

What If They're Right About the Afterlife? Evidence of the Role of Existential Threat on Anti-Atheist Prejudice

Social Psychological and
Personality Science
2015, Vol. 6(7) 840-846
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DOI: 10.1177/1948550615584200
spps.sagepub.com


Corey L. Cook¹, Florette Cohen², and Sheldon Solomon³

Abstract

Terror management theory posits that the uniquely human awareness of death gives rise to potentially paralyzing terror that is assuaged by embracing cultural worldviews that provide a sense that one is a valuable participant in a meaningful universe. We propose that pervasive and pronounced anti-atheist prejudices stem, in part, from the existential threat posed by conflicting worldview beliefs. Two studies were conducted to establish that existential concerns contribute to anti-atheist sentiments. Experiment 1 found that a subtle reminder of death increased disparagement, social distancing, and distrust of atheists. Experiment 2 found that asking people to think about atheism increased the accessibility of implicit death thoughts. These studies provide the first empirical link between existential concerns and anti-atheist prejudices.

Keywords

terror management theory, mortality salience, prejudice, atheists

Atheists have long been an especially stigmatized group. In fact, the Greek term *atheos* (godless, without a god) originated as a pejorative designation of those who failed to worship culturally accepted gods (Drachmann, 1922); and, religious and political leaders throughout recorded history have vigorously inveighed against those who do not believe in God (or Gods). Recent large-scale polling results indicate that widespread negativity toward atheists presently persists and is especially pronounced in the United States. For example, most Americans report being unwilling to vote for atheists (Jones, 2012), find atheism threatening (Pickel, 2012), and rank atheists as the group (compared to others including Muslims, immigrants, and nonheterosexuals) that least follows American ideals (Edgell, Gerteis, & Harmann, 2006).

Social scientists have recently begun to delineate the psychological underpinnings of anti-atheist prejudices. Based on a cultural evolutionary account of religious prosociality, Gervais, Shariff, and Norenzayan (2011) proposed that atheists are disparaged because God and religion serve as the ultimate source of social influence by rewarding appropriate behaviors and punishing inappropriate ones (Johnson & Bering, 2006; Norenzayan & Shariff, 2008; Shariff & Norenzayan, 2007). Atheists are consequently fundamentally untrustworthy because they do not accept, affirm, and adhere to crucial moral imperatives—and they are berated accordingly. Consistent with this claim, Gervais et al. (2011) demonstrated that atheists are evaluated negatively because they are perceived as untrustworthy. For example, participants in one experiment rated atheists as more untrustworthy than Muslims and just as

untrustworthy as rapists (Gervais et al. (2011), Study 2). Moreover, Cook, Cottrell, and Webster (2014) showed that distrust of atheists is driven (at least in part) by the perception that they threaten in-group values.

The present research tested hypotheses derived from terror management theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986) to determine if negativity toward atheists, in addition to their being perceived as fundamentally untrustworthy, results from the existential threat that atheism poses to theistic worldviews. TMT posits that the uniquely human awareness of death gives rise to potentially paralyzing terror that is assuaged by cultural worldviews that afford a sense that one is a valuable participant in a meaningful universe. However, to the extent that cultural worldviews serve to mitigate existential terror, the mere existence of people with alternative cultural worldviews is fundamentally threatening in that accepting the validity of another conception of reality necessarily undermines confidence in the veracity of one's own cultural worldview.

¹ Interdisciplinary Arts & Sciences, University of Washington Tacoma, Tacoma, WA, USA

² College of Staten Island CUNY, New York, NY, USA

³ Skidmore College, Saratoga Springs, NY, USA

Corresponding Author:

Corey L. Cook, Interdisciplinary Arts & Sciences, University of Washington Tacoma, 1900 Commerce Street, Tacoma, WA 98402, USA.
Email: clcook1@uw.edu

Empirical support for TMT includes considerable evidence (reviewed in a meta-analysis by Burke, Martens, & Faucher, 2010) demonstrating that momentarily making death salient (mortality salience [MS]) by asking people to think about themselves dying (or viewing graphic depictions of death, being interviewed in front of a funeral parlor, or subliminal exposure to the word “dead” or “death”) intensifies cultural worldview defense. For example, Greenberg et al. (1990) found that following MS, Christian participants had more favorable reactions to fellow Christians and less favorable reactions to Jewish targets. MS also increases denigration of (and in some cases, physical aggression toward) other out-groups, including those based on nationality (Castano, Yzerbyt, Paladino, & Sacchi, 2002), race (Greenberg, Schimel, Martens, Pyszczynski, & Solomon, 2001), and political preferences (McGregor et al., 1998). Moreover, MS actuates processes that foster prejudice, discrimination, and aggression (Greenberg & Kosloff, 2008), including stereotyping (Schimel et al., 1999), and inhumanization (i.e., the tendency for people to view members of their own group as more uniquely human than out-group members; Vaes, Heflick, & Goldenberg, 2010).

Another line of research (reviewed by Hayes, Schimel, Arndt, & Faucher, 2010) provides convergent evidence for the existential function of cultural worldviews by showing that the accessibility of implicit death thoughts (death thought accessibility [DTA]) increases when cherished cultural beliefs are threatened. For example, Schimel, Hayes, Williams, and Jahrig (2007) found that Christian fundamentalists exposed to logical inconsistencies in the Bible, and Canadians exposed to criticism of their country, had higher DTA than participants in control conditions.

Cohen, Soenke, Solomon, and Greenberg (2012) recently argued that anti-Islamic sentiment in the United States results from the fundamental threat that Islam poses to Western worldviews in the wake of the September 11, 2001, attack on the Pentagon and World Trade Center, demonstrated that existential concerns contribute to Americans' hostility and disdain toward Islam by showing that opposition to building a mosque in one's neighborhood increased following an MS induction, and that thinking about a mosque being built in one's neighborhood increased DTA.

Here we propose that atheists—who dispute the existence of God and proclaim disbelief in a literal afterlife—pose a profound existential threat to those who adhere to traditional theistic cultural worldviews. Accordingly, we used methods similar to those employed by Cohen et al. (2012) to assess the link between existential concerns and anti-atheist prejudices. Experiment 1 examined the effect of an MS induction on attitudes toward atheists, and Experiment 2 investigated the effects of thinking about atheism on DTA.

Experiment 1

We predicted participants reminded of their own death would report increased negativity toward atheists compared to members of a theistic group.

Method

Two hundred thirty six students (172 females and 64 males) from the College of Staten Island participated for course credit in a study of personality attributes. Thirty-four (14.4%) participants self-reported as atheists and were not included in the analyses. Of the remaining participants, 155 (65.7%) reported as Catholic, Christian, or Protestant, 27 (11.4%) reported as Muslim, 10 (4.2%) as Buddhist, 6 (2.5%) as Jewish, and the remaining 4 (1.7%) did not respond. One hundred nineteen participants (50.4%) reported as White/non-Hispanic, 42 (17.8%) reported as Latino/Hispanic, 26 (11%) as African American, 24 (10.2%) as Asian, and the remaining 25 (10.5%) reported as “Other.”

After providing informed consent, participants were presented with questionnaire packets. Each packet contained two filler questionnaires described as brief personality inventories. Participants then completed (based on random assignment) either an MS induction (in which they were asked: “Please describe the emotions that the thought of your own death arouses in you” and “Write down, as specifically as you can, what you think will happen to you physically when you die.”) or a control induction consisting of parallel questions regarding thoughts of extreme pain. Next, to assess the affective consequences of the MS induction and to determine if subsequent effects on the dependent measures were mediated by negative affect or fear, participants completed the Positive and Negative Affect Schedule (PANAS-X; Watson & Clark, 1994), in which they were asked to indicate the extent to which they currently feel (1 = *Very slightly or not at all* and 5 = *Extremely*) 60 positive and negative emotions (e.g., cheerful, sad, nervous, afraid, and calm). This was followed by a short literary passage to serve as a delay/distraction, given previous research demonstrating that worldview defense is initiated only after thoughts of death are no longer in focal attention (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994).

All participants then reported their feelings about either “Atheists (one who disbelieves or denies the existence of God)” or “Quakers (a member of the Christian organization called the *Religious Society of Friends*)” on a feeling thermometer (0 = *Very coolly* and 100 = *Very warmly*). The feeling thermometer is often used as a general measure of attitudes toward others (Nelson, 2008) and (more relevant for present purposes) in research on prejudice toward atheists (Edgell et al., 2006; Gervais, Shariff, & Norenzayan, 2011); including it in this study allows for replication and extension of previous findings in this domain of inquiry. Participants also completed the 7-item Social Distancing Scale (SDS; Crandall, 1991), indicating their level of agreement to items such as “I would like for a member of this group to marry into my family” (1 = *Strongly disagree* and 6 = *Strongly agree*). Then, to measure distrust—to replicate and extend the Gervais et al. (2011) findings—participants indicated their agreement to the statement, “They are people that I find trustworthy” (1 = *Strongly disagree* and 6 = *Strongly agree*). Finally, participants provided demographic information (including religious beliefs or lack thereof) and were debriefed.

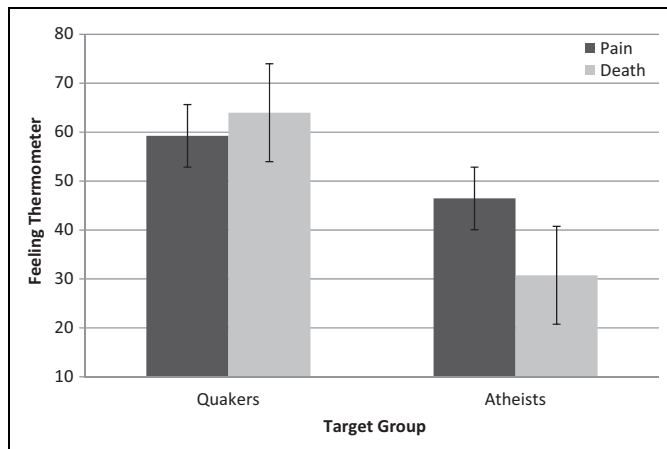


Figure 1. Feeling thermometer ratings toward target groups across mortality salience (MS) conditions (pain/control vs. death): Means $\pm$ 1 standard error (SE).

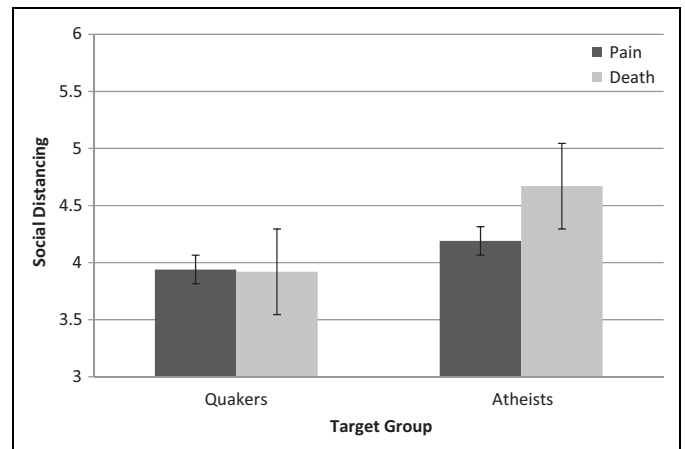


Figure 2. Social distancing ratings toward target groups across mortality salience (MS) conditions (pain/control vs. death): Means $\pm$ 1 standard error (SE).

Results

Feeling Thermometer

A 2 (death condition: MS vs. control) $\times$ 2 (target group: atheists vs. Quakers) between-subject analysis of variance (ANOVA) revealed a main effect for target group, $F(1, 192) = 48.81, p < .001, \eta^2 = .20$, qualified by a significant condition by target interaction, $F(1, 192) = 9.63, p < .01, \eta^2 = .05$. Overall, atheists were rated significantly more negatively ($M = 39.23, SD = 25.87$) than Quakers ($M = 61.67, SD = 21.06$). Moreover, simple effects tests revealed that while the MS induction had no effect on participant's reactions toward Quakers, $F(1, 94) = 1.21, p = .27$, they were significantly more negative in their assessment of atheists following MS ($M = 46.46, SD = 29.05$ vs. $M = 30.74, SD = 18.5$), $F(1, 98) = 10.01, p < .01, \eta^2 = .09$ (see Figure 1).

Social Distancing

The 7 SDS items were highly reliable ($\alpha = .86$) and were consequently averaged into a total SDS score (after reverse-coding positively valenced items). A two-way ANOVA on this score yielded a main effect for the target group, $F(1, 194) = 10.64, p = .01, \eta^2 = .05$, qualified by a marginally significant condition by target interaction, $F(1, 194) = 3.29, p = .07, \eta^2 = .02$. Overall, participants distanced themselves more from atheists ($M = 4.41, SD = 1.02$) than Quakers ($M = 3.93, SD = 1.13$). Moreover, simple effects tests revealed that while the MS induction had no effect on distancing from Quakers, $F(1, 95) = .007, p = .93$, social distancing from atheists increased significantly following MS ($M = 4.19, SD = 1.17$ vs. $M = 4.67, SD = .75$), $F(1, 99) = 5.74, p < .05, \eta^2 = .06$ (see Figure 2).

Distrust

A two-way ANOVA on the distrust measure (reverse coded) yielded a main effect for target group, $F(1, 194) = 23.18,$

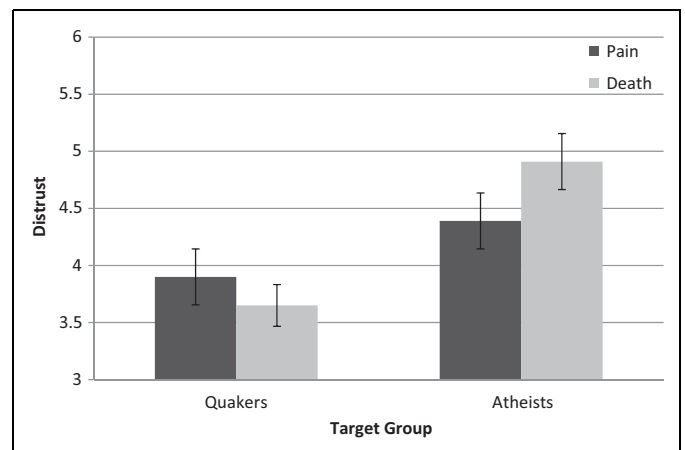


Figure 3. Distrust ratings toward target groups across mortality salience (MS) conditions (pain/control vs. death): Means $\pm$ 1 standard error (SE).

$p < .001, \eta^2 = .11$, qualified by a significant condition by target interaction, $F(1, 194) = 4.45, p < .01, \eta^2 = .02$. Consistent with the previous measures, participants distrusted atheists ($M = 4.63, SD = 1.35$) more than Quakers ($M = 3.77, SD = 1.22$); and, simple effects tests indicated that while distrust toward Quakers was not affected by MS, $F(1, 95) = .96, p = .33$, MS increased distrust toward atheists ($M = 4.39, SD = 1.39$ vs. $M = 4.91, SD = 1.26$), $F(1, 98) = 3.9, p < .05, \eta^2 = .04$; see Figure 3.¹

Ancillary Analyses

To determine whether the MS induction affected mood, we performed one-way ANOVAs (Death condition: MS vs. Control) on the Positive Affect and Negative Affect subscales of the PANAS-X (Watson & Clark, 1994). Consistent with most previous TMT research demonstrating that MS does not engender affect, there were no significant main effects for either positive

affect, $F(1, 182) = .03, p = .88$ ($M = 2.71, SD = .84$ vs. $M = 2.72, SD = .78$ for MS and control conditions, respectively), or negative affect, $F(1, 188) = 2.54, p = .11$ ($M = 1.75, SD = .76$ vs. $M = 1.59, SD = .66$ for MS vs. control). We then assessed the effect of the MS induction on fear, following Lambert et al.'s (2014) recommendation to combine the PANAS-X items *afraid*, *frightened*, and *scared* ($\alpha = .85$) to obtain a more sensitive measure of fear than the Fear subscale of the PANAS-X. Consistent with Lambert et al.'s finding that MS increases fear, this analysis revealed a marginally significant effect of MS on fear, $F(1, 192) = 3.36, p = .07, \eta^2 = .02$, ($M = 1.67, SD = .92$ vs. $M = 1.44, SD = .79$ for MS vs. Control).

Next, to ensure the observed effects were not entirely attributable to fear, we conducted a 2 (death condition: MS vs. control) $\times$ 2 (target group: atheists vs. quakers) between-subject ANCOVA with the composite fear measure included as a covariate. The critical condition by target group interaction remained significant for our thermometer measure of general prejudice, $F(1, 187) = 9.61, p < .01, \eta^2 = .05$; this is consistent with Lambert et al.'s finding that MS-induced worldview defense was not mediated by fear. However, on the discrimination-oriented measure of social distancing, the condition by target group interaction remained only marginally significant when controlling for fear, $F(1, 189) = 3.11, p = .08$, as did feelings of distrust, $F(1, 189) = 3.49, p = .06$. It appears then that while general negative attitudes toward atheists are increased by MS even when controlling the variance accounted for by affect, more specific behaviors (social distancing) and attitudes (distrust) may be at least partially attributable to fear elicited by MS. This finding is consistent with previous research suggesting that specific discriminatory behaviors such as avoidance of members of a group (as captured by our SDS measure) are facilitated by particular emotions such as fear (Cottrell & Neuberg, 2005).

Then, although we argue here that atheists pose an existential threat to believers primarily because of their outright denial of the possibility of an afterlife, it is also possible that the MS-induced denigration of atheists observed in the present study is simply due to established MS effects based on in-group-out-group distinctions (e.g., Christians having more favorable reactions to fellow Christians and less favorable reactions to Jewish targets following MS; Greenberg et al., 1990). We chose Quakers as a nonthreatening out-group because we did not expect to have any Quaker participants in the study and because Quakers represent an infinitesimal percentage of the Christian population in the United States (specifically, there are approximately 87,000 Quakers out of more than 262 million Christians; Friends General Conference, n.d.). Nevertheless, Christian participants may have perceived Quakers to be a fellow Christian in-group and atheists to be an out-group, and this in turn could have been the psychological basis for negative reactions to atheists in response to MS rather than the theist/atheist distinction that we are claiming is responsible (at least in part) for the present findings.

Fortunately, we were able to test this possibility because approximately 22% of the participants included in our analyses

(33% of the total sample, including self-reported atheists) reported being non-Christian. This enabled us to create a variable distinguishing Christian participants from non-Christian participants and then to conduct a 2 (death condition: MS vs. control) $\times$ 2 (target group: atheists vs. Quakers) $\times$ 2 (religion of participant: Christian vs. non-Christian) ANOVA on each of our primary dependent measures. These analyses indicated no significant main effects or interactions between the religion of our participants and the other independent variables on the feeling thermometer (all F s $< .71, p$ s $> .4$), social distancing (F s $< 1.03, p$ s $> .31$), or distrust (F s $< 1.12, p$ s $> .29$) measures, and importantly, the critical condition by target group interaction remained significant for the feeling thermometer measure of general prejudice, $F(1, 188) = 6.5, p = .01, \eta^2 = .03$. The condition by target group interaction likewise remained marginally significant on the social distancing measure, $F(1, 190) = 3.54, p = .06, \eta^2 = .02$, although it was no longer significant for the distrust measure, $F(1, 190) = 2.26, p = .14$. These results suggest that the effects of the MS induction on negative evaluations of atheists were not solely due to a simple in-group-out-group classification, at least for the feeling thermometer and social distancing measures.²

Experiment 2

Experiment 2 was designed to assess if atheism poses an existential threat by measuring DTA after having participants think about atheism, their own death or being in intense pain. We predicted that thinking about atheism would increase DTA (comparable to an MS induction) relative to the control condition.

Method

In exchange for course credit, 200 students (146 females, 52 males, and 2 unidentified) from the College of Staten Island were randomly assigned to think about atheism, their own death, or experiencing intense pain. Twenty-six (13%) participants were removed from the analyses for self-reporting as atheists. Of the remaining participants, 128 (64%) reported as Catholic, Christian, or Protestant; 14 (7%) reported as Muslim; 8 (4%) as Buddhist; 7 (3.5%) as Jewish; 2 (1%) as Hindu; and the remaining 15 (7.5%) reported as agnostic or did not respond. Ninety-eight (48.5%) participants reported as White/non-Hispanic, 44 (22%) reported as Latino/Hispanic, 23 (11.5%) as Asian, 14 (7%) as African American, and the remaining 22 (11%) either reported as "Other" or did not answer.

After providing informed consent, participants were presented with questionnaire packets. Each packet contained two filler questionnaires described as a brief personality inventory. Participants in the MS condition responded to the same prompts as in Study 1; participants in the atheism condition responded to parallel questions regarding the emotions that thoughts of atheism arouse in them, and to, "write down, as specifically as you can, what atheism means to you." Control

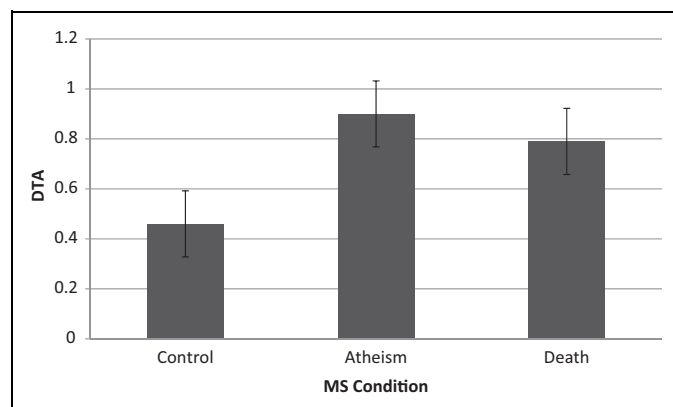


Figure 4. Levels of death thought accessibility (DTA) across mortality salience (MS) conditions (control, atheism, and death): Means $\pm$ 1 standard error (SE).

participants responded to parallel questions regarding thoughts of extreme pain. Next, affect was measured using the PANAS-X (Watson & Clark, 1994), followed by a short literary passage used to serve as a delay/distraction. Finally, DTA was measured by having participants complete a set of 20 word fragments, each missing two letters, six of which could be completed as either neutral or death-related words; for example, S K _ _ L can either be completed as skill or skull. Possible death-related words included coffin, corpse, dead, grave, skull, and stiff (Greenberg et al., 1994). Participants then provided demographic information (including religious beliefs or lack thereof) and were debriefed.

Results

A one-way ANOVA (MS, atheism salience, and pain salience) indicated a significant effect of condition on levels of DTA, $F(2, 168) = 5.59, p < .01, \eta^2 = .06$. Fisher's Least Significant Difference post-hoc analyses (used to prevent α inflation from multiple comparisons) revealed, as predicted, that participants in the atheism condition ($M = .90, SD = .78$) and the MS condition ($M = .79, SD = .77$) reported significantly greater levels of DTA compared to those in the control condition ($M = .46, SD = .57$), $p < .05$ and $p < .01$ for mean differences of .44 and .33, respectively. Levels of DTA reported in the atheism and MS conditions did not significantly differ, $p = .43$ for a mean difference of .11 (see Figure 4).

Affect

To determine whether the MS induction affected mood, we performed a one-way ANOVA on the Positive and Negative Affect subscales of the PANAS-X (Watson & Clark, 1994). As with Study 1, and consistent with most TMT research, there were no significant main effects on either positive, $F(2, 168) = .18, p = .84$, or negative affect, $F(2, 168) = .04, p = .97$. Additionally, there was no effect of condition on the composite fear measure recommended by Lambert et al. (2014), $F(2, 166) = .45, p = .64$. To further test the

potential influence of fear on participants' responses, we conducted a between-subject ANCOVA with the composite fear measure included as a covariate; results indicated a significant effect of condition on DTA while controlling for reported fear, $F(2, 165) = 5.42, p < .01, \eta^2 = .06$.

Discussion

From a cultural evolutionary perspective, pronounced disdain for atheists results from the perception that they are essentially untrustworthy, and hence pose a threat to morality, which is posited to be necessary for humans to function and prosper in groups (Boehm, 2012). In accord with this view, the results of Experiment 1 replicate previous findings (e.g., Gervais et al., 2011), showing that people have generally negative impressions, accompanied by high levels of distrust, of atheists. However, the present studies were primarily conducted to demonstrate that atheists are also disparaged because they pose a fundamental threat to the culturally constructed belief systems (i.e., cultural worldviews) that afford psychological equanimity by mitigating the potential terror arising from the uniquely human awareness of death. Because atheists explicitly challenge the "Ultimate Sacred Postulates" (Rappaport, 1999, p. 263)—that is, the central tenets of theistic worldviews: belief in Gods and the afterlife—we hypothesized that atheists pose an existential threat that stokes anti-atheist prejudices. Consistent with this claim, in Experiment 1, participants became more negative, more distant, and more distrustful of atheists after reflecting on their own mortality. In Experiment 2, just thinking about atheism increased implicit death thought accessibility to the same level as a traditional MS induction. These findings complement existing research and extend our understanding of anti-atheist sentiments by showing that hostility toward and mistrust of atheists is particularly pronounced when existential concerns are aroused and that, for believers, the mere contemplation of atheism can arouse intimations of mortality.

We do not view the results of the current studies as in opposition to Gervais et al.'s (2011) findings; rather, they are in our estimation a complementary juxtaposition of two superficially disparate approaches to explaining human behavior: a cultural evolutionary perspective and an existential psychodynamic perspective. From a cultural evolutionary perspective, atheists are fundamentally distrusted for their failure to follow culturally dictated norms and values (Cook et al., 2014; Gervais et al., 2011). This is important as trust is necessary for mutually beneficial interactions between unrelated individuals. People therefore value trustworthiness above other trait characteristics (e.g., intelligence, agreeableness, and conscientiousness) across a variety of social relationships (e.g., romantic partners, friends, and employees) and contexts (e.g., study groups, athletic teams, and sororities; Cottrell, Nueberg, & Li, 2007). Moreover, people are particularly attuned to cues indicating untrustworthiness (Freeman, Stoller, Ingbreten, & Hehman, 2014). From a TMT perspective, atheists pose an existential challenge to central tenets of

believers' cultural worldviews, and are thus disparaged when concerns about mortality are aroused.

Additionally, Experiment 1 showed that atheists were also perceived as more untrustworthy following an MS induction. Given that distrust is magnified when existential concerns are salient, future research could integrate evolutionary, and existential perspectives by investigating the existential underpinnings of trust, perhaps by making distrust salient to determine if this would result in increased death-thought accessibility—if so, this could indicate that DTA is the (or a) proximal mechanism that underlies the relationship between distrust and derogation of atheists.

It is important to acknowledge that these findings might not hold in other, more secular societies. However, even in Western European countries that are more irreligious than the United States, such as the the Netherlands, Germany, or Austria, the percentage of confessed atheists remains low (14%, 15%, and 10%, respectively; Gallup, 2012). In fact, according to a recent worldwide poll, the global population of professed atheists currently sits at 13%, with 59% of the world's population indicating some form of religious belief (WIN-Gallup International, 2012). Consequently, although these studies cannot address the prospect of cultural differences, it is nevertheless possible that atheists across the world evoke existential concerns that might in turn produce the same MS and DTA effects reported here.

There are currently 13 million self-identified nonbelievers in the United States (Pew Research Center, 2012). Despite these large numbers, atheists remain stigmatized, and many are understandably reluctant to openly profess their disbelief in God (Hammer, Cragun, Hwang, & Smith, 2012). Given that groups that threaten worldview beliefs are often responded to with increased discrimination and aggression (Greenberg & Kosloff, 2008; McGregor et al., 1998), future research could be productively directed toward identifying benign ways to parry the existential threat that atheists pose to believers, thus mitigating the hostility and intolerance that they are often subjected to. Atheists, in turn, might be well served to consider how militant denunciation of theistic conceptions of reality and those who adhere to them, as opposed to critical skepticism and civil disagreement, contributes to their current unpopularity in many cultures.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. There were no main effects or interactions involving gender in Experiments 1 and 2.

2. We wish to thank the editor and reviewers for proposing these additional analyses, among other helpful comments, which greatly improved the current article.

References

- Boehm, C. (2012). *Moral origins: The evolution of virtue, altruism, and shame*. New York, NY: Basic Books.
- Burke, B. L., Martens, A., & Faucher, E. H. (2010). Two decades of terror management theory: A meta-analysis of mortality salience research. *Personality and Social Psychology Review*, 14, 155–195.
- Castano, E., Yzerbyt, V., Paladino, M., & Sacchi, S. (2002). I belong, therefore, I exist: Ingroup identification, ingroup entitativity, and ingroup bias. *Personality and Social Psychology Bulletin*, 30, 278–292.
- Cohen, F., Soenke, M., Solomon, S., & Greenberg, J. (2012). Evidence for a role of death thought in American attitudes toward symbols of Islam. *Journal of Experimental Social Psychology*, 49, 189–194.
- Cook, C. L., Cottrell, C. A., & Webster, G. D. (2014). No good without God: Antiatheist prejudice as a function of threats to morals and values. *Psychology of Religion & Spirituality*. Advance online publication. doi: 10.1037/rel0000013
- Cottrell, C. A., & Neuberg, S. L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to "prejudice". *Journal of Personality and Social Psychology*, 88, 770–789.
- Cottrell, C. A., Neuberg, S. L., & Li, N. P. (2007). What do people desire in others? A sociofunctional perspective on the importance of different valued characteristics. *Journal of Personality and Social Psychology*, 92, 208–231.
- Crandall, C. S. (1991). AIDS-related stigma and the lay sense of justice. *Contemporary Social Psychology*, 15, 66–67.
- Drachmann, A. B. (1922). *Atheism in Pagan antiquity*. Whitefish, MT: Kessinger Publishing.
- Edgell, P., Gerteis, J., & Harmann, D. (2006). Atheists as "other": Moral boundaries and cultural membership in American society. *American Sociological Review*, 71, 211–234.
- Friends General Conference (n.d.). *Frequently asked questions about Quakers*. Retrieved February 5, 2015, from <http://www.fgcquaker.org/explore/faqs-about-quakers>
- Freeman, J. B., Stoller, R. M., Ingbreten, Z. A., & Hehman, E. A. (2014). Amygdala responsivity to high-level social information from unseen faces. *The Journal of Neuroscience*, 34, 10573–10581.
- Gervais, W. M., Shariff, A. F., & Norenzayan, A. (2011). Do you believe in atheists? Distrust is central to anti-atheist prejudice. *Journal of Personality and Social Psychology*, 101, 1189–1206.
- Greenberg, J., & Kosloff, S. (2008). Terror management theory: Implications for understanding prejudice, stereotyping, intergroup conflict, and political attitudes. *Social and Personality Psychology Compass*, 2, 1881–1894.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of the need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189–212). New York, NY: Springer-Verlag.

- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veedor, M., Kirkland, S., & Lyon, D. (1990). Evidence for terror management II: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview. *Journal of Personality and Social Psychology*, 67, 627–637.
- Greenberg, J., Pyszczynski, T., Solomon, S., Simon, L., & Breus, M. (1994). Role of consciousness and accessibility of death-related thoughts in mortality salience effects. *Journal of Personality and Social Psychology*, 67, 627–637.
- Greenberg, J., Schimel, J., Martens, A., Pyszczynski, T., & Solomon, S. (2001). Sympathy for the devil: Evidence that reminding whites of their mortality promotes more favorable reactions to white racists. *Motivation and Emotion*, 25, 113–133.
- Hammer, J. H., Cragun, R. T., Hwang, K., & Smith, J. M. (2012). Forms, frequency, and correlates of perceived anti-atheist discrimination. *Secularism & Nonreligion*, 1, 43–67.
- Hayes, J., Schimel, J., Arndt, J., & Faucher, E. H. (2010). A theoretical and empirical review of the death-thought accessibility concept in terror management research. *Psychological Bulletin*, 136, 699–739.
- Johnson, D. D., & Bering, J. M. (2006). Hand of God, mind of man: Punishment and cognition in the evolution of cooperation. *Evolutionary Psychology*, 4, 219–233.
- Jones, J. M. (2012). Atheists, Muslims see most bias as presidential candidates: Two-thirds would vote for gay or lesbian. Based on June 7–10, 2012 Gallup poll. *Gallup News Service*. Retrieved from <http://www.gallup.com/poll/155285/Atheists-Muslims-Bias-Presidential-Candidates.aspx>
- Lambert, A. J., Eadeh, F. R., Peak, S., Scherer, L. D., Schott, J. P., & Slochower, J. M. (2014). Toward a greater understanding of the emotional dynamics of the mortality salience manipulation: Revisiting the “affect-free” claim of terror management research. *Journal of Personality and Social Psychology*, 106, 655–678.
- McGregor, H., Lieberman, J. D., Solomon, S., Greenberg, J., Arndt, J., Simon, L., & Pyszczynski, T. (1998). Terror management and aggression: Evidence that mortality salience motivates aggression against worldview-threatening others. *Journal of Personality and Social Psychology*, 74, 590–605.
- Nelson, S. (2008). Feeling thermometer. In P. Lavrakas (Ed.), *Encyclopedia of survey research methods*. (p. 277). Thousand Oaks, CA: Sage.
- Norenzayan, A., & Shariff, A. F. (2008). The origin and evolution of religious prosociality. *Science*, 322, 58–62.
- Pew Research Center. (2012). “Nones” on the rise: One-in-five adults have no religious affiliation. Retrieved from <http://www.pewforum.org/files/2012/10/NonesOnTheRise-full.pdf>
- Pickel, G. (2012). *Religion monitor: Understanding common ground – An international comparison of religious belief*. Gütersloh, Germany: Bertelsmann Stiftung. Retrieved from http://www.religionsmonitor.de/pdf/Religionsmonitor_IntVergleich_Englisch.pdf
- Rappaport, R. A. (1999). *Ritual and religion in the making of humanity*. Cambridge, England: Cambridge University Press.
- Schimel, J., Hayes, J., Williams, T., & Jahrig, J. (2007). Is death really the worm at the core? Converging evidence that worldview threat increases death-thought accessibility. *Journal of Personality and Social Psychology*, 92, 789–803.
- Schimel, J., Simon, L., Greenberg, J., Pyszczynski, T., Solomon, S., Waxmonsky, J., & Arndt, J. (1999). Stereotypes and terror management: Evidence that mortality salience enhances stereotypic thinking and preferences. *Journal of Personality and Social Psychology*, 77, 905–926.
- Shariff, A. F., & Norenzayan, A. (2007). God is watching you: Priming God concepts increases prosocial behavior in an anonymous economic game. *Psychological Science*, 18, 803–809.
- Vaes, J., Heflick, N. A., & Goldenberg, J. L. (2010). “We are people”: Ingroup humanization as an existential defense. *Journal of Personality and Social Psychology*, 98, 750–760.
- Watson, D., & Clark, L. A. (1994). *The PANAS-X: Manual for the positive and negative affect schedule—Expanded form*. Iowa City: University of Iowa.
- WIN-Gallup International. (2012). *Global index of religiosity and atheism*. Retrieved from <http://www.wingia.com/web/files/news/14/file/14.pdf>

Author Biographies

Corey L. Cook received his PhD from the University of Florida and currently teaches at the University of Washington, Tacoma. His research focuses on the effects of threat perception on social cognition and behavior.

Florette Cohen is an experimental social psychologist at CUNY College of Staten Island with an emphasis on stereotypes, prejudice, and social perception.

Sheldon Solomon is an experimental social psychologist at Skidmore College.