

# Destined to die but not to wage war: How existential threat can contribute to escalation or de- escalation of violent intergroup conflict

*Eva Jonas, University of Salzburg  
Immo Fritsche, University of Leipzig*

Corresponding author:

Eva Jonas

Department of Psychology

University of Salzburg

Hellbrunner Str. 34

A – 5020 Salzburg, Austria

Email: [eva.jonas@sbg.ac.at](mailto:eva.jonas@sbg.ac.at)

War means threat to people's lives. Research derived from terror management theory (TMT) illustrates that the awareness of death leads people to defend cultural ingroups and their worldviews to attain a sense of symbolic immortality and thereby buffer existential anxiety. This can result in hostile effects of mortality salience (MS), such as derogation of outgroup members, prejudice, stereotyping, aggression, and racism, which, in turn, can lead to the escalation of violent intergroup conflict and, thus, the escalation of war. Yet, escalation of destructive conflict following MS is not automatic. Instead, research on TMT suggests that MS does not necessarily result in conflict and intolerance but can also foster positive tendencies, such as intergroup fairness or approval of pacifism, depending on how existential threat is perceived, whether the need for symbolic self-transcendence is satisfied, which social norms are salient, and how social situations are interpreted. In the present paper we review current TMT research with the aim of reconciling the seemingly contradictory findings of hostile and peaceful reactions to reminders of death. We present a terror management model of escalation and de-escalation of violent intergroup conflicts, which takes into account the interaction between threat salience and features of the social situation. We also discuss possible intervention strategies to override detrimental consequences of existential threat and argue that war is not the inevitable consequence of threat.

**W**ar confronts people with threats to their lives. This is especially true for soldiers who are continually confronted with death during times of war. However, also civilians suffer from deadly terror—if not directly by being in the war zone then indirectly via exposure to war reporting in the media. Research has shown that when reminded of death, people become more intolerant and aggressive toward outgroup others and more strongly supportive of military action in intergroup conflict. Terror management research (Greenberg, Solomon, & Pyszczynski, 1997; Pyszczynski, Solomon, & Greenberg, 2003) has explained these phenomena as resulting from humans' efforts to manage the terror of their own mortality. From this perspective, standing by the ingroup, defending cultural worldviews, and bolstering self-esteem may serve to assure people of a symbolic collective existence and personal death transcendence. Tragically, these tendencies can lead to the escalation of conflicts, bringing about, for many of those involved, the very thing that terrifies them.

At first glance, because humans are destined to die, and thus to experience existential threat, it would appear that humans are destined to be involved in intergroup conflict. But they are not, as we argue in the present article. Based on a review of recent terror management research, we provide evidence suggesting there are

multiple circumstances under which the escalation of existentially threatening conflicts might be reduced, if not reversed. These circumstances include how threat is perceived, whether alternative anxiety buffers are available, and which ingroup norms and self-categories are salient in a social situation. This review may help to uncover the conditions under which escalating intergroup conflict and approval of war are and are not likely. In addition, we suggest possible strategies for undermining the dynamics of escalating intergroup conflict and war.

## **Terror Management Theory and Research**

Terror management theory (TMT) posits that, like other living creatures, humans have an instinctive desire for survival. What makes humans stand out, however, are their higher cognitive capacities, which lead to the uncomfortable awareness that they are going to die at some point. This knowledge exposes humans to the constant possibility of feeling annihilation anxiety. From a TMT perspective, our own culture offers protection from this fear of death by allowing us to see ourselves as making valuable contributions to a meaningful reality (e.g., Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004) and being part of an immortal collective entity, the cultural group (Castano & Dechesne, 2005).

More specifically, TMT suggests that death-related fear is decreased by a cultural anxiety buffer consisting of two components: (a) a *cultural worldview*—a culturally shared conception of reality that provides meaning, order and stability, standards, and values, through which one can feel valuable, and the promise of literal or symbolic death transcendence for those who live up to these standards of value, and (b) *self-esteem*, which is the belief that one meets the cultural standards of value. Because these psychological constructions are an integral part of helping people cope with their own mortality, death awareness motivates individuals to hold on to their cultural worldviews and believe in their worth as individuals within their cultural conception of reality (Becker, 1973; Greenberg et al., 1997). Integrating this approach with research on intergroup processes and social identity (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), Castano and Dechesne (2005) emphasized the central role of group membership in buffering anxiety. In response to existential threat, people shift to collective (instead of personal) self-categorization. This fosters perceived immortality of the self, because social ingroups usually survive the individual, and they are not typically conceived of as subject to physical extinction: “I” will die but “we” will live.

The last 20 years have led to a substantial amount of evidence from different countries supporting predictions derived from TMT (for an overview see Burke, Martens, & Faucher, 2010): First, reminders of death (“mortality salience” or MS) have been shown to increase striving for self-protection and efforts to defend or even increase self-esteem. Furthermore, when reminded of death, people’s collective self-definitions become more important, and they adhere more strongly to their cultural worldviews and defend these views if necessary. Therefore, following MS, people exhibit ingroup favoritism and hatred toward adversary outgroups or those who threaten culturally shared norms and belief systems. This can lead to vicious cycles of violence and counterviolence (as described by Pyszczynski and colleagues especially with regard to terrorist and counterterrorist violence; cf. e.g., Motyl, Rothschild, & Pyszczynski, 2009; Pyszczynski, Motyl, & Abdollahi, 2009; Pyszczynski, Rothschild, Motyl, & Abdollahi, 2008; Pyszczynski, Vail, & Motyl, 2010).

In the following section we first draw attention to an important distinction within TMT, between proximal and distal defense mechanisms. Afterward we focus on distal defense mechanisms and discuss how they can lead to the escalation of intergroup conflict.

### **The Dual-Process Model of Proximal and Distal Defense Strategies**

A great deal has been learned over the last 25 years about the parameters and cognitive processes associated with MS effects. One important finding from this research is that we need to distinguish between conscious and nonconscious MS effects. The dual process model of terror management (see Pyszczynski, Greenberg, & Solomon, 1999) emphasizes that the conscious consequences of MS are typically denial of one’s vulnerability to premature death and suppression of death-related thoughts. This is called a proximal defense strategy and serves to push the problem of mortality out of people’s awareness. If these conscious defenses have been successful, then death thoughts continue to operate subconsciously (they are accessible but outside focal attention) and lead to distal defense mechanisms; that is, they affect people’s striving for self-esteem and cultural worldview defense. We now outline how these distal terror management processes regarding worldview defense and striving for self-esteem make it more difficult to coexist peacefully in society with people from other groups or with people who do not share our cultural views.

### **Ingroup Favoritism, Prejudice, and Rigid Thinking**

Issues connected with social identity are often primary sources of intergroup conflict and hatred. Self-categorization as an ingroup member leads people to distance themselves from outgroups (Turner et al., 1987). Ingroup identification is positively associated with ingroup favoritism (Hewstone, Rubin, & Willis, 2002) and under certain conditions outgroup hate (Brewer, 1999). In situations of existential threat, ingroup identification becomes pivotal. The ingroup is representative of a person’s cultural worldview; at the same time, defining the self in terms of the ingroup may elevate a person’s subjective sense of immortality. This explains why death reminders lead people to favor the ingroup and derogate outgroups and people who criticize the ingroup (for review, see Burke et al., 2010). Greenberg et al. (1990), for example, demonstrated that after MS, people favored those who shared their religion but derogated those who believed in another religion. Other research shows that following MS people cling more closely to their national ingroup, gender ingroup, or sport fan ingroup and, for example, attributed more negative, stereotypical judgment (e.g., Castano, 2004) or stronger blame (Nelson, Moore, Olivetti, & Scott, 1997) to the outgroup. This is especially painful for people who are in a minority position in a society—such as immigrants who are exposed to increased social discrimination following death reminders. Bassett and Connelly (2011), for example, found that following MS, Americans reacted more negatively to an illegal immigrant from Mexico but not one from Canada, underlining that MS especially increases negative reactions to *dissimilar* others. Studies also showed that White participants exposed to MS sympathized with White racists more than participants who were not exposed to MS, suggesting that MS increases affiliation with racist ideologies (Greenberg, Schimel, Martens, Solomon, & Pyszczynski, 2001). McGregor et al. (1998) tested physically aggressive reactions following MS and found that people exposed to MS distributed more of a very spicy hot sauce to a person who had criticized their political ideology—although they knew that the person did not like spicy food but would have to eat all of it. These effects seem to be even more pronounced when people interact as members of different groups compared to interindividual interactions (McPherson & Joireman, 2009).

Besides the more straightforward effects MS can have on intergroup conflict and hostility, some effects of MS on social cognition may foster conflict escalation in an indirect fashion. One of these effects is the tendency of people following MS to rely more strongly on stereotypes, which are components of people’s cultural worldview, and prefer stereotype-consistent over stereotype-inconsistent outgroup members (Schimel et al., 1999). In the context of existentially threatening conflict, this means that hostile stereotypes of adversary groups may be sustained or even become stronger, which may contribute to the maintenance or escalation of the conflict. Research on terror management influences on other social cognitive processes adds to the picture that following MS, people tend to become more rigid and less flexible in their thinking (see, e.g., Jonas, Greenberg, & Frey, 2003, for confirmatory information seeking; and Landau, Johns et al., 2004, for further social-cognitive structuring tendencies). Given that these tendencies toward rigidity are also heightened in aversive situations, they are an additional source for increased ingroup bias, stereotyping, and discrimination (see Kruglanski, Pierro, Mannetti, & De Grada, 2006), which should have even more serious consequences in combination with MS. Indeed, Van der Zee and colleagues illustrated in an intercultural context that MS especially affected people who were open to people from different cultures, such that they became less open toward these people (Van der Zee & van der Gang, 2007; Van der Zee, Van Oudenhoven, & Grijns 2004).

Taken together, the findings suggest a dangerous picture of MS in conflict situations. Figure 1 (see Paths a–d) illustrates a terror management model of escalation and de-escalation of violent intergroup conflicts. This model is based on both research on the general effects of MS on defensive responses, described above, and more specific research on the implications of terror management processes for peace and conflict, which we describe in the following section. Path a represents the findings that MS motivates individuals to support and defend their social ingroups and related cultural worldviews. This kind of defensiveness should increase intolerance of people who think differently as well as derogation of outgroup members (Path b) and should lead to hostile behavior or aggravate existing aggressive interactions between individuals and groups (Path c). As such outcomes will likely provoke reciprocal responses by adversary outgroups and may thus increase the intensity of the violent conflict, levels of existential threat are then likely to be increased (Path d). In this way, MS might contribute to (and be the result of) the self-perpetuating tendency of violent intergroup conflict in which existential threat can be both an antecedent as well as an outcome of social conflict (see also Fritsche & Jonas, 2011; Niesta, Fritsche, & Jonas, 2008).

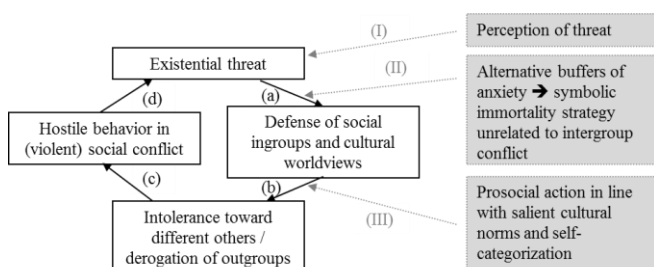


Figure 1. A terror management model of escalation (a-d) and de-escalation (I-III) of violent intergroup conflicts (modified from Fritsche & Jonas, 2011).

### Self-Perpetuation of Violent Intergroup Conflicts

Many violent conflicts generate an environment in which reminders of death and the fragility of life are omnipresent. Given that it increases the motivation to support cultural ingroups and to become more hostile toward outgroup members, MS can function as “a built-in catalyst of hostile interaction” (Niesta et al., 2008, p. 51) and thus can lead to a vicious cycle of violence.

Meanwhile, numerous studies have documented that reminders of death increase support for violent solutions of international conflicts in different countries and support for extreme military action, which may fuel the escalation cycle: Pyszczynski, Abdollahi, Greenberg, and Solomon (2006) presented evidence that MS increased acceptance of extreme military force to fight terrorism, such as using nuclear or chemical weapons, among U.S. participants. In a similar vein, Iranian students approved of suicide attacks against U.S. targets when reminded of death—whereas in the absence of MS they disapproved of suicide attacks. Routledge and Arndt (2008) showed that MS also increased English participants’ willingness to self-sacrifice for England. Hirschberger and colleagues reported that MS increased Israelis’ support for their national military force (e.g., Hirschberger, Pyszczynski & Ein-Dor, 2009). They gave several examples suggesting that in times of war and terrorist threat, people are especially likely to consider violent solutions to conflicts as appropriate: Following MS, Israeli citizens more strongly supported a preemptive nuclear strike on Iran (Hirschberger et al., 2009); furthermore, following MS right-wing Israelis more strongly approved of and intended to engage in violent measures of resistance with respect to the Israeli withdrawal from the Gaza Strip in 2005 (Hirschberger & Ein-Dor, 2006). Following MS, Israelis also more strongly supported military incursions into Gaza even if they were deemed militarily ineffective, capable only of

bringing back a feeling of justice to the people of Israel (Hirschberger, Pyszczynski, & Ein-Dor, 2010).

In the context of an ongoing civil war in the Ivory Coast, Chatard et al. (2011) found that among students from a progovernment area, MS increased support for the action of the government and its army. Kugler and Cooper (2010) found that following MS, U.S. participants approved more of harsh interrogation methods for a Saudi-Arabian terrorism suspect, whereas MS decreased this tendency when the suspect was an American. No effect of MS was observed for a non-Arab outgroup target from a nation allied with the United States (Bulgaria). Thus research from different countries focusing on different relevant outgroups converges on the idea that MS increases approval of violent conflict-intervention measures, supporting the proposed causal chain from Path a to Path c (Figure 1). Escalation of violent intergroup conflicts thus seems to be likely as soon as mortality primes are involved.

In addition, MS also seems to increase the risk that the de-escalation work of international troops will fail. Dechesne, van den Berg, and Soeters (2007) showed that although Dutch and German soldiers worked together harmoniously in a nonthreatening environment, they exhibited stereotypic thinking and intergroup hostility toward the soldiers from the other nation when they operated under the threat of death during peace-keeping missions in Kabul.

Moreover, reminders of death might also contribute to the self-perpetuating nature of violent intergroup conflicts by increasing the preference for stereotypical thinking (Schimel et al., 1999). As Fritsche, Koranyi, Beyer, Jonas, and Fleischmann (2009) showed, MS can reduce the acceptance of outgroup members who support peaceful conflict solutions (“doves”) because they do not represent the prototypical enemy.<sup>1</sup> Existential threat seems to preserve traditional perceptions of friend and foe (defense of preexisting cultural worldviews; see Figure 1, Path a) and, in a manner suggestive of a self-fulfilling prophecy, may undermine the potential for a positive social change and possible intergroup reconciliation. Another example illustrating this assumption is a finding by Hirschberger, Canetti-Nisim, Pyszczynski, Kahn, and Gubler (2010, as reported in Hirschberger & Pyszczynski, 2011) showing that reminders of death and the Holocaust induced Israeli Jews to see Israeli Arabs as having more harmful and evil intentions toward them and toward the State of Israel. Furthermore, when reminded of death, Israeli Jews simplified the complex identity of Israeli Arabs (who are typically torn between a Palestinian and Israeli identity; e.g., Kimhi, Canetti, & Hirschberger, 2009) and preferred to categorize them as enemies of Israel—a finding pointing at the important role of social categorization in understanding escalation as well as de-escalation of conflict. (We return to this argument below.)

Further escalating tendencies following MS can be derived from research suggesting that death primes lead to greater blaming of innocent victims (Hirschberger, 2006; see also Studies 4 and 5 of Landau, Johns et al., 2004, who found this to be the case especially for persons high in personal need for structure). These reactions of defending culturally shared beliefs in a just world (Figure 1, Path a; for research on just world beliefs and victim blaming see Hafer, 2000) hinder peace work and reconciliation because victim blaming can help people justify violent actions.

In times of violent intergroup conflict and war, people are often confronted in everyday life with reminders of death, terror, and destruction, for instance, when passing destroyed buildings on the streets or watching reports on television. Research shows that these natural reminders of death following from violent intergroup action lead to similar reactions to those described so far

<sup>1</sup> In the study by Fritsche et al. (2009) non-Muslim respondents judged Muslim opponents of Islamist terrorism (nonstereotypical individuals) less positively after having been reminded of death.

in this article supporting Path d (Figure 1) and the notion of a recursive cycle of escalation in existentially threatening conflicts: Vail, Arndt, Motyl, and Pyszczynski (2012) found among American student participants that pictures of destroyed buildings increased death-thought accessibility compared to pictures of buildings that were under construction or pictures of buildings that were intact. Exposure to pictures of destroyed buildings furthermore increased dogmatic certainty about the participants' beliefs (regardless of political orientation) and support for war against Iran as well as military action against international terrorism.

In the context of terrorist attacks, there have been many studies investigating the effects of natural death reminders on people's thinking and behavior. Research showed that salience of terrorist attacks not only increased death-thought accessibility (Landau, Solomon et al., 2004) but also prejudiced attitudes toward outgroup members (see, e.g., Das, Bushman, Bezemer, Kerkhof, & Vermeulen, 2009, with regard to Arabs in the Netherlands) as well as support for U.S. President George W. Bush and his military counterterrorism policies (Landau, Solomon et al., 2004). Related research in Germany showed that the salience of terrorist threats increased social defensiveness in the form of more severe punishment intentions toward norm breakers (Fischer, Greitemeyer, Kastenmüller, Frey, & Oßwald, 2007). Asbrock and Fritsche (in press) recently showed that making personal (but not collective) terrorist threats salient increased authoritarian attitudes and ingroup bias. This corresponds to field studies suggesting in a similar vein that Americans responded to the 9/11 terrorist attacks with increased intolerance, prejudice, and discrimination toward those groups of people who were symbolically connected with the attacks (Morgan, Wisniewski, & Skitka, 2011).

Looking at the role of the media in this context, obviously many death and terror reminders are included in media reports, thereby inducing worldview defense among citizens; but death reminders also affect how and what journalists write. Indeed, Cullier (2012) found that college journalists incorporated more negative facts about an outgroup into a news story following MS than following a control prime. Media reports also often include threats to people's worldview and thereby undermine people's anxiety buffer, which is especially needed in times of threat. Research has shown that threats to people's worldviews increase accessibility of death-related thoughts (Schimel, Hayes, Williams, & Jahrig, 2007), which in turn should increase worldview defense. Hayes, Schimel, and Williams (2008), for example, found that reading a worldview-threatening newspaper article about the Muslimization of Nazareth increased death-thought accessibility and worldview defense for Christian Canadian participants. Yet ironically, if the participants learned that a number of Muslims had died on their way to Nazareth, the increase in death-thought accessibility and worldview defense was prevented.

Taken together, there is a whole body of evidence suggesting an overwhelmingly negative picture of MS in conflict situations, supporting the escalation model presented in Figure 1 (Paths a–d). Existential threat (which is inherent in most violent intergroup conflicts) aggravates the escalation of intergroup conflict because it increases people's motivation to support and defend their social ingroups and related worldviews (Path a). This, in turn, increases hostile intergroup attitudes and behavior (Paths b and c), which are then likely to escalate conflict because they provoke reciprocally hostile responses that have the potential to further increase levels of existential threat inherent in the conflict (Path d and then again Paths a–d). Indeed, looking at real-life conflicts it becomes evident that in war-torn countries plagued with violence and killing, intensified intergroup hostility and an escalation of violence is often observed. For example, following the invasion of Iraq in 2003, there were more suicide bombings than ever before (as reported in Motyl et al., 2009).

Yet existential threat does not inevitably end in tragedy; we now present pathways of hope, derived from other terror management evidence, showing that MS in combination with certain moderator variables (see Figure 1, Paths I–III) does not lead to intergroup hostility and conflict escalation: Path I shows that existential threat can be perceived in different ways, sometimes not eliciting any effect on social behavior at all; Path II shows that effects of MS may be reduced by alternative anxiety-buffering strategies that are unrelated to social conflict; and Path III shows that the effects of MS may be redirected by salient contents of the cultural worldview encouraging compliance with social norms and self-categorization that may, in fact, encourage prosocial instead of aggressive behavior.

### How Can the Vicious Cycle Be Broken?

**Perception of Threat.** The most direct way in which the vicious cycle of existential threat and violent intergroup conflict can be broken is to circumvent the experience of threat. However, especially for members and families of the armed services and countless civilians caught up in conflict and war, it might not be possible to reduce mortality reminders in intensely violent intergroup conflict situations. Moreover, politicians frequently use threat and mortality reminders as a strategy to increase people's readiness for war (e.g., Nikolaev & Porpora, 2006; Landau, Solomon et al., 2004). Nevertheless, people and situations may differ in regard to how a death threat is initially appraised (see Figure 1, Path I). For some people and under some conditions, the awareness of human mortality seems to lack the threatening quality it typically exhibits. Dispositional and situational moderators offer one avenue for reducing the destructive effects of MS.

**Self-determination and control.** Fritsche, Jonas, and Fankhänel (2008) suggested that it is especially the perception of generalized lack of personal control that makes mortality threatening. Allowing participants to experience partial control over their own death—for example, by reflecting on the possibility of self-determined death as in the case of committing suicide when suffering from an incurable disease—has been shown to reduce ethnocentric tendencies compared to thinking about uncontrollable death. Also MS effects are less pronounced in people perceiving high internal locus of control (Talati, Fritsche, Du, Jonas, & Castano, 2013). To explain these findings, it has been suggested that MS effects may have their origin in the fact that death poses a threat to people's sense of generalized control, and that acting in terms of group membership may restore subjective control through the (social) self (Fritsche, Jonas, & Kessler, 2011). A low sense of control has also been identified as one of the factors reducing victims' readiness for reconciliation in intergroup conflicts (Shnabel, Nadler, Ullrich, Dovidio, & Carmi, 2009).

**Religion.** Certain belief systems also seem to protect people against existential threat following MS. Research has shown that MS increases participants' investment in core religious symbols, self-reported religiosity, and their belief in divine intervention (for an overview, see Vail et al., 2010). Thus, religion seems to help people manage death concerns—and indeed, Jonas and Fischer (2006) showed among German Christian participants that after the affirmation of religious beliefs, intrinsically religious persons did not react with worldview defense following MS.<sup>2</sup> In several studies of other countries (for Christians and Jews in the United States, Muslims in Iran, and Christians in Poland) Golec de Zavala, Cichocka, Orehek, and Abdollahi (2012) furthermore found that

<sup>2</sup> See also Dechesne et al., 2003, who demonstrated that providing participants with evidence about a nonreligious afterlife also reduced MS effects.

MS strengthened the link between intrinsic religious commitment and decreased intergroup hostility (such as support for aggressive counterterrorism and negativity toward religious outgroups). These findings support the assumption that religious beliefs such as the belief in the immortality of the soul or supernatural agents may protect people from existential threat and may therefore reduce worldview defense following death reminders. Furthermore, religious groups seem to be quite persistent over time, thus providing their members a sense of collective death transcendence through the social self (see Castano & Dechesne, 2005).<sup>3</sup>

### Alternative Buffers of Anxiety

A different possibility for breaking the vicious cycle of threat and violent ethnocentric responses rests on the central role of alternative anxiety-buffering processes (see Figure 1, Path II). Although intolerance and aggression against outgroups are in themselves expressions of an anxiety buffer (i.e., forms of worldview defense), the activation of alternative anxiety buffers may prevent negative intergroup behavior because they may provide existential security, make people less vulnerable to anxiety, and reduce accessibility of death-related thoughts. We now sketch various alternative buffers that may allow people to withstand existential threat without resorting to negative intergroup behavior.

**Self-esteem.** Self-esteem provides a sense of personal value, obtained by believing that one is living up to the cultural standards provided by one's worldview. Self-esteem plays a crucial role in coping with the omnipresent terror that results from the human awareness of being mortal (for an overview, see Pyszczynski et al., 2004). Research has shown that (a) MS increases striving for self-esteem; (b) self-esteem striving buffers existential anxiety; and (c) boosts in self-esteem (e.g., through positive intelligence test results) reduce the effect of MS on worldview defense and death-thought accessibility. Thus, in situations of severe intergroup conflict, if people have the feeling that they are valuable contributors to a meaningful universe—that is, if their self-esteem is strengthened and if the threat does not target the dimension on which the self-esteem boost took place (as Arndt & Greenberg, 1999, specified)—this should reduce defensive responses to threat. However, it should be noted that self-esteem striving may also have detrimental effects when people are trying to boost their self-esteem by derogating others or zealously executing ingroup doctrines of hostile intergroup conflict. Furthermore, Taubman-Ben-Ari and Findler (2006) suggested that high self-esteem seems to channel people's defenses in particular directions. They showed among young Israeli men with high self-esteem that MS increased motivation for military service and anticipated physical hardships

---

<sup>3</sup> The affirmation of religious beliefs and their intrinsic nature seems to be crucial to religion reducing worldview defense. Looking at the role of religion without this specification, religions have not always played a magnanimous or peacekeeping role in the area of severe intergroup conflict. Although most religions teach us that war is wrong and is justified only as a last resort to resolve conflicts, in history, religion also has often played a destructive role in intergroup conflict. Innumerable people have died in violent religious conflicts and so-called "holy wars." Furthermore, religious fundamentalism has been found to be positively associated with racism, prejudice, ethnocentrism, and militarism (for an overview, see Rothschild, Abdollahi, & Pyszczynski, 2009). Fundamentalist religious people seem to respond especially hostilely to people who threaten their worldview (Motyl & Pyszczynski, in press). Below, we discuss the appeasing potential of religion and especially focus on the role of salient religious values, which are important in this context.

in the army compared to a control condition. Whereas young men with low self-esteem seemed to perceive service in the army as a threat, men with high self-esteem seemed rather to perceive it as an opportunity to live up to social expectations and as a challenge to prove their competence.<sup>4</sup>

**Integration in cultural ingroups.** Defining the self in terms of a social ingroup may buffer the threat of personal annihilation as it provides a sense of collective immortality (Castano & Dechesne, 2005). As outlined above, this can lead to increased ingroup identification, triggering ingroup bias when people are confronted with existential threat. However, and in line with the same rationale, secure integration in a social ingroup should also reduce further social defensiveness. Supporting this reasoning, participants who thought about their ingroup of Americans showed reduced accessibility of death-related thoughts following MS compared to those who had to think about the outgroup of the British (Vaes, Heflick, & Goldenberg, 2010, Study 3). Thus, it is possible that those people who are well embedded in one or more social identities are those who will react less defensively to reminders of death in violent intergroup conflict. Importantly, such mitigating effects should be confined to cases where people are securely embedded in groups that are not involved in the actual intergroup conflict (e.g., sports club, professional association, or family).

For immersion in a cultural ingroup to reduce defensiveness against an existential threat, at least three basic conditions should be fulfilled: (a) Individuals should be well integrated in the group or perceive themselves as matching the ingroup's prototype. If this is not the case, the resulting threat to self-esteem (Leary, 2006) may instead increase defensiveness. (b) Secure group membership should only alleviate defensiveness following a death threat when people expect the ingroup to have certain characteristics: Sani, Herrera, and Bowe (2009) demonstrated that MS induced people to highlight the cultural continuity of their ethnic ingroup, indicating that *collective continuity* over time is important for buffering existential threat. This is also supported by research from Routledge and Arndt (2008) who showed that if people imagined being embedded in an immortal group (by imagining that they had joined an organization that had existed for some time before they joined it and that would continue to exist after they were gone) they were no longer willing to self-sacrifice for their country following MS. Other researchers have found that following a threat, people highlight *ingroup entitativity* (Fritsche et al., 2008), which is the perception that a group is both homogeneous and agentic (Brewer, Hong, & Li, 2004). (c) As a third condition, the relevant social identity itself must not be under attack, because if it is, highly identified group members are the first to react fiercely on behalf of their ingroup. Fritsche et al. (2013, Study 4) worked with a minimal group design and found that MS led participants to derogate outgroup members only when they additionally had received information that the ingroup was quite heterogeneous with regard to important basic values (without such a threat to the group's boundaries, i.e., for a homogeneous group, no MS effect occurred).

**Worldview affirmation.** By providing a meaningful framework for understanding our existence, cultural worldviews defuse the threat of death. However, cultural worldviews only serve their anxiety-buffering functions when they are consistent and stable. If an individual's worldview is bolstered and thus perceived to be secure and stable, this should buffer against existential anxiety and make further affirmation in the form of worldview defense

---

<sup>4</sup> See also Schmeichel et al. (2009) for the importance of distinguishing between implicit and explicit self-esteem. Implicit self-esteem seems to function more consistently as an anxiety buffer in response to MS than explicit self-esteem.

unnecessary. Indeed, Schmeichel and Martens (2005) showed that affirming one important aspect of one's worldview (through a standard self-affirmation procedure) reduced worldview defense and death-thought accessibility after MS. This effect was shown to be specifically the result of worldview affirmation and not of increased personal self-esteem. Also relevant is the aforementioned finding of Jonas and Fischer (2006) that intrinsically religious people who were given an opportunity to reaffirm their religious beliefs prior to MS did not demonstrate any subsequent worldview defense. In addition, worldview-affirming primes increased people's willingness to purchase foreign products following MS, suggesting an increased openness toward foreign cultures (Sullivan, Jonas, & Jodlbauer, 2011).

**Close relationships.** Close relationships and secure attachment also serve as anxiety buffers and reduce defensiveness when death is salient (for an overview, see Mikulincer, Florian, & Hirschberger, 2004). Death awareness has been shown to motivate people to develop and invest in social relationships and to endorse and strive for romantic intimacy. Imagining separation from a close partner or having problems with the partner, on the other hand, increased the accessibility of death-related thoughts. Alternatively, the salience of a close relationship partner or secure attachment prevents worldview defense. Cox et al. (2008) furthermore found that activating thoughts about one's parents decreased death-thought accessibility and increased self-esteem. Most importantly, Weise et al. (2008) showed that a secure-relationship prime reversed the effect of MS on support for violent actions; that is, with the prime, MS participants favored less violent tactics in response to the problem of terrorism.

**Offspring.** Children can also serve as a means of symbolic immortality: Parents may feel that crucial aspects of themselves continue to live on through their children. Indeed, several studies have demonstrated that MS increases people's desire to have children (e.g., Fritsche et al., 2007; Wisman & Goldenberg, 2005). Furthermore, images of newborn animals decreased the number of death-related thoughts (Zhou, Lei, Marley, & Chen, 2009). Making salient one's potential children also served as an anxiety buffer, eliminating worldview defense (Fritsche et al., 2007).

#### **Pro-social Action in Line with Salient Cultural Norms and Self-categorization**

Up to now, we have discussed mechanisms that prevent the experience of potentially threatening situations from resulting in social defensiveness (Figure 1, Paths I and II). Escalation of existentially threatening conflict might also be prevented on a third path. Path III builds on the observation that following MS, people defend those ideas and behaviors that they believe are prescribed by their cultural worldview and the group they belong to. This implies that people do not simply become more hostile in the wake of threats to their existence. Instead, MS encourages compliance with collectively shared norms. These norms do not need to be inherently aggressive. Most cultural groups are characterized by an endless number of norms that guide thinking and action in various directions. Many of these norms, in fact, encourage peaceful and de-escalating behavior. This coexistence of different norms is nicely illustrated by, for example, the recent public debate about building a mosque close to Ground Zero. What should a "good American" think? Some may say that it is patriotic to prevent the mosque; others may find that it is every American's duty to allow the mosque. Some may feel that America is in conflict with radical Islam, whereas others may perceive America to be in conflict with its own constitutional values of tolerance and liberty (see Moghaddam, this issue). As this example shows, the cultural worldviews that are defended under threat are relative. They

depend on perceptions of what constitutes being a good person (personal norms) or a good member of the cultural ingroup (ingroup norm). Which of these norms dictates behavior in a given situation depends on which personal or social norm is immediately salient; that is, an opinion on whether the Muslim parish should be allowed to build the mosque might vary depending on whether a person is listening to religious fanatics preaching intergroup hatred or thinking of the U.S. Constitution (in fact, U.S. President Obama has emphasized the latter norm when commenting on the debate; Stolberg, 2010). Many worldviews contain norms and values that elicit harmonious behavior by promoting help, fairness, and equality, as well as empathy and compassion. If following MS people cling more to their ingroup and want to demonstrate that they are valuable members of their society, they can do this under certain circumstances by showing culturally prescribed prosocial and peaceful behavior.

Research supports this assumption by showing that existential threat motivates people to follow *salient* cultural norms. Depending on which aspect of their cultural worldview is activated in a specific situation, people do not only comply with norms of intergroup hostility. They show the opposite tendency, if peace-fostering norms are activated, such as intergroup fairness or approval of pacifism. Though conflicting norms often coexist within a person's cultural worldview, terror management research suggests that the norm that produces congruent action following MS seems to be the one that is most prominent in consciousness at any given moment. We next elaborate on these principles by looking at three kinds of norms (cf. Cialdini, Kallgren, & Reno, 1991): *Personal norms* represent our internalized sense of how we should behave; *injunctive norms* describe what ought to be done from a society's moral perspective; and *descriptive norms* represent standards that develop out of our observations of others' behavior.

**Personal norms.** Terror management research suggests that the personal importance of prosocial values for a certain person can counteract otherwise hostile reactions induced by MS, as shown for liberal people who tended to become more tolerant following MS (Greenberg, Simon, Pyszczynski, Solomon, & Chatel (1992, Study 1) or empathic persons who were more willing to forgive an aggressive outgroup member following MS (Schimel, Wohl, & Williams, 2006). Several examples show that MS polarizes people's reactions depending on their personal norms: For example, Weise, Arciszewski, Verliac, Pyszczynski, and Greenberg (2012) showed for right-wing authoritarians that MS increased negative evaluations of an immigrant, whereas for those people scoring low on right-wing authoritarianism, MS led to more positive evaluations and to more interest in a social interaction with the immigrant.

Looking at people's values on a societal level in times of crises, one also often finds amplified and polarized attitudes: For example, Cuillier, Duell, and Joireman (2009) showed that under conditions of MS, the more people valued national security the less they supported freedom of the media and the right to criticize public officials or the U.S. military. Thus personal norms and values virtually predetermine reactions to MS. If people hold prosocial or liberal norms, this may significantly lessen or even overturn hostile intergroup reactions in times of threat.

**Situationally activated injunctive norms.** Cultural worldviews consist of complex, multifaceted sets of ideas and values usually containing conflict-enhancing as well as conflict-reducing elements (Pyszczynski et al., 2008). The specific situation determines which aspect of people's cultural worldview and which corresponding norm are salient. Meanwhile, numerous studies have shown that existential threat drives people to comply with salient injunctive cultural norms of how good people should behave. The activation

of these prosocial norms has been shown to counteract otherwise observed hostile reactions following MS.

The situational activation of tolerance among American college students, for example, counteracted the negative effect of MS toward dissimilar others (Greenberg et al., 1992, Study 2) and eliminated the increase in negative attitudes toward Muslims that was typically induced by MS (Vail, Arndt, Rempel, Pope, & Piel, 2012). In related research, Gailliot, Sillman, Schmeichel, Maner, and Plant (2008) found that following MS, activation of the cultural value of egalitarianism reduced prejudice toward Blacks (among non-Black participants). Jonas, Sullivan, and Greenberg (in press) showed that the activation of a fairness norm increased generous monetary behavior following MS, and Jonas et al. (2008) demonstrated that when opposite norms (e.g., proself vs. prosocial) are primed, MS enforces opposite reactions in line with the activated norms.

In a similar vein, and highly relevant in the context of peace processes, a further study by Jonas et al. (2008) examined the interactive effect of MS combined with a *pacifism* norm induced by embedding pacifism-related words (peace, reconciliation, harmony, etc.) in a word-search task. After participants had been told that there was considerable danger to their country (Germany) due to the development of nuclear weapons in Iran, they were asked to rate a number of conflict-resolution strategies. Whereas an MS prime alone reduced the approval of peaceful conflict resolution strategies, in combination with a pacifism prime MS increased interest in peaceful strategies. However, Hirschberger et al. (2009) found that de-escalating messages decreased conflict-fostering attitudes only in those people who in addition to experiencing experimental manipulation of MS were exposed to existential threat because they lived in a war-exposure area in Israel.

Rothschild et al. (2009) showed that priming compassionate religious values, in combination with MS, reduced the approval of harsh military action to defend U.S. interests among U.S. participants, and a similar induction also reduced hostile anti-Western attitudes in a sample of Iranian Shiite Muslims. Obviously, the salience of peace-related religious norms can make people more supportive of conciliatory policies under existential threat. However, interestingly, in the U.S. samples this effect was only observed among people who scored high on religious fundamentalism, and only when compassionate values were framed as religious (and not as secular) values. These findings suggest that for norms to interact effectively with MS they must be explicitly associated with the *ingroup* (in this case, the religious ingroup).

In a study looking at the MS effects on the 2008 U.S. presidential election, participants exposed to MS but primed with compassionate values preferred the Democratic candidate Barack Obama, who was perceived to be more compassionate than the Republican candidate John McCain. However, in the neutral values condition, MS led participants to vote for the Republican candidate (Vail, Arndt, Motyl, & Pyszczynski, 2009). This result again shows that following MS, the salience of values can shift people's behavior to be in accordance with these social norms.

**Descriptive norms: What does it mean to be “us”?** By following injunctive cultural norms people affirm their personal self-esteem—they behave how “good people” should behave. On a more basic level, norm compliance under threat can also be conceived of as a by-product of people's heightened desire to affiliate with a group and their tendency to think of themselves as group members (Castano & Dechesne, 2005). Therefore, they tend to adopt normative ingroup standards as personal norms (*self-stereotyping*; Turner et al., 1987). For example, highly identified group members who perceive competitive or even hostile behavior toward outgroups as being the ingroup norm may become more biased and hostile when self-stereotyping. In contrast, when the

ingroup is seen as highly valuing the norms of fairness and tolerance, more peaceful interactions with outgroup members would be expected from high identifiers. Tendencies in either direction may be increased under existential threat.

Descriptive norms consist of beliefs about how members of a group *actually* behave (and not how they are normatively *expected* to behave). Jonas and Fritzsche (2012) demonstrated that descriptive ingroup norms have the potential to eliminate even those responses to MS that might be considered hard-wired, group-based thought tendencies (such as positive ingroup bias): When individuals believed their fellow ingroup members were pessimistic about future ingroup outcomes, MS did not lead to the usual increase of positive ingroup thinking; however, when their fellow ingroup members were perceived to be optimistic, MS increased ingroup boasting. In another study by Giannakakis and Fritzsche (2011, Study 3), this effect becomes even more evident: Here, British university students were told that polls had shown that students of their university were very *collectivistic*; as a consequence they reacted to MS with increased bias in favor of the ingroup. In contrast, when students were told that their ingroup was very individualistic and did not care much about their group of students from their own respective university, MS *decreased* ingroup bias in resource allocations between their own university and another. Thus, paradoxically increased adherence to group norms following MS can lead to less ingroup support if collective thinking is counteracted by ingroup norms.

In a similar vein, social consensus information can be considered as a descriptive ingroup norm. Accordingly, Abdollahi, Henthorn, and Pyszczynski (2009) showed that MS only increased support for violent martyrdom attacks if participants had received high social consensus information or no information regarding martyrdom attacks. However, low consensus information suggesting that most people in their country were against martyrdom attacks prevented the increased support for this kind of violence following MS.

**Defend the ingroup! But who is the ingroup?** Group-based reactions to existential threat should depend not only on which ingroup norm is salient in a situation but also on who is defined as the ingroup. Social categorizations of “us” and “them” are flexible and contingent upon social situations. That is, acting as a group member under threat may lead people to derogate a person when she or he is assigned to the outgroup (e.g., a French person judged by a British person) but may lead to more positive evaluation of the same person when he or she is seen as an ingroup member (e.g., a European). This effect of recategorization was demonstrated by Giannakakis and Fritzsche (2011, Study 2; for studies on recategorization effects in intergroup contact, see Gaertner, Mann, Murrell, & Dovidio, 1989). The power of fluidly changing self-categorizations has also been investigated by Halloran and Kashima (2004), who found that indigenous Australians defended individualistic values following MS when they had been thinking of themselves as Australian citizens. When they had been reminded of their indigenous identity, however, they defended collectivistic values as a response to existential threat.

Meanwhile, there are several research examples showing that recategorizing, and thereby overriding boundaries between ingroup and outgroup, can redirect the effects of MS. Data obtained by Motyl et al. (2011) showed that subtle reminders of *shared human experiences* eliminated MS-induced negative reactions toward outgroups, such as anti-Arab prejudice and negative attitudes toward immigrants. In one study the authors presented pictures of families from diverse cultures versus pictures of typical White American families. In a second study they asked American participants to read about childhood memories of an ostensibly foreign (vs. American) person and then write about their own similar experiences. These manipulations increased a sense of common humanity, a variable that in fact mediated the mitigating effect of

the commonality treatment on MS effects. In a similar vein, Pyszczynski et al. (2012) asked Americans and Palestinian citizens of Israel to think about the shared global consequences of climate change (vs. thinking about a local catastrophe). This induction of shared experience reduced the support for violence following MS. Thus, even at the height of Israeli military action in Gaza in 2009, MS had the power to increase support for peace, if self-categorization had taken place before. Furthermore Motyl, Hart, and Pyszczynski (2010) found that convincing people to categorize themselves as *distinct* from other creatures (animals) decreased support for military action when human violence had been linked to animal violence. Because humans self-categorized themselves as different from animals they also distanced themselves from ostensibly typical animal features (such as aggression) in this situation.

In summary, the findings on the nature of MS effects that are situationally moderated by ingroup norms and self-categorization (see Figure 1, Path III) illustrate that tendencies to defend social ingroups and their worldviews under threat do not necessarily lead to increased conflict and hatred. Instead, positive ingroup norms such as benevolence or pacifism can even lead people to more strongly endorse peaceful modes of intergroup interaction under conditions of existential threat. At the same time, inclusion of an outgroup in a superordinate self-category can improve intergroup attitudes under threat. In general, people respond to existential threat by acting as normative group members. To break the vicious cycle of self-perpetuating existentially threatening conflicts, it is crucial to consider and try to positively influence what the normative implications of group membership might be in any given situation. Norms of tolerance, intergroup cooperation, and peaceful conflict resolution might be influential under any conditions. However, given the catalyzing power of existential threat they might decide upon war or peace in times of existentially threatening crises.

### Not Destined to Wage War, but Where Do We Go From Here?

Humans are destined to die, but not to wage war. Although terror management processes help to explain the escalation of existentially threatening conflict between groups (e.g., war, terrorism and counterterrorism; Paths a–d (Figure 1) of our TMT-based analysis also make clear that self-perpetuation of these conflicts is not automatic and inevitable. Instead, we have outlined three different kinds of intervening terror management processes that may break the vicious cycle of threat and violence. First, confrontation with death is not always perceived as threatening, as has been shown for intrinsically religious people or for situations in which people consider death to be self-determined and thus partly controllable (Figure 1, Path I). Second, existential threat might be initially buffered when people are embedded in circumstances that provide a sense of death transcendence, such as boosts to self-esteem, secure immersion in alternative cultural ingroups, secure attachment, deep affiliation with a romantic partner, or thinking of one's own offspring (Path II). The third way in which the presence of death and fragility can be prevented from eliciting hostile intergroup behavior is related to the very nature of what it means to be a proper member of the cultural ingroup and which group people feel they belong to (Path III). We have reviewed evidence that salient ingroup norms determine how cultural worldview defense is expressed. When norms of tolerance, fairness, benevolence, or pacifism, were salient, MS induced people to think and act in a more tolerant, fair, benevolent, or pacifist fashion. Descriptive ingroup norms of individualism even led to reduced levels of ingroup bias following reminders of death. Self-categorizing as members of a common ingroup (as, e.g., Europeans, members of a common human family) also reduced threat responses of ingroup bias and intergroup violence.

### Threat Effects on Intergroup Attitudes Are Malleable

The malleability of threat effects on intergroup attitudes is the basic message of the reviewed literature. This is important not only from a scientific but also from an applied or even political perspective. Deep pessimism about human nature and the dynamics of “intractable” conflicts may often pave the way for support and approval of military strategies directed at resolving the conflict but may promote self-fulfilling prophecies of violent intergroup conflict. For example, politicians may hold naïve theories suggesting that voters support cries to arms in times of mass societal threat, as in the case of the 9/11 attacks. As seen above, some findings indeed support this notion.

At the same time, the reviewed research demonstrates that a simple threat–aggression link is wrong. People do not always appraise death as a threat; they may rely on alternative anxiety buffers other than worldview defense, and if cultural worldview defense is, in fact, triggered, salient ingroup norms determine if people will become zealous hawks or passionate doves. In terms of understanding intergroup conflict, this means that groups and societies involved in violent intergroup conflict will not automatically drift toward intolerance and hostility, and that although it might be lay-Machiavellian wisdom to cry for war in times of threat, there should be more sustainable (and peaceful!) strategies that leaders can rely on while still winning the support of the people. Our model (see Figure 1) suggests various ways to prevent the malicious effects of MS and may even show how societies and groups can make positive use of the motivational energy released when people are confronted with existential realities. It is our hope to inspire intervention strategies that take into consideration the destructive and constructive powers of the threat of death in violent intergroup conflicts. But what opportunities for intervention do we see?

### Opportunities for Intervention

**Reduction of mortality reminders.** Preventing existential threat from occurring might be the most basic way to break the cycle of intergroup violence. Anything that could be done to stop the deadly nature of a conflict would reduce ethnocentric thinking and worldview defense, which often promote intergroup violence. Next, the systematic use of death reminders, which seems to be a common strategy by politicians to make citizens ready to support military interventions, should be eschewed. Often these messages are deliberately overstated or even false (e.g., Nikolaev & Porpora, 2006). Yet, they have the desired effect of making people support aggression toward outgroups (see Lewandovsky et al., this issue). Thus, one straightforward strategy based on TMT would be to eliminate the purposeful use of death reminders (especially in combination with the activation of aggressive norms) to influence citizens.

**Fighting threat.** Beliefs in high personal control in general (Talati et al., 2013), and about death in particular (Fritsche et al., 2008) have been shown to eliminate the detrimental effects of death awareness. Thus, one possibility for reducing the self-perpetuation of violent conflict lies in strengthening people's perceptions of control and personal freedom. This might be accomplished both on the societal as well as the individual level. Research by Agroskin and Jonas (2010) suggested that perceiving control in the sociopolitical sphere is connected with low levels of authoritarianism, prejudice, and ethnocentrism. Democracy and political participation may create a sense of self-determination and thus control in people, which may allow them to appraise existential uncertainties and demands as less threatening. Democracies, indeed, have been found to be more peaceful in how they treat their people, internally, and how they respond to conflict,



externally, that is, with respect to other regimes (for an overview see Alexander, Inglehart, & Welzel, 2012). Yet, whether as a consequence people from democracies show smaller MS effects in general or respond to MS in a different manner from people from nondemocracies remains a question for future research.

**Providing alternative anxiety buffers.** Encouraging people to utilize alternative anxiety buffers beyond basic worldview defense may prevent existential threat from increasing intolerance and intergroup hatred. We have discussed some of these alternative buffer mechanisms, such as self-esteem, immersion in cultural ingroups, secure interpersonal attachment, and focusing on one's own offspring. It is possible that societies that offer people the satisfaction of their basic psychological needs (e.g., Pittman & Zeigler, 2007), such as self-esteem or belonging generally, are most resilient in the face of existentially threatening crises. In contrast, societies that fail to satisfy basic psychological needs may be fertile ground for escalating cycles of intergroup violence and existential threat. For example, (Pittman, Chen, Dechesne, Fishman, and Orehek (2009) gathered evidence that suicide terrorists usually have a personal history of loss of significance elicited, for instance, by experiencing ostracism or the killing of a close relative. In turn, engaging in extreme political violence has been interpreted as an effort to restore a sense of personal significance (Kruglanski et al., this issue).

Creating social environments that allow people to integrate into culturally continuous (Routledge & Arndt, 2008; Sani et al., 2009) and clearly identified ("entitative") groups or communities (Castano & Dechesne, 2005), such as subcultural groups or volunteer organizations, may reduce their initial susceptibility to harsh defensive responses to threat because being integrated in a meaningful group can buffer existential anxiety and provide secure cultural worldviews. Such environments may be enhanced by the presence of symbols representing these cultural groups, which become especially important under existential threat (see Jonas, Fritzsche, & Greenberg, 2005). Of course caution is mandatory: High levels of ingroup identification may give rise to the basic phenomenon of group-based thinking, often resulting in destructive ethnocentrism. Especially when both the group and its individual members are under threat, the integration into groups might no longer serve as an anxiety buffer but rather will aggravate ingroup bias and outgroup derogation (Brewer, 1999; Fritzsche et al., 2013) and, thus, increase intergroup conflict. Yet, here the central role of ingroup norms for directing self-defensive behavior comes into play. Rothschild et al. (2009) showed for religious fundamentalists that MS even has the power to significantly *decrease* support for violent solutions (to a level equivalent to that of less fundamentalist people), if the value of compassion had been activated by corresponding verses from the Bible.

With regard to self-esteem as an anxiety buffer, people who have a strong sense of personal value are more resilient to mortality threats (Pyszczynski et al., 2004; Schmeichel et al., 2009). Thus, in situations of violent intergroup conflict, strengthened self-esteem should reduce defensive and ethnocentric responses. Tragically, with regard to situations of war it often seems to be common practice to humiliate adversary groups or individual outgroup members, resulting in undermined self-esteem for outgroup members on the collective or personal level (cf. Pyszczynski et al., 2008). Motyl et al. (2009) suggested that feelings of humiliation when perceiving ingroup sovereignty and autonomy to have been violated play an important role in motivating people to take part in terrorist activities. The feeling of humiliation often results from military responses to terrorism, but also from harsh or illegal outgroup treatment, such as mistreating prisoners of war. Prominent cases of outgroup humiliation include video-taped torturing of hostages by terrorist groups or mistreatment of prisoners in Abu Ghraib and Guantanamo. In the course of violent

intergroup conflict, undermining adversaries' self-esteem and reputation may be psychologically tempting for people strongly affected by the conflict (such as combatants), as this may seem to strengthen relative ingroup status and control and to weaken the opposing group. However, this course of action can be costly, as it may trigger more extreme hostile responses to existential threat on the side of outgroup members. Thus, political, religious, and military leaders should take special care that even in severe situations of intergroup conflict, humiliation is prevented and residents of occupied countries are treated with respect and in accordance with ethical and humanitarian laws, such as the Geneva convention regarding the treatment of prisoners of war.

**Ingroup norms.** Studies on the moderating effects of norm salience indicate that the content and direction of cultural worldview defense depend on which specific cultural norms people subscribe to or which social norm is salient in a given situation. This is why promoting norms of peaceful conflict resolution in a society seems particularly important in times of existential threat. As cultural worldviews consist largely of ingroup norms, and people are specifically prone under threat to act as ingroup members (instead of acting as individuals), peace-oriented norms may work best when they are identified as distinctive ingroup norms. In post-war Germany, "never again" became a prominent justification of German foreign policy, which for a long time refrained from military missions outside Germany. In a similar vein, Japan banned nuclear weapons after World War II.

Likewise, group leaders' public statements and actions may have a tremendous impact on perceived ingroup norms and, thus, on the direction existential threat effects may take. For example, in the controversy about building a Mosque close to Ground Zero, U.S. President Obama reminded Americans that "in this country, we treat everybody equally and in accordance with the law, regardless of race, regardless of religion" (Stolberg, 2010). An impressive example of the effects that the setting of peace-serving norms by leaders can have is the reconciliation process in post-apartheid South Africa. Here, leaders such as Nelson Mandela and Bishop Tutu promoted the idea that reconciliation instead of revenge between adversarial ethnic groups was necessary to ensure a positive future in the country. Both chaired the Truth and Reconciliation Commission, which served to make public individual instances of crime and oppression against people of color without formally punishing the former perpetrators. This process was meant to refrain from humiliating the former perpetrator group and to emphasize that all people share humanity and dignity. This may have influenced people also in their everyday actions and attitudes vis-à-vis members of the racial outgroup and likely helped prevent civil war in South Africa. In this way, leaders have the power to change the direction that existential threat effects take in violent intergroup conflict. As cultural worldviews have multiple facets and include different values, whether they encourage, stimulate, or justify violence or convey peaceful and reconciliatory messages often depends on the rhetoric, interpretations, accentuation of political or religious leaders, and the media (Pyszczynski et al. 2008). What kind of message is delivered in times of threat should make a crucial difference because following MS, people are motivated to follow salient norms, and these are most likely to influence people when they are communicated by trusted leaders or other central group members.

With regard to descriptive norms, research by Abdollahi et al. (2009) showed that direct communication about social consensus in a society is also an important factor that dramatically moderates the effects of MS on peace processes. If people feel that there is unanimity in a society about violent interventions being the only opportunity to act in an ongoing conflict, existential threat will increase their individual approval of violent measures. In turn,

communicating different standpoints reflecting social dissent and controversy may interrupt these effects. Often, politicians create consensus rhetorically (Bass, 1992), for example, by using phrases (e.g., "Since we all agree...") that suggest that no serious opposition exists. However, politicians should not create such illusions of consensus with the help of rhetoric if their statements are not built on facts, and especially if false statements are used to create unanimity (see Lewandowsky, this issue). Instead, minority positions of nonmilitary conflict resolution in a society should be given the opportunity to become publicly visible., for example, through media coverage. Thus, freedom of the press and policies that support public discourse are not only basic constituents of liberal democracies but also central safeguards against the self-perpetuating cycle of intergroup violence.

Once norms of peaceful conflict resolution are established, people have to be reminded of the existence of such norms in everyday life. People who are exposed to considerable threat may forget about certain rules of moral conduct or the values of their country's constitution when other norms become focal, such as during combat missions (e.g., norms of personal safety or comradeship for soldiers). If reminders of humanitarian norms are absent, this may increase the likelihood of disastrous misconduct under threat, such as violence against outgroup civilians. As existential threat enforces thinking and acting in line with salient cultural norms, reminding combatants of the central moral codes of their culture is pivotal for preventing such phenomena as prisoner abuse or "collateral damage" to civilians.

**Self-categorization.** The escalation of existentially threatening intergroup conflicts might be prevented not only by making salient peace-promoting ingroup norms but also by means of redefining who the (cultural) ingroup is. Recategorization at the level of a common superordinate ingroup has been discussed as an important means to improve intergroup relations in situations of intergroup contact (Gaertner et al., 1989). Under conditions of existential threat, people are more strongly inclined to think and act as ingroup members. Promoting perceptions of the outgroup as being part of a common superordinate ingroup might be a promising route to reducing anti-outgroup behavior under threat. Sixty years of political integration in post-war Europe explicitly followed this strategy aimed at tearing out the roots of war in Europe. However, although laboratory evidence suggests that the effects of MS on ingroup bias can be reduced when outgroups are included in an established common social category (e.g., making European identity salient led English students to evaluate the French more positively following reminders of mortality; Giannakakis & Fritsche, 2011), it is questionable whether recategorization will have similar effects in hot intergroup conflicts. This is because when intergroup conflict is particularly salient the distinction between ingroup and outgroup (e.g., between Muslims and Jews) will remain salient too, leading to social comparisons within a common category (e.g., monotheistic religions). Existential threat can be expected to further catalyze these effects, as it is driving thinking in terms of social identities, thus fueling the escalation of conflict when both primary and common identity are salient (dual identity). Summed up, to be effective in preventing the escalation of violent conflict, common ingroups have to be established in the long run, and they should be associated with norms of intragroup cooperation, diversity, and peace, reducing the detrimental effects dual identities can have (as is the case with the European Union).

## Outlook

Worldview defense and group-based thinking have often been viewed as dangerous proclivities that have to be harnessed and kept under control. However, this is not the full story. From a functional point of view, ingroup defense might serve to increase collective

agency under conditions of personal threat. Sticking to the ingroup and acting in line with its norms is an important condition of collective action (e.g., Van Zomeren, Postmes, & Spears, 2008). Accordingly, existential threat has been shown to create a fertile ground for citizens committing themselves to social goals, such as proenvironmental behavior (Fritsche, Jonas, Niesta Kayser, & Koranyi, 2010) or social movements, such as political parties (Fritsche et al., 2008, Study 6) or human-rights groups (Fritsche et al., 2013, Study 6). In fact, people's movements for nuclear disarmament were strongest during the Cold War, a time when every day brought the threat of total annihilation. Similarly, in many Arab countries, citizens recently resisted oppression by united protest, even though they were threatened with brutal force. Hence, the collective powers existential threat can arouse may not only increase the risk of nations going to war, but may also fuel collective movements for human rights and peace that may counteract violent intergroup conflict.

## References

- Abdollahi, A., Henthorn, C., & Pyszczynski, T. (2009). Experimental peace psychology: Priming consensus mitigates aggression against outgroups under mortality salience. *Behavioral Sciences of Terrorism and Political Aggression*, 2, 30-37.
- Agroskin, D., & Jonas, E. (2010). Out of control: How and why does perceived lack of control lead to ethnocentrism? *Review of Psychology*, 17, 79-90.
- Alexander, A., Inglehart, R., & Welzel, C. (2012). Measuring effective democracy: A defense. *International Political Science Review*, 33, 41-62.
- Arndt, J., & Greenberg, J. (1999). The effects of a self-esteem boost and mortality salience on responses to boost relevant and irrelevant worldview threats. *Personality and Social Psychological Bulletin*, 25, 1331-1341.
- Asbrock, F., & Fritsche, I. (in press). Authoritarian reactions to terrorist threat: Who is being threatened, the me or the we? *International Journal of Psychology*.
- Bass, J. D. (1992). The paranoid style in foreign policy: Ronald Reagan's control of the situation in Nicaragua. In M. Weiler & W. Pearce (Eds.), *Reagan and public discourse in America* (pp. 183-202). Tuscaloosa, AL: University of Alabama Press.
- Bassett, J. R., & Connelly, J. N. (2011). Terror management and reactions to undocumented immigrants: Mortality salience increases aversion to culturally dissimilar others. *The Journal of Social Psychology*, 151, 117-120.
- Becker, E. (1973). *The denial of death*. New York, NY: Free Press.
- Brewer, M. B. (1999). The psychology of prejudice: Ingroup love or outgroup hate? *Journal of Social Issues*, 55, 429-444.
- Brewer, M. B., Hong, Y.-Y., & Li, Q. (2004). Dynamic entitativity: Perceiving groups as actors. In V. Yzerbyt, C. M. Judd, & O. Corneille (Eds.), *The psychology of group perception. Perceived variability, entitativity, and essentialism* (pp. 25-38). New York, NY: Psychology Press.
- 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. (2004). In case of death, cling to the

ingroup. *European Journal of Social Psychology*, 34, 375-384.

Castano, E., & Dechesne, M. (2005). On defeating death: Group reification and social identification as strategies for transcendence. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (pp. 221-255). Chichester, England: Wiley.

Chatard, A., Selimbegović, L., N'dri Konan, P., Arndt, J., Pyszczynski, T., Lorenzi-Cioldi, F., & Van Der Linden, M. (2011). Terror management in times of war: Mortality salience effects on self-esteem and governmental support. *Journal of Peace Research*, 48, 225-234.

Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct. *Advances in Experimental Social Psychology*, 24, 201-234.

Cox, C. R., Arndt, J., Pyszczynski, T., Greenberg, J., Abdollahi, A., & Solomon, S. (2008). Terror management and adults' attachment to their parents: The safe haven remains. *Journal of Personality and Social Psychology*, 94, 696-717.

Cullier, D. (2012). Subconscious gatekeeping: The effect of death thoughts on bias toward outgroups in news writing. *Mass Communication & Society*, 15, 4-24.

Cuillier, D., Duell, B., & Joireman, J. (2009). FOI friction: The thought of death, national security values, and polarization of attitudes toward freedom of information. *Open Government*, 5(1). Retrieved from www.opengovjournal.org

Das, E., Bushman, B. J., Bezemer, M. D. Kerkhof, P., & Vermeulen, I. E. (2009). How terrorism news reports increase prejudice against outgroups: A terror management account. *Journal of Experimental Social Psychology*, 45, 453-459.

Dechesne, M., Berg, C. van den, & Soeters, J. (2007). International collaboration under threat: A field study in Kabul. *Conflict Management and Peace Science*, 24, 25-36.

Dechesne, M., Pyszczynski, T., Arndt, J., Ransom, S., Sheldon, K. M., Knippenberg, A. van, & Janssen, J. (2003). Literal and symbolic immortality: The effect of evidence of literal immortality on self-esteem striving in response to mortality salience. *Journal of Personality and Social Psychology*, 84, 722-737.

Fischer, P., Greitemeyer, T., Kastenmüller, A., Frey, D., & Oßwald, S. (2007). Terror salience and punishment: Does terror salience induce threat to social order? *Journal of Experimental Social Psychology*, 43, 964-971.

Talati, Z., Fritsche, I., Du, H., Jonas, E., & Castano, E. (2013). *The possibility of self-determined death eliminates mortality salience effects on cultural worldview defense: Cross-cultural evidence*. Manuscript submitted for publication.

Fritsche, I., & Jonas, E. (2011). Mortality salience in peace and conflict. In D. J. Christie (Ed.), *The encyclopedia of peace psychology* (pp. 676-680). Malden, MA: Wiley-Blackwell.

Fritsche, I., Jonas, E., Ablasser, C., Beyer, M., Kuban, J., Manger, A.-M., & Schultz, M. (2013). The power of we: Evidence for group-based control restoration. *Journal of Experimental Social Psychology*, 49, 19-32.

Fritsche, I., Jonas, E., & Fankhänel, T. (2008). The role of control motivation in mortality salience effects on ingroup support and defense. *Journal of Personality and Social Psychology*, 95, 524-541.

Fritsche, I., Jonas, E., Fischer, P., Koranyi, N., Berger, N., & Fleischmann, B. (2007). Mortality salience and the desire for offspring. *Journal of Experimental Social Psychology*, 43, 753-762.

Fritsche, I., Jonas, E., & Kessler, T. (2011). Collective reactions to threat: Implications for intergroup conflict and solving societal crises. *Social Issues and Policy Review*, 5, 101-136.

Fritsche, I., Jonas, E., Niesta Kayser, D., & Koranyi, N. (2010). Existential threat and compliance with pro-environmental norms. *Journal of Environmental Psychology*, 30, 67-79.

Fritsche, I., Koranyi, N., Beyer, C., Jonas, E., & Fleischmann, B. (2009). Enemies welcome: Personal threat and reactions to outgroup doves and hawks. *International Review of Social Psychology*, 22, 157-179.

Gaertner, S., Mann, J., Murrell, A., & Dovidio, J. F. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of Personality and Social Psychology*, 57, 239-249.

Gailliot, M. T., Sillman, T. F., Schmeichel, B. J., Maner, J. K., & Plant, E. A. (2008). Mortality salience increases adherence to salient norms and values. *Personality and Social Psychology Bulletin*, 34, 993-1003.

Giannakakis, A., & Fritsche, I. (2011). Social identities, group norms, and threat: On the malleability of ingroup bias. *Personality and Social Psychology Bulletin*, 37, 82-93.

Golec de Zavala, A., Cichocka, A., Orehek, E., & Abdollahi, A. (2012). Intrinsic religiosity reduces intergroup hostility under mortality salience. *European Journal of Social Psychology*, 42, 451-461.

Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, 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*, 58, 308-318.

Greenberg, J., Schimel, J., Martens, A., Solomon, S., & Pyszczynski, T. (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.

Greenberg, J., Simon, L., Pyszczynski, T., Solomon, S., & Chatel, D. (1992). Terror management and tolerance: Does mortality salience always intensify negative reactions to others who threaten one's worldview? *Journal of Personality and Social Psychology*, 63, 212-220.

Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 61-139). San Diego, CA: Academic Press.

Hafer, C. L. (2000). Do innocent victims threaten the belief in a just world? Evidence from a modified Stroop

task. *Journal of Personality and Social Psychology*, 79, 165-173.

Halloran, M. J., & Kashima, E. S. (2004). Social identity and worldview validation: The effects of ingroup identity primes and mortality salience on value endorsement. *Personality and Social Psychology Bulletin*, 30, 915-925.

Hayes, J., Schimel, J., & Williams, T. J. (2008). Fighting death with death: The buffering effects of learning that worldview violators have died. *Psychological Science*, 19, 501-507.

Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, 53, 575-604.

Hirschberger, G. (2006). Terror management and attributions of blame to innocent victims: Reconciling compassionate and defensive responses. *Journal of Personality and Social Psychology*, 91, 832-844.

Hirschberger, G., & Ein-Dor, T. (2006). Defenders of a lost cause: Terror management and violent resistance to the disengagement plan. *Personality and Social Psychology Bulletin*, 32, 761-769.

Hirschberger, G., & Pyszczynski, T. (2011). Killing with a clean conscience: Existential angst and the paradox of morality. In M. Mikulincer & P. R. Shaver (Eds.), *Social psychology of morality: Exploring the causes of good and evil* (pp. 331-347). Washington DC: American Psychological Association.

Hirschberger, G., Pyszczynski, T., & Ein-Dor, T. (2009). Vulnerability and vigilance: Threat awareness and perceived adversary intent moderate the impact of mortality salience on intergroup violence. *Personality and Social Psychology Bulletin*, 35, 597-607.

Hirschberger, G., Pyszczynski, T., & Ein-Dor, T. (2010). An ever-dying people: The existential underpinnings of Israeli's perceptions of war and conflict. *Cahiers Internationaux de Psychologie Sociale*, 87, 443-457.

Jonas, E., & Fischer, P. (2006). Terror management and religion—Evidence that intrinsic religiousness mitigates worldview defense following mortality salience. *Journal of Personality and Social Psychology*, 91, 553-567.

Jonas, E., & Fritsche, I. (2012). Follow the norm! Terror management theory and the influence of descriptive norms. *Social Psychology*, 43, 28-32.

Jonas, E., Fritsche, I., & Greenberg, J. (2005). Currencies as cultural symbols—An existential psychological perspective on reactions of Germans toward the euro. *Journal of Economic Psychology*, 26, 129-146.

Jonas, E., Greenberg, J., & Frey, D. (2003). Connecting terror management and dissonance theories: Evidence that mortality salience increases the preference for supportive information after decisions. *Personality and Social Psychology Bulletin*, 29, 1181-1189.

Jonas, E., Martens, A., Niesta, D., Fritsche, I., Sullivan, D., & Greenberg, J. (2008). Focus theory of normative conduct and terror management theory: The interactive impact of mortality salience and norm salience on social judgment. *Journal of Personality and Social Psychology*, 95, 1239-1251.

Jonas, E., Sullivan, D., & Greenberg, J. (in press). Generosity, greed, norms, and death: Differential effects of

mortality salience on charitable behavior. *Journal of Economic Psychology*.

Kimhi, S., Canetti-Nisim, D., & Hirschberger, G. (2009). Terrorism in the eyes of the beholder: The impact of causal attributions on perceptions of violence. *Peace and Conflict: Journal of Peace Psychology*, 15, 75-95.

Kruglanski, A. W., Chen, X., Dechesne, M., Fishman, S., & Orehek, E. (2009). Fully committed: Suicide bombers' motivation and the quest for personal significance. *Political Psychology*, 30, 331-357.

Kruglanski, A. W., Pierro, A., Mannetti, L., & De Grada, E. (2006). Groups as epistemic providers: Need for closure and the unfolding of group-centrism. *Psychological Review*, 113, 84-100.

Kugler, M. B., & Cooper, J. (2010). Still an American? Mortality salience and treatment of suspected terrorists. *Journal of Applied Social Psychology*, 40, 3130-3147.

Landau, M. J., Johns, M., Greenberg, J., Pyszczynski, T., Solomon, S., & Martens, A. (2004). A function of form: Terror management and structuring of the social world. *Journal of Personality and Social Psychology*, 87, 190-210.

Landau, M. J., Solomon, S., Greenberg, J., Cohen, F., Pyszczynski, T., Arndt, J., & Cook, A. (2004). Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for President George W. Bush. *Personality and Social Psychology Bulletin*, 30, 1136-1150.

Leary, M. R. (2006). Sociometer theory and the pursuit of relational value: Getting to the root of self-esteem. *European Review of Social Psychology*, 16, 75-111.

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.

McPherson, S., & Joireman, J. (2009). Death in groups: Mortality salience and the interindividual-intergroup discontinuity effect. *Group Processes & Intergroup Relations*, 12, 419-429.

Mikulincer, M., Florian, V., & Hirschberger, G. (2004). The terror of death and the quest for love—An existential perspective on close relationships. In J. Greenberg, S. L., Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 287-304). New York, NY: Guilford.

Morgan, G. S., Wisneski, D. C., & Skitka, L. J. (2011). The expulsion from Disneyland: The social psychological impacts of 9/11. *American Psychologist*, 66, 447-454.

Motyl, M., Hart, J., & Pyszczynski, T. (2010). When animals attack: The effects of mortality salience, inhumanization of violence, and authoritarianism on support for war. *Journal of Experimental Social Psychology*, 46, 200-203.

Motyl, M., Hart, J., Pyszczynski, T., Weise, D. R., Cox, C. R., Maxfield, M., & Siedel, A. (2011). Subtle priming of shared human experiences eliminates threat-induced negativity toward Arabs, immigrants, and peace-making. *Journal of Experimental Social Psychology*, 47,

12

This is a copy of an article published in *American Psychologist*, Vol 68(7), Oct 2013, 543-558. Publisher: APA. Reprinted with permission.

Journal home page: <http://www.apa.org/pubs/journals/amp/>

This article may not exactly replicate the final version published in the APA journal. It is not the copy of record.

Motyl, M., & Pyszczynski, T. (in press). The existential underpinnings of the cycle of terrorist and counterterrorist violence and pathways to peaceful resolutions. *European Review of Social Psychology*.

Motyl, M., Rothschild, Z., & Pyszczynski, T. (2009). The cycle of violence and pathways to peace. *Journal of Organisational Transformation and Social Change*, 6, 153-170.

Nelson, L. J., Moore, D. L., Olivetti, J., & Scott, T. (1997). General and personal mortality salience and nationalistic bias. *Personality and Social Psychology Bulletin*, 23, 884-892.

Niesta, D., Fritsche, I., & Jonas, E. (2008). Mortality salience and its effects on peace processes: A review. *Social Psychology*, 39, 48-58.

Nikolaev, A. G., & Porpora, D. V. (2006). President Bush's pre-war rhetoric on Iraq: Paranoid style in action. *Critical Inquiry in Language Studies: An International Journal*, 3, 245-262.

Pittman, T. S., & Zeigler, K. R. (2007). Basic human needs. In A. W. Kruglanski, E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 473-489). New York, NY: Guilford Press.

Pyszczynski, T., Abdollahi, A., Greenberg, J., & Solomon, S. (2006). Crusades and Jihads: An existential psychological perspective on the psychology of terrorism and political extremism. In J. Victoroff (Ed.), *Tangled roots: Social and psychological factors in the genesis of terrorism* (pp. 85-97). Amsterdam, The Netherlands: IOS Press.

Pyszczynski, T., Greenberg, J., & Solomon, S. (1999). A dual-process model of defense against conscious and unconscious death-related thoughts: An extension of terror management theory. *Psychological Review*, 106, 835-845.

Pyszczynski, T., Greenberg, J., Solomon, S., Arndt, J., & Schimel, J. (2004). Why do people need self-esteem? A theoretical and empirical review. *Psychological Bulletin*, 130, 435-468.

Pyszczynski, T., Motyl, M., & Abdollahi, A. (2009). Righteous violence: Killing for God, country, freedom, and justice. *Behavioral Sciences of Terrorism and Political Aggression*, 1, 12-39.

Pyszczynski, T., Motyl, M., Vail, K., Hirschberger, G., Arndt, J., & Kesebir, P. (2012). A collateral advantage of drawing attention to global climate change: Increased support for peace-making and decreased support for war. *Peace and Conflict: Journal of Peace Psychology*, 18, 354-368.

Pyszczynski, T., Rothschild, Z., Motyl, M., & Abdollahi, A. (2008). The cycle of righteous destruction: A terror management theory perspective on terrorist and counter-terrorist violence. In W. Stritzke, S. Lewandowsky, D. Denemark, J. Clare, & F. Morgan (Eds.), *Terrorism and torture: An interdisciplinary perspective* (pp. 154-178). New York, NY: Cambridge University Press.

Pyszczynski, T., Solomon, S., & Greenberg, J. (2003). *In the wake of 9/11: The psychology of terror*. Washington, DC: American Psychological Association.

Pyszczynski, T., Vail, K. E., & Motyl, M. S. (2010). The cycle of righteous killing: Psychological forces

in the prevention and promotion of peace. In T. Pick, A. Speckhard, & B. Jacuch (Eds.), *Homegrown terrorism: NATO science for peace and security Series—E: Human and societal dynamics* (pp. 227-243). Amsterdam, The Netherlands: IOS Press.

Rothschild, Z. K., Abdollahi, A., & Pyszczynski, T. (2009). Does peace have a prayer? The effect of mortality salience, compassionate values, and religious fundamentalism on hostility toward outgroups. *Journal of Experimental Social Psychology*, 45, 816-827.

Routledge, C., & Arndt, J. (2008). Self-sacrifice as self-defense: Mortality salience increases efforts to affirm a symbolic immortal self at the expense of the physical self. *European Journal of Social Psychology*, 38, 531-541.

Sani, F., Herrera, M., & Bowe, M. (2009). Perceived collective continuity and ingroup identification as defence against death awareness. *Journal of Experimental Social Psychology*, 45, 242-245.

Schimel, J., Hayes, J., Williams, T. J., & 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., Waxmonski, J., & Arndt, J. (1999). Support for a functional perspective on stereotypes: Evidence that mortality salience enhances stereotypic thinking and preferences. *Journal of Personality and Social Psychology*, 77, 905-926.

Schimel, J., Wohl, M., & Williams, T. (2006). Terror management and trait empathy: Evidence that mortality salience promotes reactions of forgiveness among people with high trait empathy. *Motivation and Emotion*, 30, 214-224.

Schmeichel, B. J., Gailliot, M. T., Filardo, E.-A., McGregor, I., Gitter, S., & Baumeister, R. F. (2009). Terror management theory and self-esteem revisited: The roles of implicit and explicit self-esteem in mortality salience effects. *Journal of Personality and Social Psychology*, 96, 1077-1087.

Schmeichel, B. J., & Martens, A. (2005). Self-affirmation and mortality salience: Affirming values reduces worldview defense and death-thought accessibility. *Personality and Social Psychology Bulletin*, 31, 658-667.

Shnabel, N., Nadler, A., Ullrich, J., Dovidio, J. F., & Carmi, D. (2009). Promoting reconciliation through the satisfaction of the emotional needs of victimized and perpetrating group members: The needs-based model of reconciliation. *Personality and Social Psychology Bulletin*, 35, 1021-1030.

Stolberg, S. G. (2010, August 14). Obama says mosque upholds principle of equal treatment. *The New York Times*. Retrieved from <http://www.nytimes.com/2010/08/15/us/politics/15Islamcenter.html?pagewanted=all>

Sullivan, D., Jonas, E., & Jodlbauer, B. (2011). Mortality salience and worldview affirmation strengthen support for foreign products. *Journal of Psychology*, 219, 224-230.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel

(Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.

Taubman-Ben-Ari, O., & Findler, L. (2006). Motivation for military service—A terror management perspective. *Military Psychology, 18*, 149-159.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell.

Vaes, J., Heflick, N. A., & Goldenberg, J. L. (2010). "We are people:" In-group humanization as an existential defense. *Journal of Personality and Social Psychology, 98*, 750-760.

Vail, K. E., Arndt, J., Motyl, M., & Pyszczynski, T. (2009). Compassionate values and presidential politics: Mortality salience, compassionate values and support for Barack Obama and John McCain in the 2008 presidential election. *Analyses of Social Issues and Public Policy, 9*, 255-268.

Vail, K. E., Arndt, J., Motyl, M., & Pyszczynski, T. (2012). The aftermath of destruction: Images of destroyed buildings increase support for war, dogmatism, and death thought accessibility. *Journal of Experimental Social Psychology, 48*, 1069-1081.

Vail, K. E., Arndt, J., Ramped, N., Pope, J. B., & Pined, E. (2012). *Intolerance of intolerance: Mortality salience, tolerant values, and attitudes toward an anti-Muslim leader*. Unpublished manuscript, University of Missouri-Columbia.

Vail, K. E., Rothschild, Z. K., Weise, D., Solomon, S., Pyszczynski, T., & Greenberg, J. (2010). A terror management analysis of the psychological functions of

religion. *Personality and Social Psychology Review, 14*, 84-94.

Weise, D. R., Arciszewski, T., Verhac, J., Pyszczynski, T., & Greenberg, J. (2012). Terror management and attitudes toward immigrants: Differential effects of mortality salience for low and high right-wing authoritarians. *European Psychologist, 17*, 63-72.

Weise, D. R., Pyszczynski, T., Cox, C. R., Arndt, J., Greenberg, J., Solomon, S., & Kosloff, S. (2008). Interpersonal politics: The role of terror management and attachment processes in shaping political preferences. *Psychological Science, 19*, 448-455.

Wisman, A., & Goldenberg, J. L. (2005). From the grave to the cradle: Evidence that mortality salience engenders a desire for offspring. *Journal of Personality and Social Psychology, 89*, 46-61.

Zee, K. van der, & Gang, I. van der. (2007). Personality, threat and affective responses to cultural diversity. *European Journal of Personality, 21*, 453-470.

Zee, K. van der, Oudenhoven, J. P. van, & Grijs, E. (2004). Personality, threat, and cognitive and emotional reactions to stressful intercultural situations. *Journal of Personality, 72*, 1069-1096.

Zhou, X., Lei, Q., Marley, S., & Chen, J. (2009). Existential function of babies: Babies as a buffer of death-related anxiety. *Asian Journal of Social Psychology, 12*, 40-46.

Zomeran, M. van, Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin, 134*, 504-535.