

# Pride and Prejudice: Fear of Death and Social Behavior

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## Abstract

Terror management theory posits that awareness of mortality engenders a potential for paralyzing terror, which is assuaged by cultural worldviews: humanly created, shared beliefs that provide individuals with the sense they are valuable members of an enduring, meaningful universe (self-esteem), and hence are qualified for safety and continuance beyond death. Thus, self-esteem serves the fundamental psychological function of buffering anxiety. In support of this view, studies have shown that bolstering self-esteem reduces anxiety and that reminders of mortality intensify striving for self-esteem; this research suggests that self-esteem is critical for psychological equanimity. Cultural worldviews serve the fundamental psychological function of providing the basis for death transcendence. To the extent this is true, reminders of mortality should stimulate bolstering of one's worldview. More than 80 studies have supported this idea, most commonly by demonstrating that making death momentarily salient increases liking for people who support one's worldview and hostility toward those with alternative worldviews. This work helps explain human beings' dreadful history of intergroup prejudice and violence: The mere existence of

people with different beliefs threatens our primary basis of psychological security; we therefore respond by derogation, assimilation efforts, or annihilation.

## Keywords

death; consciousness; anxiety; culture; self-esteem; prejudice; aggression

Why has history been plagued by a succession of appalling ethnic cleansings? Archaeologists have found bas-reliefs from 1100 B.C. depicting Assyrian invaders' practice of killing indigenous people by sticking them alive on stakes from groin to shoulder. These xenophobic propensities reached their zenith in the 20th century, when Hitler's Nazi regime perpetuated the most extensive effort at genocide in history, and have continued to resurface throughout the world in places such as Cambodia, Rwanda, Yugoslavia, and the United States—where in 1999 A.D. at Columbine High School in Littleton, Colorado, two Nazi-influenced teenagers massacred schoolmates, seemingly provoked by threats not to material well-being, but to the abstract entity known as self-esteem.

## TERROR MANAGEMENT THEORY

Inspired by Ernest Becker's (e.g., 1975) interdisciplinary efforts to

understand "man's inhumanity to man," terror management theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986) was developed to address two questions that had previously been neglected by academic psychologists, but are now recognized to be of fundamental importance for understanding human behavior: What are the psychological foundations of culture? What is the nature and function of self-esteem? The resulting theory is parsimonious and unique in its conceptual breadth and integrative potential (more than 80 studies have produced findings supporting hypotheses derived from TMT, investigating a wide range of topics, e.g., aggression, prejudice, in-group disidentification, sexuality, disgust, depression, self-esteem, self-awareness, defensive processes, risk taking, and creativity).

Grounded in evolutionary theory, TMT begins with two broad assumptions. First, humans share with all life forms a biological predisposition toward self-preservation and reproduction. Second, humans are unique in their use of linguistically mediated symbolic thought processes, rendering them conscious, and thus able to delay behavior in novel circumstances to ponder alternative responses and imagine that which does not yet exist, and transform the physical universe accordingly.

Consciousness is highly adaptive, but, as Kierkegaard said, brings with it the gift of awe and the burden of dread. It is awesome to be alive and know it, and dreadful to recognize that death is one's inevitable fate as an ambulatory assemblage of blood, tissue, and guts, inherently no more significant or enduring than a barnacle, a beetle, or a bell pepper. This awareness of death creates the potential for debilitating terror, managed through the development of cultural worldviews: humanly created belief systems that are shared by individuals

in groups and function to minimize anxiety engendered by the awareness of death.

According to TMT, cultural worldviews lend meaning through accounts of the origin of the universe, prescriptions for behavior, and explanations of what happens after death. Cultures differ radically in their specific beliefs, but share claims that the universe is meaningful and orderly, and that immortality is attainable, be it literally, through concepts of soul and afterlife, or symbolically, through enduring accomplishments and identifications (e.g., pyramids and novels, nations and causes, wealth and fame, ancestors and offspring). Transcendence of death is based on meeting the cultural standards of value, which confers self-esteem, the belief that one is a valuable member of a meaningful universe and thereby elevated above mere material existence. TMT posits that a substantial proportion of human behavior is directed toward preserving faith in a cultural worldview and securing self-esteem in the service of death transcendence.

### ISMS MAKE SCHISMS

If the cultural worldview and self-esteem serve a death-denying, anxiety-buffering function, other individuals who threaten self-esteem or espouse different cultural worldviews will typically be psychologically discombobulating because alternative conceptions of reality dispute the absolute validity of one's own. Consequently, exposure to people with different beliefs instigates a host of compensatory responses to restore psychological equanimity. These include derogating others to minimize the threat posed by their views, convincing them to abandon their beliefs in favor of one's own (e.g., missionary activity), or annihilat-

ing them entirely, thus proving the "truth" of one's own beliefs. From this perspective, the ongoing ethnic strife pervading human history is in large part the result of humans' inability to tolerate those with different death-denying visions of reality.

## EMPIRICAL ASSESSMENT OF TMT

### Self-Esteem as Anxiety Buffer

TMT research has been focused primarily on the anxiety-buffering capacity of self-esteem, and the death-denying function of cultural worldviews and self-esteem. In one study (Greenberg et al., 1992), we gave participants bogus personality feedback: Some received feedback intended to increase their self-esteem (increased self-esteem group), and the others received feedback that was not expected to affect their self-esteem (neutral self-esteem group). The participants then watched either video footage of an autopsy and electrocution or neutral footage. As predicted, although neutral self-esteem participants reported more anxiety after viewing the death video than did control subjects, increased self-esteem participants did not. In additional studies, we measured skin conductance (an indicator of physiological arousal associated with anxiety) of participants who received positive or neutral self-relevant feedback, and then expected to be exposed to painful electrical shocks (threat condition) or colored lights (control condition). Neutral self-esteem participants expecting shocks were more aroused than control subjects; however, increased self-esteem participants expecting shocks were significantly less aroused than their threatened neutral self-esteem

counterparts. These findings support the hypothesis that self-esteem serves as an anxiety buffer.

Self-esteem has also been shown to reduce bias in reporting attributes associated with longevity. In one study, we manipulated self-esteem and told participants either that emotional people live longer than unemotional people or vice versa. In the neutral self-esteem condition, people subsequently claimed to be more or less emotional, depending on which quality predicted longevity. But this bias toward qualification for longevity was not obtained when self-esteem was temporarily elevated, or when it was dispositionally high (Greenberg, Solomon, & Pyszczynski, 1997). Research thus provides strong convergent evidence that self-esteem serves an anxiety-buffering function.

### Mortality-Salience Paradigm

If cultural worldviews assuage anxiety associated with awareness of death, asking people to ponder their death (mortality salience) should increase their need for validation of the cultural worldview, resulting in affection for individuals who validate one's beliefs, and disdain for those who threaten them (worldview defense). The first mortality-salience study had American municipal court judges assign bail for an alleged prostitute after half of them completed a mortality-salience induction.<sup>2</sup> Because prostitution is generally considered a violation of American morals, we predicted the judges would be especially punitive after this induction. The findings confirmed this hypothesis: The average bail assigned was \$455 in the mortality-salience condition and \$50 in the control condition. In a follow-up study with college students, a mortality-salience induction produced elevated bonds for the alleged

prostitute, but only for participants who found prostitution immoral. Mortality salience was then shown to increase a monetary reward for heroic behavior in another scenario.<sup>3</sup>

### Us and Them

Many studies have examined the effects of mortality salience on reactions to others who support or threaten participants' religious or political views. In one study, Christian participants evaluated Christian targets more positively and Jewish targets more negatively following a mortality-salience induction, although the targets were rated equally by control participants. In a variety of studies, American participants have evaluated pro- and anti-American essays attributed to foreign students following a mortality-salience induction or television control condition; the consistent finding is that the pro-American essay and its writer are rated more positively, and the anti-American essay and its writer are rated more negatively, after a mortality-salience induction than they are in control conditions (Greenberg et al., 1997).

Participants' preferences in these studies are a function not of in-group/out-group status, but rather of the validation or challenge to the participants' cultural worldview. In fact, when the cultural worldview includes strong stereotypes of an out-group, mortality salience should lead to increased liking for out-group members who conform to the stereotype and decreased liking for out-group members who deviate from it. In support of this reasoning, we found that mortality salience leads Euro-Americans to a strong preference for members of minority groups (African Americans and homosexual men) who conform to cultural stereotypes over members of these groups who deviate from

cultural stereotypes (Schimel et al., 1999).

### Coffins, Consensus, and Icons

One way to bolster one's cultural worldview is to convince oneself that others already agree with that worldview. To demonstrate this and obtain mortality-salience effects in a natural setting, we interviewed people in Germany directly in front of, or 100 m from, a funeral parlor. Participants reported their attitudes about German immigration policies and estimated the percentage of Germans who agreed with them. The funeral parlor served as a "natural" mortality-salience induction; the location 100 m away served as our control. We reasoned that because cultural worldviews are sustained primarily by social consensus, the funerary reminder of death should make people especially prone to exaggerate estimates of agreement with their position, and this is what we found (see Greenberg et al., 1997).<sup>4</sup>

Social consensus would not be sufficient to sustain cultural worldviews in the absence of cultural icons (e.g., monuments, flags, bibles), which provide a physical embodiment of the cultural drama; thus, as representations of the cultural worldview, these icons should also serve to assuage mortality concerns. Indeed, we have found that after a mortality-salience induction, Americans took longer, and felt more uncomfortable (relative to a control group), solving a problem that required them to use the American flag to sift sand out of black dye (damaging the flag) and bang a nail into a wall with a crucifix (Greenberg et al., 1997).

Inspired by an incident in which a cook spiked the breakfast of two policemen with Tabasco, McGregor et al. (1998) examined whether mortality salience would encourage actual physical aggression

toward others with different worldviews. Following a mortality-salience or control induction, participants read an essay in which another participant supported or attacked their political views. In a second, supposedly unrelated study of personality and taste preferences, participants were asked to choose the quantity of an extremely spicy hot sauce for the essay writer to taste. As predicted, the allotment of hot sauce did not vary in the control condition, but following the mortality-salience induction, people prescribed a significantly higher dose of hot sauce to the writer who threatened the cultural worldview (26.31 g) than to the writer who supported the cultural worldview (11.86 g).

### Mortality Salience, Striving for Self-Esteem, and Bases for Hope

Mortality salience should intensify striving for self-esteem, as well as defense of the worldview. Consistent with Otto Rank's proposition that a harmonious balance of competing motives for individuation and inclusion (i.e., the desire to simultaneously "stick out" and "fit in") functions to control anxiety by enhancing self-esteem, Simon et al. (1997) found that mortality salience led people told they were conformers to report low social consensus for their attitudes and people told they were very different from others to report high social consensus for their attitudes. These responses presumably enhanced individuality or similarity to others, respectively, in the service of restoring the optimum balance between individuation and inclusion. More direct evidence for the connection between mortality salience and striving for self-esteem comes from a recent series of studies by Taubman – Ben-Ari, Florian, and Mikulincer (1999; summarized by Taubman – Ben-Ari in the preceding article of this issue), in which

mortality salience was shown to increase risky driving among individuals whose driving ability was relevant to their self-esteem. In a very different domain, we have found that whereas mortality salience leads individuals with high body self-esteem to increase identification with their bodies, it leads those who have low body self-esteem and who value appearance to reduce attention to their bodies (Goldenberg, McCoy, Pyszczynski, Greenberg, & Solomon, 2000). Recent work also suggests that mortality salience leads people to reduce identification with their own groups when these groups are portrayed in a negative light.

Bases for optimism regarding constructive responses to mortality concerns can be found in work on variables that moderate the effects of mortality salience. Because disparaging another person with different beliefs violates the cultural value of tolerance, we predicted and found that American participants who highly value tolerance or for whom the value of tolerance is made salient do not derogate a politically dissimilar target person following a mortality-salience induction (Greenberg et al., 1997). We also reasoned that high self-esteem should mitigate against defensive responses to mortality salience and found that both momentarily elevated and dispositionally high self-esteem eliminate the effect of mortality salience on worldview defense (Harmon-Jones et al., 1997). Current research is examining the possibility that coming to terms with death through workshops or therapy may also allow people to contemplate mortality without engaging worldview defense.

## CONCLUSION

TMT posits that the awareness of mortality is a potentially terrify-

ing by-product of human consciousness. People manage this potential for terror through the development of culture, which confers the sense that they are valuable members of a meaningful universe. Self-esteem serves to buffer anxiety, and reminders of mortality intensify striving for self-esteem and defense of the worldview. Mortality concerns contribute to prejudice because people who are different challenge the absolute validity of one's cultural worldview. Psychological equanimity is restored by bolstering self-worth and faith in the cultural worldview, typically by engaging in culturally valued behaviors and by venerating people who are similar to oneself, and berating, converting, or annihilating those who are different.

Recently, Serbian soldiers have been accused of raping Moslem women while fellow soldiers used heads of their decapitated children as soccer balls. Can our analysis of the fear of death and the elaborate cultural constructions designed to combat it fully account for egregious sadistic actions such as these? Of course not: No single perspective can accomplish this. But there is good reason to believe that the uniquely human fear of death and the cultural worldviews humans use to quell it contribute substantially to these phenomena.

A recent theory and ongoing body of research on conscious and unconscious death defenses (Pyszczynski, Greenberg, & Solomon, 1999) has clarified the processes underlying the effects of mortality salience. Continued study is needed to further explain individual and cultural differences in forms of terror management and to develop measures of cultural worldviews and their components. Additionally, the implications of TMT for matters pertaining to urban violence, international relations, medical practice, and law

and public policy require exploration. We hope, with Becker (1975), that such efforts might eventually help to "introduce just that minute measure of reason to balance destruction" (p. 170).

## Recommended Reading

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## Notes

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2. In a typical mortality-salience induction, participants complete open-ended questions embedded in questionnaires: for example, "Please briefly describe the emotions that the thought of your own death arouse in you" and "Jot down, as specifically as you can, what you think will happen to you as you physically die." Control conditions consist of parallel questions concerning other topics (e.g., watching television, eating a meal). Participants then (typically in a purportedly unrelated study) evaluate others who bolster or undermine their cultural worldview.

3. Independent researchers have obtained mortality-salience effects in the United States, Canada, Germany, The Netherlands, and Israel, using a variety of manipulations (e.g., gory accident footage and subliminal remind-

ers of death) and dependent measures. Additional studies have demonstrated that the mortality-salience induction does not produce negative affect or arousal, and the effects are not mediated by self-awareness, affect, or arousal. The effects of mortality salience are also apparently unique to thoughts of death: Thoughts of exams, public speaking, pain, paralysis, or social exclusion do not replicate the effects (see Greenberg et al., 1997, for a review of this research).

4. This effect was reproduced in Colorado. In both studies, exaggerated consensus estimates were exhibited only by participants holding minority positions on the issue in question; presumably they had a greater need for social validation of their views.

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