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# HOW OUR MEANS FOR FEELING TRANSCENDENT OF DEATH FOSTER PREJUDICE, STEREOTYPING, AND INTERGROUP CONFLICT

## TERROR MANAGEMENT THEORY

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Life is tragic simply because the earth turns and the sun inexorably rises and sets, and one day, for each of us, the sun will go down for the last, last time. Perhaps the whole root of our trouble, the human trouble, is that we will sacrifice all the beauty of our lives, will imprison ourselves in totems, taboos, crosses, blood sacrifices, steeples, mosques, races, armies, flags, nations, in order to deny the fact of death, which is the only fact we have.

*(James Baldwin, 1963)*

Since ancient times, racial, religious, ethnic, and nationalistic prejudices have fueled violent conflict, and this propensity seems to be continuing unabated well into the second decade of the 21st century. A toxic brew of lethal weapons of mass destruction, religious

and political leaders (of nation-states or of their own radical fringes) with apocalyptic visions of eradicating evil (real and imagined), and media sources inciting hatred and providing explicit instructions for terrifying violence seems perpetually on the brink of boiling over. In light of these forces, the notion of humans extinguishing themselves as a species seems more like a sober actuarial prediction than a science fiction prophecy. Surely, then, understanding the psychological underpinnings of prejudice in hopes of fostering constructive efforts toward amelioration should continue to be a high priority for social scientists of all stripes.

Allport (1954) made it abundantly clear in his classic *The Nature of Prejudice* that prejudice is a multifaceted phenomenon, and this *Handbook* undoubtedly provides excellent coverage of many of its causes and consequences. Terror Management Theory (TMT; Greenberg et al., 1986; Solomon, Greenberg, & Pyszczynski, 1991) and research offer a unique perspective by focusing on how people's efforts to cope with knowledge of their mortality influence, and are influenced by, prejudice, stereotyping, and inter-group aggression. In this chapter, we summarize the theory's core insights into the causes and consequences of prejudice and review substantial lines of research supporting these insights. We then consider how TMT complements other theoretical accounts of prejudice and offer some suggestions for further research and theoretical refinement. Finally, we discuss the implications of this work for mitigating this grievous human predisposition.

## TERROR MANAGEMENT: THEORY AND EVIDENCE

### *Theory*

Extensive presentations of TMT and the research supporting it, now consisting of more than 500 studies, can be found in Solomon et al. (1991); Pyszczynski, Solomon, and Greenberg (2003); Greenberg, Solomon, and Arndt (2008); and Greenberg and Arndt (2012). For current purposes, we present the theory and evidentiary base very concisely, and then focus on the theory's implications and research findings specifically pertinent to understanding prejudice, stereotyping, and intergroup conflict.

TMT is based on the writings of cultural anthropologist Ernest Becker (1971, 1973, 1975) and begins with the evolutionary assumption that humans, like other animals, have a wide range of biological systems oriented toward continued survival: "the obvious first priorities of a survival machine ... are individual survival and reproduction" (Dawkins, 1976/1989, p. 62). At the same time, unlike other animals, we humans have an enlarged prefrontal cortex that helps make us smart enough to realize that we are vulnerable to all sorts of potentially lethal threats, and that inevitably, our efforts to continue existing will fail. Becker, as well as many before and since him, argued that because these realizations conflict with our many biological and psychological systems geared toward survival, they have the potential to leave us paralyzed with anxiety.

To manage the potential terror engendered by this awareness of one's own vulnerability and mortality, people rely on their cultures for psychological security. Cultures accomplish this by providing their members with meaningful views of reality and opportunities to view their life as having enduring significance. These internalized cultural worldviews provide psychological equanimity by allowing people to live out their lives in a world of

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meanings, values, purposes, and roles, fortifying a sense that they are more than mere animals fated only to obliteration upon death. This belief is buttressed by literal and symbolic forms of death transcendence provided by cultures. Literal immortality is provided by concepts such as an everlasting soul or spirit, heaven, and reincarnation. Symbolic immortality is obtainable by identification with larger groups and causes, offspring, and valued achievements in the arts and sciences. Based on the theorizing of Otto Rank, Norman Brown and others, Becker (1975) summarizes the evolution of these immortality beliefs in this way:

> History . . . is the career of a frightened animal who must lie in order to live . . . societies are standardized systems of death denial; they give structure to the formulas for heroic transcendence. History can then be looked at as a succession of immortality ideologies, or as a mixture at any time of several of these ideologies. . . . For primitive man, who practiced the ritual renewal of nature, each person could be a cosmic hero of a quite definite kind: he could contribute with his powers and observances to the replenishment of cosmic life. Gradually . . . cosmic heroism became the property of special classes like divine kings and the military . . . And so the situation developed where men could be heroic only by following orders. . . . With the rise of money coinage one could be a money hero and privately protect himself and his offspring by the accumulation of visible gold-power. With Christianity something new came into the world: the heroism of renunciation of this world and the satisfactions of this life . . . It was a sort of anti-heroism by an animal who denied life in order to deny evil. . . . In modern times . . . a new type of productive and scientific hero came into prominence, and we are still living this today. And with the French Revolution . . . the revolutionary hero who will bring an end to injustice and evil once and for all, by bringing into being a new utopian society perfect in its purity.
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> (pp. 153–155).

Boiling these big ideas down to a simple theoretical formulation from which we could derive testable hypotheses, TMT posits that people manage the potential terror engendered by the awareness of mortality by: (a) investing and sustaining faith in an internalized *cultural worldview* that imbues subjective reality with order, meaning, and permanence, and that provides bases of death transcendence to those who meet the culture's prescribed standards of value; and (b) maintaining *self-esteem*, which is the belief that one meets cultural standards of value and is therefore eligible for the culture's routes to literal or symbolic immortality.

*Evidence*

Research supporting TMT has shown that these two psychological constructs, cultural worldviews and self-esteem, protect people from anxiety and from death-related thought (for recent overviews, see Greenberg, Solomon, & Arndt, 2008). These studies have used a variety of measures of anxiety and Death Thought Accessibility (DTA), or the extent to which death-related cognitions are easily available to conscious awareness. When these constructs are threatened, anxiety and DTA increases; when they are supported, DTA decreases. Research has also shown that reminders of death (mortality salience (MS)) instigate bolstering and defense of both faith in one's worldview and one's self-esteem.

In support of other related hypotheses derived from the theory, MS has also been shown to increase: (a) distancing from reminders of one's animality (e.g., Goldenberg, Pyszczynski, Greenberg, & Solomon, 2000); (b) guilt after creative action (e.g., Arndt, Greenberg, Solomon, Pyszczynski, & Schimel, 1999); (c) desire for closeness to romantic partners (e.g., Mikulincer, Florian, & Hirschberger, 2003); and (d) preference for people, stimuli, and events that reinforce rather than challenge basic ways in which we view life as meaningful (e.g., Landau, Greenberg, et al., 2006). Finally, a great deal has been learned about the precise cognitive processes by which thoughts of death generate these effects, summarized by the dual defense model of conscious and unconscious defenses instigated by death-related thought (see e.g., Arndt, Cook, & Routledge, 2004; Greenberg, Landau, & Arndt, 2013; Pyszczynski, Greenberg, & Solomon, 1999).

MS effects such as these have been observed among adolescents, young adults, middle-aged and elderly individuals, across socio-economically and culturally diverse populations in over twenty countries on five continents. This body of work has employed a varied range of MS inductions to increase the accessibility of death-related thought, including open-ended items about one's death, death anxiety scales, accident footage, word-search puzzles with death words embedded, proximity to funeral homes and cemeteries, and subliminal primes of the word "dead" or "death." In addition, the effects of these reminders of death have been compared to, and in the majority of cases found to be different than, reminders of a wide array of other aversive concepts, including failure, uncertainty, dental pain, intense uncertain bouts of pain, paralysis, meaninglessness, general anxieties, worries after college, giving a speech in public, and social exclusion.[1]

## TMT, PREJUDICE, STEREOTYPING, AND DISCRIMINATION

### TMT and Prejudice as a Response to the Threat of Alternative Worldviews

Although Becker (1971) was broadly concerned with explaining the motives that drive human behavior—broadly stated: "what makes people act the way they do" (p. vii)—his most fervent concern was with intergroup aggression, which he saw as the primary way in which people contribute to human suffering. Becker's perspective on intergroup aggression is nicely summarized in his final book, *Escape from Evil*:

> What men have done is to shift the fear of death onto the higher level of cultural perpetuity; and this very triumph ushers in an ominous new problem. Since men must now hold for dear life onto the self-transcending meanings of the society in which they live, onto the immortality symbols which guarantee them indefinite duration of some kind, a new kind of instability and anxiety are created. And this anxiety is precisely what spills over into the affairs of men. In seeking to avoid evil, man is responsible for bringing more evil into the world than organisms could ever do merely by exercising their digestive tracts.
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> (Becker, 1975, p. 5)

Based on this analysis, the first implication of TMT we drew for understanding prejudice is that because people who subscribe to a worldview different from one's own are implicitly and often explicitly challenging the validity of one's own worldview, and

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one's worldview is a fundamental basis of one's psychological security, the individual must attempt to derogate, assimilate, or annihilate threatening others to restore faith in his or her worldview. We are sure the reader can think of many historical, often tragic, examples of such attempts. Harrington (1969) put it this way:

> If those weird individuals with beards and funny hats are acceptable, then what about my claim to superiority? Does he, that one, dare hope to live forever too—and perhaps crowd me out. I don't like it. All I know is, if he's right I'm wrong. So different and funny-looking. I think he's trying to fool the gods with his sly ways. Let's show him up. He's not very strong. For a start, see what he'll do if I poke him.
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> (pp. 138–139)

If these efforts reflect a need to protect the worldview by which people ward off their terror of death, then reminders of mortality should increase negative reactions to others who subscribe to different worldviews. A variety of studies have supported this hypothesis. The first such study showed that MS increased American Christians' liking of a fellow Christian student and increased their disliking of a Jewish student (Greenberg et al., 1990). Harmon-Jones, Greenberg, Solomon, and Simon (1996) used the minimal groups paradigm to show that MS led participants to favor ingroup members over outgroup members, even when those groups were newly created, but only when the basis for forming the groups led participants to view ingroup members as more similar to each other than they were to outgroup members were to each other. Nelson, Moore, Olivetti, and Scott (1997) found that exposure to gory accident footage led American participants to recommend a more punitive monetary penalty to an auto manufacturer if they thought the manufacturer was Japanese, but only when the footage prompted participants to think about their own death.

More recently, Castano, Yzerbyt, Paladino, and Sacchi (2002) found that MS increased Italians' bias in favor of fellow Italians and against Germans. He also found that this effect was mediated by ingroup identification and by perceptions of the ingroup as a real entity. Jonas, Fritsche, and Greenberg (2005) found that although Germans interviewed in front of a shopping area seemed to be equally favorable to German and foreign places and products, Germans interviewed in front of a cemetery a few blocks away from the shopping area strongly preferred the German things over the foreign ones. In the only reported MS study with children, Florian and Mikulincer (1998) found that although MS led 7-year-old Israelis to rate everyone negatively, it led 11-year-old Israelis to favor native-born Israelis over Russian immigrants. Although we cannot know definitively why the 7-year-olds did not display the typical ingroup favoritism and outgroup derogation after MS, two possibilities seem likely. One is that terror management defenses may not have been exhibited in the 7-year-olds because they lacked the cognitive maturity to understand the existential threat of their own mortality. The other is that this occurred because the 7-year-olds had yet to clearly distinguish their own worldview from that of Russian immigrants.

In these studies, the amplified derogation of the outgroup after MS presumably results from the challenge to the individual's faith in her or his own worldview posed by advocates of an alternative worldview. Although these studies provide no direct evidence that this is the case, other studies have supported the idea that worldview threat leads to MS-induced derogation. Indeed, the most common TMT finding is that people respond

to MS by derogating others who directly criticize their worldview, whether these others are ingroup or outgroup members. As examples, after MS, Americans derogate American and foreign critics of the United States, Canadians derogate those who criticize Canada, and liberal and conservative Americans derogate those who criticize their political orientation. Indeed, in three studies, McGregor et al. (1998) found that after MS, conservative and liberal Americans allocated high levels of painfully spicy hot sauce to another student who criticized conservatives and liberals, respectively. This is the one body of evidence to date that MS can instigate actual aggression against a different other (for a review of research on MS-induced bias with regard to political orientation, see Burke, Kosloff, & Landau, 2013).

Another way to interpret this substantial body of evidence is to suggest that it reflects MS-induced self-esteem defense and bolstering rather than worldview defense. As both TMT and social identity theory propose, people routinely base their self-esteem in part on their ingroup identifications. A variety of TMT studies have shown that MS increases self-esteem striving and defense (see, e.g., Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). It therefore remains quite plausible that the sizable body of evidence supporting a role of TMT in prejudice reflects the need to bolster self-esteem rather than the worldview.

These two possibilities are difficult to tease apart because self-esteem is predicated on both faith in the culture's worldview that prescribes standards of value, and the individual's identification with his or her culture. For example, asserting that U.S. culture is sick and vile potentially undermines an American's self-esteem both because it calls into question the cultural bases of self-worth (e.g., American Express cards, nice cars, publications, etc.) and the use of simply being an American as a basis of self-worth. Consequently, whenever the validity or goodness of one's culture is implicitly or explicitly threatened, self-esteem is potentially undermined as well. MS-induced prejudice supports TMT either way, and this distinction probably matters little outside of an academic context, but it is a methodologically challenging problem that may warrant additional research.

One set of studies does hint at a role of group-identification-based self-esteem in MS-induced prejudice (Greenberg, Schimel, Martens, Pyszczynski, & Solomon, 2001). In a preliminary study, White participants viewed a White person who expressed racial pride more negatively than a Black person who did so. However, a second study showed that MS increased liking for the White pride advocate and reduced liking for the Black pride advocate. The final study conceptually replicated this effect assessing reactions to a White or Black employer who discriminated against an employee of the other race, and who justified his actions by claiming his own race has been victimized by "massive discrimination" in the workplace. Again, after MS the White participants became more sympathetic to the White bigot and less sympathetic to the Black bigot. It is highly unlikely that the White participants subscribed to a White supremacist worldview, but after MS they became significantly more sympathetic to Whites who "stood up for the White race."

### Intergroup Conflict: Islam and the West

Of all the intergroup conflicts currently plaguing the world, perhaps the most salient and seemingly intractable ones involve disputes between certain Islamic fundamentalist groups and nations such as the U.S., Israel, and Russia. While disputes in the Middle

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East have a very long history, in the last two decades acts of terrorism purported by their perpetrators to be serving Islam have contributed to prejudice both by and against Muslims in many nations. The most large-scale and influential of these attacks was, of course, the attacks of 9/11/2001. Pyszczynski, Solomon, and Greenberg (2003) applied TMT to understand the causes and consequences of those attacks, and subsequent research has clearly supported the role of terror management needs in both Muslim attitudes and actions toward the U.S. and American attitudes and actions toward Muslims.

While Islamic and Western worldviews are not necessarily incompatible, acts of terrorism attributed to Muslims and certain military and imperialist actions attributed to Americans and other Western nations have led many on both sides to view the other side as a threat to the validity of their own worldview, and as literal threats of death to members of their group as well. The attacks of 9/11 reminded Americans both of their own mortality and of the fragility of life, while also attacking central symbols of the American worldview. Americans responded by bolstering their worldview and lashing out at various Islamic groups and individuals. Landau et al. (2004) showed that over a year after the attacks, subliminal primes of "WTC" and "9/11" increased DTA in Americans. Landau et al. also showed that both MS and reminders of 9/11 increased support for then President Bush in the upcoming 2004 election. Prior to that election, Bush had instigated attacks on the Taliban in Afghanistan, had labeled Iran, Iraq, and North Korea as the "axis of evil," and prompted the invasion of Iraq under false pretenses.

Pyszczynski et al. (2006) showed that MS increased Iranian students' support for martyrdom attacks on Americans, and similarly increased American conservatives' support for extreme military actions against Islamic targets; MS also boosted American support for harsher interrogation techniques for a Saudi Arabian suspected of terrorism (Kugler & Cooper, 2010). Additionally, in response to MS, Israelis were more supportive of a preemptive nuclear attack on Iran (Hirschberger, Pyszczynski, & Ein-Dor, 2009), as well as military sorties in Gaza (even if they were deemed ineffective; Hirschberger, Pyszczynski, & Ein-Dor, 2010); and conservative Israelis were more supportive of violent measures to resist the 2005 Israeli withdrawal from the Gaza Strip after MS (Hirschberger & Ein-Dor, 2006).

Hayes et al. (2008) showed that after Canadian Christians read of Muslims gaining control over Nazareth, DTA increased, but, disturbingly, this heightened DTA was reduced for participants who also read of Muslims dying in a plane crash. Cohen, Soenke, Solomon, and Greenberg (2013) extended this work by examining non-Muslim Americans' attitudes toward symbols of Islam. First they showed that MS increased opposition to a controversial 2010 proposal to build a mosque near Ground Zero in Manhattan. Then they showed that having Americans think about a mosque (in comparison to a church or synagogue) being built in their neighborhood increased DTA. In a final study, they showed that after MS, having Americans read a newspaper article about a Quran being desecrated reduced DTA.

Taken together, this body of research supports the terror management analysis of the central intergroup conflict of our time. Specifically, the evidence shows that hostility between Americans and Islamic groups is in part fueled by the threat of death and the consequent desire to uphold one's own worldview and derogate opposing worldviews.

## TMT AND INSIGHTS INTO THREE SPECIFIC KINDS OF PREJUDICE: SEXISM, HOMOPHOBIA, AND AGEISM

So far we have explored the idea that terror management needs incite prejudice because outgroups often represent a threat to faith in one's worldview and one's self-worth. However, some forms of prejudice are directed at groups that do not necessarily subscribe to a different worldview. Three such groups are women, homosexuals, and the elderly. These groups are part of every culture. Do terror management concerns contribute to prejudice against these groups? These prejudices, like all others, are undoubtedly multiply determined, but there is a reason to believe terror management does play a role, even though ingroup women, homosexuals, and old people do not necessarily threaten a nonelderly male's worldview.

TMT sheds some light on the psychological roots of misogyny and violent tendencies toward women. Research conducted by Goldenberg et al. (2000) shows that people are often ambivalent about the body and the physical aspects of sex because of the link between the physical and the mortal: Physical creatures die, and terror management depends on viewing the self as not merely a creature, but instead as an enduringly significant person in a world of meaning. Building on this research, Landau, Goldenberg, et al. (2006) reasoned that men sometimes distance from attraction to women and generally devalue them because, by being reminded of their susceptibility to sexual arousal, men are confronted with their own animal and thus mortal nature. Thus, women who arouse carnal lust in men, especially outside the trappings of a symbolic conception of lust such as romantic love, may be viewed negatively.

This may at first seem far-fetched, but not if you consider the elaborate historical and cultural demonization and regulation of women's sexuality and bodily functioning (e.g., menstruation) across virtually every known culture. Indeed, according to the Bible it was that temptress Eve who got us into this existential mess in the first place by enticing Adam to taste the fruit of the tree of knowledge, which made awareness of mortality possible, and ambivalence toward the body probable. In one of six studies testing these ideas, MS led men to derogate a seductive woman, but this effect was eliminated when the same woman appeared more wholesome. Another study found that men reminded of death and subsequently asked to recall a time they were sexually aroused by a woman exhibited greater tolerance of aggression toward women when asked to choose a prison sentence for a man who assaulted his girlfriend. These findings suggest that the threat of mortality engendered by men's lust constitutes an important contributing factor to misogynistic tendencies. From this perspective, it may not be a coincidence that sexual assault against women is so prevalent in contexts in which death threat is prevalent, such as combat zones, and more generally, in the military (e.g., Surís, Lind, Kashner, Borman, & Petty, 2004).

Like women, homosexuals are frequent targets of violence, degradation and disenfranchisement. According to FBI statistics, members of the lesbian, gay, bisexual, and transgender community are more than two times as likely to be victimized by Latinos (Potok, 2010). From a TMT perspective, this persecution occurs because homosexuality threatens the worldview of heterosexuals in several ways. For one thing, homosexual behavior does not produce offspring and may thus remind straight people that sex is not simply an insurance plan for the continuance of their worldview—that it is also an animalistic act in which physical, mortal creatures engage. Wisman & Goldenberg (2005) found that MS increases desire to have offspring—an effect particularly pronounced

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Another more central basis for this worldview threat is that homosexual lifestyles are often viewed as violating traditional gender role norms present in the vast majority of known cultures, which specify that men should exude masculine qualities and women should exude feminine qualities (Bem, 1993). Webster & Saucier (2011) thus reasoned that if MS increases endorsement of traditional gender roles, this in turn should intensify homophobic responses. They further reasoned that such effects should be most pronounced among males evaluating gay targets, because male cultural gender scripts tend to be more rigid and traditionalist than female gender scripts (Whitley & Kite, 2006).

Consistent with these hypotheses, Webster & Saucier (2011) found that, among heterosexual males, MS increased endorsement of traditional gender norms for men and women (e.g., regarding household and familial duties, chivalry, swearing, paying for meals on a date), and that this enhancement of the heterosexual worldview mediated the effect of MS to increase prejudice against gay males, including amplified perceptions that gays make illegitimate demands for civil rights, flaunt their lifestyle, and (quite ironically) exaggerate claims of discrimination. Further, MS-induced belief in gender norms also mediated increases in negative attitudes toward employment opportunities for gay men and opposition to same-sex marriage and family initiatives. These findings suggest that homophobia derives partly from a deep reliance on hetero-normative standards, prominent in most cultures, in order to buffer death-related concerns.

What about the elderly? Well, to some extent, they (like women and homosexuals) may also represent the threat of reminding people of their animality; but even more directly, they remind us of our inevitable fate. We generally do not have to worry that we may transform into another gender or ethnicity, but we are fated to join this group, if we are lucky. But in the meantime, Martens, Greenberg, and Schimel (2004) argued that we want to see ourselves as different from old people to minimize the extent to which they remind us of our own futures. To test this idea, in a first study, Martens et al. simply asked college students to look at pictures of old or young adults. In support of the idea that old people can serve as a reminder of death, pictures of elderly people increased DTA in the college students. In the second study, in response to MS, college students viewed the elderly more negatively and as dissimilar to themselves. In the final study, Martens et al. measured perceived similarity to the elderly during a mass survey and subsequently found that MS only increased negativity toward, and perceived dissimilarity to, the elderly among students who perceived themselves as relatively similar to elderly people in the mass survey. This finding supports the idea that prejudice against the elderly is fueled by the self-threat of perceived similarity to the elderly combined with heightened salience of the threat of death.

## TMT AND STEREOTYPING

Although TMT is clear that mortality concerns should spawn prejudice against members of outgroups, the theory is less straightforward about prejudice against minority groups within the individual's culture. Sometimes these minority groups may be viewed as representing a different worldview; American Muslims may be such a minority group in the United States. However, generally minority groups share much of the worldview of

the majority group. For example, like most White Americans, most Black and Hispanic Americans are patriotic, and most were raised in Christian backgrounds. The theory of symbolic racism (Sears, 1988) notes that some White Americans may still see these groups as threats to their own worldview (values, etc.), and this is surely true of White supremacists and other avowed racists. However, ever since we began doing TMT research, we felt that the worldview threat was not the primary basis of contemporary prejudice and stereotyping against these minority groups, so we never felt that MS would simply increase White prejudice against these groups.

However, Schimel et al. (1999) suggested another way that terror management concerns could contribute to White attitudes toward members of these groups. As popularized by the classic Devine (1989) article, it seems quite clear that stereotypes of minority groups are deeply entrenched in mainstream American culture. According to TMT, reminders of mortality should increase reliance on the internalized cultural worldview and preference for those who reinforce that worldview. Thus, to the extent that stereotypes of stigmatized groups are part of the American worldview, MS should increase stereotypic thinking and preference for minority group members who conform to the stereotype over those who call the stereotype into question.

Indeed, Greenberg et al. (1990) provided initial evidence consistent with this idea by showing that MS increased Christian students' endorsement of stereotypic traits in evaluating a Jewish student. However, it was unclear in this study whether this reflected an MS-induced desire to derogate or an MS-induced desire to bolster belief in the stereotype.

To assess this latter idea more directly, Schimel et al. (1999) conducted five studies examining stereotypic thinking and preferences regarding women, Germans, African Americans, and male homosexuals. Although in the late 1990s, Germans were generally not targets of prejudice by Americans, and their current worldview was very compatible with the American worldview, MS led Americans to view Germans more stereotypically (e.g., as more orderly and rigid). In a second study, MS led both males and females to offer more explanations for behaviors inconsistent with gender stereotypes than for behaviors consistent with gender stereotypes, suggesting a greater need among these participants to defend against threats to stereotypic beliefs.

In Study 3, White participants in a control condition preferred an African American confederate if he appeared counterstereotypic (a diligent student and chess club member) rather than stereotypic (a beer-guzzling gang banger). However, after MS, there was a strong preference for the stereotypic African American over the counter-stereotypic one. Study 4 replicated this finding using gender stereotypes, finding that MS increased liking for gender-stereotypic job candidates and decreased liking for gender counter-stereotypic ones. Finally, in Study 5, participants in a control condition preferred a masculine homosexual male over an effeminate homosexual male, whereas after MS the effeminate homosexual male was preferred over the masculine homosexual male. A three-way interaction in this study also showed that this two-way interaction was carried by people high in need for closure, a general preference for clear and structured knowledge, suggesting that stereotyping facilitates terror management primarily among individuals predisposed to derive meaning from well-structured conceptions of the social world (we return to this idea in a later section).

This preference for stereotypical thinking may contribute to the self-perpetuating nature of outgroup conflict. In a recent study by Fritsche et al. (2009), non-Muslim

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participants responded to MS with negative attitudes toward Muslim opponents of Islamist terrorism (non-stereotypical individuals). This finding shows that MS can reduce the acceptance of outgroup members who support peaceful conflict solutions because they do not fit one's image of the prototypical "other." In this way, clinging to stereotypes for existential security can create a self-fulfilling prophecy, preserving the traditional perceptions of friend and foe and undermining the potential for intergroup reconciliation.

These studies showed that MS will not necessarily increase negativity toward minority groups within one's own culture or toward outgroups that do not threaten one's worldview (e.g., Germans). However, the work also shows that people like their minority group members and nonthreatening outgroupers best if they fit stereotypes of these groups. The dark side of this preference is that MS does lead to dislike of such outgroup individuals when they do not conform to the stereotype, such as when an African American is a highly diligent student.

## TMT AND THE ERADICATION OF THE EVIL OTHER: THE ULTIMATE FORM OF DISCRIMINATION

In *Escape from Evil*, Becker (1975) argued that no matter how potent our terror management defenses are, residual anxieties about death are likely to surface, and a potentially controllable source for them must be found:

The fact is that self-transcendence via culture does not give man a simple and straightforward solution to the problem of death; the terror of death still rumbles underneath the cultural repression .... The result is one of the great tragedies of human existence, what we might call the need to "fetishize evil," to locate the threat to life in some special places where it can be placated and controlled .... [M]en make fantasies about evil, see it in the wrong places, and destroy themselves and others by uselessly thrashing about.

(pp. 5, 148)

Therefore, the most appealing worldviews for those in need of bolstered terror management are those that convince people that they are part of a special group that is heroically triumphing over evil. Unfortunately, the evil to be heroically triumphed over tends to be some outgroup that can be viewed as the source of one's deepest fears and problems. In this way, people can falsely view the sources of their fears as controllable and eradicable, instead of having to face the deeper problem of their inevitable death whether resulting from cancer, heart disease, accident, old age, or a myriad of other threats to existence.

Pyszczynski et al. (2003) proposed that the current conflicts in the Middle East and elsewhere have humanity stuck between a rock and hard place, two very different types of worldviews. The rock is a rigid worldview in which there are very decisive moral judgments of rights and wrongs, and very clear designations of good and evil. The prominent negative emotion for those who subscribe to the rock is anger and there is strong prejudice against others who violate the moral prescriptions or who are designated evil. The rock provides a strong faith in a basis for terror management, typically with death transcendence taking the form of religious afterlife beliefs or

collectivist identifications with the state and a futuristic myth of continuing revolution or evolution toward some vision of fascist or Marxist utopia (see, e.g., Lifton, 1968)

The alternative, the hard place, is a relativistic worldview in which right and wrong, good and evil, are less certain and considered more a matter of one's perspective. In this type of worldview tolerance is valued, prejudice tends to be low, and the prominent negative emotion is anxiety. As a basis of terror management, the hard place is shaky at best, and is often supplemented by the use of drugs such as alcohol, cannabis, Paxil, Zoloft, and so on, and ever-escalating consumerism. Often it seems that people who start out in the hard place end up latching onto a rock by idealizing some cult or cause such as environmentalism, animal rights, atheism, anti-globalization, and so on, as an ultimate *raison d'être*.

For many centuries, charismatic leaders have been selling this rock type worldview—a grand vision of the ingroup heroically triumphing over the evil other and thereby setting up a paradise on earth. Becker, following Otto Rank before him, made the ironic point that the effort to escape from evil by following such leaders is the primary way in which humans cause evil.

If this analysis is correct, reminding people of their mortality should increase the appeal of such good versus evil ideologies and those who espouse them. A recent series of studies supports this hypothesis. The first study to do so showed that MS increased the appeal of a hypothetical candidate for governor only if that candidate promoted a special vision that emphasized that he would lead the people to greatness (Cohen, Solomon, Maxfield, Pyszczynski, & Greenberg, 2004). In this study, the candidate did not discuss any issues suggestive of a particular political orientation. Kosloff, Greenberg, Weise, & Solomon (2010) replicated the Cohen et al. study but varied whether the candidates espoused liberal or conservative policies. They found that the liberals reminded of mortality were only drawn to a charismatic candidate who espoused liberal views, while conservatives reminded of mortality were only drawn to charismatic candidates who held conservative positions. Thus, the charismatic candidate must be viewed as endorsing a worldview compatible with the individual for MS to draw the person toward the candidate.

Related research mentioned briefly in our section on Islam and the West by Landau, Solomon, et al. (2004) and also Cohen, Ogilvie, Solomon, Greenberg, and Pyszczynski (2005) examined the appeal of George W. Bush in the months prior to the 2004 American presidential election. In response to the attacks of September 11, 2001, Bush became a strong proponent of the heroic triumph over evil: "Our war that we now fight is against terror and evil. . . . Our struggle is going to be long and difficult. But we will prevail. We will win. Good will overcome evil" (Office of the White House Press Secretary, 2001).

Landau, Solomon, et al. (2004) found that MS and reminders of terrorism led both conservative and liberal college students to become more favorable to Bush and his war on terrorism. In the last two of these studies, conducted in May and September of 2004, Bush's political opponent Senator John Kerry was preferred over Bush in the control condition, but this preference was completely reversed when mortality was made salient. When terror management needs are elevated, the decisive crusader against evil was consistently preferred over the candidate portrayed as a waffler and flip-flopper.

Of course, Bush and Kerry varied on other qualities besides the penchant for using the rhetoric of heroically defeating evil, so we cannot be definitive about why MS increased Bush's appeal. Two studies briefly reviewed earlier in the context of Muslim/American

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relations more directly assessed the impact of MS on the appeal of ideologies focused on killing the evil other, and thus are worth further consideration here. Just as Bush has condemned Iran as a member of the "axis of evil," the United States has been disparaged by Iranian leaders as "the great Satan." After an MS manipulation, Pyszczynski, Abdollahi et al. (2006) asked Iranian college students to react to interviews of two fellow students, one of whom expressed strong support for lethal martyrdom against Americans, and the other who advocated peaceful resolution to the Middle East conflict. In the control condition, the Iranian students preferred the anti-martyrdom student; however, after MS, the pro-martyrdom student was highly preferred. Indeed, after MS the Iranian students actually indicated substantial interest in joining the martyrdom cause.

In a second study Pyszczynski et al. asked conservative and liberal American college students how supportive they were of the use of extreme military violence to kill terrorists in the Middle East, including chemical and nuclear weapons, and the collateral killing of thousands of innocent people. As with the Iranian students, in the control condition there was very little support for violent measures regardless of political orientation. However, after MS, the conservative students strongly supported these extreme measures to eradicate "evil."

Other related lines of research have focused on empirically testing Becker's analysis of "fetishism," mentioned in the quote at the outset of this section. The reader may associate this term with the sexual arena, but Becker used the term more broadly to connote the extreme investment of meaning into any narrow aspect of life, including other individuals, circumscribed ideologies and activities, and groups. Most pertinent to our current purposes, Becker argued that the perception that one has powerful personal or group *enemies*, although superficially negative, can serve as a potentially controllable target for broader concerns about chaotic, lethal hazards in the world. People may feel threatened by the fact that they are limited in their ability to anticipate and control the multifarious hazards lurking in their environment, since it implies that their well-being and even existence are subject to unpredictable changes of fortune. To avoid being overwhelmed by feelings of powerlessness in the face of chaotic hazards, people might construct images of personal enemies in order to view negative events in their lives as stemming from the intentional actions of a single individual or group, rather than diffuse environmental forces.

This analysis suggests a hypothesis that is not highlighted by our foregoing emphasis on MS-induced *derogation* of outgroups. It suggests that mortality concerns—especially those triggered by reminders of multifarious hazards and forces beyond one's control and understanding—will lead people to project *increased power* to an enemy figure. In this way, people can (falsely) view the source of their existential concerns as external and eradicable. In this way, enemy perceptions go hand-in-hand with the lionization of charismatic leaders just discussed. Managing death-related anxiety requires denying that death occurs for reasons as capricious as mosquito bites and tainted spinach, and this is facilitated by transferring power over all that is good and life-sustaining to one focal source (the hero), and simultaneously transferring power over all that is evil and life-threatening to another focal source (the enemy).

Sullivan, Landau, and Rothschild (2010) recently assessed this broad possibility in the context of perceptions of personal and political enemies. The researchers predicted that reminding individuals of the unpredictable, hazardous threats to their life lurking in their environment would prompt them to attribute undue influence to focal enemy

figures in an attempt to fetishize otherwise random hazards in the world. Accordingly, when participants were led to contemplate lethal events that could befall them at any time (e.g., natural disasters), they attributed increased influence to an enemy figure in their personal lives. Sullivan et al. replicated this effect on the eve of the 2008 U.S. presidential election, finding that, after contemplating uncontrollable hazards, participants expressed greater belief that the candidate opposing their preferred candidate was orchestrating a conspiracy to steal the election.

These and similar recent findings (e.g., Rothschild et al., 2012; for review, see Landau et al., 2012) support Becker's analysis by showing that heightened mortality concerns—particularly those regarding the chaotic nature of lethal hazards—can motivate people to invest in fetishized perceptions of other individuals and groups. By focalizing chaotic hazards to the intentional actions of a single enemy figure, such that evil is given tangible form, people may temporarily allay their death fears, yet this process makes it more likely that they will orient their life toward eradicating this embodiment of evil by any means necessary (Lifton, 1968).

The research reviewed in this section supports the idea that mortality concerns increase the appeal of efforts to kill members of outgroups designated as repositories of evil. In this way, TMT and research shed new light on the age-old dynamic of scapegoating, which has led to so many genocidal atrocities over the course of recorded history—and continues to do so to this day.

## TMT AND THE PSYCHOLOGICAL CONSEQUENCES OF PREJUDICE

TMT has implications not only for understanding the causes of prejudice, but also for understanding the consequences for individuals within a culture who are targets of prejudice and discrimination. Such stigmatized individuals are likely to have difficulty sustaining a sense of self-worth because they are devalued within the prevailing mainstream culture. Although research suggests that such individuals use compensatory mechanisms to combat deficiencies in self-esteem, and self-report self-esteem measures generally fail to find lower self-esteem in stigmatized groups (Crocker & Major, 1989), TMT suggests that stigmatized individuals should have less stable and less secure self-worth to the extent that their self-worth is not well validated within the context of the worldview to which they subscribe.

Furthermore, TMT (see, e.g., Solomon et al., 1991) posits that members of ethnic groups targeted by prejudice in the culture within which they reside typically are caught between two worldviews: the traditional worldview of their ancestral group and that of the prevailing culture. Under these circumstances, the individual is likely to have difficulty maintaining faith in both a meaningful worldview and a secure sense of enduring significance. In such contexts, three options seem possible to manage one's terror. Given that the traditional worldview and bases of self-worth are usually overshadowed by those of a prejudicial majority, one option is full assimilation. However, fully embracing the dominant worldview would require abandoning the traditional worldview and buying into a worldview that has treated one's group harshly for generations and that may still offer only limited bases of self-worth to members of one's group.

A second option is militancy, rejecting the mainstream worldview and attempting to sustain faith in and derive self-worth from the traditional worldview. However, this tends to be very difficult because the traditional worldview was adapted to different

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circumstances and is likely to be incompatible with aspects of the contemporary natural, social, and economic environment. Furthermore, such militant worldviews (e.g., the Black Panthers, the White Knights) are typically formed in reaction to a predominant worldview and therefore tend to be rigid and to offer limited bases of self-worth for their members.

The third option is pluralism, an attempt to construct a worldview that incorporates aspects of the traditional worldview and its bases of self-worth while participating in the larger stage and bases of self-worth of the predominant worldview. Although difficult to achieve, this alternative provides the best hope for deriving the meaning and significance likely to allow for effective terror management.

Salzman (2001) employed this TMT analysis to help understand the impact of colonization on indigenous groups around the world. He observed that in Alaska, other parts of North, Central, and South America, Hawaii, the South Pacific, and parts of Africa, colonization by Europeans has produced similar deleterious psychological effects on a genetically diverse range of peoples. The Yu'pik people of Alaska labeled this colonization experience as the "Great Death." The colonists brought deadly disease and pervasive cultural disruptions, wiping out up to 50% of the local population. In Australia, a wide range of means and interventions employed by White colonial settlers—including land dispossession, the theft of women, missionary activity, and slavery—severely undermined Aboriginal people's age-old sense of kinship and spirituality.

From a TMT perspective, such efforts undermined indigenous cultural belief systems, heightening anxieties and thus aiding the project of converting survivors to Christianity and instilling adherence to other aspects of the European worldview. Down to this day, relative to the descendants of European settlers, the descendants of these indigenous peoples suffer from poverty, poor physical and mental health, alcohol and drug abuse, and anxiety (Manson et al., 1996; Salzman & Halloran, 2004). Salzman has labeled the experience of such colonization "cultural trauma" because the new culture arrives and shakes to its core the traditional culture that previously had been working fine for its people as a basis of psychological security.

Robbed of their traditional bases of terror management, members of these groups struggle to reconstruct a hybrid worldview in which they can sustain faith. Sometimes these efforts are successful. One example is the Hawaiian Renaissance, a cultural revival that helped reinstate many aspects of Hawaiian music, art, literature, and religion. Hawaiians have begun to regain a sense that they have distinctive, stimulating, and instructive contributions to make to the broader society, providing the promise of a successful model of cultural pluralism. This suggests the possibility that traditional views may still serve a terror management function despite their association with minority status, as long as the dominant cultural context is sufficiently supportive of accommodating aspects of the traditional worldview in a way that is validating and valuing. Unfortunately, however, in many if not most cases, the dominating culture manages to maintain the inferior status of the indigenous culture and offers its members limited opportunities for valued activity within the context of their worldview.

Although research testing hypotheses derived from the TMT analysis of the consequences of prejudice has been limited to date, studies have shown that MS can lead members of stigmatized groups to distance from their ingroup and conform to negative stereotypes of their group. The first evidence that MS leads people to reduce identification with negatively framed ingroups was reported by Dechesne, Greenberg, Arndt, and

Schimel (2000). They found that among fans of a college football team anticipating the opening season game, MS increased optimism about the team's prospects; however, after the team lost that first game, fans presented with a reminder of mortality reported reduced identification with the team.

Arndt, Greenberg, Schimel, Pyszczynski, and Solomon (2002) then showed that a similar process happens with stigmatized groups. In each study, when a negative view of the stigmatized ingroup was made salient, MS led ingroup members to reduce identification or increase negative reactions to the ingroup. First, they showed that when anticipating a difficult math test (a domain in which women are negatively stereotyped), MS decreased women's identification with other women. In a second study, after reading about a Hispanic drug dealer, MS led Hispanic participants to derogate paintings when they were attributed to a Hispanic (but not Anglo-American) artist. In a final study, Arndt et al. showed that after the Hispanic drug dealer article, MS led Hispanic participants to view their own personality as especially different than the personality of a fellow Hispanic. These findings suggest that when facing a negative stereotypic view of their own group, concerns about mortality led members of the group to distance themselves from their ingroup.

Dechesne, Janssen, and van Knippenberg (2000) demonstrated that when an ingroup is criticized, both individual differences and salient features of the ingroup can affect whether group members distance from the group or defend it. They found that MS led college students high in need for closure (who are likely to view group identification as closed and definitive; Shah, Kruglanski, & Thompson, 1998) to report greater disliking of a critic of their university after MS. In contrast, students low in need for closure who contemplated mortality responded to criticism of their ingroup by disidentifying from the group rather than degrading the critic. Similarly, a second study by Dechesne, Janssen, and van Knippenberg (2000) found that MS led to defense of the group when group identification was portrayed as impermeable, but led to disidentification when the group was portrayed as permeable (i.e., it is easy to transfer from one school to another). Minority group members may view their ethnic ingroup as permeable to the extent that they believe they can identify with the larger culture instead of their ingroup.

Another study showed that, in addition to reducing identification with a stigmatized ingroup, MS can lead members of such groups to conform to negative stereotypes of the group. Specifically, Landau, Greenberg, and Rothschild (2009) reasoned that because negative self-relevant group stereotypes become socially ingrained components of individuals' death-denying worldview, MS may heighten their influence over behavior, leading individuals to show lessened success on ego-relevant tasks for which their group is viewed as inferior. In one study testing this analysis, college women were primed with death or an aversive comparison topic, and then informed either that women were inferior to men at mental spatial rotation or given no information about gender stereotypes. The women were then given a test of spatial rotation with very easy problems. Women primed with death and informed of a negative group stereotype faced a dilemma: They could either ace the test but thereby violate a cultural stereotype, or they could temper their strivings for excellence and conform to the culturally widespread expectation that their group will perform poorly. Unfortunately, women under these conditions preferred to underperform on the task when excelling meant violating group stereotypes.

Research by Halloran and Kashima (2004) suggests the possibility of pluralism functioning within the individual. They found that after MS, bicultural Aboriginal

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participants decreased their valuing of collectivism when the more individualistic Anglo-Australian worldview was made salient, and decreased their valuing of individualism when the traditional Aboriginal worldview was made salient. Thus, minority group members may shift values as the context requires; however, TMT suggests that such biculturalism will work best for psychological equanimity if it stems from a well-integrated overarching hybrid worldview.

Portelinha, Verlhiac, Meyer, and Hutchison (2012) recently extended this work with French citizens who were second- or third-generation immigrants. They had their participants read about ways in which French culture was either compatible or incompatible with their ancestral culture. In response to MS, those participants with a strong bicultural identity for whom incompatibility was made salient distanced from their ancestral ethnic identity. In contrast, when compatibility was primed, MS led to strong identification with both their French and ethnic identity. This work is consistent with Halloran and Kashima in finding flexibility in bicultural individuals, but also suggests that contexts that emphasize incompatibilities between the two cultures encourage disidentification with the minority ethnic culture.

In sum, TMT posits that victims of prejudice face continual threats from the majority worldview to the meaning- and value-conferring structures that protect them from death concerns. Research testing this idea reveals that, under some conditions, heightened mortality concerns lead stigmatized individuals to defensively disidentify from their ingroup and even conform to negative cultural stereotypes. However, research also shows that, under some conditions, targets of prejudice can more constructively subscribe to hybrid worldviews that flexibly incorporate elements from their own culture and the broader culture. Additional research is necessary to gain a more complete understanding of the situational and personality factors that predispose members of stigmatized groups to pursue these different strategies.

## TMT AND OTHER APPROACHES TO UNDERSTANDING PREJUDICE

Generally we believe the TMT perspective is quite compatible with other theoretical approaches to prejudice. TMT adds another level of understanding of many of these phenomena by addressing more basic *why* questions. However, TMT does not supplant these other perspectives because they are often informative in their own right by elucidating other macro- or micro-level factors that contribute to prejudice, stereotyping, and group conflict. Next we briefly consider how TMT can complement some of the other prominent theories of prejudice, each of which is undoubtedly considered in much greater detail elsewhere in this *Handbook*.

### Individual Differences

We begin with individual differences because any psychological theory of prejudice worth taking seriously should offer some insights into why in every culture and regardless of historical and socioeconomic circumstances, people vary in their levels of prejudice. Through various shaping influences, cultures tend to orient their members toward (a) particular outgroups within or outside the culture as designated inferiors and sources of evil; (b) particular stereotypic depictions of various groups; and (c) particular prejudice-fostering or prejudice-discouraging values such as tolerance, harmony, competitiveness, and order.

However, from a TMT perspective, people will differ in their levels of prejudice primarily because of the nature of the individualized, internalized version of the culturally derived worldview by which they imbue life with meaning and themselves with significance. Individuals form their own worldview based on how the broad cultural worldview is conveyed by their parents, other influential people in their lives, and the mass media, and their personal experiences, possibly in combination with genetically based propensities for hostility, conformity, structure, and reactance that may affect the appeal of particular aspects of worldview-relevant concepts to which they are exposed. In addition, TMT suggests that individuals' particular levels of self-worth and stability of self-worth, and the particular culturally based sources of self-worth on which they rely will also influence their levels of prejudice and the specific targets of their prejudice.

From this TMT perspective, individual difference variables associated with high levels of prejudice and stereotyping such as right-wing authoritarianism (Adorno, Frenkel-Brunswik, Levenson, & Sanford, 1950; Altemeyer, 1994), a fundamentalist religious orientation (Batson & Burris, 1994), personal need for structure (Schaller, Boyd, Yohannes, & O'Brian, 1995), and social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994) are indicators of worldviews that are rigid, simplistic, moralistic, and that emphasize status hierarchies and just world beliefs. These are precisely the kinds of worldviews that should lead people to be harsh toward those who are different and who are lower in socioeconomic status. Indeed, one of the first TMT studies showed that, after MS, high but not low authoritarians became especially unkind toward another individual who expressed very dissimilar attitudes. Similarly, after MS, compared to politically liberal Americans, politically conservative Americans seem to become more negative toward people with different political beliefs and more supportive of extreme military violence against outgroup members (Pyszczynski et al., 2006).

Another individual difference factor that has received a good deal of attention in both prejudice and TMT research is personal need for structure (PNS)—the degree to which the person desires clear, certain, or unambiguous knowledge (Thompson, Naccarato, Parker, & Moskowitz, 2001). Research shows that high-PNS individuals are more likely to form simple impressions of others (Neuberg & Newsom, 1993) and rely on stereotypes about other groups (Schaller et al., 1995). TMT posits that high-PNS individuals buffer anxiety by pursuing simple and coherent interpretations of the world, whereas low-PNS individuals are more comfortable with uncertainty and a lack of structure, and may even derive meaning from novelty, accuracy, tolerance, and diversity. Accordingly, TMT studies show that individuals high, but not low, in PNS respond to MS with rigid defense of their social identity, preference for stereotypic others, devaluing of behaviorally inconsistent others, and victim derogation (see, e.g., Dechesne et al., 2000; Landau, Johns et al., 2004; Landau et al., 2006). The picture emerging from these findings is that high-PNS individuals' motivated efforts to seek terror-assuaging meaning in simple and well-structured interpretations of other people and social events can contribute to stereotyping and prejudice.

Research has also shown that threats to self-esteem (e.g., Fein & Spencer, 1997), insecure attachment (Mikulincer et al., 2003), and religious fundamentalism (Altemeyer & Hunsberger, 1992) are associated with high levels of prejudice. From a TMT perspective, these findings suggest that among those whose terror management defenses are unstable and highly vulnerable to threat, derogating different others serves to bolster both faith in one's own worldview and, through a social comparison process, in one's own self-worth.

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Consistent with this analysis, TMT research has shown that boosts to self-esteem, secure attachment, and intrinsic religiosity mitigate the effects of MS on outgroup bias (Harmon-Jones, Simon, Greenberg, Pyszczynski, & Solomon, 1997; Jonas & Fischer, 2006; Mikulincer & Florian, 2000). The one exception to this pattern occurs when a different other attacks the basis of the individual's self-esteem boost (Arndt & Greenberg, 1999). We return in a later section to discuss ways of ameliorating the link between MS and defensive prejudicial reactions.

### Realistic Group Conflict Theory

Although individuals within a culture vary in their levels of prejudice, cultures clearly play a substantial role in determining the prevalent targets of prejudice for their members. Realistic group conflict theory (RCT) helps to explain the culture's particular choices of targets. The theory posits that feelings of hostility and prejudice arise when groups compete for scarce resources (e.g., Esses, Jackson & Armstrong, 1998). From this perspective, people derogate and even aggress against those perceived to be encroaching on valuable commodities such as jobs, education, and property. Partial support for RCT is provided by evidence that periods of downward mobility, job scarcity, and general economic frustration are positively correlated with prejudice and stereotypes (Dollard, Doob, Miller, Mowrer, & Sears, 1939; Hovland & Sears, 1940). Also, research in the laboratory (R. Brown, 1995; Jones, 1997) and the field (Sherif, Harvey, White, Hook, & Sherif, 1961) demonstrates that competing groups tend to derogate and stereotype each other.

RCT provides an intuitively sensible explanation of prejudice: People need to eat and survive, and therefore feel contempt toward those perceived to threaten those basic goals. However, conflicting groups often seek resources far beyond what is necessary to sustain life; we therefore think it is important to consider psychological functions of procuring resources that RCT does not address. Many resources are sought at least in part for their symbolic value as bases of significance and immortality striving, above and beyond their pragmatic value for survival. The Israeli–Palestinian conflict provides an example of this. Although this is indeed largely a battle over lands, it is not just any lands that are sought, but rather lands that both groups consider holy, lands tied to the death-transcending ideologies of both groups. In the Old Testament, Psalm 37 declares: "If I do not remember thee, let my tongue cleave to the roof of my mouth; If I prefer not Jerusalem above my highest joys." The *Hadith* (sayings of the Prophet Mohammed) states: "The dew which descends upon Jerusalem is a remedy from every sickness because it is from the gardens of paradise."

Based on extensive historical and anthropological evidence, Norman Brown (1959) and Becker (1975) proposed that land is not the only resource with symbolic value; gold, property, and other time-defying resources represent culturally sanctioned symbolic testimony to one's value, with the consequent assurance of safety and security in this life, and literal or figurative immortality thereafter. TMT thus posits that procuring wealth serves (at least in part) to allay concerns about the finality of death. Accordingly, multiple studies demonstrate that MS increases consumerist and materialistic tendencies, even if they have negative implications for social and environmental well-being (see Arndt, Solomon, Kasser, & Sheldon, 2004, for review). In one study (Kasser & Sheldon, 2000, Study 2), mortality and control-primed participants engaged in a forest-management simulation and were told that although harvesting large amounts of timber would be

personally profitable in the short term, it would have negative long-term consequences for the environment. Despite the awareness of these consequences, those reminded of their own mortality reported intending to harvest more of the available acres of forest than control-primed counterparts.

In short, TMT and research suggest that deep-seated needs for death-transcending value may contribute substantially to the intergroup conflicts central to RCT's analysis of prejudice. Furthermore, TMT provides a framework for understanding aspects of prejudice that are difficult to account for if we consider only the pragmatic advantages of resources. For one, it explains how conflicts can spring from efforts on the part of each group to assert its symbolic superiority even when material concerns are minimized or nonexistent. A TMT perspective also helps explain why in many cultures (e.g., the Mbuti in Zaire; Goldschmidt, 1990) valuable resources are deliberately wasted in the service of asserting the individual's or culture's symbolic prestige, a practice that would be difficult to explain from an RCT perspective.

Third, TMT explains why, both past and present, efforts by one group to conquer another group and appropriate their resources are carried out in the name of gods, political missions, and other ideological abstractions. For example, after starting the ball rolling on the enslavement and subsequent murder of millions of indigenous Americans, Christopher Columbus proclaimed "Let us in the name of the Holy Trinity go on sending all the slaves that can be sold" (quoted in Zinn, 1995, p. 3). More recently, both the 1991 Persian Gulf War and the 2003 invasion of Iraq were portrayed by the Presidents Bush to the public as efforts to defend freedom and goodness against the forces of evil rather than as efforts to protect American resources in the region and benefit the American economy. Although, in some cases, a concern with establishing the supremacy of one's worldview simply serves as a façade for a more basic desire to accumulate material wealth, ideological motives clearly often play a role at least in garnering public support for the actions, and also often acquire their own psychological significance, helping to perpetuate hostilities even after material issues may have been resolved or forgotten.

The key implication of TMT for RCT is that cultures compete not only for pragmatic resources like food and mates, but also for symbolic resources that buttress faith in their worldview and significance, and thereby serve their terror management needs. Members of different cultures seek to conquer death in part by amassing resources that establish their symbolic superiority over other cultures.

### Scapegoat Theory

Like RCT, scapegoat theory (Allport, 1954; Berkowitz & Green, 1962; Jones, 1997) posits that frustration over blocked goals can manifest in aggression and prejudice, but it goes further by suggesting that groups can also blame feelings of low status and moral inadequacy on a despised outgroup (i.e., the scapegoat). Allport (1954) discussed, for example, how Hitler solidified public support by blaming the Jews not only for Germany's postwar economic crisis, but also for undermining the purity and moral integrity of the German people. Because these tend to be convenient sources of blame rather than true competitors for resources, the choice of scapegoat can be quite arbitrary, but it is often a group maligned as different or holding an alternative worldview. This was expressed by one German leader: "The Jew is just convenient. . . . If there were no Jews, the anti-Semites would have to invent them" (quoted in Allport, 1954, p. 325).

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As noted earlier, Becker (1973, 1975) proposed that even in the absence of a direct or external threat to the terror-assuaging worldview, there is residual death anxiety that is repressed and focalized onto a group either outside or inside the culture that is designated as the sole impediment to the realization of the culture's economic, moral, and religious superiority over others. Because the ultimate problem the worldview addresses is our animal mortal nature, something we cannot fully escape but that is disguised for us by our culture, an important aspect of derogating the scapegoat is viewing them as less than human, as animals—as though "we" are superior beings and true humans whereas "they" are mere animals unworthy of the rights afforded humans.

This can be seen very clearly in the Nazi equation of Jews with disease-spreading vermin, the American portrayal of Blacks as animalistic, the Hutu reference to Tutsi as cockroaches, and the many dehumanizing names developed for despised outgroups such as krauts, nips, gooks, kikes, sandsharks, and wetbacks. From a TMT perspective, this dehumanizing is effective because cultural worldviews almost always manage terror by asserting the superiority of humans over other animals. Consistent with this view, MS increases distancing from animals and decreases positive views of animals (Beatson & Halloran, 2007; Goldenberg et al., 2001).

Similar research with attitudes toward human outgroup members has shown that MS increases people's tendency to attribute uniquely human characteristics to ingroup members and view outgroup members as lacking those qualities essential to being human (Vaes, Heflick, & Goldenberg, 2010). This process of humanizing one's ingroup and dehumanizing one's outgroup serves to reduce the accessibility of death-related thoughts (Vaes, Heflick, & Goldenberg, 2010). This relationship between dehumanizing outgroup members and engaging in prejudiced behavior toward them is mediated by perceptions of animals' similarity to humans, so that the more people view humans as different from and superior to other animals, the more prone they are to also feel superior to outgroups, and harbor prejudices against these groups (Costello & Hodson, 2010). Encouraging people to think about animals as being similar to humans also encourages them to attribute more humanness to outgroup members, decreasing prejudice (Costello & Hodson, 2010).

By actively dehumanizing, humiliating, hating, and even eradicating the scapegoat, a group affirms its control over life and death and thereby symbolically secures itself against contingency and death—it is as if "they" perish so that "we" do not have to. In support of this analysis, Becker points to the cross-cultural ubiquity of human sacrifice as a means of symbolically cleansing the world of evil and assuring prosperity.

In sum, TMT addresses a deeper "why" question, rarely addressed by other theories of scapegoating, by positing that individuals and cultures often attempt to cope with their mortal fate by restoring faith in their worldview and their own significance through derogation, dehumanization, subjugation, and (in some cases) extermination of an outgroup perceived to be outsiders contaminating the group's enduring cultural legacy. Interestingly, recent TMT research seems to suggest that Jews are especially likely targets when mortality concerns are activated.

The "eternal scapegoat": Both history and recent evidence suggest that Jews and Israel have been particularly popular as scapegoats, as anti-Semitism tends to run high historically after threats of death or social upheaval are salient (see e.g., Baum, Cohen, & Jacobs, 2013). Long before the most horrendous of all examples of scapegoating by the Nazis, Jews had been enslaved and persecuted in many parts of the world. A good case

can be made that prejudice against Jews is the oldest form of ethnic prejudice, dating back well over 2,000 years. Although Allport (1954) gave ample consideration to anti-Semitism, American social psychology textbooks spend little to no space on this form of prejudice. However, survey research suggests that, aside from the U.S., Canada, and Israel, prejudice and discrimination against Jews and negative attitudes toward Israel are very prevalent (Baum et al., 2013). And although Jewish-Americans, like Asian-Americans, have been successful in academia and certain parts of the private sector, anti-Semitic jokes and stereotypic depictions of Jews are commonplace in American mass media (see e.g., Cohen, 2012). In addition, evidence indicates that in the U.S. hate crimes are disproportionately directed at American Jews, more so than at African-Americans, Hispanic-Americans, or Asian-Amercans (Baum et al., 2013). Some Jewish organizations have expressed concern that when things go bad and insecurity runs high, Jews will become major targets of prejudice even in the U.S. (Baum et al., 2013).

It is hard to pinpoint one single explanation for the common status of Jews as scape-goats. Until the formation of Israel, Jews were minorities in every culture. In addition, Jews represent a different religious worldview, different customs, and place emphasis on educa-tion, all of which may convey a threatening sense of superiority, as if Jews were the "chosen people." Jews may also be threatening because their minority status is less visible than for most other outgroups. Nazi propaganda emphasized both the clannishness of Jews and their ability to blend in, while at the same time portraying them as infectious vermin.

Consistent with the idea that there is underlying negativity toward Jews in the U.S., the first study of prejudice induced by mortality salience used American Christians and a Jewish target (Greenberg et al., 1990). Cohen and colleagues (2011) have more recently developed a Modern Anti-Semitism-Israel Model (MASIM). MASIM applies TMT to anti-Semitism and also posits that, along with blatant acts, anti-Semitism is often, like other modern forms of prejudice, hidden and expressed in subtle ways.

One such modern form is disguised as anti-Israeli attitudes and behavior. The model grants that anti-Israeli attitudes sometimes stem from non-prejudiced assessments of Israeli policies and actions, but proposes that they are also often fueled by anti-Semitism. In addition, sometimes anti-Israeli attitudes contribute to anti-Semitism. They have supported these ideas in a series of studies examining the effects of mortality salience on American perceptions of Jews and Israel.

In support of the idea that terror management contributes to modern anti-Semitism, Cohen, Jussim, Harber, & Bhasin (2009) found that MS increased anti-Semitism and negativity toward Israel, but only when their American participants were pressured into being truthful by a bogus pipeline procedure. This study provides particularly compelling evidence that MS motivates earnest prejudice rather than public efforts to conform to social norms or to strengthen ingroup ties. This study also showed that the negativity toward Israel was mediated by anti-Semitism. In two additional studies, MS increased the perceived size of Israel but not of other countries, and increased the desire to punish Israel, but not Russia or India, for perceived human rights violations. And additional studies by Cohen et al. (2009) demonstrated that MS is more likely to lead to both anti-Semitism and anti-Israeli attitudes than to negative attitudes toward other ethnicities and nations.

## Social Identity Theory

Social identity theory (SIT; Tajfel & Turner, 1979) is based on the idea that people derive self-esteem in large measure from their membership in social groups and the perceived

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status and significance of those groups. The underlying motive to enhance self-esteem drives people to highlight the distinctive and positive qualities of their ingroup and to derogate outgroups. Empirical support for SIT is provided in part by evidence that identifying with positively evaluated ingroups enhances self-esteem (e.g., Hirt, Zillman, Erickson, & Kennedy 1992), and that those whose positive self-image has been threatened reaffirm their self-worth by evaluating their groups more favorably (Cialdini & Richardson, 1980) and denigrating outgroups (Fein & Spencer, 1997). Also, research using the minimal groups paradigm (see Brewer, 1979) has shown that feelings of ingroup solidarity and superiority can arise even when the basis of determining group membership is relatively trivial (e.g., preference for one of two abstract painters).

Central to both SIT and TMT is the idea that people seek self-esteem by associating themselves with certain groups and viewing their groups as superior to others. TMT goes one step further, however, in offering an account of what self-esteem is and what psychological function it serves. For TMT, self-esteem consists of the belief that one is a person of value in a world of meaning, and the primary function of self-esteem is to buffer anxiety stemming from the awareness of death. Through this perspective we can gain a deeper understanding of the psychological significance of specific functions of groups. For one, groups provide the individual with the broad consensual support necessary to sustain faith in a meaningful and enduring conception of reality. Also, groups prescribe which attributes and behaviors will confer self-esteem and which will result instead in social approbation. In this manner, groups provide means to validate individuals' claims to achievement and identity and, ultimately, to a personalized sense of enduring significance.

In addition to their role in self-esteem acquisition and maintenance, groups serve the terror management function of providing the individual with collective modes of immortality striving through identification with entities larger and longer lasting than the self. This function of groups was recognized by Rank (1930/1998), who proposed that people bolster faith in their continuance beyond death by merging with a death-transcending collective. This notion was echoed by Lifton (1979), who posited that in addition to seeking literal immortality (e.g., via an immaterial soul), people derive a symbolic sense of immortality by being a valued part of a larger collective such as a tribe or the nation that will live on in perpetuity. TMT converges with these perspectives in suggesting that people identify with and favor their own race, religion, and other social groups, and devalue outgroups, in order to perceive themselves as significant participants in a meaningful cultural reality instead of just nameless animals in a wholly material reality destined only to death and decay.

Combining insights from SIT and TMT, Castano and colleagues (2002) examined the effects of MS on the extent to which participants identify with and evaluate their ingroup. These researchers also reasoned that individuals' motivation to seek symbolic immortality via affirmation of their ingroup might be partly explained by heightened perception of that group as a concrete singularity (as opposed to a loose assemblage of individuals)—a phenomenon known as group entitativity (Campbell, 1958). Consistent with this thinking, the results showed that Italians primed with death identified more strongly with Italy and perceived Italy as more of an entity. Further, the extent of this enhanced identification and entitativity perception mediated an effect of MS to elicit particularly positive judgment of Italians (but not Germans). These findings elucidate mechanisms that may have contributed to previously reviewed studies of MS-induced ingroup

favoritism and outgroup prejudice (e.g., Greenberg et al., 2003; Greenberg et al., 1990; Harmon-Jones et al., 1996; Jonas et al., 2005; Nelson et al., 1997).

As just discussed, TMT posits that, in addition to providing the basis for self-esteem, groups also provide people with a means of identifying with a large and long-lasting entity that transcends the self. This raises the possibility that heightened mortality concerns would increase group identification even when doing so undermines rather than enhances one's self-esteem. In one set of studies assessing this possibility, Dechesne, Janssen, and van Knippenberg (2000) exposed mortality- and control-primed participants to a criticism of their university that had negative implications for their self-esteem. They found that under these conditions, participants with a low need for closure—who were not dispositionally inclined toward clear and stable meaning—readily disidentified from their university (see Arndt et al., 2002, for similar findings regarding gender and ethnic identifications). In contrast, participants with a high need for closure responded to MS and a criticism of their university by maintaining their university identification and derogating the source of the threat. Dechesne et al. also found that participants primed to think of their university identification as stable and enduring maintained and defended that identification, whereas those primed to view such identifications are highly changeable and temporary readily disidentified from their school when mortality was salient and their group was framed negatively.

In sum, TMT research demonstrates that MS increases group identification and favoritism. These results augment SIT's account of the self-esteem-conferring benefits of group identification by demonstrating that holding mortality concerns at bay is one important distal motivation for maintaining self-esteem. Furthermore, research shows that, at least for those inclined toward clear meaning and those led to conceive of groups as permanent and real, MS can strengthen group identification and heighten prejudicial reactions to outgroup threats even when one's social identity reflects negatively on self-worth. These findings extend SIT because they demonstrate that, in addition to providing a basis for self-esteem, groups confer the stable frameworks of meaning necessary to assuage mortality concerns.

### Just World and System Justification Theories

Lerner's (1980) just world theory postulates that people are fundamentally inclined to believe that the world is a just place where people get what they deserve and do not suffer unjustifiably. Confronting disadvantaged groups or victims of tragedy threatens to undermine this core belief and consequently motivates people to restore it by dissociating from innocent victims or attributing their misfortunes to their prior misdeeds or dispositional shortcomings. By believing, for example, that rape victims must have behaved seductively (Carli, 1999) and that poor people do not deserve better (Furnham & Gunter, 1984), more fortunate people can justify inequality and suffering, and avoid the unsettling prospect that equally dire circumstances could befall them.

Similar to just world theory, system justification theory holds that prejudice helps justify the economic and social status quo, even if it means rationalizing the inferior status of one's ingroup (e.g., Jost & Banaji, 1994; Jost & Burgess, 2000). Therefore, threats to ideological beliefs that serve to justify the status quo should result in defensive efforts to reaffirm faith in those beliefs (e.g., with the use of stereotypes), even if it means justifying one's own disenfranchised position within that ideological system.

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TMT shares with just world and system justification theories the broad notion that individuals are motivated to maintain faith in meaningful cultural beliefs and therefore react defensively toward people or events that threaten to undermine those beliefs. According to TMT, however, these beliefs serve a more distal psychological function of keeping death-related concerns at bay. Throughout this chapter we have reviewed evidence in support of this claim: MS exaggerates positive and negative evaluations of people and ideas that uphold or violate one's ideological beliefs. Furthermore, there is research that bears more specifically on just world and system justification theories.

From a TMT perspective, the belief that social events follow a just and benevolent order constitutes a fundamental building block of terror-assuaging meaning. By believing that people get what they deserve and deserve what they get, individuals can obscure the brute fact that they are perpetually susceptible to the threat of death at the hand of incalculable natural and social forces. In one study assessing this analysis, Landau, Johns et al. (2004, Study 5) primed high- and low-PNS participants with mortality or a control topic; then, in an ostensibly separate study, they read about a student whose face was disfigured in an attack and were given the opportunity to choose among information that cast the victim in either a positive or negative light. Results revealed that high-PNS individuals primed with mortality were especially interested in discovering negative information about the victim of a senseless tragedy, presumably because such information helped them restore their belief in a just world.

A subsequent study tested the idea that, to the extent that just world beliefs serve the protective function of keeping concerns about mortality at bay, compromising those beliefs should unleash such concerns. Accordingly, results showed that threatening just world beliefs by presenting positive information about the victim of a senseless tragedy heightened the accessibility of death-related thought among high-PNS participants. Hirschberger (2006) recently provided a conceptual replication of these findings (without measuring PNS); in these studies, MS led people to assign blame to an innocent victim of a paralyzing accident, and reading about such an individual increased death thought accessibility. These results provide converging evidence that just world beliefs serve a terror management function. The power of MS to increase defense of culturally shared beliefs in a just world, as seen in victim blaming, may undermine the potential for positive social change and possible intergroup reconciliation, because it can help people justify violent actions.

Regarding the relationship between system justification and terror management perspectives, Jost, Fitzsimons, and Kay (2004) posited that one existential motive that may prompt individuals to cling to ideology is the need to repress death anxiety. This notion would seem to make system justification and TMT quite compatible, yet Jost et al. saw an important distinction in the fact that TMT research has historically implied that support for one's worldview works in concert with shoring up self-esteem, whereas system justification theory holds that self-esteem is often sacrificed to shore up the system or worldview.

However, we believe that TMT actually converges with system justification theory on this point because the worldview is the more fundamental component of terror management. This suggests that in situations in which enhancing self-esteem threatens to undermine faith in the worldview, people will opt to preserve faith in the worldview. This is because a threat to the worldview necessarily entails a threat to the standards of value on which people stake their self-esteem, but discounting self-esteem bolstering accomplishments does not reciprocally entail a worldview threat.

Landau, Greenberg, and Sullivan (2009) examined the effects of MS in situations where defending the worldview and enhancing self-esteem pull the individual in opposing directions. They predicted that when an opportunity to bolster or defend self-esteem following MS would threaten the status or credibility of revered, worldview-representative authority figures, participants would not take advantage of this opportunity. Three studies provided converging support for this prediction. In one study, among participants told that they performed better on a test of leadership ability compared to an unadmired political leader, those previously reminded of death (compared to personal uncertainties) judged the feedback as more valid—a commonly observed self-enhancement strategy. In contrast, among participants told that they outperformed a leader who embodies their cultural worldview, MS led them to dismiss the validity of the feedback, effectively downplaying a personal achievement when it threatened to diminish the status of a culturally revered authority.

The findings suggest that heightening mortality concerns generally increases self-enhancement, but also increases reluctance to self-enhance when doing so would challenge important aspects of the individual's meaning-providing worldview. In this way, they support the rapprochement of system justification and terror management theories by showing that MS encourages people to sacrifice opportunities to boost self-esteem in order to maintain sources of cultural meaning.

### Social Cognitive Approaches

According to social cognitive approaches, stereotyped beliefs and prejudiced attitudes exist not only because of social conditioning and motivation, but also as by-products of normal thinking processes. These approaches are based on the idea that people simplify an otherwise overwhelming amount of information in the social world in part by spontaneously categorizing people (e.g., on the basis of salient features such as race, gender, and age) and applying schemas associated with those categories to form further inferences and judgments about their characteristics and behavior (e.g., Allport, 1954; Moskowitz, 2005). Although on the whole these processes are very useful, they can also yield systematic biases and errors that contribute to prejudice and stereotyping.

Although earlier social cognitive views placed almost exclusive emphasis on the role of cognition, researchers have become increasingly interested in the role of motivational states (e.g., goals, moods, needs) and dispositional propensities (e.g., personal need for structure) in people's use of simple structuring strategies (Kruglanski, 1996; Kunda, 1990; Pyszczynski & Greenberg, 1987). These and other lines of research assessing a motivated social cognition approach indicate that people rely on simple structuring processes to seek closure on confident and coherent judgments and minimize ambiguity. TMT complements this approach by addressing why people are fundamentally disposed to seek simple, well-structured representations of the world, and respond adversely to ambiguity and incongruity.

As discussed earlier, TMT posits that to buffer the potential for anxiety inherent in the awareness of the inevitability of death, the individual subscribes to a worldview that imbues the world with stable meaning and order. Therefore, one important distal motivation for the maintenance of stereotypes, heuristics, and other cognitive processes designed to minimize ambiguity and approach subjective consistency is the need to maintain the epistemic clarity necessary to sustain faith in one's terror-assuaging

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To the extent that seeking simple, structured interpretations of social information serves a terror management function, MS should exaggerate the tendencies to perceive others in simple and schematic ways. Furthermore, based on the aforementioned analysis of individual differences, MS should exacerbate these structuring tendencies particularly among those dispositionally inclined to simple structure. These predictions were confirmed in Schimel et al.'s (1999) aforementioned findings that MS led participants with high need for closure to evaluate homosexual men more favorably when they behaved in a stereotype-consistent manner and more negatively when they behaved in a stereotype-inconsistent manner.

Building on these findings, Landau, Johns et al. (2004) tested whether MS heightens more general tendencies to seek simple structure and consequently devalue those who undermine that structure. In one study, mortality-primed individuals were more likely to overlook objective statistical evidence in forming group membership judgments and assume that others belong to certain categories to the extent that they represent the category stereotype. Another study was based on Heider's (1958) claim that people maintain a coherent understanding of others by viewing their actions as stemming from clear causes and dispositions. Results show that high-PNS individuals primed with mortality were particularly disparaging of an individual who was portrayed in conversation as inconsistently displaying both introverted and extroverted behaviors. The tendency for at least some people following MS to rely more strongly on rigid knowledge structured is an additional source for increased ingroup bias, stereotyping, and discrimination (Kruglanski et al., 2006).

In sum, TMT provides a unique existential perspective on the motivational underpinnings of epistemic clarity. These results are important in showing that stereotypes and other social cognitive structuring tendencies exist not only because of inherent cognitive limitations or the desire for closure, but also because of the more distal motive to maintain stable and orderly perceptions of reality to manage fears stemming from the awareness of death. Furthermore, as noted earlier, this research shows that there are important individual differences in the extent to which people derive terror-assuaging meaning from well-structured perceptions of others; therefore, these differences are likely to be important predictors of stereotyping and prejudice, particularly when people are reminded of their mortality.

### Summary

A general theme emerges from our discussion of how TMT complements other theoretical perspectives on prejudice. At a general level, many of these perspectives view prejudice as arising from the perception that some group or groups are preventing the achievement of certain goals, whether they are the needs to bolster individual and collective self-esteem, maintain clear and certain conceptions of the social world, or accumulate material goods. TMT supplements these approaches by explaining how each of these separate goals, although valid and interesting in their own right, serves a more distal motivation to manage death-related concerns. A growing body of research supports this

integrative approach by demonstrating the influence of mortality reminders (and their interaction with relevant individual differences) on diverse attitudinal and behavioral phenomena that contribute to prejudice, stereotyping, and discrimination, as well as by showing the effects of worldview threats on death-thought accessibility.

## TMT AND THE AMELIORATION OF PREJUDICE AND INTERGROUP CONFLICT

This is the great moral that Albert Camus drew from our demonic times, when he expressed the moving hope that a day would come when each person would proclaim in his own fashion the superiority of being wrong without killing [rather] than being right in the quiet of the charnel house (Becker, 1975, p. 145).

The theory and research reviewed in this chapter thus far generally paints a dark picture of humanity and its prospects. When reminded of death, people become more motivated to support and defend their social ingroups and related cultural worldviews. As a result they favor their ingroup, become more intolerant and aggressive toward outgroup members and those who criticize the ingroup, and support hostile actions toward outgroups. TMT traces these phenomena to a vital need to deny the awareness of one's inevitable death—an awareness that won't go away so long as we have the kinds of minds we do. And once intergroup aggression begins, the specter of mortality is likely to loom large, fueling more hostility, stereotypic depictions of the outgroup, and lethal conflict. Even images of destroyed buildings increase DTA, and as a consequence, support for military aggression (Vail, Arndt, Motyl, & Pyszczynski, 2012). Thus, conflict tends to escalate in a cycle of death reminders, intergroup hostility, and violence.

Thucydides actually came to the same conclusion in his observations regarding the Peloponnesian wars about 2,500 years ago (Ahrensdorf, 2000). He observed that, above and beyond protecting themselves and their property, people fight most intensely in defense of their ideological principles and to transcend their mortality symbolically through identification with their city-state and doing memorable deeds in battle, or literally, by qualification for an afterlife. Thucydides concluded that reminders of mortality escalate once sparks fly, thereby intensifying effort to achieve everlasting glory and immortality. And, because death transcendence can never be unequivocally secured, bigotry and strife resulting from the terror of death will never be completely eradicated.

But there is hope. Recent years have seen a rapid accumulation of evidence showing that the effect of reminders of mortality on increasing intolerance toward different others and intergroup hostility is not automatic and inevitable. In fact, under some conditions MS can foster prosocial tendencies such as intergroup fairness and approval of pacifism. This work is comprehensively reviewed by Jonas and Fritsche (2013; see also Fritsche & Jonas 2011), who organize research findings into three "paths"—or intervening processes—by which the effect of heightened death thought accessibility on prejudice and intergroup conflict can be reduced, if not reversed. These paths, graphically depicted in Figure 5.1 refer to: perceptions of death; the availability of alternative means of buffering death-related anxiety; and people's conceptions of what it means to be a "good" group member, and which group(s) they view themselves as belonging to. This section adapts Jonas and Fritsche's scheme to describe these paths and review representative findings.

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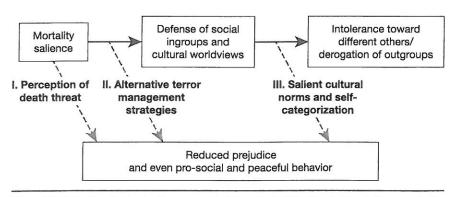hemselves as belonging to.
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**Figure 5.1** Paths to reducing (and even reversing) the effect of the threat of mortality on prejudice (adapted from Jonas and Fritsche, in press).

### Path I: Adjust Perceptions of Death

People differ in how they perceive their mortality, and a given person's perceptions may change depending on his or her current situation and stage in life. These differing perceptions of death might influence the initial appraisal of the threat mortality poses. For some people, and under some conditions, the awareness of personal mortality may lack its typical threatening quality. Dispositional and situational moderators thus offer the first path for reducing the effects of MS on prejudice and intergroup hostility.

Studies show that religiosity may be one such moderator. Elsewhere in this chapter we reviewed findings (e.g., Greenberg et al., 1990) showing that people who identify as members of a religious group tend to respond to MS by defending the value of that group and the ideological principles it stands for. Yet there is also evidence that a more stable, personally meaningful religious orientation—what Batson (1982) labeled "intrinsic religiosity"—may protect people against the problem of mortality. In one study by Jonas and Fischer (2006), German Christian individuals high in intrinsic religiosity exhibited *less* worldview defense after MS, especially after being primed with religion and the security it provides. This finding has been replicated among religious groups across the globe (Golec de Zavala et al., 2012). For Christians and Jews in the United States, Muslims in Iran, and Christians in Poland, MS strengthens the link between intrinsic religious commitment and decreased intergroup hostility (such as support for aggressive counterterrorism and negativity toward religious outgroups). The key ingredient here may be a confidently held belief in literal immortality: convincing people that there is scientific evidence of continued consciousness postmortem also attenuated MS-induced defensiveness (Dechesne et al., 2003).

Reactions to MS may also vary depending on how they think about their mortality. MS effects involve relatively temporary, superficial, and, in some cases, unconscious reminders of mortality. But what if people contemplate their mortality and the overall meaning of their existence at a deeper level? Perhaps they will be able to come to terms with their mortality in a way that doesn't drive them to lash out at dissimilar others or champion the value of this or that group. This possibility is not new: it is a leitmotif running through philosophical guides to achieve "a good life" across cultures and historical periods. This idea is empirically supported by evidence that people who have faced life-threatening traumas often emerge with more open, tolerant conceptions of

others (Calhoun & Tedeschi, 2001; Janoff-Bulman & Yopyk, 2004). Whether these short-term self-reports can be trusted is yet to be determined.

A set of experiments has led, however, to a similar conclusion. In these studies, participants randomly assigned to focus on a hypothetical scenario in which their death occurs in a very concrete manner, rather than to entertain passing abstract thoughts of death's inevitability, did not show typical MS-induced defensiveness (Cozzolino, Staples, Meyers, & Samboceti, 2004). Specifically, individuals with a tendency to value extrinsic goals (e.g., wealth, fame) responded selfishly to a typical MS induction, taking more than their fair share of raffle tickets. Yet this effect did not occur if, instead of typical MS, participants had initially been exposed to a vignette encouraging them to imagine a specific sequence of events leading to their death in an apartment fire. Although the researchers did not measure attitudes toward outgroup members per se, these results are consistent with the idea that concrete encounters with thoughts of mortality might diminish egoistic responses, possibly reducing defense of an internalized worldview via expression of intergroup bias.

Unfortunately, this deeper death contemplation induction introduced confounding factors that suggest alternative explanations. One problem is that the induction focuses participants on one very specific way of dying, in a fire, rather than the inevitability of death in the future. It is probably not difficult for people to defend against specific scenarios by which they might die, as actions can be taken to make any one specific way of dying very unlikely. Death is inevitable, but no one specific way of dying is. In addition, this induction framed the death in the context of a failed yet arguably heroic escape attempt that may have implied an opportunity to save the life of a friend. Further, the induction asked how they would have dealt with the situation, and to think about their life to that point, and to think about their family. Both a sense of heroism and thinking of loved ones have been demonstrated to serve as buffers against reminders of death.

Thus, whether deeper contemplation of death necessarily reduces defensive responses to MS is still very much an open question. Indeed, some experimental evidence suggests that shifts toward authentic, less defensive states following conscious contemplation of death are fleeting, transient outcomes that diminish after merely five minutes and get replaced by typical egoistic responses to MS (Kosloff & Greenberg, 2009). Further, evidence from Fernandez, Castano and Singh (2010) found that extensive exposure to specific death reminders amplifies rather than diminishes worldview defense. They examined two groups of Indian citizens: those with high chronic exposure to death reminders (who worked near or in a crematory) and those with low chronic exposure to death (farmers working far away from the crematory). Regardless of whether they received MS, high death exposure participants exhibited high attachment to and glorification of India, and pronounced bias against anti-Indian expressions and for pro-Indian expressions. Low death exposure participants showed similarly elevated responses, but only after MS. Such findings suggest that chronic death exposure may lead to chronic cultural worldview defense rather than to a deeper acceptance of death.

Research among traumatized individuals further complicates the matter. Although work on post-traumatic growth has shown that intense real-life confrontations with mortality (e.g., due to accident or illness) can promote meaningful shifts toward less defensive priorities (e.g., Kinnier, Tribbensee, Rose, & Vaugh, 2001), work by Abdollahi, Pyszczynski, Maxfield, and Luszczynska (2012) has shown that penchants for intergroup bias in response to MS can remain. Following a devastating 2005 earthquake in Iran (6.4 on the Richter scale) that killed over 1,500 persons and forced over 6,700 persons to

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evacuate their homes, Abdollahi et al. recruited traumatized and non-traumatized participants and found that non-traumatized individuals responded to MS with pronounced negativity toward Western foreign aid. Hence, for non-traumatized individuals who had confronted a real life-threatening situation, typical intergroup biases persisted—and recurred when retested two years later. Being traumatized was not a particularly desirable alternative: although traumatized individuals did not respond to MS with worldview defense, they showed an uncommon increase in negative affect following the death reminder and (as shown e.g. by Chatard et al., 2012) pronounced dysregulation of death thought accessibility. Similar effects have been found in Poland, the Ivory Coast, and the U.S. In short, evidence from both the laboratory and real-world trauma survivors is mixed regarding the extent and stability with which extensive conscious confrontation with specific conditions surrounding one's own death yields a sustainable path to reducing culturally biased responses.

Other suggestive evidence comes from studies examining the moderating role of trait mindfulness in reactions to MS. Trait mindfulness—the ability to attend to stimuli as they appear in the present moment without the intrusion of higher-order appraisals and distractions (Brown, Ryan, & Creswell, 2007)—has been shown to ameliorate the link between MS and defensive reactions. Specifically, Niemiec et al. (2010) found that individuals high in trait mindfulness did not show increased worldview defense after reminders of mortality, and that this effect was partially mediated by more effortful processing of death-related thought during MS inductions. While it is unclear exactly what to make of many of these findings, they are consistent with the idea that individual and situational variation in the ability to process death-related thoughts at a deep level may affect the extent to which thoughts of death trigger increases in prejudice, stereotyping, and intergroup hostility.

Perceptions of mortality can also change significantly as the person develops over the lifespan. Just as death reminders have different effects on children (Florian & Mikulincer, 1998), they might also be expected to influence older adults in a unique way. Maxfield et al. (2007) in fact found that older adults (in their studies, between the ages of 57 and 92) did not show worldview defense (in the form of endorsing harsher punishment of moral transgressors) after a death reminder, while a comparison group of young adults did show this effect. Indeed, older adults responded to a non-conscious death reminder by becoming significantly more *lenient* toward transgressors. The authors interpreted these findings as evidence that older adults—who are both more commonly exposed to reminders of their impending mortality and more estranged from the mainstream cultural worldview and sources of self-esteem that protect against death awareness—shift toward alternate, typically more flexible strategies for coping with their mortality. A subsequent study (Maxfield et al., 2012) showed that this more tolerant response to MS is only found in elderly people relatively high in executive functioning. Elderly participants with less effective executive functioning, like younger adults, became more punitive after MS. Thus, only elderly adults who are doing well cognitively may have developed wiser, more constructive ways of reacting to MS or perhaps only they have the self-control to block more gut-level negative reactions and apply the wisdom that comes with age.

### Path II: Access Alternative Strategies for Terror Management

In the event that Path I is ineffective and the awareness of mortality retains its threatening quality, people will tend to cling to their anxiety buffer. As we have seen, this often

manifests in intolerance and aggression against outgroups. However, people may be able to allay death-related anxiety in ways that do not increase prejudice and intergroup conflict. This suggests a second path for breaking the mortality-prejudice link: access alternative strategies for buffering against death-related anxiety.

Recall that the anxiety buffer consists of two components: the cultural worldview and self-esteem, the latter being a feeling of personal value obtained by believing that one is living up to the cultural standards provided by one's worldview. Research has shown that MS increases striving for self-esteem and that self-esteem striving buffers existential anxiety (Pyszczynski et al., 2004). This suggests, then, that high levels of dispositional self-esteem, and situational boosts to self-esteem, may provide a buffer and eliminate the need for worldview defense after MS. Accordingly, research shows that MS is less likely to arouse worldview defense in individuals high in self-esteem and low in depression (Harmon-Jones et al., 1997; Simon, Arndt, Greenberg, Solomon, & Pyszczynski, 1998). Also, boosts in self-esteem (e.g., through positive intelligence test results and affirmation of personal values) eliminate the effect of MS on DTA and worldview defense (Harmon-Jones et al., 1997; Schmeichel & Martens, 2005). Yet the picture is more complex. Among individuals who derive self-esteem from zealously defending their ingroup, MS-induced self-esteem striving can exacerbate intergroup conflict. In one study (Taubman-Ben-Ari & Findler, 2006), MS increased motivation for military service among Israeli men with high self-esteem, but not those with low self-esteem. Perhaps the high self-esteem men perceived military service as an opportunity to live up to the challenge of proving their virility and national loyalty to the world. In addition, Arndt and Greenberg (1999) found that if a person attacks the basis of the individual's boost in self-esteem, MS will lead to derogation of the different other.

Mikulincer and Florian (2000) proposed that the anxiety buffer consists not only of a cultural worldview and self-esteem, but also engagement with close interpersonal relationships that provide a strong sense of attachment security similar to that provided by the parent–child relationship. Theoretical and empirical work by Greenberg (2012) and Kosloff, Greenberg, Sullivan, and Weise (2010) suggest that close relationships may not constitute a separate buffer, but rather serve as important sources of worldview and self-worth validation. Either way, making close, secure relationships salient would be likely to reduce punitive reactions to MS, and the empirical literature bears this out (see e.g., Mikulincer, Florian, & Hirschberger, 2003). Thus, the salience of a close relationship partner or a secure attachment may provide the existential security people crave without resorting to worldview defense. Most directly supporting this point, Weise et al. (2008) showed that a secure-relationship prime reversed the effect of MS on support for violent actions. Specifically, among participants who had been primed to think of an unconditionally accepting interaction with an important person from their past, MS reduced support for the use of extreme counterterrorist military force.

### Path III: Redirect Worldview Defense by Means of Salient Cultural Norms and Self-Categorization

We have described two ways to intervene in the mortality-prejudice link: short-circuit the appraisal of death as threatening (Path I) or strengthen terror management resources, thereby rendering defensive responses to MS unneeded (Path II). If neither path is effective, and cultural worldview defense is triggered, will people inevitably show intolerance and hostility? Fortunately, the answer is "no." Recall that, for TMT, MS does

not simply make people more hostile; rather, it motivates people to adhere more strongly to their cultural worldviews and demonstrate that they are valuable members of their society. But there is a lot of flexibility in people's conception of what constitutes being a good person or a good member of the cultural ingroup. Thus, a third path to ameliorating the threat-prejudice link is to redirect MS-induced worldview defense by adjusting the *content* of the cultural worldview.

Relevant studies have examined the moderating effects of norm salience. Norms define what it means to be a proper member of the cultural ingroup. Most worldviews contain a great number of norms that guide thinking and action in various directions, and not all of these norms dictate intolerance and intergroup hostility. Many, in fact, prescribe prosocial and peaceful behavior by promoting the values of help, fairness, and equality, as well as empathy and compassion (Pyszczynski et al., 2008). This coexistence of different norms is nicely illustrated by the recent public debate over admitting gay boys into the Boy Scouts of America. What should a "good American" think about this? One could say that we ought to preserve the right of every organization to admit members who embody their moral standards; yet one could say that our principle obligation is to ensure that all people are treated equally, regardless of their sexual orientation.

If conflicting norms coexist with a cultural worldview, which one will dictate people's behavior after MS? Terror management research suggests that the aspect of the cultural worldview that produces congruent action following MS is the one that is most prominent in consciousness, or most accessible, in any given moment. Thus, depending on which specific cultural norm people subscribe to, or which ingroup norm is salient in a given social situation, people may not comply with ingroup norms of intergroup hostility. In fact, to act like normative group members, they may show the opposite tendency if peace-fostering norms (e.g., tolerance, fairness, benevolence, pacifism) are salient.

A number of studies have examined this possibility by focusing on individual differences in the norms and values people have internalized from their cultural worldview. If people subscribe to hard place type worldviews, they are less prone to hostile intergroup reactions to MS. For example, at least among Americans, people who self-identify strongly as politically liberal and those who are low in authoritarianism are generally less prone to respond to MS with derogation or against different others (e.g., Greenberg et al., 1990; Greenberg, Simon, Pyszczynski, Solomon, & Chatel, 1992). Relatedly, people high on trait empathy are more willing to forgive an aggressive outgroup member following MS (Schimel, Wohl, & Williams, 2006). Most recently, in two studies using French and American samples, Weise, Arciszewski, Verlhiac, Pyszczynski, and Greenberg (2012) found that right-wing authoritarians responded to MS with increased negative evaluations of an immigrant, whereas their low authoritarian peers responded to MS with increased positive evaluations of an immigrant and interest in interacting with that person.

Other studies have examined the moderating impact of situationally activated norms. Numerous studies have shown that MS motivates people to comply with salient cultural norms of how good people should think and act. In this way, the situational activation of prosocial norms can counteract the typical hostile reactions to MS. For example, priming American college students with the cultural value of tolerance counteracted the effect of MS on increasing derogation of dissimilar others (Greenberg et al., 1992) and eliminated the increase in negative attitudes toward Muslims that was typically induced by MS (Vail, Arndt, Rampy, Pope, & Pinel, 2012). Similarly, following MS, non-Black participants primed with the cultural value of egalitarianism showed reduced prejudice toward Blacks

(Gailliot, Sillman, Schmeichel, Maner, & Plant, 2008). Another 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.

Recent findings by Rothschild, Abdollahi, and Pyszczynski (2009) show that religious fundamentalists' usual hostility against outgroups (Henderson-King et al., 2004) is eliminated when compassionate tenets of their religious worldview are made salient following a mortality threat. Specifically, among American participants high on religious fundamentalism, exposure to compassionate biblical precepts following an MS induction reduced support for using extreme military force against Middle Eastern countries. Similarly, among Shiite Muslim participants in Iran, exposure to compassionate Koranic precepts following an MS induction reduced aggressive anti-Western attitudes. Importantly, the interactions between MS and priming compassionate religious values only occurred when those values were explicitly attributed to participants' revered religious doctrines, but not when framed as secular values. Taken together, these studies illustrate how specifically emphasizing peace-promoting religious norms within the context of fundamentalists' own religious belief systems can moderate their aggressive responses to those with differing worldviews in the wake of reminders of mortality.

Complementing this focus on individual and situational variation in norm salience, research has examined how MS-induced worldview defense can be redirected by adjusting how people define the ingroup. To clarify, when MS prompts people to defend their cultural worldview, their collective self-definitions become more important and they defend those groups if necessary. But who is this "us" that they are defending? In most TMT studies, MS increases defense of well-bounded groups that are set apart from outgroups, such as one's nation or university. Yet, other lines of work in the prejudice literature show that social categorizations of "us" and "them" are flexible and contingent upon social situations (Gaertner, Mann, Murrell, & Dovidio, 1989). Perhaps people can be induced to recategorize themselves as members of broader, more inclusive social groups. That is, being a "good" group member under MS 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).

In one set of studies supporting this possibility, Motyl et al. (2011) showed that subtle reminders of shared human experiences eliminated MS-induced negative reactions toward out-groups, 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 related findings, 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

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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. Additional evidence that recategorization moderates MS-induced worldview defense can be found in Giannakakis and Fritsche (2011) and Halloran and Kashima (2004).

In summary, the tendencies to defend social ingroups and their worldviews in response to reminders of mortality do not necessarily lead to increased ingroup bias and intergroup hostility. Indeed, when combined with salient norms of tolerance, intergroup cooperation, and peaceful conflict resolution, MS-induced worldview defense can even lead people to more strongly endorse prosocial modes of intergroup interaction. Additionally, inclusion of the ingroup and outgroup in a broader, superordinate category can reduce if not eliminate the threat to one's worldview an outgroup member would otherwise pose.

### Outlook

The theory and research we have reviewed suggest important steps that societies can take to prevent the antisocial effects of mortality awareness, and even to harness people's motivation to deny death for the purposes of promoting peace and social welfare. One strategy would be to curb politicians' and other mass communicators' purposeful use of death reminders (especially in combination with salient aggressive norms) to rally citizens' support for outgroup intolerance and intergroup aggression. Societies could also provide their members with opportunities to develop alternative anxiety buffers that they can rely on without resorting to negativity toward others. Societies that fail to do so may create fertile grounds for escalating cycles of intergroup violence and existential threat. Kruglanski and colleagues (2009) have illustrated this in their analysis of terrorism. They provide evidence that suicide terrorists usually have chronic doubts about their personal value as a result of being ostracized or losing family members to conflict. Consequently, they may engage in extreme political violence as a desperate effort to achieve the self-esteem that they cannot find by other culturally condoned avenues.

Politicians, religious leaders, and mass-communication outlets could also make efforts to convey more prosocial images of the normative implications of group membership. That such messages may be beneficial is not news, but TMT research suggests that they may be especially powerful guides to behavior in times when death is likely to be close to consciousness (e.g., after a natural disaster or terrorist attack). Again, under these conditions people are motivated to follow salient norms. Hence, conveying an image of a "good" group member as complying with norms of tolerance, intergroup cooperation, and peaceful conflict resolution may have a major impact.

Another way that terror management motivation can be harnessed to improve intergroup relations is to encourage individuals to view themselves as members of broader, superordinate groups (e.g., Europeans rather than Germans, but even better, as humans). Again, with death close to consciousness, people are motivated to think and act as ingroup members. Encouraging people to perceive groups normally viewed as the "other" as instead "one of us" may be a promising route to promoting peace.

More broadly, the picture that emerges from this evidence is that if we brought our children up to sustain faith in a relativistic worldview that places a high value on tolerance, encourages identification with humanity, provides them with stable bases of attachment security and self-esteem, and encourages them to face the problem of death with careful

deliberation, they would grow into adults who could face up to the existential threat of mortality without derogating and aggressing against people who think differently or are viewed as outgroupers. The general guidelines for how to accomplish this have been laid out by many humanistic (e.g., Rank, 1930/1998; Rogers, 1963; Ryan & Deci, 2002) and existential (Becker, 1971; Yalom, 1980) psychologists. Precisely how to accomplish this in a world in which children are brought up by adults who do not necessarily embrace relativistic worldviews or serve as reliable bases of security and self-worth, and who have their own terror with which to contend, although a difficult matter, should be a top priority for social scientists, practitioners, educators, and politicians.

## NOTE

1    In over 150 studies, MS has had different effects than these comparison inductions. Although a small number of researchers have reported a few similar effects with other threat inductions, heightened DTA may have played a role in these cases, and the alternative conceptualizations offered by these researchers have never been able to account for large proportions of the evidence supporting TMT, including, along with the many studies showing different effects than for other threats, the over 100 studies measuring DTA and the very different effects when death is in focal attention vs. when it is highly accessible but outside conscious awareness (for more extensive discussions of these issues, see Greenberg & Arndt, 2012; Greenberg, Solomon, & Arndt, 2008).

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