To be or not to be tolerant? A Terror Management perspective exploring the ideological dilemma of tolerance and prejudice

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Tolerance has been identified as a way to reduce prejudice. However, tolerance has also been posited as an ideological dilemma and may have its limits. The present research explores this idea, utilizing insights from Terror Management Theory. Three studies were conducted using online samples. Study 1 found that a tolerance prime led to less discrimination towards Muslims after being reminded of death, but increased discrimination when reminded of terrorism. Additionally, tolerance did not affect levels of affective prejudice. Study 2 found that reading an essay that threatened the norm of tolerance led to increased levels of death-thought accessibility and worldview defence, particularly amongst liberal participants. Study 3 found that a tolerance prime attenuated mortality salience decreasing support for author rights, but not if the worldview critic was intolerant. Taken together, the present findings suggest that using tolerance to reduce prejudice and foster more positive intergroup relations has its boundaries. If others are perceived to not be tolerant themselves, then people may be more motivated to defend, rather than uphold the norm of tolerance.

Despite efforts to improve attitudes towards different groups, prejudice is an ongoing societal problem. In the case of anti-Muslim prejudice, this has been rising since 9/11 (Sheridan, 2006; Sheridan & Gillett, 2005). Scholars have often posited that having people embrace prosocial norms, such as tolerance, may be a fruitful way to reduce prejudice.

However, tolerance has been described as an ideological dilemma (Billig et al., 1988), as it involves supporting the rights of others even if one is not favourable towards them (Robinson, Witenberg, & Sanson, 2001; Sullivan & Transue, 1999). Moreover, while one may embrace tolerance as a value, it is not necessarily without its limits. There may be certain ‘thresholds of tolerance’ which, when crossed, renders intolerance acceptable towards certain groups (Richardson, 2009). As such, tolerance may not always be the panacea to intergroup hostility and prejudice. The present research aims to consider the boundaries of tolerance on reducing prejudice, utilizing insights from Terror Management Theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986), which we argue can offer valuable insight into how tolerance relates to prejudice.
The paradox of tolerance

Research has often focused on how support for tolerance may lead to more acceptance of others. It is well established that individuals who support the value of tolerance tend to have more positive attitudes towards out-groups and are willing to support the rights of others (e.g., Sagiv & Schwartz, 1995; Smeekes, Verkuyten, & Poppe, 2012; van der Noll, Poppe, & Verkuyten, 2010). This corresponds with theoretical analyses that suggest universalism values (such as tolerance) may be the ‘antidote’ to prejudice (Biernat & Vescio, 2005). As such, one strategy to reduce prejudice is to emphasize tolerance as a key in-group norm. For example, Dutch participants who strongly endorsed tolerance, or were reminded of this norm, showed greater willingness to support the rights of Muslims (Smeekes & Verkuyten, 2014; Smeekes et al., 2012).

However, the expression of tolerance and its influence upon intergroup relations may not necessarily be straightforward. Tolerance can be considered an ideological dilemma, because it entails supporting the rights of others even if one does not like them (Billig et al., 1988; Robinson et al., 2001; Sullivan & Transue, 1999). This suggests that tolerance may be more appropriate for tackling discrimination towards other groups, rather than affective components of prejudice.

Research exploring the impact of tolerance on reducing prejudice has generally deployed measures that, in our view, tackle more discriminatory components of prejudicial behaviour such as willingness for contact with other groups (Sagiv & Schwartz, 1995) or support for the rights of others (Smeekes & Verkuyten, 2014; Smeekes et al., 2012), rather than affective markers of prejudice. Consequently, this work is limited in understanding whether tolerance can reduce prejudice across a range of prejudicial markers. Our analysis of tolerance as an ideological dilemma (Billig et al., 1988) would suggest that prejudiced attitudes and tolerance can co-exist and that in some cases behaving tolerantly may be endorsed begrudgingly.

Supporting this idea, van der Noll et al. (2010) found that while prejudiced individuals did tend to show less tolerance than their non-prejudiced counterparts, approximately a third of their participants could be classified as tolerant, yet harbouring prejudicial feelings. Similarly, research also suggests that anti-discriminatory norms (a concept similar to tolerance) may reduce explicit bias amongst children, but does not affect their implicit biases (Rutland, Cameron, Milne, & McGeorge, 2005; see also Dambrun & Guimond, 2004). While implicit attitudes are not the focus of this research, it nonetheless provides support for the idea that prosocial norms may have limits to their effect on reducing some types of prejudicial attitudes.

People may also only support and behave in keeping with tolerance up to a certain point. While people tend to develop moral values that govern interactions with others, these are malleable and do not have to be obeyed uncritically (Kohlberg, 1981). For example, there is often a mismatch between the extent to which people claim to support the civil rights of others, and how much they actually apply them to certain groups (Lawrence, 1976). More recently, perspectives on ideological reasoning suggest that violations of one’s cherished values can result in discrimination, even if those values imply one should not engage in discrimination (Wetherell, Brandt, & Reyna, 2013).

To some extent, the willingness to express tolerance might depend on whether one perceives the out-group as threatening. For example, research suggests threat perception and tolerance towards particular groups are inversely related (Lawrence, 1976; Van der Noll et al., 2010). The present analysis proposes that the willingness to behave tolerantly may depend on whether other groups are thought to be tolerant themselves. As such, when other groups are thought not to reciprocate or endorse tolerance, people may
choose to behave *intolerantly* towards them and engage in discriminatory practices in defence of this norm.

A prominent example of this may concern perceptions of Islamic-related terrorism and responses towards Muslims. Muslims are often positioned as being intolerant of others’ practices, beliefs, and traditions (Abbas, 2007; Ansari, 2004), with Islamic-related terrorism heightening the endorsement of such views. Moreover, in the UK, media reporting of British tolerance has often been contrasted with Muslim intolerance (Ahmed & Matthes, 2017; Poole, 2011; Saeed, 2007). This positions Muslims as a symbolic threat to essential British values (Jaspal & Cinnirella, 2010). Media reporting also suggests that Muslims, and their practices, are tolerated up to a certain point, but once this ‘threshold of tolerance’ is exceeded, it becomes acceptable for tolerant individuals to behave intolerantly towards Muslims (Richardson, 2009).

Indirect evidence for the withdrawal of moral norms comes from cross-sectional data taken just before and after the July 7 London Underground bombings (Van de Vyver, Houston, Abrams, & Vasiljevic, 2016). It was found that liberals (who generally support the norm of tolerance) were more likely to support equal rights for groups in society before the bombings than their conservative counterparts. However, after the bombings, there was no difference between liberals and conservative participants. While not the only explanation, this might suggest that the terror event served as a reminder of perceived Muslim intolerance, leading individuals who generally support the norm of tolerance to withdraw it.

**Terror Management Theory**

The present research aims to utilize insights from TMT (Greenberg *et al*., 1986) to further understand the boundaries of tolerance. TMT asserts that the human awareness of death engenders some uniquely human existential concerns. These concerns are managed by investment in worldviews that provide a sense of meaning and standards of conduct that that, if lived up to, can provide a sense of self-worth. The key goal according to TMT is to transcend death itself, whether literally or symbolically.

Support for TMT comes from the mortality salience (MS) hypothesis (Burke, Martens, & Faucher, 2010) that suggests that if a psychological structure buffers from the awareness of death, then reminders of death should heighten the need for that psychological structure. Considerable evidence supports this hypothesis, with research indicating that when primed with MS, people tend to derogate and increase prejudice towards culturally different others (e.g., Das, Bushman, Bezemer, Kerkhof, & Vermeulen, 2009; Greenberg *et al*., 1990). Furthermore, threatening one’s worldview can increase the accessibility of death-related constructs (Schimel, Hayes, Williams, & Jahrig, 2007).

While hostility and prejudice towards those who are different might be a common response after MS, TMT is consistent with the current analysis that proposes that reactions towards others depend on what is promoted within one’s worldview. This is because TMT suggests that people need to adhere to the standards of conduct espoused by their worldview in order to manage death-related concerns (Jonas & Fritsche, 2013). Therefore, if one’s worldview promotes prosocial norms such as tolerance, then people should be more likely to follow these norms when reminded of death. For example, it has been shown that reminders of egalitarianism (Gailliot, Stillman, Schmeichel, Maner, & Plant, 2008) and fairness (Jonas, Sullivan, & Greenberg, 2013) reduce defensiveness after MS. Moreover, Greenberg, Simon, Pyszczynski, Solomon, and Chatel (1992) found that liberals
did not respond to MS with increased derogation of others. In a second study, American participants who were reminded of tolerance did not derogate an anti-US author after MS.

It is worthwhile noting that efforts to adhere to or defend one’s worldview may sometimes be inherently dilemmatic. MS might arouse efforts to bolster one’s worldview through derogation of those who criticize it or subscribe to alternative worldviews. At the same time, it also arouses desire to align closely to the norms that one’s worldview promotes. In the case of tolerance, this norm may propose worldview-bolstering strategies that involve derogation of other’s beliefs as problematic. While research has shown that liberals respond to MS with greater acceptance of others (Greenberg et al., 1992), other research also demonstrates that they might display increased aggression after MS (McGregor et al., 1998). The idea that MS can promote such seemingly contradictory responses has been criticized as unfalsifiable (Martin & Van den Bos, 2014), and it would be useful for research to identify when one strategy will be adopted over the other (Pyszczynski, Solomon, & Greenberg, 2015).

As we have outlined, people who support tolerance may not always behave in ways that imply tolerance, particularly towards groups that transgress cherished values. Therefore, while tolerance might reduce defensiveness after MS, as people seek to adhere to the norms that their worldviews espouse, such an effect is contingent upon whether the other group does not threaten said norm (cf. Dechesne et al., 2003). In other words, reminders of death should lead to individuals behaving in line with salient worldview norms. However, if such a norm is threatened, such as might be the case with terrorist events, then this should instead lead to individuals defending their worldviews by engaging in discriminatory tendencies towards those that are perceived to pose a threat to this norm.

Similar to this line of reasoning, evidence shows that when state self-esteem is bolstered, defensive reactions towards others are reduced after MS (e.g., Harmon-Jones et al., 1997). However, if the domain of self-esteem that is bolstered is subsequently called into question, then this produces a contingency effect, which increases defensiveness (Arndt & Greenberg, 1999). To our knowledge however, no research has examined whether prosocial norms can produce different responses (e.g., adherence or defence) after MS depending on whether said norms are threatened.

The present research
In summary, the present research aims to explore the ideological dilemma of tolerance (Billig et al., 1988), by investigating the degree to which it could have either positive or negative effects on intergroup relations depending on the context. Utilizing insights from TMT (Greenberg et al., 1986), we have delineated a case that the norm of tolerance may produce less discrimination towards an out-group, but only if tolerance is not considered to be threatened by said out-group. We conducted three studies to explore these ideas.

STUDY 1
Study 1 focused on the case of terrorism and attitudes towards Muslims, providing a contemporary application of the research aims. Participants were reminded of tolerance

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1 This is not to be confused with trait self-esteem that influences responses to MS differently than bolstering state self-esteem (see Juhl & Routledge, 2016).
via a historical passage about Britain (vs. control). They then watched either a news clip that exposed them to death (MS), terrorism (TS), or a control news clip. After completing these tasks, participants were asked to indicate their affective prejudice towards Muslims (feeling thermometer), and discriminatory tendencies towards Muslims (support for Muslim rights and contact intentions).

Our hypotheses were as follows: (1) When reminded of tolerance, MS should reduce discrimination towards Muslims, but TS would heighten discrimination towards Muslims; (2) tolerance would not affect prejudicial feelings towards Muslims after reminders of death.

Method

Participants
One hundred and seventy-eight participants were recruited from the online platform Figure Eight. Participants were paid $0.40 for taking part. The sample size was determined by aiming to recruit as many participants as possible with the resources that were available. Twelve participants were removed for not meeting the sample inclusion criteria (six Not British, six identified as Muslim). A further 17 participants were removed for the following reasons: (1) 10 participants did not complete all the measures in the study; (2) six participants did not respond to the manipulation check regarding the video or historical passage; (3) one participant’s answers to the manipulation checks indicated that they did not take the study seriously. This left a final sample of 149 participants (M_{age} = 37.34, SD_{age} = 11.39), with 73 males and 76 females. Participants were randomly allocated to six independent cells – TS/Tolerance (n = 26), TS/No Tolerance (n = 26), MS/Tolerance (n = 26), MS/No Tolerance (n = 23), Control/Tolerance (n = 24), and Control/No Tolerance (n = 24).

Materials and procedure
The survey was pitched as an exploration of national history and the perception of social groups. Participants first completed some basic demographic information and pre-measures before continuing to the main part of the study.

Participants were informed they would take part in a writing task about national history. The task was adapted from Smeekes and Verkuyten (2014, study 3). Participants were randomly assigned to read a passage regarding tolerance as a British historical value, or the invention of the telephone (control group). After reading this passage, participants were asked to briefly write about why the maintenance of tolerance as a value is important to the meaning of British culture. Those in the control condition were asked to briefly write about why the telephone was an important historical invention.

After the writing task, participants were informed they would watch a short video (<4 min) concerning national history. This acted as the death salience manipulation.

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2 As this study follows on closely from previous research (Smeekes et al., 2012; Smeekes & Verkuyten, 2014), the study also included a measure of British identification, and an additional condition concerning how Christian historical representations of Britain may affect support for Muslim rights. However, there was no effect of this condition, or interaction with death salience. This might be because many responses to the Christian passage indicated that they rejected the importance of maintaining Christian culture within Britain. Moreover, British identity did not interact with death salience. For parsimony, we present the findings with these excluded as these issues are not central to the paper’s aims of understanding tolerance. These exclusions do not affect the primary findings.

3 Inclusion of these seven participants does not affect the study findings.
Participants either watched a short television news clip concerning the 7/7 London Underground bombings (TS), the death of Princess Diana (MS), or Andy Murray winning the Wimbledon tennis championship (control). This was selected as a control video to parallel any increase in British identity that may be caused by being reminded of death (Castano, Yzerbyt, Paladino, & Sacchi, 2002). On the next page, participants were asked to briefly describe their thoughts and feelings on what they had just watched. After completing both experimental tasks, participants were then presented with the dependent measures of the study.

Measures
A single-item feeling thermometer was taken to assess participant’s feelings towards Muslims (Velasco-González, Verkuyten, Weesie, & Poppe, 2008). Responses were provided on an 11-point Likert scale ranging from ‘Intensely cold or unfavourable feeling’ (1) to ‘Intensely warm or favourable feeling’ (11). We used a five-item scale of Support for Muslim Rights adapted from previous research to be suitable for a British audience (Smeekes & Verkuyten, 2014; Smeekes et al., 2012). A sample item is as follows: ‘The right to establish Islamic schools should always exist in Britain’. These were assessed on a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7); therefore, a higher score reflects increased support for Muslim rights ($\alpha = .80$).

Lastly, we measured contact intentions towards Muslims with five items (Velasco-González et al., 2008). A sample item is as follows: ‘I would be happy to have Muslims as next-door neighbours’. These items were again assessed on a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7), and therefore, a higher score reflects increased desire for contact with Muslims ($\alpha = .91$).

After completing these measures, participants were subsequently debriefed and received payment for participation.

Results
We submitted our data to 3 (Death Salience: TS vs. MS vs. Control) x 2 (Tolerance: Yes vs. No) ANOVAs with the dependent measures being feeling thermometer ratings towards Muslims, support for Muslim rights, and contact intentions towards Muslims. We report the findings of each analysis below.

Feeling thermometer
The analysis exploring prejudicial feelings towards Muslims showed only a main effect of death salience, $F(2, 143) = 5.77, p = .004, \eta^2 = .08$. Planned comparisons showed that both TS ($M = 5.35, SD = 2.76, p = .001, d = .65, 95\% CI [0.63, 2.55]$) and MS ($M = 5.71, SD = 2.38, p = .015, d = .55, 95\% CI [0.24, 2.19]$) decreased feelings towards Muslims relative to the control news clip ($M = 6.94, SD = 2.08$). No other effects were statistically significant ($p$’s > .10).

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4 This study also included a behavioural measure that we were pre-testing that involved providing participants with a mini ‘debrief’ with information about reducing prejudice towards Muslims. Measures assessing how long participants spent on this page, or whether they clicked a link to a Muslim charity website, did not produce reliable effects. All participants were fully debriefed after this page.
**Muslim rights**

The analysis exploring support for Muslim Rights suggested there was no effect of tolerance ($F < 1, p > .50$), and a marginal main effect of death salience, $F(2, 143) = 2.90, p = .058, \eta^2 = .04$. This was qualified by a two-way interaction between death salience and tolerance, $F(2, 143) = 5.57, p = .005, \eta^2 = .07$.

We explored this interaction by running three independent $t$-tests assessing the effect of tolerance by each level of the death salience condition (see Table 1 for descriptive statistics). There was a significant effect of tolerance on Muslim rights after MS, $t(47) = 2.09, p = .042, d = .60, 95\% CI (0.02, 1.24)$, with tolerance increasing support for Muslim rights. As predicted, the effect of tolerance on Muslim rights after TS was also significant, $t(47) = 2.35, p = .023, d = .65, 95\% CI (0.13, 1.64)$, with tolerance decreasing support for Muslim rights. There was no effect of tolerance in the control group ($t < 1, p > .10$). Looked at differently, there was only an effect of death salience when exposed to the tolerance prime, $F(2, 73) = 7.66, p = .001, \eta^2 = .17$, but no effect of death salience when not exposed to tolerance ($F < 1, p > .50$). When exposed to tolerance, TS significantly decreased support for Muslim Rights relative to the control group ($p = .013, d = .72, 95\% CI [−1.58, −0.20]$) and the MS group ($p < .001, d = .98, 95\% CI [−1.98, −0.62]$). Though support for Muslim Rights in the MS group was higher when primed with tolerance, this did not significantly differ from the control group ($p = .234, d = .38, 95\% CI [−0.28, 1.10]$).

**Contact intentions**

The analysis on contact intentions demonstrated a marginal effect of death salience on contact intentions, $F(2, 143) = 2.28, p = .106, \eta^2 = .03$. Comparisons revealed that TS ($M = 4.20, SD = 1.81$) marginally decreased desire for contact with Muslims in comparison with the control group ($M = 4.72, SD = 1.08, p = .080, d = .35, 95\% CI [−1.10, 0.06]$) and the MS group ($M = 4.77, SD = 1.38, p = .059, d = .35, 95\% CI [−1.13, 0.02]$). MS and the control group did not differ from each other ($p > .10$). There was no effect of tolerance ($F < 1, p > .50$), and the interaction between tolerance and death salience also did not reach significance ($p > .25$).

However, we nonetheless broke down this interaction to examine the data in more detail. Examining the effect of death salience by whether participants were primed with tolerance or not, yielded a significant effect of death salience for participants who were primed with tolerance, $F(2, 73) = 3.53, p = .034, \eta^2 = .09$. There was no effect of death salience when participants were not primed with tolerance ($F < 1, p > .50$). Comparisons showed that participants in the TS condition showed less desire for contact with Muslims than those exposed to MS ($p = .027, d = .57, 95\% CI [−1.67, −0.10]$) or those exposed to the control news clip ($p = .022, d = .63, 95\% CI [−1.73, −0.14]$). The MS and control group did not differ ($p > .50$). We also probed the data by exploring the effect of tolerance at each level of death salience, though none of the effects were significant ($p’s > .10$). The descriptive statistics are presented in Table 2 below.

|                  | Terrorism | Mortality salience | Control  |
|------------------|-----------|--------------------|----------|
| No tolerance     | 4.21b (1.27) | 3.99a (0.89)       | 4.08a (1.09) |
| Tolerance        | 3.32a (1.44) | 4.62b (1.19)       | 4.21a,b (0.97) |

Note. Standard deviations are given in parentheses. Means that do share a subscript differ at $p < .05$. Higher scores reflecting higher support for Muslim Rights.
Discussion

The study showed that tolerance can lead to both supportive and unsupportive responses towards Muslims, depending on whether participants were reminded of death or Islamic terrorism. More specifically, for those who were primed with MS, tolerance led to increases in support for Muslim Rights, while those in the TS group displayed intolerance by decreasing support for Muslim Rights. Moreover, while tolerance did influence responses to supporting the rights of Muslims, it did not influence affective prejudice towards them. This study therefore provides initial support for our proposal that tolerance has its limits as a prejudice reduction strategy, and support for the argument that tolerance presents an ideological dilemma (Billig et al., 1988). The study also provides insight into when one might choose to adhere to or defend one’s worldview after being reminded of death, by suggesting that prosocial norms may attenuate defensiveness, but only if they are not called into question.

We should note, however, that the findings are not entirely consistent with our predictions and past TMT research. Firstly, while priming tolerance did increase support for Muslim rights in the MS group, there was little evidence of worldview defence when not primed with tolerance. We suspect that this difference might reflect how past research has generally had participants read an essay that threatens their worldview (e.g., Greenberg et al., 1992). In our study, participants did not have their worldviews threatened. As our analysis implies that responses to MS are contingent on whether one’s worldview is threatened or not (cf. Dechesne et al., 2003), it is questionable whether we should have even observed a decrease in Muslim Rights after MS in the present study.

Secondly, concerning the desire for contact measure, the findings were only partially supportive of our predictions. TS decreased desire for contact with Muslims, particularly when people were first reminded of the norm of tolerance. However, there was no evidence that MS influenced people’s desire for contact, regardless of whether they were given the tolerance prime or not. This might reflect that the TS news clip was more potent than the MS news clip. It might also reflect downstream effects whereby once an individual has been offered the opportunity to bolster or defend their worldview, it reduces the need for further buffering strategies (e.g., Hayes, Schimel, & Williams, 2008). As we did not counterbalance the order of the measures, this might explain why we found the strongest and most reliable effects on the first two measures. Regardless, as our main focus concerns the effects of TS and tolerance on affective prejudice and discrimination towards Muslims, the study provides support for our predictions across all measures.

STUDY 2

While Study 1 provides initial support for our analysis, there may be alternative explanations for this effect. One limitation of this study is that we inferred a threat to
tolerance via a terrorism reminder. Terrorism constitutes a threat to a multitude of worldview values other than tolerance, so it is difficult to discern whether such findings reflect a threat to tolerance or some other value, or indeed a threat to multiple values. If our findings are the result of tolerance being threatened, then according to the death thought accessibility (DTA) hypothesis (Schimel et al., 2007), exposure to worldview threatening information regarding tolerance should increase levels of DTA. DTA should also mediate the relationship between threat and worldview defence (Vail, Arndt, Motyl, & Pyszczynski, 2012). Moreover, to demonstrate the generalizability of this effect, this study focused on a more general threat to tolerance, rather than a specific one that emanates from terrorism or a particular out-group.

**Method**

**Participants**

We recruited participants via Figure Eight. Participants were paid $0.40 for taking part. We conducted an a-priori power analysis to determine our sample size. According to a recent meta-analysis of DTA studies (Steinman & Updegraff, 2015), worldview threat studies produce a moderate effect size ($hedges' g = .54$). Using this effect size as a basis, a power analysis suggested 44 participants per cell would be required to detect an effect at 0.8 power. To ensure our analysis would still be sufficiently powered after removal criteria were applied, we aimed to recruit 50 participants per cell.

Eleven participants were subsequently excluded on the following criteria: (1) five participants did not complete all the study measures; (2) one participant did not sufficiently complete the word-stem task; and (3) five participants failed to recall the topic of the essay. As such, the final sample consisted of 89 participants ($M_{age} = 44.79$, $SD_{age} = 12.90$), with 29 males and 59 females (one participant did not provide this information).

**Materials and procedure**

The study was pitched as an exploration of personality and social attitudes. Participants first completed a filler personality measure in line with the cover story. Subsequently, they were allocated to read a short essay that they were informed was randomly selected from a pool of essays written by students at the university. Participants either read an essay that supported the importance of tolerance in society (worldview affirmation) or threatened the importance of tolerance in society (worldview threat).

Immediately afterwards, participants completed a word-stem task that measured levels of DTA (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994). This word-stem task included eight word-stems (dead, corpse, grave, fatal, skull, mortal, buried, murder) that could be completed in a death-related or neutral-related manner (e.g., SK _ _ L could be skill or skull). An additional 24 neutral word-stems were included to mask the aim of the task.

After completing this task, participants were then asked to briefly recall the main points of the essay and then evaluate the author of the essay on a 5-item scale that is traditionally used as a measure of worldview defence (e.g., Greenberg et al., 1992). Responses were provided on a 7-point Likert scale ranging from (1) strongly disagree to (7)

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5 The removal of these participants does not change the results.
strongly agree, and thus, higher scores reflect more positive evaluations of the author ($\alpha = .96$).

Finally, participants were asked to provide some brief demographic information including their political orientation (7-point Likert scale with higher scores reflecting a more conservative ideology).

**Results**

**Death thought accessibility**

We first conducted an independent $t$-test on the effect of worldview threat on DTA. As predicted, there was an effect of worldview threat on DTA, $t(87) = 2.11, p = .038$, $d = .45$, 95%CI (0.03, 1.11). Those exposed to the tolerance threat essay demonstrated higher levels of DTA (see Table 3 for descriptive statistics).

**Mediation analysis**

We next explored whether DTA would mediate the link between threat and author evaluation. An independent $t$-test confirmed that the threatening essay decreased evaluations of the author, $t(77.73) = 9.21, p < .001$, $d = 1.92$, 95%CI (2.01, 3.12)⁶ (see Table 3 for descriptive statistics). Moreover, DTA and author evaluation were correlated ($r = -.26, p = .013$) providing some grounds to suspect that mediation may be occurring.

PROCESS, a plugin tool for SPSS, was used to determine whether DTA mediated threat and author evaluation, selecting Model 4 and 5,000 bootstrapped samples (Hayes, 2017). Model 4 allows for the basic test of whether the effect of an independent variable on an outcome variable is mediated by a third variable (in this case worldview threat DTA author evaluation). This demonstrated that while DTA was correlated with defence, evidence of mediation did not reach statistical significance ($b = -.10$, 95%CI: −0.28, 0.02).

**Political orientation**

To understand our findings further, we investigated whether political orientation might qualify the effect of tolerance threat on DTA and author evaluations. As liberals tend to hold the value of tolerance as more central to their worldview, they might have found such information to be more threatening, thus exhibiting higher levels of DTA and defence.

To examine this, we ran moderated regressions using PROCESS model 1 (Hayes, 2017), which allows for a test of the interaction between Threat $\times$ Political orientation. DTA and

| Table 3. Means and standard deviations (given in parentheses), for levels of death thought accessibility (DTA) and worldview defence after reading an essay regarding tolerance |
|---------------------------------|-----------------|
| Tolerance affirmation | Tolerance threat |
|-----------------------|-----------------|
| DTA                   | $2.07_{a}$ (1.17) | $2.65_{b}$ (1.36) |
| Author evaluation     | $5.84_{a}$ (0.96) | $3.28_{b}$ (1.63) |

Note. Means between columns that do share a subscript differ at $p < .05$. Higher scores reflecting higher levels of DTA and more positive evaluations of the author.

⁶ The assumption of homogeneity of variance was violated for this test.
author evaluation were entered as dependent variables. Tolerance threat was coded as $-1$ (affirmation) and $+1$ (threat), and political orientation was centred.

For DTA, the Threat × Political orientation interaction was approaching significance, $\beta = -.15$, $t(89) = 1.85, p = .067, 95\% CI (-0.31, 0.01)$. Simple slope analyses plotted at high (+1 SD) and low ($-1$ SD) levels of political orientation suggested that liberals, $\beta = .54$, $t(89) = 2.81, p = .006, 95\% CI (0.16, 0.92)$ demonstrated higher levels of DTA when exposed to the tolerance threat (see Figure 1). This was not the case for conservative participants ($p > .50$). Looked at differently, in the tolerance affirmation condition there was a trend towards liberal participants having decreased DTA, $\beta = .15, t(89) = 1.32, p = .188, 95\% CI (-0.08, 0.39)$, and in the tolerance threat condition, there was a trend towards liberal participants having increased DTA, $\beta = -.14, t(89) = 1.30, p = .198, 95\% CI (-0.36, 0.07)$.

Similar results were identified for the analysis concerning author evaluation (see Figure 2). The Threat × Political orientation interaction was significant, $\beta = .21$, $t(89) = 2.53, p = .013, 95\% CI (0.05, 0.38)$. The effect of tolerance threat on decreasing author evaluation was considerably stronger amongst liberal participants, $\beta = -1.63$, $t(89) = 8.24, p < .001, 95\% CI (-2.03, -1.24)$ than conservative participants, $\beta = -.92$, $t(89) = 4.67, p < .001, 95\% CI (-1.51, -0.53)$. Looked at differently, liberal participants rated the author more negatively than conservative counterparts when exposed to tolerance threat, $\beta = .33, t(89) = 2.85, p = .005, 95\% CI (0.10, 0.55)$. There was no

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**Figure 1.** Effect of experimental manipulation on death thought accessibility (DTA) plotted at low ($-1$ SD) and high ($+1$ SD) levels of political orientation.
relationship of political orientation on evaluations of the author when exposed to the tolerance affirmation ($p > .40$).

We also re-examined whether DTA mediated the threat-defence link by including political orientation as a moderating variable. However, there was still no support for DTA mediating this link, as bootstrap analyses had confidence intervals that included zero.

**Discussion**

Study 2 provides additional evidence for the idea that there may be boundaries to the norm of tolerance. First, the study demonstrates that tolerance serves an anxiety-buffering function, as threats to this norm increased DTA. If threats to tolerance are sufficient to arouse DTA, then according to TMT, this may also arouse defence of such a norm, even if the norm suggests that one should not act defensively. Supporting this idea, Study 2 also demonstrated that participants were more likely to derogate the author that threatened tolerance. This was particularly the case amongst liberal participants, who generally hold this norm as central to their worldview. Liberal participants showed higher levels of DTA and defensiveness towards the author when exposed to the tolerant threat essay.

However, while DTA was associated with levels of defence, we were unable to identify evidence of DTA mediating threat and defence (Vail *et al.*, 2012). We can think of at least two possibilities for this. Firstly, the effect of the tolerance threat on defence was so large
that while DTA may have mediated this link, it was unable to reach statistical significance in the presence of the experimental manipulation. Perhaps a subtler worldview threat may have produced more reliable effects. Secondly, measuring DTA may have produced downstream effects on the worldview defence measure. For example, Hayes and Schimel (2018) found that measuring DTA can elicit defence, and also obscure observation of defence after MS. If the word-stem task can act as a subtle form of MS, then this may increase measurement error in being able to identify the mediation chain.

STUDY 3

Studies 1 and 2 provide converging support for the prediction that tolerance may produce intolerant responses when the norm of tolerance is threatened. To further support our hypothesis, we sought to address some of the limitations of Study 1. Firstly, the study utilized videos as a way of inducing death thoughts. While such methods have been used before (e.g., Das et al., 2009), it is possible that one video was more effective at priming death thoughts than the other. Therefore, we opted to use a traditional method of manipulating MS. Second, the use of videos was not just intended to induce death thoughts but also prompt a threat to tolerance via terrorism. Manipulating two things in one independent variable does not allow for a sufficient disentanglement of the relative effects of death thoughts and tolerance threat. Thus, we sought to manipulate tolerance threat separately.

Additionally, Study 1 did not include a delay between the death reminder and dependent variable, something that is often utilized in TMT research to ensure proximal defences have subsided (Pyszczynski, Greenberg, & Solomon, 1999). We opted not to include a delay in the first study because prior evidence using terrorism news reporting suggests that it heightens DTA immediately (Das et al., 2009). Nonetheless, it is possible that the findings for the affective prejudice and discrimination measure reflect a difference between proximal and distal defences being engaged, as participants always completed the affective prejudice measure first. Thus, in this study we measured both variables after a delay.

An online study was conducted that primed participants for tolerance (vs. no tolerance). Participants were then given the MS manipulation (vs. dental pain; DP), and after a delay, asked to read one of two worldview-threatening essays. These essays differed in how tolerant the author was when criticizing one’s worldview. Measures assessing participant’s affective responses to the essay author and willingness to support the rights of the author were taken. We predicted that for those not given the tolerance prime, MS would decrease support for both essays. For those given the tolerance prime, we predicted that MS would only lead to less support for the author of the intolerant essay. Moreover, we further predicted that tolerance would not influence affective attitudes towards the author.

Method

Participants

Participants were recruited via Amazon MTurk and were paid $0.80 for taking part. According to a meta-analysis (Burke et al., 2010), MS produces moderate-large effects ($d = .75$). To identify the simple effect of MS leading to derogation of the intolerant author when also primed with tolerance, a power analysis specifying 80% power (two-tailed test,
$d = .075$, $\alpha = .050$) suggested that 29 participants per cell (e.g., $N = 232$) would be sufficient to detect such an effect. However, we saw this as a minimum number of participants to recruit and attempted to obtain as many as possible with the available resources, to ensure that the study would still be sufficiently powered after exclusion criteria were applied.

Three hundred and nineteen participants were recruited for this study, though only 280 participants completed all the study materials. Thirty-seven participants were excluded because their summary to the essay suggested they had not engaged with the essay. Therefore, the final sample consisted of 243 participants ($M_{age} = 34.09$, $SD_{age} = 10.00$). One hundred and fifty-three participants were male, 89 were female and one identified as non-binary. Participants were randomly allocated to eight independent cells – MS/Tolerance/Tolerant Author ($n = 29$), MS/Tolerance/Intolerant Author ($n = 28$), DP/Tolerance/Tolerant Author ($n = 30$), DP/Tolerance/Intolerant Author ($n = 28$), MS/No Tolerance/Tolerant Author ($n = 34$), MS/No Tolerance/Intolerant Author ($n = 29$), DP/No Tolerance/Tolerant Author ($n = 28$), and DP/No Tolerance/Intolerant Author ($n = 36$). Ethical approval was obtained by the College Ethics Committee.

**Materials and procedure**

The study was pitched as an exploration of personality and social attitudes. To keep in line with the cover story, participants first completed some filler measures. Subsequently, participants were randomly allocated to complete one of two ‘Social Attitudes’ surveys that was used in past research to prime for tolerance (Greenberg *et al*., 1992). In the neutral version, participants answered 11 items that include relatively innocuous statements such as ‘Friendship is an important part of life’. For the tolerance condition, six of these statements were replaced with items that espouse the importance of being tolerant, such as ‘Freedom depends on the open expression of ideas’. Participants completed these items on 7-point Likert scales (strongly disagree to strongly agree).

Next, participants were randomly allocated to the MS manipulation that consists of answering either two open-ended questions about one’s own death (e.g., Greenberg *et al*., 1990) or parallel questions about experiencing dental pain. On completion of this manipulation, participants were then asked if they could briefly recall as many items from the social attitudes survey as possible. Participants then completed the 60-item Positive and Negative Affect Schedule Expanded Form (PANAS-X; Watson & Clark, 1991) to ensure thoughts of death had faded from focal attention. As is customary in TMT research, to see whether MS altered levels of affect, we ran analyses on the PANAS-X subscales. None of the effects were statistically significant ($p$’s > .05).

Participants then read an essay criticizing Britain that was ostensibly written by a visitor to the UK and was adapted from prior research (Greenberg *et al*., 1992). We amended these essays to manipulate whether the anti-British author was either tolerant or intolerant in their opinion (see Appendix S1 for the full essays). The tolerant version included statements such as ‘I suppose they are entitled to their own way of living, but I personally don’t agree with it’. The intolerant version included statements such as ‘Britain should do the world a favour and change itself or allow others to change it for them’. All other content between the essays was otherwise identical. A pilot test that assessed the extent to which the authors expressed tolerance when giving their view (7-point Likert scale) suggested that the essays significantly differed from each other, $t(21) = 2.73$, $p = .013$, $d = 1.15$. The intolerant essay ($M = 2.88$, $SD = .99$) was judged to espouse less
tolerance than the tolerant essay \((M = 4.08, SD = 1.09)\). In the main study, participants were briefly asked to summarize the essay before being presented with the dependent measures.

A 5-item measure assessed the extent to which participants supported the rights of the author in expressing their opinion (e.g., ‘the author has a right to his/her opinion’). A 4-item measure was used to assess the participant’s affective attitude towards the author (e.g., ‘I feel favourable towards the author of essay’). Participants completed both measures on 7-point Likert scales ranging from strongly disagree (1) to strongly agree (7). The order in which participants completed these measures was counterbalanced. Finally, participants completed some basic demographic information including their political orientation (7-point Likert scale, higher scores reflect a more conservative ideology).

### Results

#### Preliminary analysis

A factor analysis using varimax rotation on the author rights and affective attitude items supported a two-factor solution. However, one item for author rights cross-loaded on both factors and loaded more strongly on the affective scale, so was discarded. We subsequently created mean scores for support for author rights using the remaining four items \((\alpha = .69)\) and affective attitude towards author \((\alpha = .90)\). Higher scores reflect higher support for author rights or more positive feelings towards the author.

#### Support for author rights

A 2 (Prime: MS vs. DP) × 2 (Tolerance: Yes vs. No) × 2 (Essay: Tolerant vs. Intolerant) ANCOVA was conducted on support for author rights, controlling for political orientation. We opted to control for this to control for individual differences in baseline support for rights, and political orientation was significantly correlated with the author rights measure \((r = -.29, p < .001)\). There was a main effect of MS, \(F(1, 233) = 7.74, p = .006, \eta^2_p = .03\). This was qualified by the predicted three-way interaction that was approaching significance, \(F(1, 233) = 3.02, p = .084, \eta^2_p = .01\).

We probed this interaction by inspecting how the MS and tolerance primes affected responses to each author individually. For the tolerant essay, there was a significant interaction between the tolerance prime and MS on support for author rights, \(F(1, 116) = 5.79, p = .018, \eta^2_p = .05\); see Figure 3. For the intolerant essay, there was only a main effect of MS, \(F(1, 116) = 5.18, p = .025, \eta^2_p = .04\), and the interaction between the tolerance prime and MS was not significant \((F < 1, p > .50; \text{See Figure 4})\). For the intolerant essay, MS \((M = 5.57, SD = 1.11)\) decreased support for the rights of the author in comparison with DP \((M = 6.00, SD = 0.84)\), regardless of whether people were primed with tolerance or not.

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7 We also conducted an analysis that included the effect of order of presentation on support for author rights. The four-way interaction was almost significant, \(F(1, 225) = 3.52, p = .062, \eta^2_p = .02\). Probing this interaction seemed to suggest that the order of the measures affected responses to the tolerant essay, as the two-way interaction between MS and tolerance was marginally qualified by order, \(F(1, 112) = 3.56, p = .062, \eta^2_p = .03\). More specifically, MS marginally increased support for author rights when primed with tolerance and the author rights measure was first, \(F(1, 33) = 2.79, p = .104, \eta^2_p = .08\), but marginally decreased support for author rights when it was measured second, \(F(1, 20) = 1.40, p = .250, \eta^2_p = .07\). However, responses to the intolerant essay were not qualified by order \((F's < 1, p's > .40)\). Thus, the effect of order does not qualify the main finding of this study that tolerance primes do not attenuate defensiveness after MS when the value of tolerance is threatened, and thus will be discussed no further.
Inspecting the two-way interaction between MS and the tolerance prime on support for author rights of the tolerant essay demonstrated that there was only an effect of MS decreasing support for author rights when participants were not primed with tolerance, $F$. 

**Figure 3.** Mean support for author rights after reading tolerant essay. Error bars represent ±1 SE.

**Figure 4.** Mean support for author rights after reading intolerant essay. Error bars represent ±1 SE.
When primed with tolerance, there was no effect of MS on author rights ($F < 1, p > .50$). Looked at differently, the tolerance prime increased support for the author in the MS condition, $F(1, 60) = 1.75, p = .191, \eta^2 = .03$, albeit not significantly. There was a surprising effect of the tolerance prime decreasing support for the rights of the author in the DP condition, $F(1, 55) = 4.66, p = .035, \eta^2 = .08$. Therefore, part of the interaction appeared to be the result of DP participants decreasing support for the tolerant author when primed with tolerance. Despite this, analysing the MS/No Tolerance prime against all three other cells (i.e., MS/Tolerance prime, DP/Tolerance prime, DP/No Tolerance prime) combined demonstrates that the MS/Tolerance prime was significantly different from the other conditions, $F(1, 118) = 4.55$, $p = .035, \eta^2 = .04$.

**Affective attitude towards author**

A 2 (Prime: MS vs. DP) × 2 (Tolerance: Yes vs. No) × 2 (Essay: Tolerant vs. Intolerant) ANOVA was conducted on liking of the author. The only significant effect was a main effect of MS, $F(1, 235) = 4.41, p = .037, \eta^2 = .02$. MS participants ($M = 3.87, SD = 1.51$) that showed decreased liking for the author irrespective of which essay they read, in comparison with DP participants ($M = 4.28, SD = 1.41$). Being reminded of tolerance, or type of essay read, did not qualify this effect (all $p$’s > .10).8

**Exploratory analysis**

Although our hypothesis was supported, we sought to probe the data to understand our findings in more detail. Although the main focus of this research concerns the idea that there may be thresholds of tolerance that when surpassed lead to such a norm being withdrawn, we speculated that perhaps such an effect might depend on the extent to which people view tolerance as a key norm. Specifically, people who highly value the norm of tolerance might be able to withstand higher thresholds of intolerance than those who do not value the norm as strongly. To test such an idea, we created a mean score for the tolerance items from the scale that primed participants for tolerance ($a = .77$).

Overall, participants generally supported the norm of tolerance, though to varying degrees ($M = 5.90, SD = 0.69$, range = 3.33–7).9

To test the possibility that reactions to the intolerant author might depend on the extent to which people valued tolerance as a norm in the first place, we utilized PROCESS v3.4 (Hayes, 2017), using model number 3 that would allow us to test for the possible interaction between MS × Importance of Tolerance × Essay. MS (coded as $-1$ DP, $+1$ MS) was inserted as the independent variable, while importance of tolerance (centred) and essay (coded as $-1$ intolerant, $+1$ intolerant) were inserted as moderating variables. The outcome variable was support for author rights.

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8 Including order of presentation as an additional variable does not qualify the effect on affective attitudes towards the author.

9 How much a person values tolerance is conceptually distinct from political orientation. While liberal worldviews might often espouse the norm of tolerance, this does not provide a measure of how strongly one supports such a norm. More generally, the value itself is not exclusive to liberal ideologies. Supporting this, the two measures were only modestly correlated ($r = -.31, p = .001$), and the tolerance items shared a stronger association with the support for rights measure ($r = .44, p < .001$) than the political orientation measure did ($r = -.29, p < .001$). Furthermore, utilising the political orientation measure as a moderator to examine the effects of participants who were primed for tolerance did not show evidence of a three-way interaction ($p > .50$).
The three-way interaction was approaching significance, $\beta = .13$, $t(107) = 1.74$, $p = .086$, 95% CI ($-0.02, 0.28$). Simple slope analyses plotted at high (+1 SD) and low (−1 SD) levels of support for tolerance yielded support for our prediction. At low levels of tolerance, MS decreased support for the rights of the intolerant author, $\beta = -.45$, $t(107) = 2.87$, $p = .005$, 95% CI ($-0.76, -0.14$). All other slopes were not significant ($p$’s > .40). Looking at this interaction differently through rerunning the analysis by inserting the type of essay as the independent variable and MS as the moderator demonstrated that there was only decreased support for the intolerant author when exposed to MS, and at low levels of support for the norm of tolerance, $\beta = -.30$, $t(107) = 2.08$, $p = .040$, 95% CI ($-0.59, -0.01$). All other slopes were non-significant ($p$’s > .30).

**GENERAL DISCUSSION**

The present research aimed to explore the limits of tolerance on fostering positive intergroup relations, utilizing insights from TMT (Greenberg et al., 1986). Specifically, we hypothesized that (1) reminders of tolerance would not influence levels of affective prejudice, but would influence discriminatory responses towards others; (2) that tolerance would attenuate discrimination towards others when reminded of death, although this would not be the case if the target threatened the norm of tolerance; and (3) that threatening tolerance would increase DTA, which would mediate the threat-defence link. The findings of the present study are largely consistent with these hypotheses.

The present findings offer a novel contribution through providing new insights into how the norm of tolerance relates to prejudice and prejudice reduction. Firstly, prior literature has indicated that tolerance may be an important norm in fostering more positive intergroup relations and reducing prejudice. Our research does support the use of tolerance for the purpose of prejudice reduction but qualifies this support by also suggesting that tolerance norms may not alter levels of affective prejudice. In other words, tolerance implies supporting the rights of others, but not necessarily liking them (cf. Sullivan & Transue, 1999). Intervention strategies may therefore wish to consider other ways to tackle affective components of prejudice.

Secondly, while tolerance can lead to more positive intergroup relations, simply valuing tolerance in one’s worldview is not the full story. It is also important that people do not see this value as being threatened by one or more out-groups. Unfortunately, in the case of anti-Muslim prejudice, as previously discussed, the mass media can often position Muslims in the UK as intolerant, and this is particularly the case when Islamic-related terrorism is reported (Abbas, 2007; Ansari, 2004). If the out-group is perceived to threaten norms supporting tolerance, then this may lead to paradoxical intolerant reactions in defence of these norms. This connects with sociological research on British media reporting that suggests there are ‘thresholds of tolerance’ towards Muslims, which when crossed lead to the withdrawal of tolerance and the acceptance of behaving intolerantly (Richardson, 2009). We believe our findings thus carry implications for when national leaders, as they tend to do, appeal in mass media for tolerance in the wake of terror events. Unless leaders also stress that the other group supports tolerance, it is possible that a call for tolerance may unwittingly produce more harm than good for future intergroup relations. In summary then, it is critical that, if a focus on tolerance is to be used as an incentive to reduce prejudice, it is essential that the out-group(s) are not perceived to threaten the value of tolerance/be
intolerant of outsiders, otherwise a focus on tolerance can backfire badly. We believe this is a novel and important message for policymakers.

The present findings also connect and extend TMT research in several ways. Notably, our findings may shed light on when one might choose to use one anxiety-buffering strategy over another (i.e., adherence or defence). People may generally seek to adhere to worldview norms, though only if these norms are not called into question, in which case they might choose to defend them. This perspective would suggest that there is a fragility to prosocial norms, which would be compatible with TMT’s view that worldviews are by their very nature fragile in their ability to manage death anxiety, as they require continual validation. If one perceives the norms of one’s worldview to be challenged, then it would likely undermine the anxiety-buffering properties that such norms provide. Thus, one might be inclined to derogate others, even if it means temporarily transgressing such norms, in order to restore faith in one’s cultural worldview.

The present study also suggests that different reminders of death can produce different reactions, which adds to a growing body of evidence that there may be differences in how death is made salient, or reflected on, that shape responses to MS (e.g., Cozzolino, Staples, Meyers, & Samboceti, 2004; Echebarria Echabe & Perez, 2016; Florian & Mikulincer, 1997; Fritsche, Jonas, & Fankhäuser, 2008). For example, similar to the present findings, Echebarria Echabe and Perez (2016) found that only reminders of terrorism, not other types of death reminders, increased xenophobia. Future research could explore further how different ways of rendering death salient can alter responses, as this can help inform how TMT can apply to real-world death reminders (e.g., terrorism, bereavement, natural disasters). It may also shed light on reasons why some research has failed to replicate MS effects (e.g., Sætrevik & Sjøastad, 2019). If the way in which people reflect on their own mortality shapes the way in which they seek to bolster their worldviews, then studies that fail to replicate MS effects may represent an incongruence between death reflection and defensive measurement. Future research could also explore this possibility.

While the present research has explored the boundaries of tolerance, our analysis primarily focused on: (1) the component of prejudice under examination; (2) whether or not the value of tolerance is threatened. While our findings do point towards tolerance being somewhat limited in its ability to reduce prejudice, and in some cases paradoxically increasing intolerance, we suspect that this effect is not monolithic. It is likely that people can hold different understandings of what tolerance is, which then guide their beliefs and behavioural intentions as to when, where, and to whom tolerant responses should apply. For example, and as suggested by the exploratory analysis in Study 3, we suspect that people who assign greater importance to the norm of tolerance may have a higher threshold for perceived intolerance, that then prevents this backfire effect occurring so easily. Alternatively, it is also possible that the backfire effect is limited to those who only moderately support the norm. Consequently, this might suggest that some individuals hold an unwavering commitment to uphold the norm of tolerance regardless of whether it is reciprocated. Future research should test these ideas further as they may help further understand the boundaries of tolerance. Research could also examine how upholding the norm of tolerance may vary depending on how culturally dissimilar people are, as people may apply differing latitudes of tolerance towards different out-groups.

Some limitations of the present research should be acknowledged. Firstly, some of these studies were slightly underpowered, and in the case of the exploratory analysis in Study 3, the sample size was very small, meaning that caution should be taken when evaluating that analysis. Perhaps larger samples might have increased some of the marginal effects reported, though the use of multiple studies providing
conceptually similar results should increase confidence in the findings reported. Secondly, our studies were typically conducted with British samples, so it would be useful to see whether such paradoxical effects might be present in other cultures. It should be noted that the conceptual framework for our hypotheses was in part derived from sociological analyses of British media reporting that suggest the acceptance to withdraw tolerance as a norm might be permissible in some circumstances, especially in relation to Muslims. It is possible that such an effect may not persist in other cultures where tolerance might be conceptualized differently or in relation to different out-groups.

In summary, the present study offers a novel contribution to understanding the nature of tolerance, and its ability to reduce prejudice. While tolerance may play a role in shaping more positive intergroup relations, it is important that the other group is also viewed as being tolerant themselves; otherwise, a focus on tolerance may produce paradoxical effects which in some cases could worsen intergroup relations. Whether out-groups are positioned as tolerant or intolerant, is partly shaped by media representations of those out-groups, as is seen in the case of the British media’s representation of Islam and Muslims. Additionally, tolerance may not be the whole story in combating prejudice, and interventions may be more effective if they consider utilizing tolerance alongside another strategy that can target more affective components of prejudice. This supports a wider view that prejudice can be multi-dimensional, suggesting that its different dimensions may need varying strategies to be deployed in pursuit of more harmonious intergroup relations.

Conflicts of interest
All authors declare no conflict of interest.

Author contributions
Samuel Fairlamb (Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Project administration; Resources; Writing – original draft; Writing – review & editing) Marco Cinnirella (Supervision; Writing – review & editing).

Data availability statement
The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Supporting Information

The following supporting information may be found in the online edition of the article:

Appendix S1. Supplementary materials (Study 3).