Using an Arab-Muslim sample of 160 Egyptian citizens from the greater Cairo area, we examined the role of religion in prejudice toward Americans and Europeans. When religious fundamentalism was tested concurrently with general religiousness, only religious fundamentalism significantly predicted prejudices toward both Americans and Europeans. In a second step we included closed-mindedness (CM), a facet of need for cognitive closure, and conservatism (RCON), a facet of right-wing authoritarianism, to explain the religion-prejudice link. Instead of using the two variables as parallel mediators, we assumed CM to be a predictor of RCON. Hence, in a first model we applied CM and RCON as serial mediators of the religious fundamentalism-prejudice relation. In a second model where fundamentalism was predicted by CM and RCON prejudice remained the outcome variable. RCON had stronger effects than CM across all models. The effect of religious fundamentalism was marginal or not significant when CM and RCON served as preceding variables in the second model, suggesting that they may be more decisive than religious fundamentalism in the development of prejudice. Participants distinguished between Americans and Europeans, with Americans the more relevant outgroup in the religious context.

International relations of Middle Eastern countries with the United States and Europe have been characterized by tensions, for multiple reasons stretching back centuries. In recent history, the most profound rupture in relations was the attacks of September 11, 2001. The interactions that followed were characterized by violence and counter-violence with wars in Afghanistan and Iraq and more attacks such as the bombings in Madrid in 2004 and London in 2005. Today, after the withdrawal of troops from Afghanistan and Iraq and the uprisings of the Arab Spring, relations are a little more at ease. However, Syria’s civil war, the Gaza crisis, and the rise of the "Islamic State" currently destabilize the region and demand international political action with unforeseeable outcomes.

Besides obvious political and historical reasons for the challenging relationship between the Middle East and the United States and Europe, social psychological research has contributed to our understanding of these relations by investigating (1) the role of individual mechanisms and how they drive the conflict, and (2) the impact of international political actions on individuals’ perceptions and attitudes toward the United States. In studies with Arab citizens from Lebanon and Egypt, the main theories applied were social dominance theory (Henry et al. 2005; Levin et al. 2003; Sidanius et al. 2004), international image theory (Alexander, Levin, and Henry 2005; Bilali 2004), and – most recently – the dual process model (Levin et al. 2012). In summary, these studies indicate that social domi-
nance orientation (SDO) and right-wing authoritarianism (RWA) partly explain both prejudiced perceptions of the U.S.-Arab relationship and support of violence against the United States.

One aspect not yet considered in this research context is the role of religion, although religion is a factor dominating Arab society and politics.

Furthermore, decades of research with Christian samples in the United States and Europe show that religion is a factor influencing various prejudices in complex ways (Allport and Ross 1967; Batson, Schoenrade, and Ventis 1993; Hall, Matz, and Wood 2010), that factors such as right-wing authoritarianism (RWA; Altemeyer and Hunsberger 1992; Duckitt et al. 2010) or need for cognitive closure (NFC; Brandt and Reyna 2010; Webster and Kruglanski 1994) can explain part of the religion-prejudice link, and that this relation may acquire political relevance when religion is a factor influencing politics (Brandt and Reyna, 2014). Among the religious factors, religious fundamentalism, a conservative belief structure that may serve as ideology (such as the Tea Party movement in the United States), turned out as one of the strongest predictors of a variety of prejudices in the Christian context (Altemeyer and Hunsberger 1992; Hill et al. 2010; Hunsberger 1995; Johnson et al. 2011).

1. Aims of the Present Research

With our study, which was conducted in Egypt, we aimed to close this gap by investigating if and how religious factors influence Arab citizens’ perception of Americans and Europeans. In particular, we expected religious fundamentalism to be the appropriate concept for capturing those parts of religion causing prejudice. We further expected that, similar to research findings in the United States and Europe, the relationship of religion and prejudice would be further explained by cognitive-motivational factors such as RWA and NFC. A mediator model, in line with previous research (Brandt and Reyna 2010; Hill et al. 2010; Mavor et al. 2009; Shen Johnson et al. 2013), is complemented by a second model, in which NFC and RWA serve as predictors of religious fundamentalism, which in turn serves as a predictor of prejudice. This is because NFC and RWA could have motivated a person to adopt religious fundamentalism to satisfy his/her needs for cognitive closure and steadfast guidance and values (Brandt and Reyna 2010, 2014). This model relates to Jost’s theory on why and how people adopt ideologies (Jost 2006; Jost, Federico, and Napier 2009).

Hitherto the focus of analysis has been on U.S.-Arab relations. However, the European states are political actors in the region as well, albeit more in terms of economics and civil society than in terms of military operations (Gad 2005). This may yield a less negative perception of the European-Arab relationship than the U.S.-Arab one. In sum, we hope to further our understanding of the individual mechanisms at work, especially with regard to the role of cognitive-motivational and religious factors.

2. Why Might Religion be a Predictor of Prejudice toward Americans and Europeans in Egypt?

2.1. Previous Research with Christian Samples

Half a century of research on the link between religion and prejudice in the United States and Europe has shown that religion and prejudice are indeed associated. However, this relationship is a complex one, determined by several factors such as the form of religiosity (Allport and Ross 1967; Batson, Schoenrade, and Ventis 1993), the prohibition or permission of certain prejudices by the religious communities (so called proscribed or non-proscribed prejudice, for example, Duck and Hunsberger 1999; Batson and Stocks 2008), and the measurements used (Goldfried and Miner 2002). Among the different aspects of religiousness, it was especially religious fundamentalism, a deeply conservative approach to religion emphasizing that only one’s own beliefs are correct and true, that showed consistent positive relationships with all kinds of prejudices, including racism and homophobia (Altemeyer and Hunsberger 1992; Hall, Matz, and Wood 2010). This relation was especially strong when a target group was perceived as violating the fundamentalists’ religious values (Duck and Hunsberger 1999; Laythe et al. 2002; Mavor, Louis, and Laythe 2011).

2.2. Application to the Egyptian Context

First, Egypt is a religiously conservative country (Sullivan and Abed-Kotob 1999), which makes it an ideal con-
text to test religious fundamentalism as a predictor of prejudice. Because the understanding of religious fundamentalism is controversial (Hood, Hill, and Williamson 2005) and its most common conceptualization in psychology (Altemeyer and Hunsberger 1992) bears some highly criticized stereotypical characteristics such as militancy and violence, we need to clarify our own understanding of religious fundamentalism. Following Hood and colleagues (2005), we define it as a belief structure that is not related to any particular content (see also Kirkpatrick, Hood, and Hartz 1991; Williamson et al. 2010), but characterized by the specific way of interpreting the sacred text central to the religious community, and the related process through which an objective truth and the constitution of the fundamentalist reality is derived (Hood, Hill, and Williamson 2005; Williamson et al. 2010). This concept of intratextuality, developed by Hood and colleagues (2005) to avoid a stereotypical characterization of religious fundamentalism, is applicable to all three Abrahamitic religions and has been cross-culturally validated in a Muslim context (Williamson et al. 2010).

Second, there is evidence that especially the United States is perceived as value-violating and these perceptions are often expressed in terms of religion, as in the speeches and appeals of the global jihad movement (Ibrahim 2007). That makes the existence of non-proscribed prejudice (prejudice permitted by a religious community) likely.

Third, in daily Egyptian politics the role and influence of religion is constantly debated (Agrama 2012). Since the ouster of Mubarak in 2011, many parties have been founded on religious programmes, and the inclusion of Islamic laws in the constitution was heatedly debated (Asad 2012; Egypt Independent 2012). That makes it all the more likely that people's religious attitudes also influence their perception and attitude toward international political actors.

3. What Factors May Contribute to the Religion-Prejudice Link in the Egyptian Context?

The role of different social attitudes and cognitive variables was investigated to clarify why and how religion and prejudice are associated. In previous research, RWA and NFC were mostly considered as mediators of the religion-prejudice association. However, there is also evidence that they may be preceding variables and thus predict religious fundamentalism, which in turn causes prejudices.

3.1. Previous Research on RWA as Mediator

Several studies (Altemeyer and Hunsberger 1992; Hall, Matz, and Wood 2010; Johnson et al. 2011; Johnson et al. 2012; Laythe, Finkel, and Kirkpatrick 2001, 2002; Mavor et al. 2009; Mavor et al. 2011) found evidence that RWA, a social ideological attitude or value (Duckitt et al. 2010), may mediate the religious fundamentalism-prejudice association. In a recent study, Brandt and Reyna (2014) predicted and found that authoritarianism (such as reflected in obedience to the sacred text) and traditionalism (for example reflected in conservative values and norms preserving the status quo), which are both core values of religious fundamentalism, mediated effects of religious fundamentalism on prejudices. Given Egypt's authoritarian political system (Kassem 2004) and conservative society, RWA may be associated with religious fundamentalism even more strongly than in the United States or Europe and thus contribute more strongly to the religion-prejudice relation.

3.2. Previous Research on NFC as Mediator

Another factor considered for explaining why fundamentalism is related to prejudice is a rigid cognitive style (Brandt and Reyna 2010; Hill et al. 2010), most prominently conceptualized as need for cognitive closure (NFC) by Kruglanski and Webster (1994). It is defined as an “individual's desire for a firm answer to a question, any firm answer as opposed to confusion and/or ambiguity” (Kruglanski 2004, 6). Roets and Van Hiel (2011a) even suggest

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1 According to the World Values Survey report on Egypt (World Values Survey Association 2014), 94.1 percent of the Egyptian sample (n=1,523) indicated that religion was very important to them. Concerning their general political attitude, 57.1 percent selected 6 or higher on a scale ranging from 1 (political left) to 10 (political right). Only 18.5 percent positioned themselves in the range 1 to 4. The middle position of 5 was chosen by 24.5 percent.
that NFC is the motivational cognitive style proposed by Allport (1954, 175, 400) as an omnibus factor generating all kinds of prejudice.

Findings from various studies show that these assumptions also apply to the religious fundamentalism-prejudice association, where NFC has displayed considerable strength as mediator (Brandt and Reyna 2010; Hill et al. 2010). This effect is explained in terms of religious fundamentalism as an ideology providing order, consistency, and certainty, and thereby attractive for people high in NFC (Brandt and Reyna 2010). Prejudice occurs when a person’s adopted ideology is challenged by groups with different beliefs or values. In the end, it is not the beliefs as such but the way people believe that causes prejudices (Hunsberger 1995). Other studies (Jost et al. 2003; Jost et al. 2007) also found that high NFC scores were related to specific ideologies serving this need and that perceived threat to these ideologies entailed rejection and prejudice toward groups perceived as threatening (Federico, Golec, and Dial 2005). That NFC may also be a mediator in the Egyptian context is plausible given the struggle over religion and politics, but also the general instability of society and politics since the January 25 Revolution in 2011 (Korany and El-Mahdi 2014), which may increase the need for stability, structure, and certainty.

3.3. RWA and NFC as Predictors of Religious Fundamentalism

So far, we have considered each of the mediating factors to explain the fundamentalism-prejudice link independently. However, research on cognitive derivates of political ideology suggests that NFC could also be framed as the preceding variable and RWA as the subsequent one. For example, Cornelis and Van Hiel (2006; see also Onraet et al. 2011) demonstrated that RWA and SDO mediated the effects of two dimensions of NFC, desire for order and predictability, on conservatism and prejudice. This indicates that these cognitive variables are among the cognitive mechanisms related to these social attitudes that may entail the adoption of certain ideologies such as religious fundamentalism because they satisfy needs for order, structure, and certainty. Research by Jost and colleagues (2009) explaining which macro and micro factors influence the adoption of particular ideologies lends further support to these assumptions. In their model, NFC is one of the suggested micro-context factors underlying the epistemic motivation that then leads to resistance to change, the adoption of a conservative ideology, and specific prejudice and discrimination in order to justify the existing system.

In sum, NFC could be the preceding variable and hence the predictor of RWA. Religious fundamentalism as an ideology could be adopted as a consequence of the NFC-RWA link, and in turn lead to prejudice when the certainty provided by religious fundamentalism is threatened.

4. The Current Study

The aim of the current study was to expand our understanding of prejudice toward Americans and Europeans by exploring the role of religion as well as that of cognitive-motivational variables such as NFC and RWA. In a first step, we tested the hypothesis that religious fundamentalism would predict prejudices toward Americans and Europeans. In the second step, we estimated mediation models. Encouraged by the findings on NFC as predictor of RWA (Cornelis and Van Hiel 2006; Onraet et al. 2011) and the work of Jost and colleagues (2007, 2009), we considered two models theoretically plausible and estimated them. In the first model, NFC and RWA were employed as serial mediators of the religious fundamentalism-prejudice link, in accordance with previous studies. In the second model, NFC and then RWA preceded religious fundamentalism, which finally predicted prejudice.

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2 The January 25 Revolution is the key event at the beginning of the Arab Spring in Egypt. It culminated in the ouster of President Mubarak in February 2011 (Korany and El-Mahdi 2014).
Because of limited space and time in the questionnaire and survey process, we included only one dimension each of RWA and NFC respectively. The conservatism dimension (RCON) of RWA was selected because it should be most closely linked to the fundamentalist belief structure (Brandt and Reyna 2014) and had proven to be culturally adequate during our qualitative pre-testing phase (see Method section). Moreover, the revised RWA scale by Duckitt and colleagues (2010) and the non-content-related fundamentalism scale by Hood and colleagues (2005) were employed to avoid statistical overlap and inflated correlations (Brandt and Reyna 2014; Johnson et al. 2012; Mavor et al. 2009). This has been a severe problem in earlier studies (for example, Laythe et al. 2002) when using the RWA scale by Altemeyer (1992).

For NFC, the sub-dimension closed-mindedness (CM) was selected, because of evidence from a study in the Christian context (Brandt and Reyna 2010) that it is the sub-dimension of NFC most strongly linked to the fundamentalism-prejudice association.

5. Method
5.1. Sample and Procedure
Data were collected in the greater Cairo area in June and July 2013. Conducting surveys in Egypt is generally a challenging task because surveys are not a well-known research procedure and people are often suspicious toward strangers asking questions about such sensitive topics as religion or foreign countries. To avoid any bias due to our foreign nationality and also to make trust-building easier, participant recruitment was organized by a local organization that approached potential respondents in different settings (such as cafés or a friend's house). If a person agreed to participate after reading our information sheet, the questionnaire was handed to them and the interviewers waited until they had completed it. Although we aimed to gather a sample based on demographic specifications (age, gender, religion, education) matching the composition of Egyptian society, this turned out to be impossible.

Because our focus was on the Arab-Muslim context, only Muslim participants were included in the sample. We excluded the responses of 24 participants (11 were not Egyptian citizens and 13 had more than 50 percent missing values on the items measuring the religious variables). This left a sample of 160 participants (107 male, 46 female) with complete data on all variables ($M_{age}=45.63, SD_{age}=16.49$).

5.2. Pre-testing and Content of Measures
Cross-culturally valid measures were obtained in an intense qualitative research process with cognitive interviews (Willis 2005) and discussion groups conducted in the fall of 2012 in Cairo. The results of the interviews were analyzed with the qualitative content approach (Mayring 2007) involving two researchers to ensure reliability. Factor analysis was applied to all scales to confirm the assumed theoretical structures.

5.2.1. Measures of the Religious Variables
Religious fundamentalism was measured with a slightly modified version of the intratextual fundamentalism scale by Hood and colleagues (2005). We reworded item RF5 from “The Qur’an is the words of men, NOT the words of God” to “The Qur’an is the words of God, NOT the words of men”, because pre-testing revealed that the original version had the potential to offend participants. The other items used were: “Everything in the Qur’an is absolutely true without question” (RF1); “The Qur’an should never be doubted, even when scientific or historical evidence outright disagrees with it” (RF2); “The truths of the Qur’an will never be outdated, but will always apply equally well to all generations” (RF3); and “The Qur’an is the only one that is true above all Holy Books or sacred texts of other religions” (RF4). The response scale was a five-point-Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). The scale proved to be highly reliable ($\alpha=.92$).

In addition, we included a measure of general religiousness in our study, serving as control variable that ensured that being religious as such was not a predictor of prejudice. General religiousness was conceptualized in alignment with Huber (2008) and defined as the behavioral dimension of religious identity, the overarching concept. Four dimensions of religiousness were included in this measure: ideology, experience, and public and private practices (Huber 2008; Stark and Glock 1969). In the "Religions-
monitor” (Bertelsmann Stiftung 2007), a study across twenty-one countries with nationally representative samples, this concept of general religiousness has been successfully applied in Muslim countries. For our study, we used the following items from the Religionsmonitor: “How often do you think about religious issues?” (RG1, intellect); „How strongly do you believe in God?” (RG2, ideology); and „How often do you experience situations where you have the feeling that God intervenes in your life?” (RG3, experience). The response scales ranged from one to five (RG1 and RG2: 1=not at all, 2=a little, 3=moderately, 4=fairly, 5=very much; RG3: 1=never, 2=rarely, 3=occasionally, 4=often, 5=very often). For the religious practices dimension, three items from the Psychological Measure of Islamic Religiousness scale (PMIR; Abu Raiya et al. 2008) were used. These were “How often do you go to the masjid?” (RG4), “How often do you fast?” (RG5), and “How often do you pray?” (RG6). The response scales were five-point Likert scales (RG4: 1=never, 2=a few time a year, 3=a few time a month, 4=about once or twice a week, 5=one a day or more; RG5: 1=never, 2=few days of Ramadan each year, 3=half to all of Ramadan each year, 4=the whole Ramadan each year, 5=other religious days or Sunnah fasts in addition to Ramadan; RG6: 1=never, 2=several times a month, 3=several times a week, 4=most of the time the five daily prayers, 5=five times a day or more).

Factor analysis (PFA) revealed a two-factor structure, one representing the practice dimension of religiousness (RG1, RG4, RG5, RG6), and a second representing more of a spiritual dimension (RG2, RG3). The reliability testing showed that Cronbach’s alpha was strongest in the case of the practice dimension (α=.70) and weaker for the scale as a whole (α=.63) as well as for the spiritual dimension (α=.50). We thus selected the religious practice sub-scale for further analysis.

5.2.2. Conservatism and Closed-mindedness

RCON was measured with two items from the short form of the ACT scales by Duckitt and colleagues (2010) measuring the conservatism facet: “Obedience and respect for authority are the most important virtues children should learn” and “Our leaders should be obeyed blindly.” The two items were combined and formed a reliable scale (α=.87). For CM, we used the two items from the NFC short scale (Roets and Van Hiel 2011b) measuring the closed-mindedness facet: “I dislike questions which could be answered in many different ways” and “I usually avoid consulting many different opinions before forming my own view.” The internal consistency of the two items combined was adequate (α=.73). The responses for the RCON and CM items of were given on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree).

5.2.3. Prejudice toward Americans and Europeans

Because pre-testing had shown that Egyptian participants did not distinguish between people from different European countries (Britain, France, and Germany) and held equally strong prejudices toward all three targets, we treated “Europeans” as a unitary target in the main survey. For the assessment of prejudice toward people from the United States and Europe we used four items from Levin and colleagues (2012). These authors conceptualized prejudice as consisting of the three classical dimensions (Fiske 1998): negative stereotype, negative affect, and a behavioral component. Because of space constraints we used only the items for negative stereotype and negative affect. The two items used for negative stereotype refer to the stereotype content model (Fiske et al. 2002) whereas negative affect was measured with general feelings of unfavorability (Moreno and Bodenhausen 2001). However, as the two items measuring negative affect did not form a reliable scale, we were only able to use the items measuring negative stereotype: “How trustworthy are Americans/Europeans?” and “How warm are Americans/Europeans?” (5-point Likert scale, 1=not at all, 2=a little, 3=medium, 4=fairly, 5=very much). The US scale (α=.88) and EU scale (α=.89) proved to be equally reliable.

6. Results

To estimate the hypothetical models, we employed structural equation modeling with Mplus version 5 (Muthén
and Muthuén 1998–2007) with a MLR estimator. Table 1 provides the correlations and descriptive statistics for all variables. To determine the fit of the models, we used the following indices: the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR). In case of the RMSEA, values ≤ .05 are considered as a good fit, values ≤ .08 are acceptable, and values between .08 and .10 indicate a mediocre fit (Browne and Cudeck 1993). All reported path coefficients are standardized. We controlled for gender and age in all models to account for the skewed distribution of these variables in the sample. Moreover, because of the small sample size it was not possible to calculate separate models for men and women. Using gender as control variable had the additional advantage of accounting for the influence of this variable. Additionally, we controlled for the influence of education. All factors were modeled as latent variables. Only the control variables were manifest.

Table 1: Descriptive statistics and correlations between variables (n=160).

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
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<th>6</th>
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<th>9</th>
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</thead>
<tbody>
<tr>
<td>1. Religious identity</td>
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<td>2. Religious fundamentalism</td>
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<td>-</td>
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<td></td>
<td></td>
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<tr>
<td>3. RCON</td>
<td>-.10</td>
<td>.60***</td>
<td>-</td>
<td></td>
<td>.04</td>
<td>.58***</td>
<td>-</td>
<td></td>
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<tr>
<td>4. CM</td>
<td>-.10</td>
<td>.47***</td>
<td>.58***</td>
<td>-</td>
<td></td>
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<tr>
<td>5. Prejudice toward Americans</td>
<td>.04</td>
<td>.64***</td>
<td>.66***</td>
<td>.50***</td>
<td>-</td>
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<tr>
<td>6. Prejudice toward Europeans</td>
<td>.04</td>
<td>.45***</td>
<td>.54***</td>
<td>.39***</td>
<td>.79**</td>
<td>-</td>
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<tr>
<td>7. Control variable: age</td>
<td>.02</td>
<td>.26***</td>
<td>.50***</td>
<td>.55***</td>
<td>.36***</td>
<td>.19*</td>
<td>-</td>
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<tr>
<td>8. Control variable: gender</td>
<td>-.10</td>
<td>-.32***</td>
<td>-.35***</td>
<td>-.27***</td>
<td>-.33***</td>
<td>-.36***</td>
<td>-.34***</td>
<td>-</td>
<td></td>
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<tr>
<td>9. Control variable: education</td>
<td>.06</td>
<td>.001</td>
<td>.04</td>
<td>.10</td>
<td>-.07</td>
<td>-.17*</td>
<td>.15</td>
<td>.05</td>
<td>.33</td>
</tr>
</tbody>
</table>

Mean: 3.17  4.80  4.03  3.93  1.76  2.02  45.77  -  3
SD: .85  .59  .87  1.00  .95  .97  16.44  -  1.33

Note: ***p<.001, ** p<.01, *p<.05.
RCON= RWA conservatism. CM= NFC closed-mindedness.

Education was measured using a scale consisting of five options: 0= illiterate, 1= less than six years of school education, 2= high school, 3= some university education, 4= graduation from university with a BA or MA, 5= PhD. As gender was measured dichotomously, mean and standard deviation are not provided.

6.1. Religious Fundamentalism as a Predictor of Prejudice toward Americans/Europeans

With the first model, we tested whether religious fundamentalism was a predictor of prejudice toward Americans and/or Europeans, controlling for general religiousness. Neither model fit the data well (Americans: \( \chi^2 = 146.41, df=53, CFI=.84, TLI=.78, RMSEA=.105, SRMR=.077 \); Europeans: \( \chi^2 = 154.56, df=53, CFI=.83, TLI=.76, RMSEA=.109, SRMR=.076 \)), although a significant amount of variance of the dependent variable prejudice was explained (Americans: \( R^2=.43, p<.001 \); Europeans: \( R^2=.22, p<.001 \)). Religious fundamentalism was a strong positive significant predictor (Americans: \( \beta=.50, p<.001 \); Europeans: \( \beta=.27, p=.001 \)) whereas general religiousness was not significant and negative (Americans: \( \beta=-.12, p=.066 \); Europeans: \( \beta=-.07, p=.650 \)). The insignificant and negative prediction of prejudice by general religiousness already indicated that it is not a predictor of prejudice. In addition, a Wald test (Brown 2015) was applied to assess whether religious fundamentalism was a significantly better predictor than general religiousness. For that purpose the paths from the predictors to prejudice were constrained to zero. In case of religious fundamentalism, the Wald test was highly significant (Americans: \( \chi^2 = 15.83, df=1, p<.001 \); Europeans: \( \chi^2 = 13.52, df=1, p<.001 \) whereas the effect of general religiousness on prejudice was not significant (Americans: \( \chi^2 = 3.15, df=1, p=.08 \); Europeans: \( \chi^2 = .21, df=1, p=.650 \)). Thus general religiousness was rejected as a predictor of prejudice.
toward people from the United States or Europe. The models were tested again with religious fundamentalism as the only predictor (Figures 1 and 2), which yielded a much better fit (Americans: $\chi^2=27.47$, df=20, CFI=.97, TLI=.96, RMSEA=.048, SRMR=.034; Europeans: $\chi^2=25.17$, df=20, CFI=.98, TLI=.97, RMSEA=.040, SRMR=.031). The amount of variance explained by the model (Americans: $R^2=.43$, p<.001; Europeans: $R^2=.22$, p<.001) did not change in comparison to the first models, which also shows that religious fundamentalism was indeed the decisive predictor. All further analyses were conducted with religious fundamentalism as predictor or mediator.

Figure 1: Standardized path coefficients and factor loadings of the SEM predicting prejudice toward Americans by religious fundamentalism

![Figure 1](image1.png)

Note: ***p<.001, ** p<.01, *p<.05. Control variables: age, gender, and education. UWA= warmth toward Americans. UTR= trust in Americans.

Figure 2: Standardized path coefficients and factor loadings of the SEM predicting prejudice toward Europeans by religious fundamentalism

![Figure 2](image2.png)

Note: ***p<.001, ** p<.01, *p<.05. Control variables: age, gender, and education. EWA= warmth toward Europeans. ETR= trust in Europeans.

6.2. Mediation Models with Serial Mediators

Mediation models were estimated as shown in Table 2 and Figures 3 and 4. Their significance was tested via bias-corrected bootstrapping procedures, which are recommended over the Sobel test (Preacher and Hayes 2004, 2008). On the basis of 5,000 bias-corrected bootstrapped samples, 95% confidence intervals (CI) were estimated for each effect (see Table 2). If a CI did not include zero, the effect was determined to be significant.
6.2.1. Mediation Ia: CM and RCON as Serial Mediators of Prejudice toward Americans

The model using CM and RCON as serial mediators of the fundamentalism-prejudice link showed an adequate fit for prejudice toward Americans ($\chi^2 = 107.14$, df=47, CFI=.96, TLI=.93, RMSEA=.089, SRMR=.033). The examination of individual paths supported the suggested model: Religious fundamentalism positively predicted CM, and CM predicted RCON, which in turn predicted prejudice toward Americans (see Figure 3). The direct path from religious fundamentalism to RCON also turned out to be significantly positive, whereas the direct path from CM to prejudice was not significant. In total, the model accounted for 64.7 percent of the variance in prejudice toward Americans.

These results were partly in line with the hypothesis: The effect of religious fundamentalism on prejudice was partly mediated via CM and subsequently RCON with .10 (p=.014). However, RCON also mediated parts of those effects independently of the expected pathway (mediated effect=.17, p=.003). The direct path from religious fundamentalism to prejudice, controlling for CM and RCON, was still marginally significant, which indicates that the effect of religious fundamentalism was partially mediated by CM and RCON.

6.2.2. Mediation Ib: CM and RCON as Serial Mediators of Prejudice toward Europeans

The fit of the serial mediator model was adequate ($\chi^2 = 103.93$, df=47, CFI=.96, TLI=.94, RMSEA=.087, SRMR=.033) and the proposed relationships among the variables were all significant (see Figure 4). The direct path from religious fundamentalism to RCON was significant, while the path from CM to the outcome variable was marginally significant. The model accounted for 48 percent of variance in the outcome variable. The mediation showed that all effects of religious fundamentalism on prejudice were mediated via two pathways: the predicted one via CM and subsequently RCON with .08 (p=.018) and a second one, where RCON independently mediated parts of the effects (mediated effect=.15, p=.015).

| Table 2. Total effects, total indirect effects, and specific indirect effects of the mediation models I and II for the outcome variables (a) prejudice toward Americans and (b) prejudice toward Europeans. |
|---------------------------------|---------------------------------|
|                                   | (a) Outcome variable:           |
|                                   | Prejudice toward Americans      |
|                                   | Effect (SE), 95% CI             |
| Mediation I: CM and RCON         |                                 |
| Predictor: religious fundamentalism | .49 (.08), .63–1.53          |
| Total effect                     | .30 (.10), .28–1.05             |
| Specific indirect effect: via CM | .03 (.10), -.21–.52             |
| Specific indirect effect: via RCON| .17 (.09), .05–.75              |
| Direct effect: religious         | .19† (.11), -.04–1.02           |
| fundamentalism on prejudice      |                                 |
| Mediation II: RCON and RF        |                                 |
| Predictor: CM                    | .58 (.15), .29–1.04             |
| Total effect                     | .48 (.21), .24–1.10             |
| Specific indirect effect: via RCON| .39 (.22), .13–1.00             |
| Specific indirect effect: via religious fundamentalism | .03 (.06), -.04–.21 |
| Direct effect: CM on prejudice   | .10 (.25), .34–6.0              |

Note: Bold coefficients indicate significant effects. Confidence intervals that do not include zero are considered to be significant. 95% CI= 95% bias-corrected confidence intervals. The effect marked with † is marginally significant (p<.06).

RCON= RWA conservatism. CM= NFC closed-mindedness. RF= religious fundamentalism.
Figure 3: Standardized path coefficients and factor loadings of the SEM predicting prejudice toward Americans with CM and RCON as serial mediators (Mediation Ia)

Note: ***p<.001, **p<.01, *p<.05, †p<.06.
RCON= RWA conservatism. CM= NFC closed-mindedness. UWA= warmth toward Americans. UTR= trust in Americans.
Control variables: age, gender, and education.

Figure 4: Standardized path coefficients and factor loadings of the SEM predicting prejudice toward Europeans with CM and RCON as serial mediators (Mediation Ib)

Note: ***p<.001, **p<.01, *p<.05, †p<.06.
RCON= RWA conservatism. CM= NFC closed-mindedness. EWA= warmth toward Europeans. ETR= trust in Europeans.
Control variables: age, gender, and education.
Next, CM was modeled as a predictor preceding RCON; in turn, RCON and subsequently religious fundamentalism functioned as serial mediators, and prejudice remained the outcome variable (Table 2, bottom half, and Figures 5 and 6). The model fits were the same as in the previous model because the same number of paths had to be estimated.

6.2.3. Mediation IIa: RCON and Fundamentalism as Serial Mediators of Prejudice toward Americans

For prejudice toward Americans, CM significantly predicted RCON, which predicted religious fundamentalism. The path from religious fundamentalism to prejudice was marginally significant ($\beta=.19$, $p=.058$). Additionally, RCON also predicted prejudice independently of religious fundamentalism ($\beta=.58$, $p<.001$). The results of the mediation were again partly as predicted: the effects of CM were partly mediated via RCON and subsequently religious fundamentalism (mediated effect $=.06$, $p=.044$) and partly by an additional path via RCON (mediated effect $=.39$, $p<.001$).

6.2.4. Mediation IIIb: RCON and Fundamentalism as Serial Mediators of Prejudice toward Europeans

In this model, not all of the expected paths were significant. The relationships between CM, RCON, and religious fundamentalism were significant and positive, but the path from religious fundamentalism to prejudice was not ($\beta=-.08$, $p=.370$). Accordingly, the effect of CM was not mediated via the RCON-fundamentalism path, which was not significant either (mediated effect $=-.03$, $p=.383$) Instead, RCON mediated the effects of CM with .33 ($p=.001$) on prejudice independently of fundamentalism. There was also a marginally significant direct effect of CM on prejudice.

Note: ***$p<.001$, **$p<.01$, *$p<.05$, †$p<.06$.
6.3. Comparison of the Results for Americans with the Results for Europeans

A statistical comparison of the models with the Wald or similar tests was not possible because the small sample did not yield enough degrees of freedom for the estimation of both models at one time. The following comparisons will thus be descriptive only.

6.3.1. Religious Fundamentalism as a Predictor of Prejudice

The effect of religious fundamentalism on prejudice toward Americans ($\beta=.48, p<.001$) was almost twice as large as in the European case ($\beta=.26, p<.001$).

6.3.2. Mediations I and II

The results of mediation I were quite similar for Americans and Europeans, but the results of mediation II differed. For prejudice toward Europeans, religious fundamentalism, the second serial mediator, did not mediate any effect and consequently the specific indirect effect via RCON and religious fundamentalism was not significant as well. In the case of prejudice towards Americans, however, religious fundamentalism still tended to predict prejudice when all other variables were controlled. This difference is most probably due to the overall weaker predictive effect of religious fundamentalism on prejudice in the European case, which was diminished to almost zero when all other variables in the model were controlled.

6.4. Effects of Control Variables

The control variables gender, age, and education also showed interesting differences in terms of their relationship to the two prejudices. In the case of Americans, both age and gender were related to prejudice, with older people ($r=.36, p<.001$) and men ($r=-.33, p<.001$) reporting higher prejudice. For prejudice toward Europeans, a similar pattern emerged (age: $r=-.19, p=.015$; gender: $r=-.30, p<.001$), and there was an additional effect of education, with more educated people reporting lower prejudice ($r=-.18, p=.029$). We compared the correlation coefficients by target of prejudice (Americans vs. Europeans), using a method suggested by

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**Figure 6: Standardized path coefficients and factor loadings of the SEM predicting prejudice toward Europeans with RCON and fundamentalism as serial mediators (Mediation IIb)**

![Diagram](image_url)
Weaver and Wuensch (2013), to test whether age, gender, and education were more strongly related to prejudice toward Americans or Europeans. As can be seen in Table 3, education was more strongly related to prejudice toward Europeans, whereas age was more strongly related to prejudice toward Americans. For gender, there was no difference.

Table 3. Results of t-tests comparing the non-independent correlations of the outcome variables prejudice toward Americans and prejudice toward Europeans with the control variables age, gender, and education

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>3.36</td>
<td>153</td>
<td>.001</td>
<td>.06 - .26</td>
</tr>
<tr>
<td>Gender</td>
<td>- .59</td>
<td>153</td>
<td>.554</td>
<td>- .13 - .07</td>
</tr>
<tr>
<td>Education</td>
<td>- 5.22</td>
<td>153</td>
<td>&lt; .001</td>
<td>- .35 - .15</td>
</tr>
</tbody>
</table>

Note: Bolded coefficients indicate significant effects. Confidence intervals that do not contain zero are considered to be significant. 95% CI = 95% bias corrected confidence intervals. Gender was coded with 1=male and 0=female.

7. General Discussion

Generally, we found that religious factors play a role in the perception of Americans and Europeans among Egyptian citizens in the greater Cairo area. Specifically, religious fundamentalism was a significant predictor of prejudice toward Americans and Europeans, whereas general religiousness was not. These results resonate with findings from the Christian context: Being religious as such is not linked to prejudice; what is decisive is the way in which people hold a belief (Hood, Hill, and Williamson 2005; Hunsberger 1995).

If we understand religious fundamentalism in terms of an ideology, a further explanation for its predictive role is that people who adopt fundamentalism as their ideology may react with prejudice when they feel that this ideology is threatened by an outgroup (here by Americans or Europeans), in order to protect it. By contrast, general religiousness does not seem to serve as an ideology but may be a mere expression of a person’s religious identity.

When we further explored cognitive-motivational variables that mediated the religious fundamentalism-prejudice association, the social attitude RCON and the cognitive-motivational variable CM accounted for parts of this relationship. As assumed, RCON was the stronger mediating variable. This may be due to the high chronic accessibility of conservatism within Egypt’s authoritarian political system and society (Srull and Wyer 1986). The latter suggestion remains speculative, as our study does not provide data on how authoritarian the Egyptian society in general is and whether it is more authoritarian than other societies.

The results concerning the relationship of the predictors CM, RCON, and religious fundamentalism indicate that CM and RCON are more involved in mediating the related prejudice than is religious fundamentalism because the second pair of models (mediation IIa and IIb) turned out to be the weaker one. The path from fundamentalism to prejudice was only marginally (Americans) or not significant (Europeans), whereas in the first pair of models all paths were fully significant. These findings suggest that CM and RCON may be the more crucial variables in the development of prejudice. The ideology of religious fundamentalism, however, is no longer a predictor when CM and RCON are defined as preceding variables. Taken together, these findings suggest that CM and RCON may be the more crucial variables in the development of prejudice. A theoretical explanation for this would be that CM and RCON may be part of the motivational cognitive style that makes a person prone to prejudiced thinking (as suggested by Roets and Van Hiel 2011a). The ideology a person adopts, however, fulfills more of a directional or orientating role, such as indicating whom to feel threatened by and how to react to threat.

The results for prejudice toward Americans and Europeans differed in two respects: First, the predictive effect of religious fundamentalism on prejudice was almost double the size for prejudice toward Americans than for prejudice toward Europeans. Second, prejudice toward Americans was more common among older people and men, but education had no influence. Prejudice toward Europeans was also more common among older people and men, but it was also lower among more highly educated participants. These findings suggest two interpretations: First, in the religious context, Europeans do not seem to be as relevant
an outgroup for Egyptians as Americans, thus also posing less threat and receiving less prejudice in the end. Second, prejudice toward Europeans does not seem to be as deeply entrenched as prejudice toward Americans. Both interpretations suggest that participants generally distinguished between Americans and Europeans. This differentiation may be based on the recognition of these countries’ different political approaches to the region, but it is up to future research to explore what exactly makes Egyptian Muslims differentiate between Americans and Europeans.

7.1. Contribution of the Current Research
The current study extends our knowledge on what influences individual perceptions of Americans and Europeans in an Arab-Muslim context in several ways. First, we demonstrate that religious fundamentalism is a predictor of prejudice toward both Americans and Europeans and is hence related to the perception of the United States and Europe on the individual level. Moreover, the measures we used for RWA and religious fundamentalism were not conflated with each other, which added precision compared to previous studies examining both concepts (Mavor et al. 2009; Mavor et al. 2011).

Second, we explored the underlying motivations of the fundamentalism-prejudice relationship. With CM and RCON we considered two variables jointly in sequential models, whereas previous research had used them only individually (Brandt and Reyna 2010; Hill et al. 2010; Johnson et al. 2011). In both models, CM and RCON predicted and/or mediated prejudices, which demonstrates that they are related in their effects on the relation of religious fundamentalism and prejudice. Moreover, the effect of religious fundamentalism on prejudice was marginal or not significant when CM and RCON were used as preceding predictors, which suggests that CM and RCON may be the more decisive predictors. The strong effects of RCON in comparison to CM also appear to support the notion that the authoritarian component implemented in religious fundamentalism may be a key motivation underlying the fundamentalism-prejudice relation. In this study, the Egyptian context may even have enhanced this effect due to the strong and highly salient authoritarian nature of the country’s political and social system.

Third, although the two prejudices were highly correlated, we showed that prejudice toward Americans and prejudice toward Europeans were not the same but participants distinguished between the two. Most interestingly, the two prejudices differed in terms of their dependence on education, which suggests that a negative perception of Europeans may be less entrenched in Egyptian society than the negative perception of the United States.

Fourth, from a cross-cultural perspective this study replicated for the first time many of the findings from the Christian context conducted with samples from Europe and the United States – such as religious fundamentalism being the crucial predictor instead of general religiousness, the mediating role of CM as well as RCON, and the strong role of RCON – with a sample from an Arab-Muslim context. Future research should focus on replicating these results and exploring possible specific cultural phenomena in this context.

Fifth, we applied only measures that were pre-tested for their cross-cultural applicability, in order to ensure cross-cultural validity, and adapted the measures when necessary, such as in case of the intratextuality scale (Hood et al., 2005) – an advantage not many studies have.

7.2. Limitations of the Study
We must acknowledge some limitations of our study. The sample is small, includes more men and older people than women and younger people, and data were collected in an urban area only. This limits the applicability of our results to this specific population. We would expect that a sample including participants from smaller towns and rural areas might yield more pronounced results, because these participants can be expected to have had less access to education and less experience with people from the United States and Europe. Future research should address these differences and should also assess whether similar results can be found in other Arab-Muslim countries. Islam is a religion with enormous variation and it could therefore play a different role in other countries in the region. Moreover, although we tried to accomplish a neutral atmosphere for the participants, possible demand characteristics may have influenced the responses.
To verify our theoretical considerations in terms of a possible order of the predictors, longitudinal study designs are needed to investigate, for example, whether ideologies are adopted at a later point in order to satisfy cognitive-motivational needs possibly acquired earlier in life. Furthermore, we have to consider that the weaker contribution of CM in comparison to RCON could also be due to suppression effects because of a midrange correlation of $r = .51$, which, on the other hand, is unavoidable given the idea that NFC may be the preceding variable of RWA (Hayes 2013).

The nature of this study is correlational and explorative but we hope to have established an appropriate theoretical set-up for the calculated models with the literature available at this point. The suggested models will need replication in the Arab-Muslim and also in the Christian context, as RWA and NFC have not yet been applied in the same model.

8. Conclusions
The current study provides first social psychological insights into how religious factors, in particular religious fundamentalism, are entangled in the perception of Americans and Europeans in an Arab Muslim society. It reveals that specific dynamics involving social attitudes and cognitive styles are inherent to the religious fundamentalist ideology on which the derogation of the outgroup is based. Being religious in general is not decisive; instead, certain belief structures adopted to serve needs for steadfast guidance and a stable worldview in combination with authoritarian attitudes may fuel prejudices toward outgroups that are perceived as threatening this ideology.


