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Eternal outgroups: Afterlife beliefs predict prejudice☆

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ABSTRACT

People express prejudice toward ideologically dissimilar groups. However, little research has explored (a) how specific beliefs, such as afterlife beliefs, relate to prejudice, (b) whether such beliefs can explain the known association between religiosity and prejudice toward value-threatening groups, and (c) the mechanisms through which afterlife beliefs predict prejudice. We addressed these questions by assessing individual differences in religious, spiritual, and secular afterlife beliefs and attitudes toward religious and political groups. Across four studies ($N = 3996$ U.S. adults), we find evidence supporting a *group exclusion hypothesis:* religious and secular afterlife beliefs predict prejudice toward value-incongruent groups (even after controlling for religiosity). We also find some evidence that religious afterlife beliefs explain the association between religiosity and prejudice against value-threatening groups. Finally, we find moderate support for an *existential anxiety buffer hypothesis*, wherein some afterlife beliefs predict increased peace of mind, reduced death anxiety, and in turn, reduced prejudice.

1. Introduction

People hold various beliefs about what will happen when they die. Most people believe in some form of life after death. This research was conducted in the context of the United States, where a nationally representative survey indicates that 83 % of adults believe in an afterlife such as heaven, hell, or reincarnation (Pew Research Center, 2021). Other common forms of afterlife beliefs include entering a community with God and loved ones or transitioning to a cosmic-spiritual existence (Ai et al., 2014). Although belief in an afterlife is an important component of most religious traditions, nonreligious people also report believing in an afterlife. In the U.S., 26 % of agnostics and 3 % of atheists believe in heaven (Pew Research Center, 2021). Regardless of content, afterlife beliefs comprise a core feature of most people's worldviews.

But what are the social ramifications of afterlife beliefs? Many afterlife beliefs have intergroup assumptions: they make clear distinctions about eternal inclusion or exclusion. For example, Christians who believe in heaven and hell attribute different groups to each form of afterlife (heaven for the "righteous" promises eternal inclusionary communion with God, whereas hell for the "sinners" involves eternal exclusionary conscious torment). The eternality of these categorizations might foster negative intergroup attitudes. Accordingly, we sought to investigate whether and how afterlife beliefs have direct implications for intergroup prejudice in this life and take the first step in documenting how afterlife beliefs may contribute to real-world discrimination. Specifically, we tested three research questions: (1) Do afterlife beliefs predict prejudice against members of differing groups, even independently of their associations with religiosity; (2) do religious afterlife beliefs explain the established relationship between religiosity and prejudice against value-threatening groups, and; (3) what psychological mechanisms may explain that relationship?

1.1. Religion and prejudice

The relationship between religion and prejudice is nuanced. Religious people show prejudice against several groups that threaten

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traditional religious values, such as atheists and liberals (Brandt & Van Tongeren, 2017; Johnson et al., 2012). In addition, experimentally increasing the cognitive accessibility of religious ideas leads participants from multiple religious traditions to report more prejudice toward members of value-threatening groups (Johnson et al., 2012; Ramsay et al., 2014). Further, religious people demonstrate significantly more aggression toward members of value-threatening groups than they do toward people who are not part of these groups (Blogowska et al., 2013).

Such research relies mostly on measures of religious identity, strength of broad religious beliefs (e.g., strength of belief in God, importance of religion in one's life), frequency of general religious practices (e.g., frequency of attendance to a place of worship), or experimental cognitive activation of religious concepts. This research highlights that the *style* of religious beliefs matters: more rigid approaches to religion, often assessed by measures of religious fundamentalism, are more predictive of prejudice (Shen et al., 2013; but see also Brandt & Van Tongeren, 2017). Yet, there is much to learn about the *content* of religious beliefs that may be particularly predictive of prejudice. We sought to fill that gap by investigating the role of afterlife beliefs prescribed by religious traditions in the expression of prejudice. Given that the intergroup framework inherent in those beliefs may prime people to recognize ideological group boundaries, it is likely that (some) afterlife beliefs may partly explain the association between religiosity and prejudice.

Of note, prejudice is not restricted to religious people. Previous research has highlighted how people across religious orientations express prejudice toward dissimilar groups (Brandt & Van Tongeren, 2017). For example, those high in religious fundamentalism rate atheists and liberals more negatively, whereas those low in religious fundamentalism rate Christians and conservatives more negatively. In another series of studies, people who identified as nonreligious (agnostic and atheist) reported prejudice toward and discriminated against Christians. In those studies, only the spiritual-but-not-religious showed a pattern of tolerance toward Christians and atheists (Van Cappellen & LaBouff, 2020). Other work has found that reactions to worldview threats are not moderated by religious orientation—people generally have negative reactions when encountering people or situations that violate their worldview values (Brandt et al., 2019), regardless of religious orientation (Van Tongeren et al., 2020).

1.2. Afterlife beliefs and prejudice

Afterlife beliefs appear to be one promising explanation among others for why religion is associated with prejudice. Many afterlife beliefs are inherently exclusionary by supposing eternal group membership. Many people in monotheistic faith traditions believe in a bifurcated afterlife in which individuals are sorted after death (often through judgment) into an irreversible afterlife outcome: righteous adherents are granted indefinite inclusionary status into a favorable existence (e.g., communion with God in heaven), whereas wicked outgroup members are banished to spend eternity undergoing conscious torment (e.g., punishment in hell). And whereas some religious individuals believe in one of the following – universal salvation (e.g., total inclusion), reversible eternal destinations (e.g., the impermanence of hell allowing for inclusion after exclusion), or annihilation (e.g., lack of existence rather than exclusion for outgroup members) – the majority of religious afterlife beliefs engender some framework of inclusion-exclusion.

Nonreligious individuals also hold afterlife beliefs. Following Ai et al. (2014), we distinguish between three groups of beliefs regarding the afterlife: *Christian religious afterlife beliefs* (e.g., literal immortality, heaven, hell, joining a God-centered community), *spiritual afterlife beliefs* (e.g., spiritual unity with some cosmic force, reincarnation), and *secular afterlife beliefs* (e.g., belief that there is no afterlife, belief in becoming part of nature after physical death). Ai et al. (2014) found, as expected, that both intrinsic and extrinsic religiosity correlated most strongly with religious afterlife beliefs, whereas they correlated negatively with secular afterlife beliefs. New-Age beliefs correlated most strongly with cosmic-spiritual afterlife beliefs. As such, these afterlife beliefs are likely loosely associated with their respective religious identities (i.e., religious individuals hold religious afterlife beliefs, spiritual individuals hold spiritual afterlife beliefs, nonreligious individuals hold secular afterlife beliefs).

Together, we suggest a first possibility that some afterlife beliefs will predict prejudice toward value-incongruent targets because these beliefs involve the exclusion of such targets – i.e., our *group exclusion hypothesis*. Although the psychological function of such beliefs may be to ameliorate existential concerns, there may be considerable interpersonal and intergroup consequences. Exclusive afterlife beliefs are likely linked to other forms of religious exclusivism, such as theological exclusivism (e.g., belief that one's religion is the only path to God and salvation). For example, Merino's (2010) measure of theological exclusivism asks participants whether they agree that all major religions contain some truth about God. Participants who disagree with this statement (and thus score higher on theological exclusivism) likely view themselves as being more superior to religious outgroup members. We hypothesize that exclusive afterlife beliefs prime people to distinguish between ingroup and outgroup members in the same way. Previous studies have tied theological exclusivism to stronger prejudice against value-threatening others across religious groups (Kollar & Fleischmann, 2022; Merino, 2010), and we predict that exclusive afterlife beliefs will function similarly. Relatedly, even forms of afterlife that do not explicitly exclude others (e.g., secular) may still be associated with prejudice because they actively signal group membership and can be associated with some form of belief superiority or entitlement over those who don't believe similarly. Indeed, research has shown that feeling superior in what one believes can happen at both ends of the political spectrum, and likely at both poles of the religious spectrum (Toner et al., 2013). Accordingly, we sought to explore whether religious, secular, and spiritual afterlife beliefs all predict prejudice toward value-incongruent targets (e.g., are secular afterlife beliefs associated with prejudice against religious people?).

An alternative possibility is that afterlife beliefs provide the psychological ingredients necessary to reduce prejudice. Afterlife beliefs may shape attitudes toward different groups by mollifying existential terror – i.e., our *existential anxiety buffer hypothesis*. According to work within terror management theory, reminding people of their own mortality motivates them to defend their beliefs and values. The anxiety aroused by mortality salience prompts a worldview defense aimed at mitigating this terror, often manifested as prejudice and discrimination against people who threaten their political (McGregor et al., 1998) or religious (Greenberg et al., 1990) belief systems. Belief in an afterlife can buffer against the deleterious effects of death anxiety. For example, people who are reminded of terrorism and led to believe that there is no afterlife show stronger prejudice against Muslims, whereas people in a similar condition who are led to believe that immortality is possible show no prejudice against Muslims (Kastenmüller et al., 2011). Similarly, people who are reminded of death show stronger prejudice against gay men, though this effect is much weaker among people who subsequently read about the existence of an afterlife (Piwowarski et al., 2011). In sum, all afterlife beliefs may be associated with reduced prejudice because they take the sting out of death and reduce the need to rely on worldview defense mechanisms to restore psychological equanimity in the face of existential threats (see Van Tongeren et al., 2017, in press).

2. Overview and hypotheses

We sought to examine the role of afterlife beliefs in prejudicial attitudes toward members of value-incongruent groups. We examined *religious afterlife beliefs*, such as beliefs in heaven (Studies 2–4), hell (Studies 2 and 3), and a God-centered community in the afterlife (Studies 1 and 3); *spiritual afterlife beliefs,* such as belief in a cosmic-spiritual existence in the afterlife (Studies 1 and 3) and reincarnation

(Study 3), and; *secular afterlife beliefs*, such as belief in returning to nature (Study 3) and belief in no afterlife at all (Studies 1 and 3). Following previous studies (e.g. Brandt & Van Tongeren, 2017), we focused on religious and political groups as targets of prejudice.

We see plausible competing hypotheses for the role of afterlife beliefs in predicting prejudice. First, based on terror management theory (e.g., Vail et al., 2010), the *existential anxiety buffer hypothesis* posits that afterlife beliefs should attenuate death-related anxiety, resulting in less prejudice toward value-incongruent others. Alternatively, the *group exclusion hypothesis* asserts that given the exclusionary nature of some afterlife beliefs, as well as the potential perceived superiority and entitlement these beliefs represent over groups believing in other forms of an afterlife, such beliefs should be associated with greater prejudice toward belief-incongruent others.

In line with the *existential anxiety buffer hypothesis*, we began with the overarching prediction that most afterlife beliefs would be associated with warmer feelings toward outgroup members because of the existential comfort they provide, as demonstrated by increased happiness, peace of mind, perceived control in life, and meaning and purpose in life, and reduced death anxiety. As this was not supported in Studies 1–2, we updated our hypotheses for Study 3 and tested two conflicting hypotheses. Here, we predicted that certain afterlife beliefs would be associated with weaker prejudice against some groups because they predicted lower levels of anxiety (Flannelly et al., 2006). Alternatively, we predicted that other afterlife beliefs would provide believers with higher levels of entitlement and belief superiority, which, in turn, would predict higher levels of prejudice. We also predicted that this second path could explain why religiosity predicts stronger prejudice against some groups.

For each study, we preregistered our hypotheses, measures, and analysis plans on the OSF. We note any deviations from these plans in each study. A codebook and data for each study can also be accessed through the OSF (https://osf.io/upkjq/?view_only=1f27e06d6ddd4633a5efa9a2f9f58a45).

3. Study 1: afterlife beliefs and prejudice

Study 1 investigated the relationships between (a) religiosity, (b) religious, spiritual, and secular afterlife beliefs, and (c) attitudes toward members of varying religious (i.e., religious people and nonreligious people) and political groups (i.e., Republicans and Democrats). We also explored whether afterlife beliefs mediated (explained) the relationship between general religiosity and attitudes toward each group. We collected these data for a different study and included additional measures and targets (Van Tongeren et al., 2022) but preregistered our specific plans for this project on the OSF (https://osf.io/upkjq/?view_only=1f27e06d6ddd4633a5efa9a2f9f58a45). In contrast with the preregistration, we did not analyze racial prejudice and did not compute a single score of ingroup-outgroup prejudice, but rather analyzed each prejudice target individually.

3.1. Method

3.1.1. Participants

Participants were recruited through Cloud Research for a 15-minute survey on beliefs about the world, the afterlife, and other people, and were paid $2.00. Participants were required to be at least 18 years old and complete the study in the United States. A total of 1020 people completed the study, but 68 were excluded from the analyses because they failed at least one of two attention checks. An additional 47 participants were excluded because they provided the same response for every item on the Belief in Afterlife Scale (Osarchuk & Tatz, 1973). The final sample included 905 U.S. adults ($M_{Age} = 41.8$, $SD_{Age} = 18.1$, 59.8 % female). Of those participants, 73.9 % were White, 13.4 % were Black, 5.4 % were Latinx, 3.9 % were Asian, 1.0 % were Native American, and 2.3 % identified as another race. Because these data were collected for a separate study, our sample was composed of currently religious ($N = 283$), formerly religious ($N = 331$), and never religious ($N = 291$) people, which provided data across the full spectrum of religious identity. The procedure for this study was approved by the second author's institutional review board, and informed consent was obtained from participants.

3.1.2. Measures

3.1.2.1. Religiosity. Participants rated their attitude toward God on a scale ranging from −100 (*Extremely negative*) to 100 (*Extremely positive*) with a midpoint of 0 (*I don't believe in God*).

3.1.2.2. Attitudes toward religious and political groups. Participants rated their attitudes toward Republicans (who represent a conservative group in the U.S.), Democrats (who represent a liberal group in the U.S.), currently religious people, and people who had never been religious on a feeling thermometer ranging from −100 (*Extremely cold/negative*) to 100 (*Extremely warm/positive*).

3.1.2.3. Afterlife beliefs. First, to assess participants' belief in a traditional religious afterlife, participants completed the Belief in Afterlife (BA) Scale (Version A; $\alpha = 0.88$; Osarchuk & Tatz, 1973). They rated their agreement with each of 10 items such as, "There must be an afterlife of some sort" using a scale of 0 (*Total disagreement*) to 10 (*Total agreement*). Second, to assess participants' belief in an existence after death that is similar to the present life, they completed the literal immortality items of the Immortality Scale ($\alpha = 0.81$; Van Tongeren & Green, 2010). They rated their agreement with four items, such as, "I am certain that there is an afterlife" using a scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Finally, participants responded to the God-centered ($\alpha = 0.90$), secular ($\alpha = 0.94$), and cosmic-spiritual ($\alpha = 0.90$) subscales of the Connection of Soul (COS) Scale (Ai et al., 2014). The God-centered subscale addressed traditional religious beliefs about the afterlife, including, "After death I come to the community with God." The secular subscale assessed nonbelief in an afterlife with items such as, "Regarding my life, after death everything is over." Finally, the cosmic-spiritual subscale addressed spiritual views about the afterlife, such as, "After death my substance unifies with the universe or big wholeness." Participants rated the four items in each subscale using a scale of 0 (*Strongly disagree*) to 5 (*Strongly agree*).

3.2. Results and discussion

Table 1 presents correlations between religiosity, afterlife beliefs, and prejudice, as well as the partial correlations when controlling for religiosity (see Table S1 in OSM for the full correlation table). Contrary to the *existential anxiety buffer hypothesis*, religious afterlife beliefs were associated with more prejudice toward value-incongruent targets. We found a pattern affirming the *group exclusion hypothesis*: after controlling for religiosity, some religious afterlife beliefs (i.e., BA Scale) predicted warmer feelings only toward Republicans and currently religious people, while other religious afterlife beliefs (i.e., God-centered COS, Immortality Scale) predicted colder feelings toward Democrats and never religious people. In contrast, secular afterlife beliefs predicted warmer feelings toward Democrats and nonreligious people when controlling for religiosity. Spiritual afterlife beliefs showed the most tolerant pattern: they were associated with warmer feelings toward Democrats and religious people, independently of religiosity.

To test whether the relationship between religiosity and prejudice was explained by religious or spiritual afterlife beliefs, mediation analyses were run using PROCESS (Hayes, 2018). A total of eight models were tested using religiosity as the predictor, each measure of religious or spiritual afterlife beliefs (i.e., BA Scale, Immortality Scale, God-centered COS subscale, cosmic-spiritual COS subscale) as the

Table 1
Correlations between measures of afterlife beliefs and attitudes toward the target groups.

	Range	M (*SD*)	Religiosity	BA Scale	Literal immortality	God-centered COS	Heaven	Hell	Secular COS	Nature	Cosmic-spiritual COS	Reincarnation
Range			−100 – 100	0–100	4–28	0–20			0–20		0–20	
			1–4				*1–5*	*1–5*				
			-100-100			0–20	1–7	1–7	0–20	1–7	0–20	1–7
M (*SD*)			34.83 (60.46)	51.56 (13.69)	17.52 (6.31)	2.45 (1.45)			2.21 (1.55)		2.45 (1.40)	
			24.71 (65.33)				*4.22 (1.88)*	*3.00 (1.75)*				
			15.85 (68.14)			1.51 (1.67)	3.21 (2.38)	1.59 (1.18)	2.68 (1.96)	4.81 (2.24)	1.67 (1.60)	2.43 (1.84)
Religiosity				0.32***	0.53***	0.56***			−0.37***		0.29***	
						*0.66***	*0.42***					
						0.76***	0.76***	0.09*	−0.70***	−0.34***	0.30***	0.14***
Republicans – Warm Feelings	−100-100	−10.64 (67.63)	0.23***	0.07	0.12***	0.12***			−0.02		0.03	
	−100-100	−32.13 (64.27)	0.39***			0.17***	0.16***	−0.01	−0.15***	−0.21***	−0.01	−0.01
Democrats – Warm Feelings	−100-100	13.13 (65.76)	0.01	−0.20***	−0.08*	0.02			0.20***		0.10**	
	−100-100	14.99 (60.80)	−0.11***			−0.09**	−0.10**	−0.01	0.12***	0.13***	0.07*	0.07*
Currently religious – Warm Feelings	−100-100	21.03 (56.01)	0.62***	0.00	0.19***	0.25***			−0.02		0.15***	
	−100-100	7.72 (58.23)	0.69***			0.22***	0.20***	−0.04	−0.16***	−0.18***	−0.02	0.00
Never religious – Warm Feelings	−100-100	19.19 (52.01)	−0.24***	−0.13***	−0.07	−0.06			0.17***		0.06	
	−100-100	32.81 (45.81)	−0.31***			−0.09*	−0.06	−0.12***	0.00	0.06	0.02	0.03
Christians – Prejudice	*1–4*	*1.96 (0.78)*	*−0.25****				*−0.08***	*−0.07**				
Atheists – Prejudice	*1–4*	*2.13 (1.02)*	*0.41****				*0.23****	*0.18****				

Note. Coefficients for Study 1 are in standard text. Coefficients for Study 2 are italicized. Coefficients for Study 3 are underlined. Correlations between measures of afterlife beliefs and prejudice control for religiosity.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

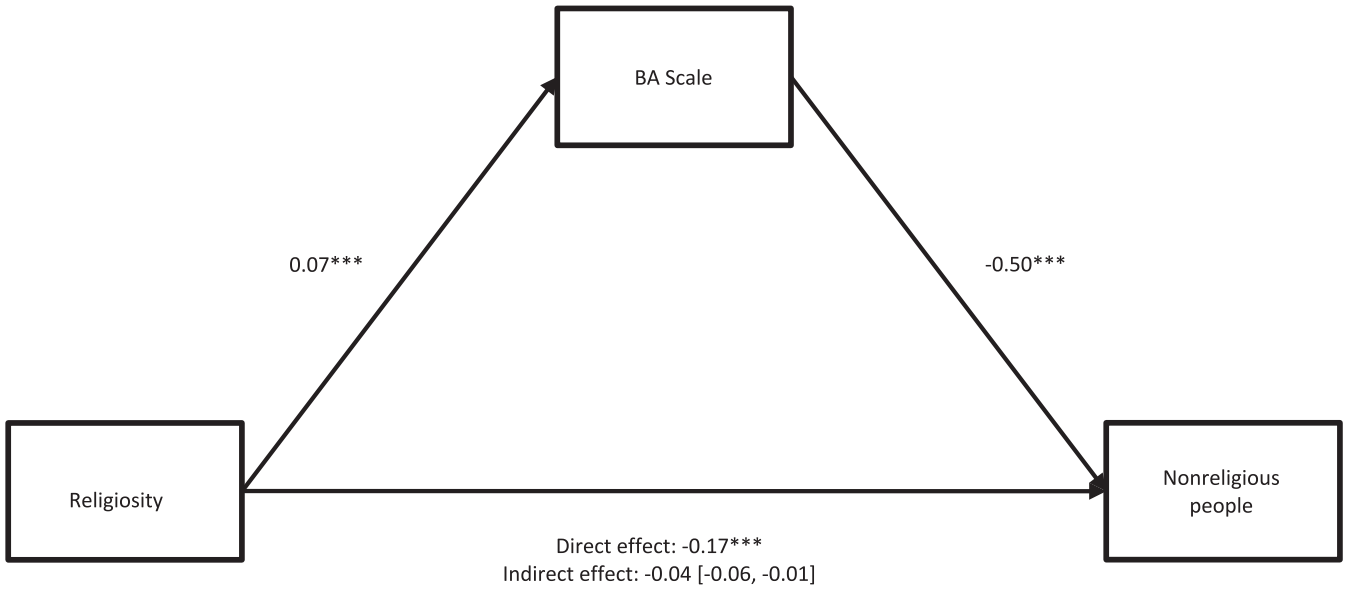

Fig. 1. The Belief in Afterlife Scale Mediates the Association Between Religiosity and Prejudice Against Nonreligious People.
Note. Outcome is measured from cold to warm feelings toward nonreligious people.
*$p < .05$. **$p < .01$. ***$p < .001$.

mediator, and attitudes toward Democrats and nonreligious people as the outcome. Multicollinearity was not an issue in models using attitude toward God and the God-centered COS as predictors (Tolerance = 1.44, VIF = 0.69). Scores on the BA Scale indirectly explained the positive association between religiosity and prejudice against nonreligious people (see Fig. 1). No other religious or spiritual afterlife beliefs explained the relationship between religiosity and attitudes toward Democrats or nonreligious people (see details in Table S2 of OSM). These results support the *group exclusion hypothesis* and demonstrate that afterlife beliefs are associated with more prejudice toward ideologically dissimilar groups.

4. Study 2: nationally representative sample

Study 2 extended Study 1 by investigating the associations between religiosity, religious afterlife beliefs in heaven and hell specifically, and prejudice against Christians and atheists using archival data from a nationally representative sample in the U.S. (Wave V of the Baylor Religion Survey, 2017). Study 2 also investigated a few potential mechanisms explaining the association between afterlife beliefs and prejudice. The hypotheses for Study 2 were developed and preregistered before learning the results of Study 1 (https://osf.io/tkrcj/?view_only=e6f19ca842d54ca8996035e29859dc0e). Therefore, as with Study 1, our predictions aligned with *the existential anxiety buffer* hypothesis that suggests religious afterlife beliefs would predict weaker prejudice against all groups, and that this weaker prejudice would be explained by increased happiness, more perceived control in life, more meaning and purpose in life, and reduced death anxiety. As with Study 1, in contrast to the preregistration, we did not compute a single score of ingroup-outgroup prejudice but rather analyzed each prejudice target individually.

4.1. Methods

4.1.1. Participants

Participants ($N = 1429$, 56.9 % female, $M_{Age} = 54.95$, $SD_{Age} = 17.08$) were U.S. adults who were recruited for Wave V of the Baylor Religion Survey (2017). Of those participants, 77.9 % were White, 10.9 % were Black, 2.6 % were Asian, 0.5 % were American Indian, 0.3 % were Pacific Islander, 2.8 % were two or more races, and 5.0 % did not report a race. Participants identified as 74.0 % Christian, 2.0 % Jewish, 15.5 % another religious affiliation, and 7.9 % nonreligious.

4.1.2. Procedure and measures

We analyzed existing data from the Wave V of the Baylor Religion Survey, which addressed topics like religious beliefs, mental health, and political preferences. Participants responded to the paper questionnaire by mail.

4.1.2.1. Religious afterlife beliefs. Participants rated the extent of their belief in heaven by answering the question, "How certain are you that you will get into heaven?" on a scale ranging from 1 (*not at all certain*) to 5 (*very certain*) that also included "I don't believe in heaven" and "I don't know" options. Fear of hell was measured using the question, "What is the extent of your fear of hell?" which participants answered using a scale ranging from 1 (*no fear of hell*) to 5 (*a lot of fear of hell*) that also included "I don't believe in hell" and "I don't know" options. For both questions, "I don't believe" responses were assigned a score of *0*, and "I don't know" responses were excluded.

4.1.2.2. Religiosity. Religiosity was measured using the question, "How religious do you consider yourself to be?" which participants answered using a four-point scale ranging from 1 (*not religious*) to 4 (*very religious*) that also included an "I don't know" option. Participants who responded "I don't know" to this question were excluded from the analyses.

4.1.2.3. Mediators. Death anxiety was measured using the item, "In the past WEEK, about how often have you had the following feelings? I had a fear of dying," which participants rated using a four-point scale ranging from 1 (*never*) to 4 (*most or all of the time*).

Happiness was measured with the question, "In general, how happy are you with your life as a whole these days?" which participants answered using a three-point scale ranging from 1 (*not too happy*) to 3 (*very happy*).

Meaning and purpose ($\alpha = 0.70$) were measured using four items, such as, "I have a good sense of what makes my life meaningful." Participants responded to the items using a scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) that also included an "undecided" option.

Perceived control ($\alpha = 0.73$) was measured using four items, including, "I can do just about anything I really set my mind to." Participants responded to these items using a scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) that also included an "undecided" option.

4.1.2.4. Prejudice against target groups. Prejudice against Christians was measured using the item, "Conservative Christians hold values that are morally inferior to the values of people like me." Prejudice against atheists was measured using the same item describing atheists. Participants responded to both items using a scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

4.2. Results and discussion

See Tables 1-2 for descriptive statistics and relevant correlations (see Table S3 in OSM for the full correlation table). Consistent with the *group exclusion hypothesis*, beliefs in heaven and hell both predicted more positive attitudes toward Christians and stronger prejudice against atheists after controlling for religiosity. Belief in heaven was associated with less death anxiety, while belief in hell was associated with more death anxiety and less happiness, meaning, and control, also after controlling for religiosity.

First, we tested whether beliefs in heaven and hell explained the relationship between religiosity and prejudice using the PROCESS macro (Hayes, 2018). Two mediation models were tested using religiosity as the predictor, beliefs in heaven or hell as the mediator, and attitudes toward atheists as the outcome. Beliefs in both heaven and hell explained the association between religiosity and prejudice against atheists (see Fig. 2 and Table S4 in OSM for details about each mediation path).

Next, we tested mediation models to investigate mechanisms explaining the association between afterlife beliefs and prejudice. Given the pattern of correlations, only four models were plausible candidates for mediation (religiosity was included as a covariate; see Fig. 3 and Table S4 in OSM for details about each mediation path). Confirming our prediction consistent with the *existential anxiety buffer hypothesis*, reduced death anxiety attenuated the relationship between belief in heaven and prejudice against atheists. People who believed in hell were less happy and felt that they had less control in life, which in turn explained their stronger prejudice against atheists (see Fig. 4 and Table S4 in OSM for details about each mediation path).

These patterns remained when we tested serial mediation models adding religiosity as the first predictor (see Table S5 in OSM). More religious people were more likely to believe in hell, which, in turn, predicted less happiness and weaker perceived control in life. This pattern explained the association between religiosity and prejudice against atheists. Religious people were also more likely to believe in heaven, which predicted less death anxiety and weaker prejudice against atheists.

The results of Study 2 provide an interesting nuance for our findings. Whereas Study 1 found that religious afterlife beliefs were associated with more prejudice toward ideologically dissimilar outgroup members, Study 2 revealed which *type* of religious afterlife belief is responsible.

Table 2
Correlations of Study 2 mediators with afterlife beliefs and attitudes toward the target groups.

	Range	M (*SD*)	Religiosity	Heaven	Hell	Anti-Christian prejudice	Anti-atheist prejudice
Happiness	1–3	2.30 (*0.62*)	0.08**	0.04	−0.12***	−0.06*	−0.09**
Death anxiety	1–4	1.41 (*0.67*)	0.00	−0.06*	0.16***	0.05	0.04
Meaning	1–4	3.09 (*0.54*)	0.12***	0.04	−0.12***	−0.03	−0.0*
Control	1–4	3.10 (*0.52*)	−0.05	0.03	−0.10**	−0.06*	−0.09**

Note. Correlations between mediators, afterlife beliefs, and prejudice control for religiosity.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

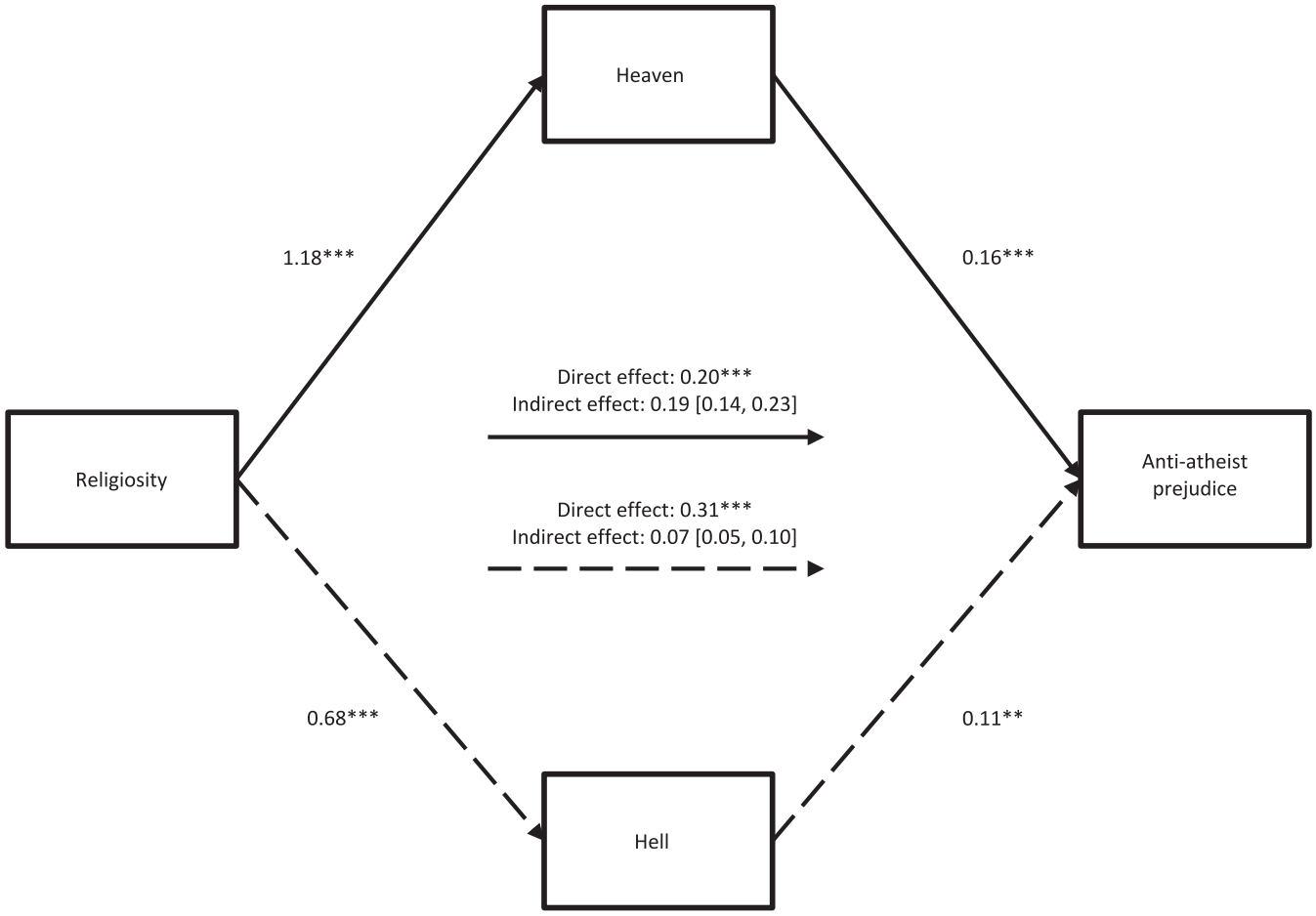

Fig. 2. Beliefs in Heaven and Hell Mediate the Association Between Religiosity and Prejudice Against Atheists (Study 2)
Note. Each combination of religiosity, afterlife beliefs, and anti-atheist prejudice was tested separately. Solid arrows represent models using religiosity as the predictor, belief in heaven as the mediator, and prejudice as the outcome. Dashed arrows represent models using religiosity as the predictor, belief in hell as the mediator, and prejudice as the outcome.
*p < .05. **p < .01. ***p < .001.

Belief in hell—presumably an eternal location for religious outgroup members—is associated with greater prejudice toward atheists among the religious, whereas belief in heaven reduces death anxiety, resulting in attenuated prejudice toward atheists. These findings suggest that the type of afterlife religious people believe in is associated with differential levels of prejudice toward religious outgroup members. Still, these patterns may be limited to beliefs in heaven and hell specifically.

5. Study 3: testing novel mechanisms

Study 3 extends Studies 1 and 2 by exploring a larger range of afterlife beliefs, as well as testing novel mechanisms. Namely, we explore whether peace of mind, entitlement, belief superiority, and defensive theology are potential mediators. We hypothesized that afterlife beliefs that were associated with higher levels of peace of mind would predict warmer feelings toward the target groups (supporting the *existential buffer hypothesis*). On the other hand, we predicted that other afterlife beliefs, such as beliefs in heaven and hell, would be associated with more entitlement and belief superiority because they distinguish between groups that do and do not have access to heaven—these beliefs would lead to colder feelings toward Democrats and nonreligious people (supporting the *group exclusion hypothesis*). We collected these data for a different study and included additional measures and targets (Van Tongeren et al., 2022) but preregistered our specific plans for this project on the OSF (https://osf.io/upkjq/?view_only=1f27e06d6ddd4633a5efa9a2f9f58a45).

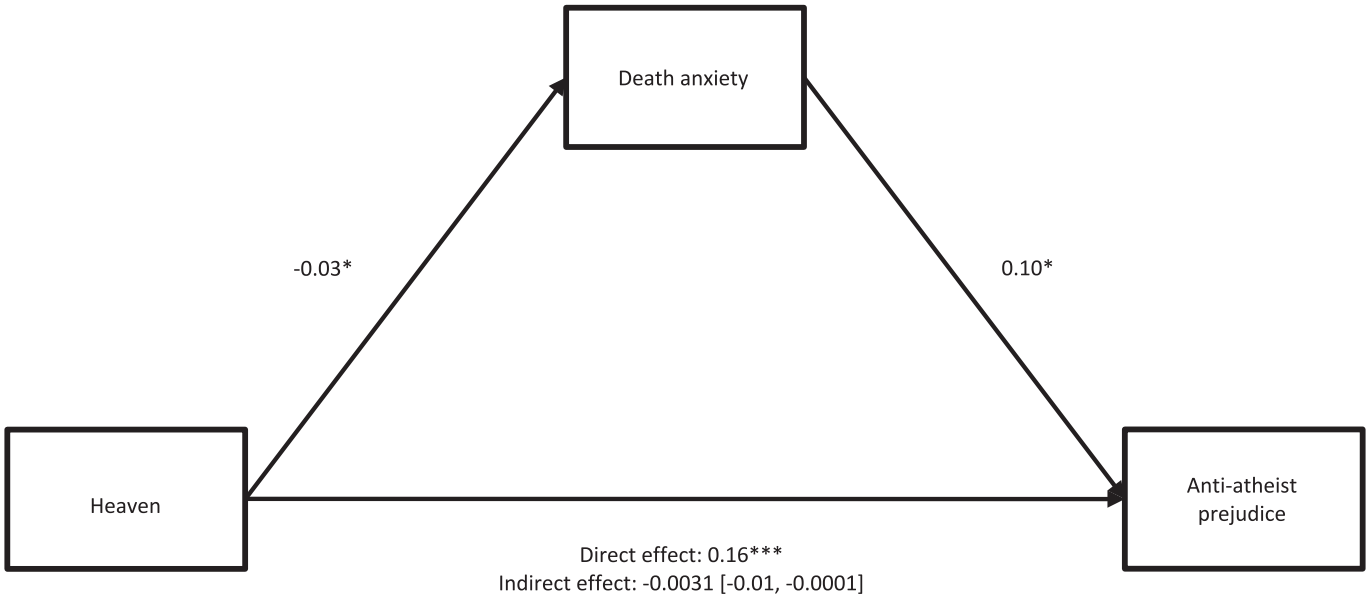

Fig. 3. Reduced Death Anxiety Attenuates the Association Between Belief in Heaven and Prejudice Against Atheists (Study 2)
*p < .05. **p < .01. ***p < .001.

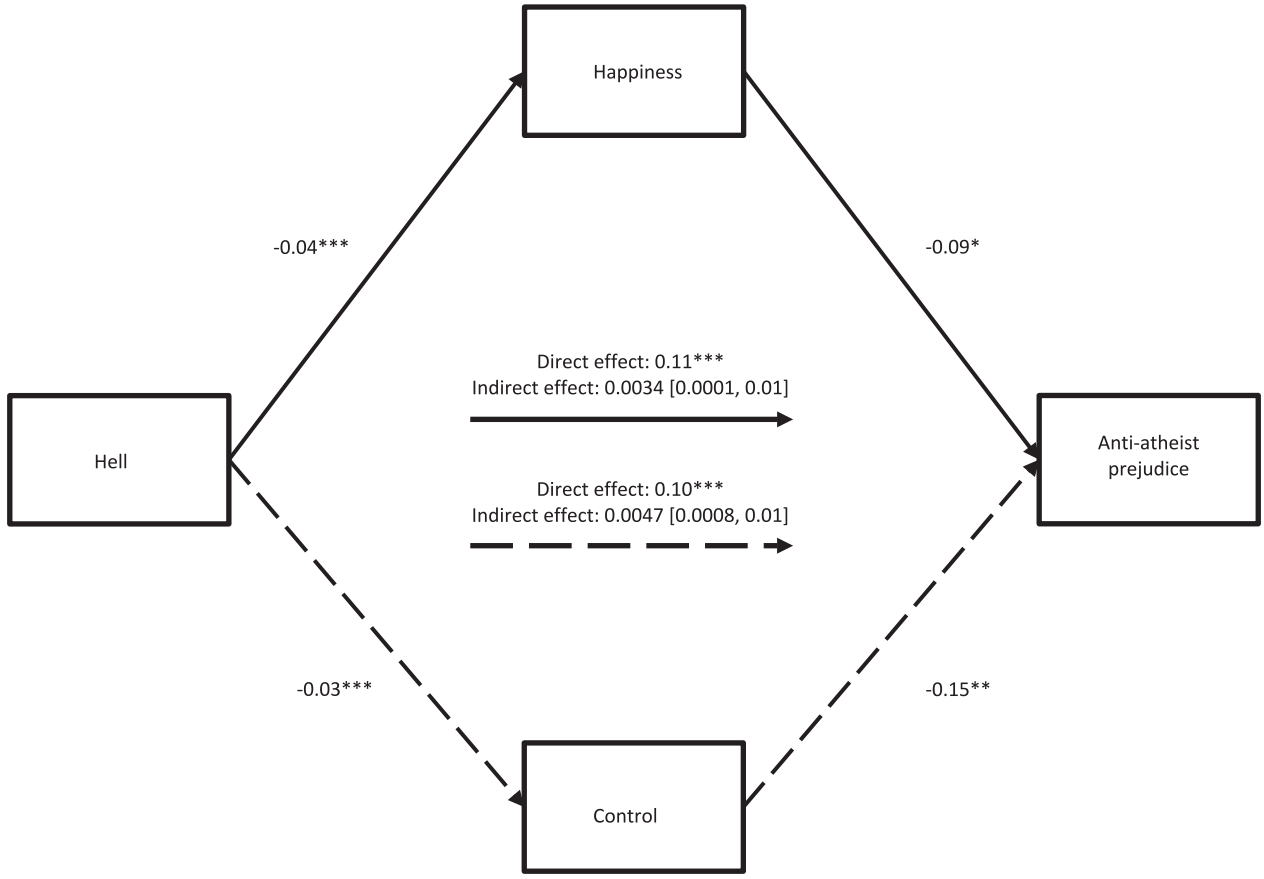

Fig. 4. Happiness and Perceived Control Attenuate the Association Between Belief in Hell and Prejudice Against Atheists (Study 2)
Note. Each combination of belief in hell, happiness or control, and prejudice was tested separately. Solid arrows represent models using belief in hell as the predictor, happiness as the mediator, and prejudice as the outcome. Dashed arrows represent models using belief in hell as the predictor, control as the mediator, and prejudice as the outcome.
*p < .05. **p < .01. ***p < .001.

5.1. Methods

5.1.1. Participants

Participants were recruited through Cloud Research for a 15-minute study on beliefs about religion and the world and were paid $2.00. Participants were required to be at least 18 years old and in the United States. The sample initially included 927 people, but 36 were excluded from the analyses because they failed one or more attention checks. An additional 29 participants were excluded because they gave the same response for every item in the Peace of Mind Scale (Lee et al., 2013). Of the final 862 participants (M_{Age} = 41.7, SD_{Age}= 14.1, 56.0 % female), 76.1 % were White, 8.8 % were Asian, 7.1 % were Black, 5.1 % were Latinx, 0.7 % were Native American, and 2.2 % were part of another group. Because these data were collected for a separate study, our sample was composed of currently religious (N = 293), formerly religious (N = 291), and never religious (N = 278) people, which provided data from the full spectrum of religiosity. The procedure for this study was approved by the second author's institutional review board, and informed consent was obtained from participants.

5.1.2. Measures

5.1.2.1. Religiosity. Participants rated their attitudes toward God on a scale of −100 (*Extremely negative*) to 100 (*Extremely positive*) with a midpoint of 0 (*I don't believe in God*).

5.1.2.2. Attitudes toward target groups. Participants rated their attitudes toward Republicans, Democrats, people who are currently religious, and people who have never been religious on a feeling thermometer scale of −100 (*Extremely cold/negative*) to 100 (*Extremely warm/positive*). Participants rated their attitudes toward other targets for the purpose of another project and not included in our preregistration.

5.1.2.3. Mediators. Peace of mind was measured using the Peace of Mind Scale (Lee et al., 2013). The scale (α = 0.95) consisted of seven items, including, "My mind is free and at ease." Participants rated their agreement with each item using a scale of 1 (*Not at all*) to 5 (*All of the time*).

Defensive theology was measured using the Defensive Theology Scale (Beck, 2006), which addresses the extent to which a person's religious beliefs provide them with meaning in life and buffer existential uncertainty. The scale (α = 0.96) contained 22 items, such as, "God has a destiny for me to find and fulfill." Participants responded to each item using a scale of 1 (*Strongly disagree*) to 7 (*Strongly agree*).

Entitlement was measured using the Psychological Entitlement Scale (Campbell et al., 2004). The scale (α = 0.91) included nine items, such as, "I honestly feel I'm just more deserving than others." Participants rated their agreement with each item on a scale of 1 (*Strong disagreement*) to 7 (*Strong agreement*).

Belief superiority was measured using a scale developed by Toner et al. (2013). Participants reported how much more correct their beliefs about the existence of God, the way the world works, and what happens after death were than other people's beliefs about those topics. Participants rated the correctness of their beliefs on a five-point scale ranging from 1 (*no more correct than other viewpoints*) to 5 (*totally correct—mine is the only correct view*).

5.1.2.4. Afterlife beliefs. Participants rated their agreement with the statements that they would be reincarnated, become part of nature, go to heaven, and go to hell after death on a scale of 1 (*Strongly agree*) to 7 (*Strongly disagree*). As in Study 2, participants also completed the God-centered (α = 0.93), secular (α = 0.97), and cosmic-spiritual (α = 0.93) subscales of the COS Scale (Ai et al., 2014). We organize these measures into three groups: religious afterlife beliefs (i.e., God-centered COS, heaven, hell), spiritual afterlife beliefs (i.e., cosmic-spiritual COS, reincarnation), and secular afterlife beliefs (i.e., secular COS, nature).

5.2. Results and discussion

Tables 1 and 3 show descriptive statistics and relevant correlations (see Table S6 for full correlation table). We found that, again controlling for religiosity, and consistent with the *group exclusion hypothesis*, scores on the God-centered COS predicted warmer feelings toward Republicans and religious people and colder feelings toward Democrats and nonreligious people. Belief in heaven was associated with warmer feelings toward Republicans and religious people and colder feelings toward Democrats (but not toward nonreligious people). Belief in hell predicted colder feelings only toward nonreligious people. Secular afterlife beliefs (i.e., secular COS, becoming part of nature) predicted warmer feelings toward Democrats (but not toward nonreligious people) and colder feelings toward Republicans and religious people. Spiritual afterlife beliefs (i.e., cosmic-spiritual COS, reincarnation) were only associated with warmer feelings toward Democrats, and not associated with either religious or nonreligious people, suggesting again a pattern of greater tolerance toward religious groups.

Regarding the mechanisms, religious afterlife beliefs (i.e., heaven, God-centered COS) were positively associated with peace of mind, entitlement, belief superiority regarding God and death, and defensive theology. In contrast, belief in hell was associated with less peace of mind and belief superiority but more entitlement. Secular afterlife beliefs (i.e., secular COS, becoming a part of nature) were consistently associated with less defensive theology. Finally, spiritual afterlife beliefs (i.e., cosmic-spiritual COS, reincarnation) predicted higher levels of entitlement but lower levels of belief superiority. In sum, peace of mind and belief superiority were features of positive religious afterlife beliefs. Entitlement was higher among all afterlife beliefs except the secular ones.

We then tested whether these mechanisms explained (mediated) the association between religious afterlife beliefs and prejudice using the PROCESS macro (Hayes, 2018). We only report plausible mediation analyses on value-incongruent targets for each type of afterlife belief. Spiritual afterlife beliefs were not part of the models tested because they did not predict prejudice. See full details of each mediation path in Table S7 in OSM. Entitlement, belief superiority, and defensive theology did not consistently explain the association between religious afterlife beliefs and prejudice against Democrats or nonreligious people. Peace of mind did not mediate the association between belief in heaven or prejudice toward either group. However, peace of mind was a statistically significant mediator of the association between the God-centered COS and prejudice toward the never religious (but not Democrats). Specifically, peace of mind attenuated the association between God-centered afterlife beliefs and prejudice against nonreligious people (see Fig. 5). This pattern remained when we added religiosity to the model as a predictor instead of a covariate (see details in Table S8 in OSM).

In summary, we found support for both hypotheses. In support of the *group exclusion hypothesis*, religious afterlife beliefs were associated with prejudice toward nonreligious (i.e., value-incongruent) targets. Additionally, in line with the *existential anxiety buffer hypothesis*, peace of mind attenuated colder attitudes associated with one form of religious afterlife beliefs. Contrary to our predictions, entitlement and belief superiority did not consistently explain associations with prejudice.

6. Study 4: focusing on heaven

Our results thus far have revealed that belief in heaven is associated with prejudice against atheists and Democrats, even after controlling for religiosity. We reasoned that for many, belief in heaven is inherently exclusionary and intergroup based—not everyone is admitted into heaven when they die, and therefore, belief in heaven should promote distinctions between groups. However, some people do believe in an inclusive version of heaven (e.g., universal salvation). This possibility

Table 3
Correlations of Study 3 mediators with afterlife beliefs and attitudes toward the target groups.

	Range	M (*SD*)	Religiosity	God-centered COS	Heaven	Hell	Secular COS	Nature	Cosmic-spiritual COS	Reincarnation	Republicans	Democrats	Currently religious	Never religious
Peace of mind	7–35	28.90 (7.04)	0.20***	0.10**	0.11**	−0.14***	−0.09*	−0.05	0.00	−0.05	0.13	−0.02	0.07*	0.11**
Entitlement	9–63	30.00 (10.1)	0.06	0.16***	0.08*	0.11***	−0.04	0.00	0.19***	0.19***	0.04	−0.01	−0.06	−0.03
Belief superiority (God)	1–5	2.69 (1.46)	0.02	0.10**	0.13***	−0.15***	−0.02	−0.13***	−0.17***	−0.18***	0.07	−0.09*	−0.05	0.06
Belief superiority (death)	1–5	2.54 (1.50)	0.01	0.09**	0.13***	−0.20***	0.02	−0.18***	−0.24***	−0.22***	0.08*	−0.10**	0.00	0.04
Belief superiority (world)	1–5	2.61 (1.29)	0.01	0.06	0.10**	−0.10**	0.02	−0.06	−0.11**	−0.12***	0.02	−0.12***	−0.06	0.02
Defensive theology	22–154	66.90 (32.40)	0.76***	0.57***	0.51***	0.02	−0.38***	−0.29***	0.09*	0.05	0.23***	−0.12***	0.20***	−0.06

Note. Correlations between mediators, afterlife beliefs, and prejudice control for religiosity.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

was not measured in the previous studies. In Study 4, we randomly assigned people to read biblical quotes describing an exclusive or inclusive heaven. We hypothesized that participants who read a passage suggesting that anyone could enter heaven would report more positive attitudes toward atheists than those primed with a quote suggesting that only some people could enter heaven. Participants also responded to questions about their preexisting beliefs about who could enter heaven. Study 4 is preregistered on the OSF (https://osf.io/upkjq/?view_only=1f27e06d6ddd4633a5efa9a2f9f58a45).

6.1. Methods

G*Power suggested a sample size of $N = 788$ for a design using an independent samples *t*-test for two groups, assuming a small effect size, and setting power to 0.80 and alpha to 0.05. We recruited 800 Christian participants ($M_{Age} = 43.3, SD_{Age} = 13.5$, 57.5 % female) on Cloud Research for a 10-min study. Each participant received $1.50. Participants were 78.6 % White, 9.1 % Black, 6.0 % Asian or Asian American, 3.3 % Hispanic or Latino, and 3.0 % part of another group.

The procedure for this study was approved by the last author's institutional review board, and informed consent was obtained from participants. Participants were randomly assigned to read a quote from either the *English Standard Version Bible* or the *Berean Study Bible* that suggested that heaven is either accessible to everyone (inclusive condition) or accessible to only some people (exclusive condition). In the inclusive condition, participants read the quote, "After this I looked, and behold, a great multitude that no one could number, from every nation, from all tribes and peoples and languages, standing before the throne and before the Lamb, clothed in white robes, with palm branches in their hands" (English Standard Version Bible, 2009, Revelation 7:9). In the exclusive condition, participants read the quote, "Enter by the narrow gate. For the gate is wide and the way is easy that leads to destruction, and those who enter by it are many. For the gate is narrow and the way is hard that leads to life, and those who find it are few" (Berean Study Bible, 2020, Matthew 7:13–14). Then, as a manipulation check, all participants responded to the question, "Who is included in this afterlife?" Participants' open-ended responses were coded by an independent and blind coder to fit one of four categories: everyone ($N_{Inclusive} = 301$, $N_{Exclusive} = 105$), some people ($N_{Inclusive} = 81$, $N_{Exclusive} = 250$), no one ($N_{Inclusive} = 0$, $N_{Exclusive} = 0$), or other ($N_{Inclusive} = 19$, $N_{Exclusive} = 20$). Participants whose responses were inconsistent with their assigned conditions were excluded from the preregistered but not the exploratory analyses.

Participants also responded to the question, "Think of someone who is different from you. Will they go to Heaven when they die?" Participants responded to this question using the options, "Yes" ($N = 241$), "Maybe" ($N = 525$), or "No" ($N = 32$). Finally, participants rated their attitudes toward members of religious and political groups using the same feeling thermometer measure used in Study 1 and Study 3. As preregistered, when testing for differences between the two priming conditions, we excluded participants who believed that they would not personally go to heaven or whose interpretations of their assigned quotes were inconsistent with being in the inclusive or exclusive condition (as assessed by the coded attention check described above), which led to a final sample size of $N = 551$. We did not exclude these participants from other analyses.

6.2. Results and discussion

Independent samples *t*-tests comparing participants in the inclusive and exclusive conditions revealed that the two groups did not differ in their attitudes toward any of the target groups: Republicans ($M_{Inclusive} = 14.33, SD_{Inclsuive} = 56.40$, $M_{Exclusive} = 22.29, SD_{Exclusive} = 60.33$; $t(549) = 1.60$, $p = .111$, $d = 0.14$, [−0.03, 0.30]), Democrats ($M_{Inclusive} = 11.25$, $SD_{Inclsuive} = 58.69$, $M_{Exclusive} = 6.68, SD_{Exclusive} = 63.40$; $t = -0.88$, $p = .381$, $d = -0.08$, [−0.24, 0.09]), religious people ($M_{Inclusive} = 56.11$,

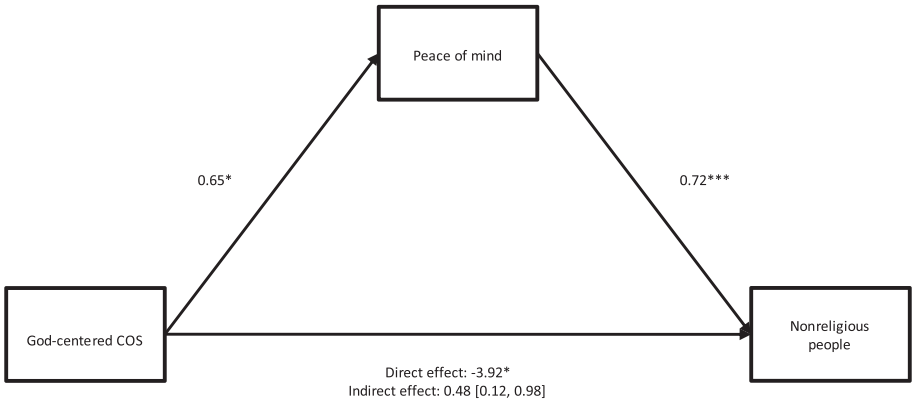

Fig. 5. Peace of Mind Attenuates the Association Between the God-Centered Connection of Soul Scale and Prejudice Against Nonreligious People (Study 3)
Note. Outcome is measured from cold to warm feelings toward nonreligious people.
*p < .05. **p < .01. ***p < .001.

$SD_{Inclsuive} = 40.49$, $M_{Exclusive} = 56.95$,$SD_{Exclusive} = 40.23$; $t(549) = 0.24$, $p = .808$, $d = 0.02$, [−0.15, 0.19]), or atheists ($M_{Inclusive} = 9.93$,$SD_{Inclsuive} = 57.03$, $M_{Exclusive} = 2.31$,$SD_{Exclusive} = 57.30$; $t(549) = -1.56$, $p = .120$, $d = 0.14$, [−0.03, 0.30]). We recognize that our final sample size was below our targeted sample size and may explain the null findings. Future research should test this hypothesis in a larger sample size, which would yield more power to detect a potential small effect.

In exploratory analyses, we used participants' pre-existing beliefs about heaven to test whether people who held an inclusionary view of heaven (answered "Yes" to the question of whether someone different from them would go to heaven) would show less prejudice toward a value-incongruent target than participants who held an exclusionary view of heaven (answered "Maybe" or "No" to that same question). We found that participants who believed that people who were different from them could be admitted to heaven reported more positive attitudes toward religious people ($M_{Inclusive} = 61.42$,$SD_{Inclsuive} = 39.19$, $M_{Exclusive} = 54.69$, $SD_{Exclusive} = 40.75$; $t = 2.17$, $p = .031$, $d = 0.17$, [0.02, 0.31]), atheists ($M_{Inclusive} = 21.55$, $SD_{Inclusive} = 55.53$, $M_{Exclusive} = -1.34$, $SD_{Exclusive} = 57.10$;$t = 5.24$, $p < .001$, $d = 0.40$, [−0.51, −0.29]), and Democrats ($M_{Inclusive} = 24.30$, $SD_{Inclsuive} = 58.94$, $M_{Exclusive} = 4.20$, $SD_{Exclusive} = 60.81$;$t = 4.33$, $p < .001$, $d = -0.33$, [−0.48, −0.19]) than those who did not. The groups did not differ in their attitudes toward Republicans ($M_{Inclusive} = 18.65$, $SD_{Inclsuive} = 61.52$, $M_{Exclusive} = 18.52$, $SD_{Exclusive} = 57.52$;$t = 0.029$, $p = .997$, $d = 0.00$, [−0.15, 0.14]).

Although the experimental manipulation did not reliably affect people's inclusionary view of heaven, participants' pre-existing view of heaven did predict prejudice. Participants who held an inclusionary view of heaven were less prejudiced toward value-incongruent targets than those who held an exclusionary view. A wider circle of eternal inclusion is associated with more positive attitudes toward differing others. Future research may benefit from further specifying the inclusionary/exclusionary measure to not be about people are "different" but people who are "ideologically different."

7. General discussion

Four studies investigated the relationships between religiosity, afterlife beliefs, and attitudes toward members of various religious and political groups. Following Ai et al. (2014), we organized afterlife beliefs into three groups: religious, spiritual, and secular afterlife beliefs. Notably, we found that belief in an afterlife is common. Regarding religious afterlife beliefs, across the first three studies, 29.9 % to 49.7 % of participants believed they would join a God-centered community or go to heaven after death (i.e., scored above the midpoint on these scales). Spiritual afterlife beliefs were also common within these samples: about 40 % believed they would transition to a cosmic-spiritual existence after death. In terms of secular afterlife beliefs, 46.4 % of participants believed in no existence after death at all, and 61.4 % believed they would become a part of nature after death. Only 2.4 % to 14.2 % of people believed they would go to hell or be reincarnated.

The first aim of this research was to investigate whether afterlife beliefs predicted prejudice toward political and religious group members even after accounting for religiosity. We did so by examining two competing hypotheses. The *existential anxiety buffer hypothesis* predicted that religious afterlife beliefs would result in lower prejudice because belief in continuation after death mollifies the existential anxiety espoused by contemplating our own mortality, whereas the *group exclusion hypothesis* posited that the inherently exclusive nature of an afterlife would highlight group distinctions and be associated with greater prejudice toward ideologically dissimilar others.

We largely found support for the group exclusion hypothesis. In the first three studies, results indicated that religious afterlife beliefs, such as beliefs in heaven, hell, or a God-centered community, predicted warmer feelings toward groups like Republicans and religious people that affirm traditional religious values, but predicted colder attitudes toward atheists and Democrats. In Study 4, we found that Christians who believed that only people like them could enter heaven expressed more negative attitudes toward atheists and Democrats than Christians who thought that people who were different from them could also go to heaven.

In contrast to religious afterlife beliefs, but still supporting the group exclusion hypothesis, secular and spiritual afterlife beliefs predicted warmer attitudes toward Democrats (Studies 1 and 3). Secular afterlife beliefs also predicted colder attitudes toward Republicans and religious people in Study 3. Even people who hold secular afterlife beliefs, or believe there is no life after death at all, express prejudice against value-incongruent groups. This is in line with research showing that nonreligious people and people who are low in religious fundamentalism hold prejudice against religious people and others who threaten their values (e.g., Brandt & Van Tongeren, 2017; Van Cappellen & LaBouff, 2020). We note that these results occurred when mortality was not made salient, in contrast to findings by Kastenmüller et al. (2011) and Piwowarski et al. (2011). Interestingly, spiritual afterlife beliefs were the only ones to be associated with a pattern of response demonstrating more religious tolerance: they were associated with warmer feelings toward both the religious and the nonreligious in Study 1 and not associated with any religious prejudice in Study 3.

A second aim of this research was to investigate whether religious afterlife beliefs could help explain the established relationship between religiosity and prejudice against value-threatening groups like atheists (Johnson et al., 2012). Our findings suggest that religious afterlife beliefs, such as beliefs in heaven and hell, partially account for this prejudice. In Study 1, certain religious afterlife beliefs (i.e., BA Scale) mediated the association between religiosity and colder attitudes

toward nonreligious people. Similarly, in Study 2, beliefs in heaven and hell mediated the associations between religiosity and prejudice against atheists.

A third and final aim of this research was to investigate whether psychological variables associated with afterlife beliefs could help explain their relationship with prejudice. Indeed, given that the relationships between afterlife beliefs and prejudice exist above and beyond general religiousness, other mechanisms should account for why beliefs about life after death drive intergroup relations. We investigated both positive mechanisms (e.g., peace of mind) that could reduce the prejudice associated with afterlife beliefs (aligning with the existential anxiety buffer hypothesis) and negative mechanisms (e.g., entitlement) that could explain the prejudice associated with afterlife beliefs (aligning with the group exclusion hypothesis). Overall, we did not find evidence for the mechanisms supporting the group exclusion hypothesis. However, we found some evidence for the mechanisms supporting the existential anxiety buffer hypothesis. In Study 2, we found that people who believe in heaven report less death anxiety, which in turn attenuates prejudice against atheists. Similarly, in Study 3, we found that people who believe in a religion-based afterlife (i.e., God-centered COS) have more peace of mind which, in turn, attenuates prejudice against nonreligious people. In Study 2, we found that people who believe in hell are less happy and have a weaker sense of control in life, both of which lead to stronger prejudice against atheists. These results are largely consistent with our hypothesis that people whose afterlife beliefs provided them with more peace of mind or less death anxiety would report less prejudice against value-incongruent groups.

7.1. Implications

Our findings highlight that beliefs about what happens after death shape intergroup attitudes, independent of—but still aligned with—broader religious beliefs systems and identities. For some, beliefs about the afterlife may create eternal outgroups. Some individuals begin demonstrating their intergroup preference and prejudice on this side of death. This advances our knowledge on religious prejudice by focusing on specific beliefs rather than a broad religiosity factor (e.g., how much people believe in a god, how much they consider themselves religious), which has been vastly overused in this line of research. It also adds to a limited corpus of work documenting that even people who are not religious or endorsing religion-based beliefs (such as not believing in an afterlife at all) still demonstrate prejudice (e.g., Brandt & Van Tongeren, 2017; Van Cappellen & LaBouff, 2020). We note that afterlife beliefs are probably only a part of a cluster of traits associated with religious and nonreligious identities that predict prejudice. Future research should continue to uncover associated specific beliefs, behaviors, and their interaction in predicting intergroup relations. In addition, given that these associations were robust after controlling for general religiousness, future work should more closely examine both the *content* and *strength* of afterlife beliefs, as well as develop effective ways to experimentally activate the salience of such beliefs and test the causal features of making such beliefs cognitively accessible.

These results have implications for our understanding of the specific beliefs playing a role in religious and nonreligious prejudice. The present findings also add interesting nuance to the broad claim that religion fosters prejudice. Indeed, spiritual afterlife beliefs were found to be associated with both religiosity (although less strongly than religious afterlife beliefs were) and with warm feelings toward Democrats. These afterlife beliefs were also associated with a pattern of results that demonstrate more tolerance, either by being associated with warmer feelings toward the religious and nonreligious or by not being associated with attitudes toward either group. In addition, Study 4 provided preliminary data showing that an inclusive version of heaven is (a) endorsed by some Christians and (b) associated with warmer feelings toward political and religious outgroup members (i.e., Democrats and nonreligious people) compared to an exclusive version of heaven. In other words, eschatologically inclusive Christians likely demonstrate tolerance. Finally, these results demonstrate that prejudice against atheists is not endorsed universally (contrasting with Gervais et al., 2017), but instead, suggests some specific beliefs that are protective.

If afterlife beliefs predict prejudice, one may be inclined to think about ways to modify such beliefs to be more inclusive. We sought to alter such beliefs in Study 4, specifically targeting belief in heaven, but the failed experimental manipulation suggests that people's beliefs about the afterlife are enduring and resistant to change. Future research may consider using less subtle ways to attempt to alter people's beliefs as a strong test if it is at all possible.

7.2. Limitations and suggestions for future research

Nonetheless, this research presents several limitations, each with implications for future research. First, Studies 2 and 4 use different measure of religiosity from Studies 1 and 3, which limits direct comparisons between them. Furthermore, Studies 1 and 3 measured religious affiliation in general but not specific religious traditions (e.g., Christian, Hindu). Although the majority of the religious sample is likely Christian given that CloudResearch was used for data collection in the U.S., more granularity and specificity by religious groups will be important to consider for future research. In addition, although we measured a wide range of religious, spiritual, and secular afterlife beliefs, they may not have captured the full range of beliefs that people hold about life after death. Additionally, participants reported weak beliefs in several of the afterlives investigated here. For example, only 14.2 % of Study 3 participants believed they would be reincarnated, and only 2.4 % believed they would go to hell (although this may confirm that the belief in hell is largely reserved for other people—the ultimate outgroup destination). Researchers may want to expand beyond the U.S. to ensure more diversity in religious identities, types of afterlife beliefs, and targets of prejudice. For example, this research specifically addressed attitudes toward Democrats and Republicans. Using more general ideological targets like liberals and conservatives would allow researchers to investigate similar ideas cross-culturally. Future research could also go beyond using self-reported scales such as the ones used here. For example, people could report on their afterlife beliefs in an open-ended question, and researchers could use cluster analysis to categorize their responses in relation to prejudice or other outcomes of interest.

Second, we did not directly measure the intergroup structure inherent to each afterlife belief. For example, among people who believe in reincarnation, some believe that a person may be reincarnated in a different form depending on their present behavior, while others believe that reincarnation occurs independently of moral behavior (Obeyesekere, 2002). Future research could more directly measure individual differences in beliefs about who can access various forms of the afterlife, including reincarnation or a cosmic-spiritual existence, and how these beliefs relate to attitudes toward different groups. Such precision would probably remove some noise observed in the data.

Third, some measures conflate respondents' beliefs about the afterlife with their perceptions of their own morality and where they will personally end up. Specifically, Studies 1 and 3 captured people's beliefs that they would personally go to heaven and hell, rather than their beliefs about the existence of heaven and hell in general. As a result, associations between participants' beliefs about such afterlives and their attitudes toward ideological outgroups may reflect a discrepancy between views of their own and others' morality rather than a direct relationship between moralizing afterlife beliefs and prejudice. This could be better addressed and disentangled in future research.

Finally, we explored potential mechanisms for why afterlife beliefs are related to prejudice even after accounting for religiosity. These analyses relied on data collected at a single point in time. The presumed order of effects is based on theory rather than empirical evidence, which prevents us from making any claim about causality (see Rohrer et al.,

2022). In addition, despite finding more evidence for the group exclusion hypothesis when looking at afterlife beliefs' association with prejudice, we did not find evidence for any of the related mechanisms (despite measuring defensive theology, entitlement, and belief superiority). Future work should utilize longitudinal or experimental designs.

7.3. Conclusion

Taken together, our results suggest that beliefs about life after death have implications for prejudice above and beyond general religiousness. Rather than merely acting as a proxy for religiousness, the *content* of one's afterlife beliefs can reliably predict prejudice. Afterlife beliefs can engender prejudice and offer the believer existential solace. Belief in an exclusionary eternal destination may not only bring comfort to those who believe they will spend eternity in paradise by taking the sting out of death but may also give rise to the prejudice of viewing value-incongruent others as eternal outgroups.

CRediT authorship contribution statement

Gwyneth A. Reece: Conceptualization, Methodology, Formal analysis, Writing – original draft, Funding acquisition. **Daryl R. Van Tongeren:** Conceptualization, Methodology, Formal analysis, Writing – review & editing. **Patty Van Cappellen:** Conceptualization, Methodology, Formal analysis, Writing – review & editing, Funding acquisition, Supervision.

Declaration of competing interest

None.

Data availability

Data and a codebook are available in the following OSF folder: https://osf.io/upkjq/?view_only=1f27e06d6ddd4633a5efa9a2f9f58a45

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.paid.2023.112352.

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