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Understanding Nonbelievers' Prejudice Toward Ideological Opponents: The Role of Self-Expression Values and Other-Oriented Dispositions

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Abstract

Research adopting the ideological-conflict hypothesis indicates that low religiosity, nonbelief, and antireligious sentiments predict prejudice toward ideological opponents. How to understand this, from an individual differences perspective, given that nonbelievers are typically open-minded and low in authoritarianism? We investigated, among 422 UK adults, social distance from antiliberals (antigay activists), fundamentalists, and religionists of major world religions (Catholicism, Islam, and Buddhism). Nonbelievers showed prejudice toward all religious targets—but not toward an ethnic outgroup (Chinese). Furthermore, antireligious sentiment implied (1) valuing rationality and, in turn, social distance from *fundamentalists* and (2) low empathy and low belief in the benevolence of others and the world and, in turn, social distance from *religionists*. Finally, (3) valuing liberty predicted social distance from *antiliberals* but failed to mediate the effect of antireligious sentiment. Though general processes (e.g., perceived threat) explain all prejudices, specific individual differences seem to distinguish non-believers' and believers' prejudice toward each other.

Keywords: Prejudice, Atheism, Liberal values, Basic world assumptions, Ideological conflict

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Substantial research has attested that religious people tend to show prejudice toward various outgroups (Hunsberger & Jackson, 2005; Rowatt, Carpenter, & Haggard, 2014). Surprisingly at first glance, recent studies have indicated that nonreligious people also show prejudice toward some targets—though not the same targets that are subject to religious prejudice (Brandt & Van Tongeren, 2017; Uzarevic, Saroglou, & Muñoz-García, 2019). Whereas the psychological motives are clear for religious prejudice (authoritarianism, epistemic need for closure, and endorsing collectivistic values), they are unclear for nonbelievers' prejudice. The aim of the present work is to focus on this question and provide initial evidence regarding the individual differences that contribute, to some extent, to nonbelievers' prejudice toward their potential ideological opponents. Below we review the relevant research, develop our rationale, and elaborate the hypotheses.

Religious Prejudice and Explanatory Factors

Accumulated research has shown that conservative and dogmatic forms of religiosity, but also, to some extent, mere belief and practice, are associated with and sustain prejudice against several types of targets. These outgroups are religious (Rowatt et al., 2014), ideological (atheists: Gervais, 2013), moral, such as homosexuals (Hoffarth, Hodson, & Molnar, 2018), feminists (Blogowska & Saroglou, 2011, Study 1), and single mothers (Jackson & Esses, 1997), and, occasionally, ethnic and racial (Hall, Matz, & Wood, 2010). Nonbelievers are typically found to be low in prejudice, at least toward the above targets.

This religious prejudice has been found to be rooted in, besides religious ideology (see, for sexual prejudice: Hoffarth et al., 2018), three mechanisms, all of which are positively associated with traditional religiosity. These include authoritarianism (Rowatt et al., 2014), the cognitive needs for closure, order, and structure (Brandt & Renya, 2010; Hill, Cohen,

Terrell, & Nagoshi, 2010), and the endorsement of collectivistic moral foundations, mainly purity (Deak & Saroglou, 2015). These tendencies create the “religious paradox”, that is the tension between religion’s accentuation of the ingroup/outgroup distinction that fuels prejudice and religion’s promotion of compassion, care, and generosity toward others.

The Paradox of Nonbelievers’ Prejudice

Emerging research has, however, also started to reveal prejudices of nonbelievers, but toward their own ideological outgroups. In three recent multi-study works in five countries, it was found that nonbelievers showed prejudice toward ideological and moral outgroups (Brandt & Van Tongeren, 2017; Kossowska, Czernatowicz-Kukuczka, & Sekerdej, 2017; Uzarevic et al., 2019). These outgroups were conservatives, active antiliberals (anti-abortion or antigay rights individuals), fundamentalists, and even mere religionists: Christians, Muslims, and Buddhists. Importantly, such prejudices were found with various operationalizations of nonbelief, i.e. being low in religiosity or fundamentalism, self-identifying as a non-believer (atheist or agnostic), or holding high antireligious sentiment. Thus, both mere nonbelief and antireligious sentiment have been found to predict outgroup prejudice.

Why is this the case? At first glance, this appears paradoxical. As noted earlier, nonbelievers and those low in religiosity are typically, compared to the religious, lower in authoritarianism and collectivistic values, these factors being major sources of prejudice—at least of classic prejudice against other religious and ethnic groups, sexual minorities, and women. Furthermore, nonbelievers, compared to the religious, tend to be more open-minded and flexible. They are characterized by greater openness to experience (Saroglou, 2017), stronger endorsement of the values of autonomy and universalism (Roccas & Elster, 2014), lower need for closure (Saroglou, 2002), and greater cognitive flexibility (Zmigrod, Rentfrow,

Zmigrod, & Robbins, 2018). Given the role of these individual differences in attenuating prejudice, nonbelievers should be unprejudiced—and be so toward all kinds of groups.

Understanding Nonbelievers' Prejudice as Ideological Conflict

One way to understand nonbelievers' prejudice is by referring to the broader structural processes involved in intergroup conflict and prejudice in general. Both a classic *social identity theory* perspective (Ysseldyk, Matheson, & Anisman, 2010) and the recent *ideological-conflict hypothesis* (Brandt, Reyna, Chambers, Crawford, & Wetherell, 2014) are pertinent here. Nonbelievers, because they socially identify as categorically different from believers, and because of their ideological aspects of nonbelief (specific worldviews, values, and disbelief in a transcendental entity), may express prejudice toward various ideological opponents perceived as *threatening* to their worldviews and values.

Indeed, perceiving Catholics as being a threat partly explained the prejudice of Polish individuals with antireligious sentiment toward Catholics; and, inversely, a similar threat explained religious orthodox people's prejudice toward atheists (Kossowska et al., 2017, Study 2). Similarly, in the US, various forms of perceived threat were found to partly explain the prejudice of low fundamentalists against fundamentalist-like groups—and, inversely, fundamentalists' prejudice against opposite groups (Brandt & Van Tongeren, 2017).

Though indicating that prejudice as a function of nonbelief constitutes one among the many cases of intergroup conflict universally involving perceived threat, these findings do not *specifically* explain nonbelievers' motives for their dislike for, and discrimination against, their ideological opponents despite their own *low* authoritarianism and *high* open-mindedness. Thus, the question arises: what, from a personality and individual differences perspective, is specific to nonbelievers' prejudice against antiliberals, fundamentalists, and mere religionists?

The Possible Role of Self-Expression Values and Other-Oriented Dispositions

We posit that prejudice toward ideological opponents as a function of the intensity of nonbelief is facilitated by specific aspects of nonbelievers' values and personality. These aspects include, first, the endorsement of the self-expression values of autonomy/liberty and rationality, and, second, low other-oriented, positive and prosocial, dispositions, i.e. low belief in the benevolence of others and the world and low dispositional empathy.

Individual Autonomy and Societal Liberty

The value of individual autonomy, labeled, in Schwartz's (1992) model as "self-direction" denoting independent thought and action, is typically, across religions and cultures, endorsed more strongly by nonbelievers than by religious believers (Roccas & Elster, 2014). Similarly, non-religious individuals, compared to the religious, are more in favor of social liberty (Zuckerman, Galen, & Pasquale, 2016) for all people, believing that citizens should be free to make their own decisions on issues for which there is no moral consensus such as euthanasia, abortion, and gay adoption (Deak & Saroglou, 2015, 2017).

We thus expected the intensity of nonbelief, due to the associated endorsement of individual autonomy and societal liberty, to predict prejudice against antiliberal targets (antigay activists). The latter tend to not only impose their own views on others, but also to deprive others of their right to decide freely on morally debatable issues and act accordingly in their lives. Whether this might extend to fundamentalists and mere religionists is unclear but possible. Antireligious critique implies the consideration of religion as being the weak individuals' infantile submission to God and religious authorities (Freud, 1927/1961).

Valuing Rationality and Science

Research indicates an inherent conflict in people's minds between religion and science and rationality. Though partly coexisting (Legare, Evans, Rosengren, & Harris, 2012), natural and supernatural explanations of events are antagonistic in people's minds (Preston & Epley, 2009). Nonbelievers also differ from the religious in terms of relying more heavily on analytic

thinking as opposed to intuitive-holistic thinking (Gervais & Norenzayan, 2012), the former being at the heart of the scientific approach. Nonbelievers support evidence-based thinking, rationality, and science (Clobert & Saroglou, 2015; Farias, 2013), and the belief in science serves to cope with adversity (Farias, Newheiser, Kahane, & de Toledo, 2013). Finally, low religiosity is associated with the moralization of rationality, which implies social distance from people with irrational beliefs (astrology, homeopathy, creationism) and the readiness to punish a person who acts based on an irrational belief (Ståhl, Zaal, & Skitka, 2016).

Thus, we expected the importance of rationality, which complements autonomy/liberty in composing modern self-expression and emancipative values (Inglehart & Welzel, 2005), to contribute to nonbelievers' dislike and discrimination of religious targets. Fundamentalists would certainly be targets given their highly literal beliefs that contrast with scientific evidence (e.g., creationism). But mere religionists could also be targets as well: basic religious beliefs are often scientifically unverifiable ideas (e.g., God is omniscient and omnipresent) and include counter-intuitive elements (e.g., Jesus was born by a virgin mother).

Low Other-Oriented, Prosocial Dispositions

Beyond some criticism (Galen, 2012), a strict examination of all kinds of evidence (cross-sectional, longitudinal, behavioral, and experimental) attests that, quantitatively speaking and if focused on ingroup prosociality, religious believers, compared to the low- or non-religious, tend to be more other-oriented in their dispositions and behave prosocially (Preston, Salomon, & Ritter, 2014; Saroglou, 2012, 2013; Tsang, Rowatt, & Shariff, 2015). This difference in favor of the religious, weak in size but consistent across cultures (Saroglou, 2017, 2019), is found in terms of personality traits (agreeableness, low psychoticism), values (benevolence, care), emotional dispositions (empathy, compassion), basic world assumptions (trust, belief in the benevolence of others and of the world), cooperation, helping, and generosity. Across the world, low religiosity predicts lower environmental concerns for the

next generations (Felix, Hinsch, Rauschnabel, & Schlegelmilch, 2018; Mostafa, 2016). Nonbelievers may differ *qualitatively*: their prosociality, though quantitatively less present, may be more intrinsic and autonomous in motivation, less conditional to competing deontological principles, and more universalistic in scope (Saroglou, 2013). Nevertheless, research also indicates that liberals' and nonreligious people's openness to issues such as abortion, euthanasia, and gay rights is explained by their opposition to collectivistic morality and not by empathetic and care-based dispositions (Deak & Saroglou, 2015, 2017).

We thus expected the intensity of nonbelief which, as antireligious sentiment implies deprecating religion, to predict the dislike for, and the discrimination of, religionists partly as a result of a fundamental distrust, i.e. lower empathy and a weaker belief in the benevolence of others and the world. Initial evidence also suggests that, though lower in dogmatism compared to Christians, nonbelievers, at least in Western European secularized countries, are less willing to tolerate contradiction and to take a perspective that differs from their own, even on non-religious issues (Uzarevic, Saroglou, & Clobert, 2017). Furthermore, antireligious sentiment has been found to reflect suspiciousness among men (Śliwak & Zarzycka, 2012).

The Present Study

In summary, our expectations were that (the intensity of) nonbelief implies prejudice toward antiliberals, fundamentalists, and mere religionists, and does so partly because of self-expression values (autonomy/liberty and rationality) and weak other-oriented dispositions (low empathy and low belief in the benevolence of others and the world). We carried out a study among UK adults. To identify prejudice as a function of nonbelief (being atheist or agnostic versus a religionist) and the intensity of it (high antireligious sentiment), we followed Uzarevic et al. (2019). That study found, in three countries (UK, France, and Spain), prejudice to be a function of (the intensity of) nonbelief, toward antiliberals (antigay activists), fundamentalists, and mere religionists (Catholics, Muslims, and Buddhists), but not an ethnic

outgroup (Chinese). As in that study, prejudice was measured here as social distance from and discrimination of the targets in terms of a low—or lower compared to other evaluations—willingness to have them as neighbors, spouses, or political representatives. To this end, the present study aimed to replicate those findings. However, importantly, it also extended that study by testing the hypothesized mediations. Following Uzarevic et al. (2019), we used, as a continuous measure of nonbelief's intensity, a subscale of the Post-Critical Belief Scale (Duriez, Soenens, & Hutsebaut, 2005) that measures disbelief in Transcendence and the de-consideration of religion as outdated and as a defense mechanism of weak people.

Method

Participants

Participants were 422 adults (18-71 years old, $M = 36.57$, $SD = 11.69$; 66% women) recruited online through the crowdsourcing platform Prolific Academic and compensated 1 GBP for participation. They were pre-screened to ensure UK residency and that they were either Christian or nonreligious. They reported being atheist (151), Christian (134), agnostic (114), or “other” (22); one participant did not report affiliation. Additional 14 participants were excluded because they did not complete the survey (6), decided not to allow their data to be used for research after having been debriefed (3), failed the attention check (1), reported another nationality and residence (1), or reported a non-Christian affiliation (3). The number of participants was determined to ensure a power of .80 for the ANOVA and post-hoc analyses, based on previous evidence on these atheistic prejudices (Uzarevic et al, 2019).

Measures

The study was advertised as investigating “cognitive and emotional factors”. Data were collected in early 2018. It took approximately 10 minutes to complete the survey. After completing the survey, participants were presented the debriefing text and were given the opportunity to withdraw their participation from the study, without consequences.

Empathy.

After providing socio-demographic information, participants answered eight items we selected from the *Interpersonal Reactivity Index* (Davis, 1983), with four of them measuring *empathic concern* (e.g., “I often have tender, concerned feelings for people less fortunate than me”) and the other four *perspective-taking* (e.g., “I try to look at everybody’s side of a disagreement before I make a decision”). The two sets of items were interrelated, $r = .54$. We averaged the two scores to obtain a global index of empathy for each participant ($\alpha = .79$).

Basic world assumptions: Benevolence.

Participants were provided with the items of the two subscales of the *World Assumptions Scale* (Janoff-Bulman, 1989) measuring the belief in the (1) benevolence of the world and (2) benevolence of people (two \times four items; 7-point Likert scales). Respective sample items are “There is more good than evil in the world” and “Human nature is basically good”. The two subscales were interrelated, $r = .62$. We averaged the scores of the eight items to obtain a global index of belief in a benevolent world for each participant ($\alpha = .90$).

Importance of rationality.

Participants completed the *Importance of Rationality Scale* (six items; Ståhl et al., 2016) measuring the personal importance people attach to being rational and making evidence-based decisions. A sample item is: “It is important to me personally to be skeptical about claims that are not backed up by evidence” ($\alpha = .87$; 7-point Likert scale).

Personal autonomy: Value of self-direction.

To assess the value placed on autonomy in decision-making and thinking we asked participants to evaluate the four items of Self-Direction as measured in the Portrait Value Questionnaire (Davidov, Schmidt, & Schwartz, 2018). Participants rated how similar to themselves they found the person described in the items (from 1 = *not like me at all*, to 7 = *very much like me*). A sample item is: “It is important to this person to be independent; this

person likes to rely on themselves" ($\alpha = .64$). We used "this person" for each item to avoid the gendered "he"/"she" of the original Portrait Value Questionnaire.

Moral foundation of liberty.

To assess participants' endorsement of the moral importance of societal freedom and liberty in choosing one's lifestyle, we used two items taken from the liberty/oppression subscale added to the Moral Foundations Questionnaire (Iyer, Koleva, Graham, Ditto, & Haidt, 2012) (7-point scales). The items were "I think everyone should be free to do as they choose, so long as they don't infringe upon the equal freedom of others" and "People should be free to decide what group norms or traditions they themselves want to follow" ($\alpha = .74$).

Prejudice.

We measured prejudice distinctly toward six target groups. These included: (1) antigay activists and (2) religious fundamentalists, respectively, a *moral* and a *religious antiliberal* outgroup perceived to threaten liberal and secular values; (3) Muslims, a *distal religious* outgroup, often perceived in the West as possibly threatening the above values; (4) Catholics, a *proximal religious* outgroup for nonbelievers; (5) Buddhists, a *distal religious* outgroup, usually perceived as *non-threatening*; and (6) Chinese people, an *ethnic* outgroup. For each target, we used three items that are commonly used in international surveys to measure *social distance*. Participants were asked: "Please indicate the degree to which you would or not like to have the person mentioned below as ... (1) a neighbor, (2) a political representative, and (3) a husband/wife" (answers ranged from 1 = *totally dislike* to 7 = *totally like*). For each target, the three scores were reversed and averaged, so that high scores indicate high social distance (α s for the six targets ranged from .85 to .93). For simplicity in the mediation analyses, we also combined the three scores of social distance from, respectively, Muslims, Catholics, and Buddhists (the three prejudices were interrelated with *rs* ranging from .52 to .67), into a global score of social distance from mainstream religious groups ($\alpha = .80$). The

correlation between prejudice toward antiliberals and prejudice toward fundamentalists was much lower (.32) and thus the two were always treated distinctly.

Antireligious sentiment and religiosity.

The so-called External Critique subscale (five items) of the Post-Critical Belief Scale (short version; Duriez et al., 2005; 7-point Likert scales) was used to measure participants' level of *antireligious sentiment* (or critique), i.e. rejecting the existence of a Transcendence and viewing religion as outdated and as an illusory defense used by the weak. A sample item is: "Faith is an expression of a weak personality" ($\alpha = .87$). We also used a four-item index of *religiosity-spirituality* was used (importance of God, importance of religion, importance of spirituality, and frequency of prayer), but in the analyses we focused on antireligious critique since this was a target construct for this study.

Results

Means and standard deviations of all measures, distinctly for atheists, agnostics, and Christians, are shown in Table 1. The analyses reported below include the between-group differences, the within-group discrimination between targets, and the interrelations and mediations between antireligious critique, hypothesized mediators, and prejudices.

Non-Believers Compared to Believers

ANOVA analyses comparing the three convictional groups of participants, i.e. the two groups of nonbelievers (atheists and agnostics) and Christians, on variables other than prejudice, and subsequent post-hoc comparisons, showed several significant differences (see Table 1). When the two groups of nonbelievers differed from the Christians in the same direction, and the results were significant for the nonbelievers as a whole, we also provide the corresponding information.

Compared to Christians, nonbelievers as a whole, 95% CI [-0.48, -0.05], and atheists in particular, 95% CI [-0.59, -0.01], tended to believe less in the world's and people's

benevolence. Additionally, compared to Christians, both atheists, 95% CI [0.03, 0.53], and agnostics, 95% CI [0.19, 0.72], valued epistemic rationality to a more important degree.

As far as prejudice was concerned, a mixed ANOVA analysis, with the target group as within-factor and the convictional group of participants as between-factor, showed significant effects of the target group, $F(5, 1980) = 575.66, p < .001$, and the interaction between the two factors, $F(10, 1980) = 13.28, p < .001$. Subsequent ANOVA analyses for each target provided key between-group differences. Compared to Christians, nonbelievers—atheists, agnostics or the two groups combined—showed greater social distance from antigay activists, fundamentalists, and Catholics, 95% CI ranging from lower 0.03 to upper 1.31. Nonbelievers (see in Table 2 the means for the specific indicators of prejudice), compared to Christians, disliked, in absolute terms, antiliberal targets more, and liked, in absolute terms, Catholic targets less, by showing lower willingness to have these targets as a spouse, political representative, and neighbor. Conversely, Christians, compared to nonbelievers—either both atheists and agnostics, or the two groups combined—showed higher dislike of Muslims, Buddhists, and Chinese, (for the significant differences in Table 1, 95% CI ranged from lower -1.08 to upper -0.02). This was the case, as detailed in Table 2, for unwillingness to have these targets as spouse/political representatives and unwillingness to have them as neighbors. Finally, atheists did not significantly differ from agnostics in prejudice or in the hypothesized mediating variables. Atheists were though higher in antireligious critique, 95% CI [0.30, 1.04], and 80% of them scored in antireligious critique higher than the midpoint of the scale.

Within-Group Discrimination between Targets

Interesting within-group differences were found in the way the various outgroups are treated. Figure 1 depicts mean scores of social distance versus closeness (low versus high end of the y axis) to the various targets, distinctly by convictional group. This figure suggests first that the three convictional groups shared some important similarity in their “ranking” of the

various targets on a (dis)liking continuum. Catholics are an outgroup for nonbelievers but a kind of ingroup for UK Christians. The other targets are clear outgroups, i.e. moral/antiliberal (antigay activists and religious fundamentalists), religious (“threatening” Muslims and “non-threatening” Buddhists), and ethnic (Chinese). We thus computed repeated measures ANOVAs for the different targets, within each convictional group.

Antiliberal groups, i.e. antigay activists and fundamentalists, were highly disliked, with mean scores of the disliking measures being well above the midpoint of the scale (see the means in Table 1), and more disliked compared to the religious outgroups (Muslims and Buddhists). This held for all three convictional groups, i.e. atheists, agnostics, and even Christians, respective $F_s = 374.23, 530.23, \text{ and } 120.79$, respective $df_s (1, \text{ and } 150, 113, 133)$, all $p_s < .001$ (95% CI ranging from lower 1.61 to upper 3.45). Moreover, Muslims received very average mean scores of liking, being clearly less liked than Buddhists and Chinese, and this held for all three convictional groups: atheists, respective $F_s = 60.98 \text{ and } 110.12$; agnostics, $F_s = 40.94 \text{ and } 72.11$; and Christians, $F_s = 49.43 \text{ and } 61.97$; all $p_s < .001$ (across the six effects, 95% CI ranging from lower 0.50 to upper 1.35). In sum, both believers and nonbelievers disliked antiliberals compared to other groups, and Muslims compared to other religious and ethnic groups.

Second, beyond these similarities, as Figure 1 also suggests, and repeated measures ANOVAs confirmed, there were interesting discriminatory attitudes when one focuses on how nonbelievers treated various mainstream religious and ethnic targets. Both atheists and agnostics reported liking Catholics less than Buddhists and Chinese: atheists, respective $F_s = 35.76 \text{ and } 73.65$; agnostics, $F_s = 45.33 \text{ and } 57.64$; all $p_s < .001$ (across the four effects, 95% CI ranging from lower 0.44 to upper 1.28). These findings suggest that the difference, mentioned in the previous section, between nonbelievers and Christians in how they treated Catholics, was not only due to Christians strongly liking a religious ingroup (e.g., Christians

liked Catholics more than Buddhists, $F = 23.61$, $p < .001$, 95% CI [-0.79, -0.33]), but was also due to some discriminatory dislike among the nonbelievers. Furthermore, both atheists and agnostics liked Buddhists less than Chinese, respective F s = 10.23 and 6.13, $ps < .02$, 95% CI ranging from 0.05 to 0.47. On the contrary, Christians did not differ in their (positive) attitudes toward Buddhists compared to the Chinese.

Antireligious Critique as Predicting Prejudice and Hypothesized Mediators

Correlations between the four types of prejudice (toward antigay activists, religious fundamentalists, mainstream religions, and ethnic/Chinese) and all the relevant individual differences, i.e. antireligious critique and the five hypothesized mediators (empathy, the world's benevolence, rationality, self-direction, and liberty), are detailed in Table 3--both for the total sample and for only the nonbelievers. Intercorrelations between the latter individual differences are detailed in Table 4--both for the total sample and for only the nonbelievers.

Antireligious critique was positively associated with the importance of rationality, negatively associated with benevolence of the world as well as empathy, and unrelated to valuing self-direction and liberty. Moreover, antireligious critique was positively correlated with social distance toward antigay activists, religious fundamentalists, and mainstream religious groups, but was unrelated to attitudes toward the Chinese.

Furthermore, the five hypothesized mediating variables (which were overall slightly interrelated; see Table 4) showed opposite associations with the different types of prejudice, depending on the antiliberal versus mainstream character of the target. Prejudices toward mainstream religious groups and the ethnic outgroup were associated with *low* empathy and *low* belief in the benevolence of the world, as well as *low* valuing of liberty and self-direction; and ethnic prejudice was in addition correlated with a *low* importance of rationality. On the contrary, disliking antigay activists was *positively* associated with empathy, benevolence, and valuing liberty, and disliking fundamentalists was *positively* associated with the importance of

rationality (but negatively with empathy, among nonbelievers). Finally, most of the above associations were significant for both the whole sample and for only nonbelievers—with a notable exception for disliking antigay activists, which denoted a believing-disbelieving divide rather than the intensity of the antireligious critique among nonbelievers.

Given the above correlational findings indicating that antireligious critique relates to the belief in the world's benevolence, empathy, and the importance of rationality, we subsequently investigated the role of these three variables as possible mediators of the effect of antireligious critique in predicting prejudice. We conducted a series of four mediation analyses using a SPSS macro (PROCESS; Hayes, 2013; model 4), respectively for prejudice toward antigay activists, religious fundamentalists, and mainstream religious groups. This macro facilitates the implementation of bootstrapping methods (5000 re-sampling). In each of the analyses, we controlled for age, gender, education and socio-economic status. We carried out these analyses in the whole sample, since the antireligious critique, in most cases, had similar correlates for the whole sample and the nonbelievers alone.

Regarding social distance from *antigay activists*, the direct effect of antireligious critique was significant and positive, $b = .17$, $SE = .05$, $p = .001$. There was a significant indirect negative effect of benevolence: antireligious critique predicted a low belief in the world's benevolence ($b = -.14$, $SE = .03$, $p < .001$), but benevolence in turn predicted a high social distance from antigay activists, $b = .22$, $SE = .08$, $p = .005$, $IE = -.03$, $SE = .01$, 95% CI [-0.06, -0.01]. The importance of rationality and empathy did not mediate the relationship.

The relationship between antireligious critique and social distance from *religious fundamentalists* was partly mediated by a strong importance of rationality (see Figure 2, top). Antireligious critique predicted importance of rationality, and in turn strong social distance from religious fundamentalists. Empathy and benevolence did not mediate this relationship.

The effect of antireligious critique on social distance from *mainstream religious groups* was mediated by low empathy and low belief in the benevolence of the world (Figure 2, bottom). Antireligious critique predicted these two variables, which, in turn, predicted high social distance from religious groups. Taking into account the role of these two mediators decreased the direct effect of antireligious critique on religious prejudice to almost 0. The importance of rationality did not play a mediating role. Computing the same mediational analyses, distinctly for Catholics, Muslims, and Buddhists, provided each time the same findings (see, for detailed results, Supplementary Material, Figures 1 to 3; direct or indirect effects).

Finally, though the correlational results did not indicate an effect of antireligious critique on anti-Chinese prejudice, we also computed a fourth mediational analysis, similar to those reported above, in order to explore, for comparative purposes, what might be the role of these constructs with respect to an ethnic outgroup. Although the direct effect of antireligious critique on social distance from the *Chinese* was not significant ($b = -.04$, $SE = .05$, ns), there were both positive and negative significant indirect effects. Specifically, antireligious critique predicted low empathy ($b = -.12$, $SE = .03$, $p < .001$), low belief in the world's benevolence ($b = -.14$, $SE = .03$, $p < .001$), and high importance of rationality ($b = .13$, $SE = .03$, $p < .001$). In turn, low empathy and weak belief in the world's benevolence predicted high social distance, while high importance of rationality predicted low social distance from the Chinese: respective bs (SE) = $-.42$ (.08), $-.21$ (.07), $-.24$ (.08), $ps < .003$; for empathy, $IE = .05$, $SE = .02$, 95 % CI [0.02, 0.09]; for benevolence, $IE = .03$, $SE = .01$, 95 % CI [0.01, 0.06]; for importance of rationality, $IE = -.03$, $SE = .01$, 95 % CI [-0.06, -0.01].

Discussion

The aim of this study was twofold. First, we intended to replicate, in line with the ideological conflict hypothesis (Brandt et al., 2014), recent research on discriminatory

attitudes, as a function of nonbelief and antireligious sentiment, toward various ideological opponents (Uzarevic et al., 2019). Second, we investigated the role of individual differences specific to nonbelief, and differing from those associated with religiosity (authoritarianism, need for closure), in explaining ideological prejudice as a function of antireligious sentiment.

Nonbelievers' Ideological Targets

First, among UK residents, using measures of social distance, i.e. unwillingness to have a target as a neighbor, political representative, or spouse, we found that, though both non-believers and Christians exhibited social distance from antiliberals (antigay activists) and religious fundamentalists, nonbelievers and people with high antireligious sentiment did so more strongly. Moreover, in this country of Christian tradition, nonbelievers were found to like Catholics less than Buddhists, an overall appreciated religious group in the West, and the Chinese, an ethnic outgroup, and to like Buddhists less than the Chinese. Again, antireligious critique was related to social distance from mainstream religious groups, i.e. Catholics, Buddhists, and Muslims—but not to social distance from the ethnic outgroup.

All of these findings confirm our expectations that nonbelief and the intensity of antireligious sentiment (thus, not simply being low in religious measures as in other research) are associated not with ethnic prejudice, but with prejudice against all kinds of ideological opponents: moral antiliberals, fundamentalists, and even mere religionists of major world religions. Importantly, these findings can be considered as clearly implying unjustified discriminatory behavior. Indeed, the results included not only a decreased political and moral tolerance (low willingness to have these targets as political representatives and a spouse), which could, to some extent, be understood in terms of value conflict, but also lower social tolerance, that is a decreased willingness to have the targets even simply as neighbors.

These results well replicate those previously found in three countries (again in the UK, but also in France and Spain) in a study having used the same methodology (Uzarevic et al.,

2019). The only notable difference between the two studies was that, in the present work, Christian participants showed ethno-religious prejudice by demonstrating greater social distance from Chinese, Buddhists, and Muslims compared to nonbelievers. This is in line with past research indicating, to some extent, ethnoreligious prejudice as a function of religiosity (Hunsberger & Jackson, 2005; Rowatt et al., 2014). In sum, whereas religious believers seem to not appreciate religious and ethnic outgroups, nonbelievers seem to not appreciate targets that oppose their liberal and secular ideology.

Explaining Prejudice as a Function of the Intensity of Nonbelief

Second, the results confirmed two of the three predictions we made regarding the possible mediating effects of specific individual differences, mainly self-expression values (rationality and autonomy/liberty) and other-oriented dispositions (dispositional empathy and the belief in the benevolence of others and the world). We will detail and comment these findings below.

At the simple correlational level, *valuing liberty* was related, in the overall sample, to social distance from antiliberals—but, inversely, together with *valuing autonomy* (self-direction), *valuing liberty* was related to social proximity to mainstream religions and Chinese, and this was true of both the overall sample and among nonbelievers alone. This underlines some contrast between groups perceived as opposing liberty (antiliberals) and those not perceived in this manner (mainstream religious and ethnic groups). *Valuing rationality* was related, in both the overall sample and among only nonbelievers, to social distance from fundamentalists—and inversely, to social proximity to Chinese. This indicates a contrast between groups endorsing irrational unscientific beliefs (e.g., creationism) and ethnic, not ideological, groups. Mainstream religionists may be perceived as falling in between, given that there is no clear perception of basic religious beliefs as irrational and implausible. *Empathy* and the *belief in the benevolence of others and the world* were related

to social distance from antiliberals (antigay activists) in the overall sample, but inversely, in the overall sample and among nonbelievers, to social proximity to religionists and Chinese. This suggests a contrast between groups possibly perceived as hostile to others and other groups perceived as non-hostile. The fundamentalists may be perceived as falling in between, given no consistency on whether they are only dogmatic with themselves or also impose their views on others. Finally, as also expected, holding antireligious sentiment was accompanied by a strong endorsement of rationality and by weak dispositional empathy and weak belief in the benevolence of others and the world—we failed however to confirm an association between antireligious critique and valuing autonomy/liberty.

Subsequently, the mediational analyses provided interesting results regarding the discrimination of religionists, fundamentalists, and the ethnic target. Social distance from *mere religionists* as a function of antireligious sentiment was partly explained by low empathy and a low belief in the world's benevolence, but not by the importance of rationality. Intense nonbelievers, possibly because of a weaker, compared to the religious, trust in others (Meuleman & Billiet, 2011), seem to dislike mere religionists due to a global, fundamental distrust of others—particularly here religionists, who are known (Koenig, King, & Carson, 2012; Zukerman & Korn, 2014) to believe in an ordered and benevolent world and endorse an optimistic vision of the future. Interestingly, as also shown in the mediational analyses, this same low empathy and weak belief in benevolence was a force that drove individuals with high antireligious sentiment to also express social distance from *Chinese*. In this case, however, the importance of rationality had an opposite effect, preventing the highly antireligious from showing ethnic prejudice. The importance of rationality had no such preventive effect on the link between antireligious critique and social distance from religionists, again possibly because there is no consensus on the (ir)rationality and (im)plausibility of basic religious beliefs. Nevertheless, the importance of rationality played a

mediating role in explaining the effect of antireligious sentiment on social distance from *fundamentalists* who clearly hold irrational and unscientific beliefs.

We have no solid explanation for the fact that the valuing of autonomy/liberty was unrelated to antireligious critique and to being a nonbeliever (compared to being a Christian). It may simply be that the few items used here did not adequately capture the full extent of the construct, though the two variables measured (self-direction and the moral foundation of liberty) behaved well in terms of their intercorrelation and correlation with relevant constructs, i.e. empathy, importance of rationality, and social distance from antiliberals. Alternatively, it may be that Christians in the UK (see also below) endorse autonomy/liberty, making the difference with nonbelievers too small to be captured. The remaining significant mediational result can be interpreted speculatively: people who believed in the benevolence of others and the world disliked antiliberals who denigrate gay rights and well-being. This belief, being low among those with high antireligious sentiment, attenuated their strong social distance from antigay antiliberals, which would have otherwise been greater in size.

Limitations and Future Questions

Though this work regarding nonbelievers' attitudes toward their ideological opponents conceptually replicates previous findings, and directly replicates those of Uzarevic et al. (2019), there remains a need to investigate the generalizability of these results, especially the mediational findings, in more religious and traditional cultural contexts compared to that of secularized Western Europe. In particular, in the present study, the Christian group seemed rather liberal based on their mean endorsement of antireligious sentiment and their similarity to nonbelievers regarding the valuing of autonomy and their dislike of fundamentalists and antigay activists. Note also that religionists who participate in online studies tend to be more liberal (Lewis, Djupe, Mockabee, & Su-Ya Wu, 2015). Thus, regarding the explanatory power of individual differences on prejudice toward convictional opponents, further studies

are needed before generalizing the present findings beyond the strict context of the UK.

Furthermore, the prejudice measures used here were self-reports, thus the possibility of social desirability attenuating the intensity of negative feelings toward ideological outgroups cannot be excluded.

Furthermore, there is increasing interest in identifying different forms of nonbelief (Schiavone & Gervais, 2017; Silver, Coleman, Hood, & Holcombe, 2014). The present work provides information on two major forms, i.e. atheism and agnosticism, as well as one attitudinal construct, i.e. antireligious sentiment. Nevertheless, the findings (see also Uzarevic et al., 2019) suggest no major differences between atheists and agnostics. One is even tempted to wonder whether agnostics may be nonbelievers who think and feel as atheists, but do not desire to self-identify as such, possibly because of the negative (meta-)stereotypes (Saroglou, Yzerbyt, & Kaschten, 2011; Simpson & Rios, 2016) associated with atheism. Similarly, almost all of the study's atheists endorsed antireligious sentiment, and both constructs, i.e. self-identification as an atheist and antireligious sentiment, reflected ideological prejudice. Further investigation is needed to better understand if different forms of nonbelief translate into deep psychological differences.

First, beyond the universal psychological processes explaining intergroup conflict for (ir)religious ideology, such as symbolic or realistic threat (Brandt & Van Tongeren, 2017; Kossowska et al., 2017) or a strong identification with one's ingroup (Ysseldyk et al., 2010), the present work suggests that believers and non-believers may differ with respect to the individual differences underlying their respective prejudices. Religious believers favor conformity with established traditions, norms, and authorities, and need an ordered and "pure" world. They thus discriminate against moral liberals, other religious groups, atheists, and ethnic outgroups. In contrast, intense nonbelievers tend to favor rational values, and possibly autonomy (still to be confirmed as a mediator), and may discriminate against antiliberal moral

conservatives, groups holding irrational and unscientific beliefs (fundamentalists), and even groups holding unverified and implausible beliefs (mere religionists)—but not other classic outgroups such as ethnic ones.

Second, beyond differences in the *types* of outgroups and the explanatory *motives*, nonbelievers may *qualitatively* differ from religionists in ideological opposition. Because they are more open-minded and flexible (Saroglou, 2002; Zmigrod et al., 2018), they may be more inclined to distinguish between (1) opposing antiliberal and irrational ideas/acts and (2) not discriminating against antiliberal and irrational persons. In recent work (van der Noll et al., 2018), Westerners helped a Muslim target less compared to a Christian one when the action to support was antiliberal (antigay activism). However, those with highly positive attitudes toward atheism were equally negative toward the two targets when the action involved an antiliberal cause, thus showing that they oppose antiliberal ideas but not persons for being ethno-religiously different. There is also some evidence that nonbelievers' prejudice toward their ideological opponents is weaker in size (Brandt & Van Tongeren, 2017) or may not exist (Cowgill, Rios, & Simpson, 2017), in comparison to the inverse, that is believers' prejudice toward nonbelievers. (But inversely, atheists hold negative stereotypes of Christians to a stronger degree compared to Christians' stereotypes on atheists; Simpson & Rios, 2016).

In conclusion, the research on liberals' prejudicial attitudes toward conservatives is increasing. The present work adds theorization and evidence regarding the specific nature and motives of prejudicial attitudes toward their ideological opponents as a function of (intense) nonbelief. Future research needs to further clarify the extent, mechanisms, causes, and consequences of such prejudice. Ironically, those who highly endorse the principle of "I disapprove of what you say, but I will defend to the death your right to say it" may themselves be less enthusiastic in fully implementing this principle.

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Table 1

Descriptive Statistics of All Measures, by Convictional Group, and Comparisons

Variables	Atheists (<i>n</i> = 151)	Agnostics (<i>n</i> = 114)	Christians (<i>n</i> = 134)	Comparisons		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i>	<i>p</i>	η^2
Antirelig. Critique	5.09 (1.07)	4.42 (1.31)	3.53 (1.40)	54.68	.000 ^{1, 2, 3}	.22
Hypothes. Mediators						
Empathy	4.78 (0.91)	4.75 (0.94)	4.83 (0.93)	0.26	.772	.00
BWA-Benevolence	4.56 (1.02)	4.64 (1.04)	4.86 (1.02)	3.16	.044 ^{1, 4}	.02
Imp. of Rationality	5.45 (0.90)	5.62 (0.88)	5.17 (0.88)	8.36	.000 ^{1, 2}	.04
Self-Direction	5.34 (0.91)	5.52 (0.87)	5.34 (0.89)	1.58	.207	.01
Liberty	5.97 (0.99)	6.07 (0.91)	5.80 (1.03)	2.38	.094	.01
Social Distance tw.						
Antigay Activists	6.12 (1.48)	6.41 (1.09)	5.69 (1.60)	8.02	.000 ^{1, 2}	.04
Rel. Fundamental.	5.79 (1.60)	6.20 (1.17)	5.43 (1.61)	8.10	.000 ^{2, 4}	.04
Mainstream relig.	3.30 (1.36)	3.26 (1.17)	3.28 (1.35)	0.04	.964	.00
Muslims	3.65 (1.66)	3.49 (1.50)	4.01 (1.82)	3.24	.040 ^{2, 4}	.02
Catholics	3.45 (1.47)	3.52 (1.36)	2.63 (1.30)	17.05	.000 ^{1, 2}	.08
Buddhists	2.80 (1.51)	2.76 (1.23)	3.19 (1.62)	3.43	.033 ⁴	.02
Chinese	2.51 (1.37)	2.51 (1.26)	3.18 (1.48)	10.45	.000 ^{1, 2}	.05

Note. Significant differences (Tukey post-hoc tests): ¹ = atheists-Christians; ² = agnostics-Christians; ³ = atheists-agnostics; ⁴ = non-believers (atheists and agnostics)-Christians. The latter difference is mentioned when both groups were in the same direction in differing from Christians, though one or both non-significantly (less conservative *t*-tests after a significant ANOVA).

Table 2

Descriptive Statistics of Distinct Indicators of Social Distance, by Target and Convictional Group

		Atheists	Agnostics	Christians
Unwillingness to have as	Targets	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Neighbor	Antigay activists	5.90 (1.64)	6.20 (1.28)	5.57 (1.69)
	R. fundamentalists	5.42 (1.91)	5.84 (1.65)	5.19 (1.75)
	Mainstream relig.	2.68 (1.39)	2.69 (1.25)	2.84 (1.38)
	Muslims	2.89 (1.70)	2.93 (1.62)	3.48 (1.91)
	Catholics	2.78 (1.46)	2.75 (1.39)	2.37 (1.27)
	Buddhists	2.38 (1.47)	2.39 (1.27)	2.67 (1.62)
	Chinese	2.13 (1.34)	2.21 (1.25)	2.54 (1.44)
As spouse & political representative	Antigay activists	6.23 (1.47)	6.51 (1.09)	5.75 (1.61)
	R. fundamentalists	5.98 (1.54)	6.38 (1.06)	5.56 (1.60)
	Mainstream relig.	3.61 (1.47)	3.54 (1.26)	3.50 (1.43)
	Muslims	4.03 (1.81)	3.77 (1.57)	4.28 (1.91)
	Catholics	3.79 (1.67)	3.91 (1.57)	2.76 (1.39)
	Buddhists	3.01 (1.64)	2.95 (1.33)	3.45 (1.77)
	Chinese	2.70 (1.48)	2.66 (1.34)	3.50 (1.67)

Table 3

Coefficients of Correlation between Antireligious Critique, Hypothesized Mediators, and Prejudice

	Targets of Prejudice			
	Antigay Activists	Religious Fundamentalists	Mainstream Religionists	Chinese
Antireligious Critique	.12* (.07)	.24*** (.20***)	.17*** (.22***)	.02 (.05)
Empathy	.10* (.00)	-.07 (-.20**)	-.32*** (-.35***)	-.35*** (-.37***)
BWA-Benevolence	.12* (.09)	.01 (-.03)	-.29*** (-.22***)	-.20*** (-.17**)
Import. of Rationality	.05 (-.04)	.20*** (.14*)	-.04 (-.03)	-.20*** (-.14*)
Self-Direction	.01 (-.03)	.03 (.00)	-.18*** (-.23***)	-.16*** (-.18**)
Liberty	.10* (-.03)	.07 (-.02)	-.10* (-.12*)	-.15** (-.17**)

*** $p < .001$. ** $p < .01$. * $p < .05$.

Notes. $N = 422$. Parentheses provide results for only nonbelievers, i.e. atheists and agnostics ($N = 265$).

Table 4

Intercorrelations Between the Hypothesized Mediators

	Antirelig. Critique	Empathy	BWA- Benevolence	Import. of Rationality	Self- Direction	Liberty
Antirelig. Critique	–	-.20***	-.22***	.19***	-.02	.09
Empathy	-.21***	–	.31***	.14**	.17***	.20***
BWA-Benevolence	-.17**	.27***	–	.02	.10*	.09
Imp. of Rationality	.20***	.07	.05	–	.37***	.31***
Self-Direction	-.04	.18**	.10	.37***	–	.34***
Liberty	.05	.14*	.05	.24***	.31***	–

*** $p < .001$. ** $p < .01$. * $p < .05$.

Note. Above the diagonal are the correlations for the full sample ($N = 422$), and below for nonbelievers only (atheists and agnostics, $N = 265$)

Figure 1. Aggregate mean levels of (un)willingness to have various moral, religious, and ethnic targets as neighbors, political representatives, and spouses (in a 1 to 7 scale), by participants' convictional group, i.e. atheists, agnostics, and Christians.

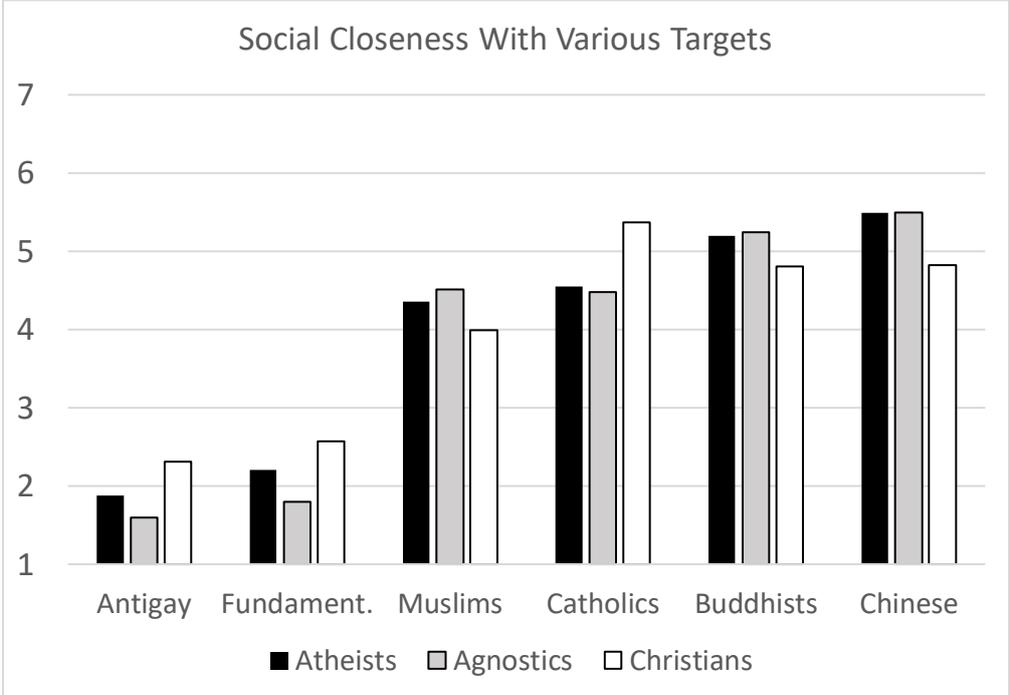
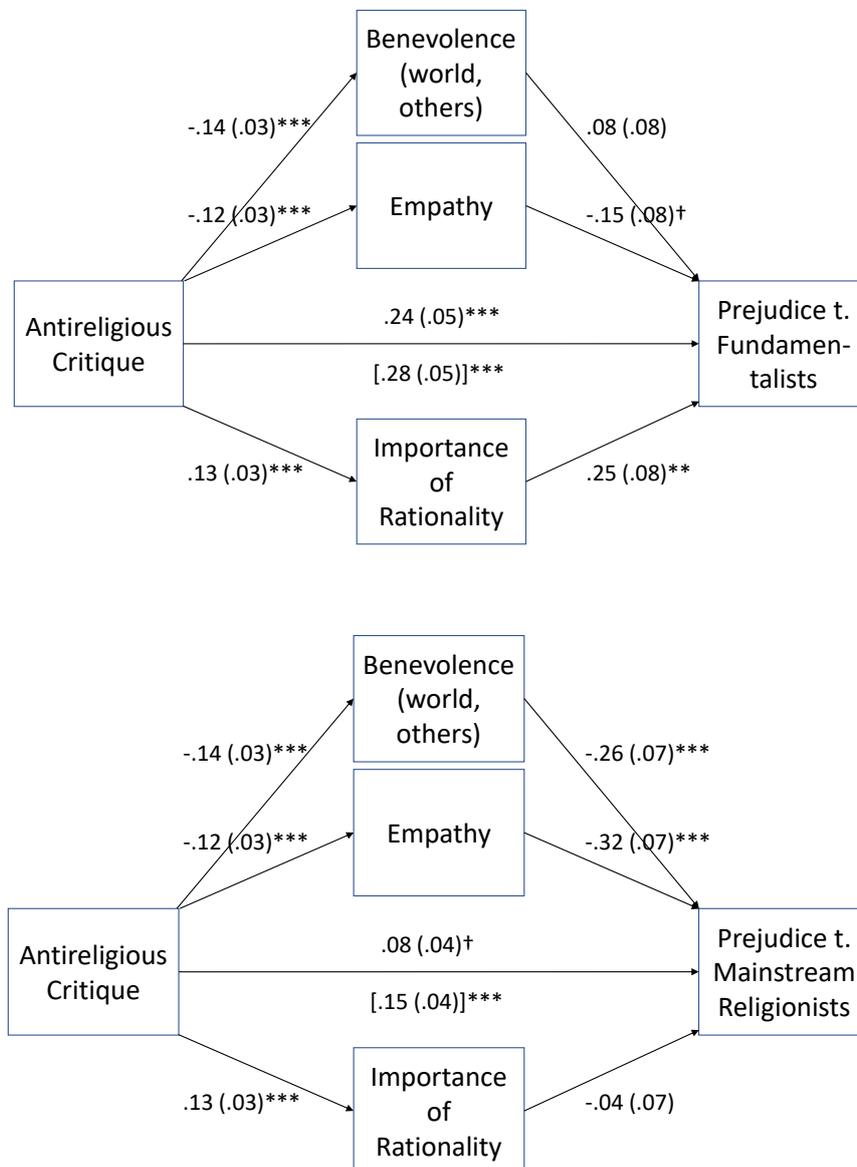


Figure 2. The mediating role of empathy, belief in a benevolent world, and importance of rationality on the effect of antireligious critique on prejudice (social distance) toward religious fundamentalists (top) and mainstream religious groups (Christians, Muslims, and Buddhists) (bottom), controlling for gender, age, socio-economic status, and education ($N = 421$).

Note. Numbers on paths represent unstandardized regression coefficients. Standard errors are in parentheses. The total effects of antireligious critique on prejudice toward religious fundamentalists and mainstream religious groups are in brackets. For fundamentalists, the indirect effect was significant for importance of rationality, $IE = .03$, $SE = .01$, 95% CI = [0.01, 0.07], but not empathy, $IE = .02$, $SE = .01$, 95% CI = [0.00, 0.05], or benevolence, $IE = -.01$, $SE = .01$, 95% CI = [-0.03, 0.01]. For mainstream religious groups, the indirect effect was significant for empathy, $IE = .04$, $SE = .01$, 95% CI = [0.01, 0.07], and benevolence of the world, $IE = .03$, $SE = .01$, 95% CI = [0.01, 0.06], but not importance of rationality, $IE = -.01$, $SE = .01$, 95% CI = [-0.03, 0.02].

*** $p < .001$. ** $p < .01$. * $p < .05$. † $p < .10$.

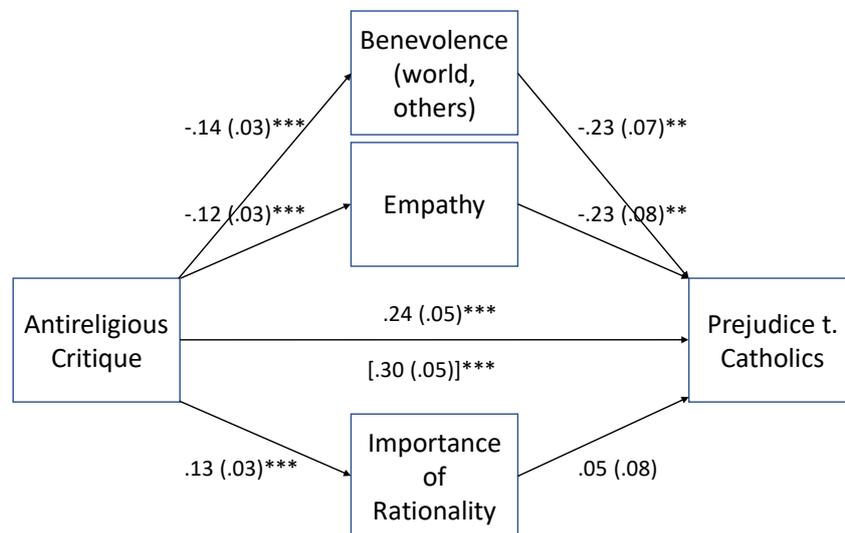


Supplementary Material

Supplementary Material, Figure 1. The mediating role of empathy, belief in a benevolent world, and importance of rationality on the effect of antireligious critique on prejudice (social distance) toward Catholics, controlling for gender, age, socio-economic status, and education ($N = 421$).

Note. Numbers on paths represent unstandardized regression coefficients. Standard errors are in parentheses. The total effects of antireligious critique on prejudice toward Catholics are in brackets. The indirect effect was significant for empathy, $IE = .03$, $SE = .01$, 95 % CI = [0.01, 0.06], and benevolence of the world, $IE = .03$, $SE = .01$, 95 % CI = [0.01, 0.06], but not importance of rationality, $IE = .01$, $SE = .01$, 95% CI = [-0.01, 0.03].

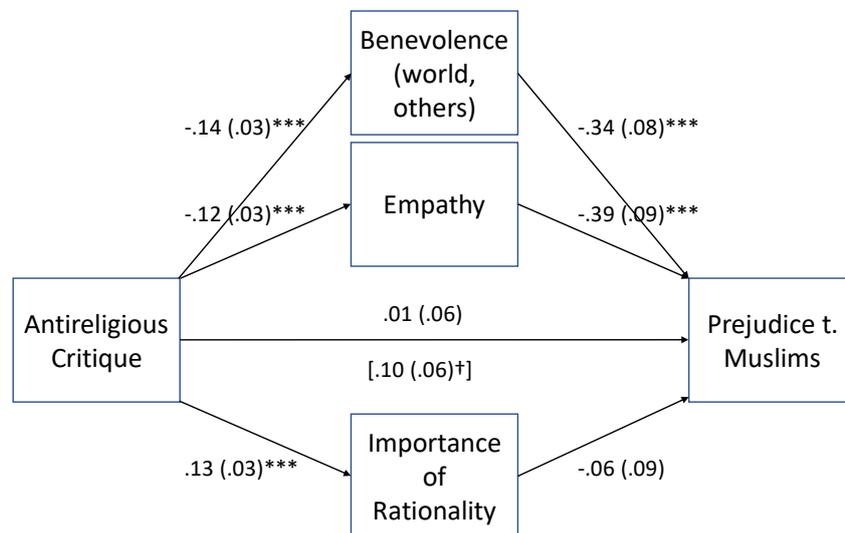
*** $p < .001$. ** $p < .01$. * $p < .05$.



Supplementary Material, Figure 2. The mediating role of empathy, belief in a benevolent world, and importance of rationality on the effect of antireligious critique on prejudice (social distance) toward Muslims, controlling for gender, age, socio-economic status, and education ($N = 421$).

Note. Numbers on paths represent unstandardized regression coefficients. Standard errors are in parentheses. The total effects of antireligious critique on prejudice toward Muslims are in brackets. The indirect effect was significant for empathy, $IE = .05$, $SE = .02$, 95 % CI = [0.02, 0.09], and benevolence of the world, $IE = .05$, $SE = .02$, 95 % CI = [0.02, 0.08], but not importance of rationality, $IE = -.01$, $SE = .01$, 95% CI = [-0.03, 0.02].

*** $p < .001$. ** $p < .01$. * $p < .05$. † $p < .10$.



Supplementary Material, Figure 3. The mediating role of empathy, belief in a benevolent world, and importance of rationality on the effect of antireligious critique on prejudice (social distance) toward Buddhists, controlling for gender, age, socio-economic status, and education ($N = 421$).

Note. Numbers on paths represent unstandardized regression coefficients. Standard errors are in parentheses. The total effects of antireligious critique on prejudice toward Buddhists are in brackets. The indirect effect was significant for empathy, $IE = .04$, $SE = .02$, 95 % CI = [0.01, 0.08], and benevolence of the world, $IE = .03$, $SE = .01$, 95 % CI = [0.005, 0.06], but not importance of rationality, $IE = -.02$, $SE = .01$, 95% CI = [-0.04, 0.01].

*** $p < .001$. ** $p < .01$. * $p < .05$.

