice significantly and strongly predicts negative attitudes in non-conflict countries, it did not impact the attitudes of respondents in conflict countries (see Supplementary Materials Panel A in Figures S7 and S8). In these countries, vast majorities practice their religion as [Norris and Inglehart's \(2004\)](#) theory would predict that higher levels of existential security leads to higher levels of religiosity. The small minorities that do not practice religion—although they live in countries with high levels of existential security—are likely to vary in many other regards from the practicing majorities.

## 12. Conclusions and Discussion

Our most robust finding when comparing attitudes towards apostates and converts across all three religions and country contexts is that with increasing levels of religious practice and religious fundamentalism, attitudes towards apostates and converts become more negative and converge. This is also true for those scoring high on the religious fundamentalism index; again, the attitudes of Muslim, Jewish, and Christian fundamentalists converge, but, in this case, on a much higher level than among the religiously observant individuals. Most importantly, religious practice remains significant even when we include religious fundamentalism into our regression models. This suggests that it is not only religious content or ideas that primarily drive hostile feelings towards apostates and converts, given also that religious knowledge remains insignificant. Instead, a strong feeling of belonging to a religious community that is hurt by individuals leaving that community may be a major driving force behind attitudes towards apostates and converts. We also find that higher levels of general education decrease the risk of negative attitudes towards apostates and converts. Higher levels of educational attainment may simply be a proxy for more liberal attitudes ([Weil 1985](#)). Higher levels of religious education, however, do not have a significant effect on attitudes towards apostates and converts.

Our study advances the literature in a number of ways. First, to the best of our knowledge, this is the first empirical study that investigates attitudes toward apostates and converts using survey data. Previous studies have investigated the relationship between religiosity and attitudes toward a variety of outgroups, including racial and ethnic minorities, women, and homosexuals, and, to a lesser extent, toward religious outgroups (for a review, see [Hunsberger and Jackson 2005](#)). However, no study so far has explored the association between religiosity and attitudes toward individuals who leave religion. One relevant finding from the available literature we would like to highlight is that once religious fundamentalism is accounted for, the relationship between religious practice and attitudes toward outgroups generally diminishes or ceases to be statistically significant (see, e.g., [Kirkpatrick et al. 1991](#); [Koopmans 2015](#)). In contrast, our findings show that even after controlling for religious fundamentalism, highly religiously observant respondents tend to rate both converts and apostates significantly worse than less religiously observant respondents. We explain this finding by the specific type of outgroup we are focusing on in this study. According to the “prejudice against value violators” hypothesis, religious fundamentalists particularly reject those who are perceived to violate their values and beliefs (e.g., homosexuals) but not necessarily racial minority groups who are perceived to uphold certain religious values ([Brandt and Reyna 2010, 2014](#)). It is, therefore, not surprising that religious fundamentalist respondents are prejudiced toward those who abandon their religious values and beliefs by turning their back to religion (i.e., apostates), or those

who convert to another religion. However, our findings suggest that even individuals who simply practice their religion and are not necessarily adhering to a fundamentalist belief system can also be prejudiced against those who abandon their religious values and beliefs.

Second, building on the sociology of religion literature and radicalization research, we proposed and tested the role of another dimension of religiosity, namely the impact of religious knowledge on religious prejudice (Wiktorowicz 2005; Fair et al. 2017; Mansouri and Vergani 2018). In contrast to this body of literature, we find that the effect of religious knowledge is negligible and that it does not alleviate hostile attitudes toward apostates and converts. Therefore, we argue that it cannot be effectively used to counter prejudiced narratives and religious radicalization.

Third, we would like to highlight some of the important differences between the religious groups. Interestingly, Jewish respondents are more tolerant of apostates than Christian and Muslim respondents. In fact, Jews in Israel are—together with Christians in Germany—among the most tolerant national religious group in our sample. However, they are significantly more hostile toward converts. This difference remains even after we control for the different dimensions of religiosity, including religious fundamentalism. We interpret this finding as an indicator of the strong association between the ethnic and religious dimensions of Jewish identity (Glazer 1958). Jewish individuals who turn their back to Judaism and lead secular lives may still define themselves as Jewish and, more importantly, may still be perceived as Jewish by their co-ethnics. Studies on Jewish identity in the United States have shown how Jews, who do not practice Judaism or who are not deeply committed to Judaism, can still maintain strong Jewish identities and ties to the Jewish community (Amyot and Sigelman 1996). However, if they were to convert to another religion, they would leave Judaism and could no longer be perceived as Jewish. The more positive evaluation of apostates contradicts the attitudes of most individuals in our sample. We also find that, compared with Jewish and Christian respondents, Muslim respondents are significantly more hostile toward apostates.

Fourth, our exploratory analyses suggest that inter-group relations and inter-group conflicts in a specific national context may contribute to more negative attitudes towards apostates and converts. Moreover, and more importantly, we also tested whether these contexts would impact on the role of our explanatory variables. We find that both religious fundamentalism and education predict attitudes irrespective of existing conflicts in the survey countries. Thus, these additional analyses further demonstrate the robustness of our overall findings. However, we would like to point out that surveying of additional countries is necessary to further explore the role of other context-level variables and to control for these variables while measuring the impact of inter-group conflicts. The inclusion of survey items that measure attitudes toward those who leave religion in large-scale survey studies such as the European Value Survey or the World Value Survey would enable researchers to estimate multilevel regression models that can be used to analyze both individual- and context-level determinants.

Finally, we would like to discuss several other limitations and caveats regarding our study. Our study is limited in terms of the number of survey items we used to operationalize education and, perhaps more importantly, the negative attitudes toward converts and apostates. Arguably, the feeling thermometer allows us to only measure the affective dimension of prejudice. Future studies should include measures of other dimensions of prejudice, such as measures of trust or tolerance (see, e.g., the Gallup Coexist Index in Gallup 2009), to enable us to better grasp the full extent of problematic attitudes. Similarly, the survey included only one item to measure education, which is a rather broad concept. Most importantly, by using this single item to measure education, we were not able to single out those cases who possibly obtained their educational degrees in religious schools. It is possible that the potential effect of secular education is masked by the attitudes of some respondents who obtained their educational degrees in religious schools.

**Supplementary Materials:** The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/rel13080682/s1>, Figure S1: Respondents' ratings on the feeling thermometer for attitudes toward converts (0 = most favorable rating; 100 = most unfavorable rating), Figure S2: Respondents' ratings on the feeling thermometer for attitudes toward apostates (0 = most favorable rating; 100 = most unfavorable rating), Figure S3: Correlation matrix for the independent and control variables among the Christian sample, Figure S4: Correlation matrix for the independent and control variables among the Jewish sample, Figure S5: Correlation matrix for the independent and control variables among the Muslim sample; Figure S6: Predicted feeling thermometer scores for converts conditional on the values of religious practice (Panel A), religious fundamentalism (Panel B), religious knowledge (Panel C), and education (Panel D) across conflict and non-conflict countries, Figure S7: Predicted feeling thermometer scores for apostates conditional on the values of religious practice (Panel A), religious fundamentalism (Panel B), religious knowledge (Panel C), and education (Panel D) across conflict and non-conflict countries; Table S1: Respondents' ratings on the feeling thermometer across religious groups (0 = most favorable rating; 100 = most unfavorable rating), Table S2: Respondents' ratings on the feeling thermometer across religious groups and survey countries (0 = most favorable rating; 100 = most unfavorable rating), Table S3: Principal components analysis of the six religious fundamentalism items using pooled data, Table S4: Principal components analysis of the six religious fundamentalism items using a subset of the Christian sample, Table S5: Principal components analysis of the six religious fundamentalism items using a subset of the Jewish sample, Table S6: Principal components analysis of the six religious fundamentalism items using a subset of the Muslim sample, Table S7: Descriptive statistics of the Christian sample, Table S8: Descriptive statistics of the Jewish sample, Table S9: Descriptive statistics of the Muslim sample, Table S10: OLS regression results for unfavorable attitudes toward converts including interaction terms, Table S11: OLS regression results for unfavorable attitudes toward apostates including interaction terms, Table S12: OLS regression results for unfavorable attitudes toward converts including interaction terms for religious conflict in survey country, Table S13: OLS regression results for unfavorable attitudes toward converts including interaction terms for religious conflict in survey country, Table S14: OLS regression results for unfavorable attitudes toward converts and apostates including religious conflict dummy.

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## Notes

- <sup>1</sup> Huber and Huber (2012) also identify a fourth dimension of religious experience (direct contact with an ultimate reality) and a fifth dimension of ideology (the belief system) that are of minor relevance in this context. They argue that correlations between the different dimensions are higher among more religious individuals than among the less religious ones.
- <sup>2</sup> Respondents who did not identify with a religion were also sampled but were not included in this study. This is because we are primarily interested in the attitudes of religious communities towards those who leave their religious groups. Moreover, the sample size of those who do not identify with a religion is too small to conduct meaningful analyses.



- 3 Case selection was also driven by aspects of feasibility since e.g., several North African or Middle Eastern countries could not be included into the survey because of political unrest or illiberal political regimes.
- 4 The members of each religious group were only asked about a member of their in-group leaving their respective religion e.g., Muslim respondents were asked about Muslims who have converted to another religion. It was not specified to which religion these people would convert.
- 5 We remove Israel from this analysis, since Jewish respondents would only be represented in the ongoing religious conflict context, whereas Christians and Muslims are represented in both contexts.

## References

- Almond, Gabriel A., Robert Scott Appleby, and Emmanuel Sivan. 1995. Fundamentalisms: Genus and Species. In *Fundamentalisms Comprehended*. Edited by Martin E. Marty and R. Scott Appleby. Chicago: University of Chicago Press, pp. 399–421.
- Altemeyer, Bob, and Bruce Hunsberger. 1992. Authoritarianism, Religious Fundamentalism, Quest, and Prejudice. *International Journal for the Psychology of Religion* 2: 113–33. [\[CrossRef\]](#)
- Altemeyer, Bob, and Bruce Hunsberger. 2004. RESEARCH: A Revised Religious Fundamentalism Scale: The Short and Sweet of It. *The International Journal for the Psychology of Religion* 14: 47–54. [\[CrossRef\]](#)
- Altemeyer, Bob. 2003. RESEARCH: Why Do Religious Fundamentalists Tend to be Prejudiced? *The International Journal for the Psychology of Religion* 13: 29–47. [\[CrossRef\]](#)
- Amyot, Robert P., and Lee Sigelman. 1996. Jews without Judaism? Assimilation and Jewish identity in the United States. *Social Science Quarterly* 77: 177–89.
- Brandt, Mark J., and Christine Reyna. 2010. The role of prejudice and the need for closure in religious fundamentalism. *Personality and Social Psychology Bulletin* 36: 715–25. [\[CrossRef\]](#)
- Brandt, Mark J., and Christine Reyna. 2014. To love or hate thy neighbor: The role of authoritarianism and traditionalism in explaining the link between fundamentalism and racial prejudice. *Political Psychology* 35: 207–23. [\[CrossRef\]](#)
- 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: 76–97. [\[CrossRef\]](#)
- Bromley, David G. 1998. *Politics of Religious Apostasy: The Role of Apostates in the Transformation of Religious Movements (Religion in the Age of Transformation)*. Westport: Praeger.
- Case, Charles E., Andrew M. Greeley, and Stephan Fuchs. 1989. Social Determinants of Racial Prejudice. *Sociological Perspectives* 32: 469–83. [\[CrossRef\]](#)
- Cavaille, Charlotte, and John Marshall. 2019. Education and Anti-Immigration Attitudes: Evidence from Compulsory Schooling Reforms across Western Europe. *American Political Science Review* 113: 254–63. [\[CrossRef\]](#)
- Coenders, Marcel, and Peer Scheepers. 2003. The Effect of Education on Nationalism and Ethnic Exclusionism: An International Comparison. *Political Psychology* 24: 313–43. [\[CrossRef\]](#)
- Cottee, Simon. 2018. In the Closet. The Concealment of Apostasy among Ex-Muslims in Britain and Canada. In *Moving in and Out of Islam*. Edited by Karin van Nieuwkerk. Austin: University of Texas Press, pp. 281–305.
- Cragun, Ryan T., and Joseph H. Hammer. 2011. One Person's Apostate is another Person's Convert. What Terminology tells us about pro-Religious Hegemony in the Sociology of Religion. *Humanity & Society* 35: 149–75.
- Emerson, Michael O., and David Hartman. 2006. The Rise of Religious Fundamentalism. *Annual Review of Sociology* 32: 127–44. [\[CrossRef\]](#)
- Fair, C. Christine, Jacob S. Goldstein, and Ali Hamza. 2017. Can knowledge of Islam explain lack of support for terrorism? Evidence from Pakistan. *Studies in Conflict and Terrorism* 40: 339–55. [\[CrossRef\]](#)
- Gallup. 2009. *The Gallup Coexist Index 2009: A Global Study of Interfaith Relations. With an in-Depth Analysis of Muslim Integration in France, Germany, and the United Kingdom*. Washington, DC: Gallup Poll.
- Glazer, Nathan. 1958. *American Judaism*. Chicago: University of Chicago Press.
- Glock, Charles Y. 1973. *Religion in Sociological Perspective: Essays in the Empirical Study of Religion*. Belmont: Wadsworth Publishing Co.
- Greenwald, Yaakov, Mario Mikulincer, Pehr Granqvist, and Phillip R. Shaver. 2021. Apostasy and Conversion: Attachment Orientations and Individual Differences in the Process of Religious Change. *Psychology of Religion and Spirituality* 13: 425–36. [\[CrossRef\]](#)
- Hadaway, C. Kirk, and Wade Clark Roof. 1988. Apostasy in American churches: Evidence from national survey data. In *Falling from Faith: Causes and Consequences of Religious Apostasy*. Edited by David G. Bromley. Newbury Park: Sage, pp. 29–46.
- Hainmueller, Jens, and Michael J. Hiscox. 2007. Educated Preferences: Explaining Attitudes Toward Immigration in Europe. *International Organization* 61: 399–442. [\[CrossRef\]](#)
- Hello, Evelyn, Peer Scheepers, and Mérove Gijsberts. 2002. Education and Ethnic Prejudice in Europe: Explanations for cross-national variances in the educational effect on ethnic prejudice. *Scandinavian Journal of Educational Research* 46: 5–24. [\[CrossRef\]](#)
- Henrich, Joseph, Michal Bauer, Alessandra Cassar, Julie Chytilová, and Benjamin Grant Purzycki. 2019. War increases religiosity. *Nature Human Behaviour* 3: 129–35. [\[CrossRef\]](#)
- Huber, Stefan, and Odilo W. Huber. 2012. The Centrality of Religiosity Scale (CRS). *Religions* 3: 710–24. [\[CrossRef\]](#)
- Hunsberger, Bruce, and Lynne M. Jackson. 2005. Religion, meaning, and prejudice. *Journal of Social Issues* 61: 807–26. [\[CrossRef\]](#)

- 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. *The International Journal for the Psychology of Religion* 9: 181–94. [CrossRef]
- 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: 51. [CrossRef]
- Johnson, Megan K., Wade C. Rowatt, and Jordan P. LaBouff. 2012. Religiosity and prejudice revisited: In-group favoritism, out-group derogation, or both? *Psychology of Religion and Spirituality* 4: 154–68. [CrossRef]
- Juergensmeyer, Mark. 2003. *Terror in the Mind of God: The Global Rise of Religious Violence*. Berkeley: University of California Press.
- Kanol, Eylem. 2021. Explaining Unfavorable Attitudes Toward Religious Out-Groups Among Three Major Religions. *Journal for the Scientific Study of Religion* 60: 590–610. [CrossRef]
- Kasselstrand, Isabella. 2020. Statistical Approaches to Leaving Religion. In *Handbook of Leaving Religion*. Edited by Daniel Enstedt, Göran Larsson and Teemu T. Mantsinen. Leiden and Boston: Brill, pp. 278–91.
- Kaufmann, Eric, and Matthew J. Goodwin. 2018. The Diversity Wave: A Meta-Analysis of the Native-Born White Response to Ethnic Diversity. *Social Science Research* 76: 120–31. [CrossRef]
- Kirkpatrick, Lee A. 1993. Fundamentalism, Christian Orthodoxy, and Intrinsic Religious Orientation as Predictors of Discriminatory Attitudes. *Journal for the Scientific Study of Religion* 32: 256–68. [CrossRef]
- Kirkpatrick, Lee A., Ralph W. Hood, and Gary Hartz. 1991. Fundamentalism Religion Conceptualized in Terms of Rokeach's Theory of the Open and Closed Mind. New Perspectives on Some Old Ideas. *Research in the Social Scientific Study of Religion* 3: 157–59.
- Koopmans, Ruud, Eylem Kanol, and Dietlind Stolle. 2021. Scriptural legitimation and the mobilization of support for religious violence: Experimental evidence across three religions and seven countries. *Journal of Ethnic and Migration Studies* 47: 1498–516. [CrossRef]
- 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: 33–57. [CrossRef]
- Laythe, Brian, Deborah Finkel, and Lee A. Kirkpatrick. 2001. Predicting Prejudice from Religious Fundamentalism and Right-Wing Authoritarianism: A Multiple-Regression Approach. *Journal for the Scientific Study of Religion* 40: 1–10. [CrossRef]
- Mansouri, Fethi, and Matteo Vergani. 2018. Intercultural contact, knowledge of Islam, and prejudice against Muslims in Australia. *International Journal of Intercultural Relations* 66: 85–94. [CrossRef]
- 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. [CrossRef]
- Moore, Laura M., and Reeve Vanneman. 2003. Context Matters: Effects of the Proportion of Fundamentalists on Gender Attitudes. *Social Forces* 82: 115–39. [CrossRef]
- Moritz, Steffen, Anja S. Göritz, Simone Kühn, Brooke C. Schneider, Eva Krieger, Jana Röhliger, and Sarah Zimmerer. 2017. Muslims love Jesus, too? Corrective information alters prejudices against Islam. *Pastoral Psychology* 66: 65–77. [CrossRef]
- Nelson, S. C. 2008. Feeling Thermometer. In *Encyclopedia of Survey Research Methods*. Edited by Paul J. Lavrakas. Thousand Oaks: SAGE Publications, Inc., p. 276.
- Norris, Pippa, and Ronald Inglehart. 2004. *Sacred and Secular. Religion and Politics Worldwide*. New York: Cambridge University Press.
- Nunziata, Luca. 2016. Wish you were here? Quasi-experimental evidence on the effect of education on self-reported attitude toward immigrants. *European Economic Review* 90: 201–24.
- OSCE. 2018. Addressing Anti-Semitism through Education: Guidelines for Policymakers. Available online: <https://www.osce.org/odihr/383775> (accessed on 30 May 2020).
- Phillips, Benjamin T., and Shaul Kelner. 2006. Reconceptualizing Religious Change: Ethno-Apostasy and Change in Religion Among American Jews. *Sociology of Religion* 67: 507–24. [CrossRef]
- Pollack, Detlef, and Gergely Rosta. 2022. *Religion in der Moderne. Ein internationaler Vergleich. Kapitel Ostdeutschland: Säkularisiert wie kein anderes Land der Welt*. Frankfurt am Main: Campus, pp. 307–26.
- Pratt, Douglas. 2018. *Religion and Extremism. Rejecting Diversity*. London: Bloomsbury.
- Rowatt, Wade C., Lewis M. Franklin, and Marla Cotton. 2005. Patterns and Personality Correlates of Implicit and Explicit Attitudes toward Christian and Muslims. *Journal for the Scientific Study of Religion* 44: 29–43. [CrossRef]
- Ruel, Erin, William Edward Wagner III, and Brian Joseph Gillespie. 2016. *The Practice of Survey Research*. Los Angeles: Sage.
- 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: 135–42. [CrossRef]
- Selznick, Gertrude J., and Stephen Steinberg. 1969. *The Tenacity of Prejudice. Anti-Semitism in Contemporary America*. New York City: Harper & Row Publishers.
- Shupe, Anson D. 1998. *Wolves Within the Fold. Religious Leadership and Abuses of Power*. New Brunswick: Rutgers University Press.
- UNESCO. 2017. Preventing Violent Extremism through Education. A Guide for Policy-Makers. Available online: <http://unesdoc.unesco.org/images/0024/002477/247764e.pdf> (accessed on 18 February 2018).
- van Nieuwkerk, Karin, ed. 2018. *Moving in and Out of Islam*. Austin: University of Texas Press.
- Verkuyten, Maykel. 2007. Religious group identification and inter-religious relations: A study among Turkish-Dutch Muslims. *Group Processes & Intergroup Relations* 10: 341–57.
- Voas, David. 2009. The Rise and Fall of Fuzzy Fidelity in Europe. *European Sociological Review* 25: 155–68. [CrossRef]

- Weber, Hannes. 2022. The educational divide over feelings about ethnic minorities: Does more education really lead to less prejudice? *Journal of Ethnic and Migration Studies* 48: 228–47. [[CrossRef](#)]
- Weil, Frederick D. 1985. The Variable Effects of Education on Liberal Attitudes: A Comparative-Historical Analysis of Anti-Semitism Using Public Opinion Survey Data. *American Sociological Review* 50: 458–74. [[CrossRef](#)]
- Wiktorowicz, Quintan. 2005. *Radical Islam Rising. Muslim Extremism in the West*. Lanham: Rowman & Littlefield Publishers, Inc.
- Zamora-Kapoor, Anna, Petar Kovincic, and Charles Causey. 2013. Anti-Foreigner Sentiment: State of the art. *Sociology Compass* 7: 303–14. [[CrossRef](#)] [[PubMed](#)]