# Power and Death: Mortality Salience Increases Power Seeking While Feeling Powerful Reduces Death Anxiety

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According to Terror Management Theory, people respond to reminders of mortality by seeking psychological security and bolstering their self-esteem. Because previous research suggests that having power can provide individuals a sense of security and self-worth, we hypothesize that mortality salience leads to an increased motivation to acquire power, especially among men. Study 1 found that men (but not women) who wrote about their death reported more interest in acquiring power. Study 2A and Study 2B demonstrated that when primed with reminders of death, men (but not women) reported behaving more dominantly during the subsequent week, while *both* men and women reported behaving more prosocially during that week. Thus, mortality salience prompts people to respond in ways that help them manage their death anxiety but in ways consistent with normative gender expectations. Furthermore, Studies 3–5 showed that feeling powerful reduces anxiety when mortality is salient. Specifically, we found that when primed to feel more powerful, both men and women experienced less mortality anxiety.

Keywords: power, death anxiety, motivation, dominance, gender

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You still can't take it with you. But some executives have arranged for the next best thing: huge corporate payouts to their heirs if they die in office (Maremont, 2008).

Power is one of the most central constructs in the social sciences (Russell, 1938), one of the most important motives that drive people's behavior, including behavior in the workplace (e.g., Inesi, Gruenfeld, & Galinsky, 2012; Keltner, Gruenfeld, & Anderson, 2003; McClelland & Burnham, 1976), and "is the primary organizing force of social life" (Van Kleef, Homan, Finkenauer, Gundemir, & Stamkou, 2011, p. 500). Power is omnipresent in work organizations, where individual differentiation by power—hierarchical rank—and competition to rise in the hierarchy still prevail (Pfeffer, 2013) and affect interpersonal interactions and career processes. Furthermore, power dynamics within workplaces influence how decisions are made (e.g., Maner, Gailliot, Butz, & Peruche, 2007; Pettigrew, 1973; Pfeffer & Salancik, 1974).

The question of how people attain positions of power in organizations has received considerable attention from scholars. We now know that the extent to which people are likely to succeed in attaining these positions is a function of their *political skill* (Ferris, Davidson, & Perrewe, 2005a; Ferris et al., 2005b), *personality* (e.g., Ames & Flynn, 2007; Flynn, Reagans, Amanatullah, &

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Ames, 2006), and *motivation* (e.g., McClelland, 1975). Of these three dimensions, skill and personality have been researched quite extensively. For example, we know that politically skilled individuals are more likely to climb up the social ladder and achieve career success (e.g., Blickle, Schneider, Liu, & Ferris, 2011; Ferris et al., 2005a; Kilduff & Day, 1994). Furthermore, research demonstrates that people with dominant (e.g., Bass, 1990; Gough, 1990; Hills, 1984; Lord, De Vader, & Alliger, 1986), assertive (e.g., Ames & Flynn, 2007), and strategic personalities (e.g., Pfeffer, 2010; Flynn, Reagans, Amanatullah, & Ames, 2006) are more likely to attain power.

However, we know much less about the factors that create variation in the *motivation* to seek power. One historically prominent explanation for variation in the motivation to seek power focuses on stable individual differences. For example, some scholars contend that men are more interested than women in acquiring power (see Hays, 2013; Winter, 1973). Furthermore, McClelland (1975) presumed that the extent to which people are motivated to acquire power stems from stable individual differences in the structure of people's motive profile.

Differences in achieved or realized power will reflect both people's differences in their power skills and personalities, but also differences in the extent to which they are motivated to expend the effort required to achieve power. Indeed, McClelland (1980) has shown that the strength of people's motives to acquire power relate to how quickly they progress up the management ranks. Thus, understanding power motivation is important in and of itself, as it has implications for people's career progress and rank in social organizations.

While individual differences clearly affect the strength of the power motive, we argue that situational factors can also be important. In this article, we seek to understand one possible situational factor that helps answer the question of what causes variation in the strength of the motivation to seek power: the salience of one's mortality and the fear and anxiety such mortality salience creates. Reminders of death vary over time and across contexts in ways that make mortality more or less salient (e.g., Grant & Wade-Benzoni, 2009). For reasons that we elucidate below, we propose that the desire for power may arise in part from another extremely important motivating force, the fear of death. Moreover, we propose that this effect is more likely to hold true for men than for women.

The consequences of the recognition that one will die someday have been extensively explored in Terror Management Theory (TMT) over the last several decades (Greenberg, Pyszczynski, & Solomon, 1986; Solomon, Greenberg, & Pyszczynski, 1991). As Becker (1973, p. ix) noted, "The idea of death, the fear of it, haunts the human animal like nothing else." This article seeks to theoretically and empirically explore the relationship between the power motive and the fear of death. In a series of experimental studies, we first show that reminders of death-the salience of one's mortality-increase men's motivation to acquire power and their actions to do so. Then, we demonstrate that people who feel more powerful express less fear and anxiety about death. This latter finding implies that power seeking can be a functional response to mortality salience, in that feeling powerful does provide some buffering from the anxiety that comes from contemplating one's own mortality.

## **Background and Theoretical Foundations**

We base our arguments on TMT (Becker, 1973; Greenberg et al., 1986; Solomon et al., 1991), which proposes that much of people's motivations and behavior can be understood as attempts to maintain meaning and value as a way of managing deeply held concerns about mortality. According to TMT, humans are haunted by the idea that they will die someday. The prospect of mortality is inherently frightening and anxiety provoking, which motivates people to protect themselves from this threat by seeking to bolster their feelings of self-worth and psychological security.

TMT suggests that people seek protection from the threat of death by engaging in behaviors that will boost their self-esteem (Greenberg et al., 1986), the sense that they have worth or "primary value in the world" (Becker, 1971). TMT further suggests that people come to believe that their lives have meaning and worth when they feel that they are living up to their culture's standards and worldviews (e.g., Pyszczynski, Greenberg, & Solomon, 1997). Since the mid-1980s, this proposition has received substantial support (see Burke, Martens, & Faucher, 2010 for a recent meta-analysis). A large body of experimental work has found that reminders of death increase people's tendencies to engage in behaviors deemed praiseworthy by their culture; for example, supporting those who uphold predominant cultural values (Arndt, Lieberman, Cook, & Solomon, 2005; McGregor et al., 1998) and rejecting those that challenge or violate cultural expectations (Greenberg, Porteus, Simon, Pyszczynski, & Solomon, 1995).

More important, these efforts to defend or uphold cultural worldviews seem to stem from people's needs to attain psychological security when reminded of their death. For example, giving people positive feedback about their self-worth attenuates their need to defend their cultural worldviews (Harmon-Jones et al., 1997) and their self-reported anxiety toward death (Greenberg et al., 1992).

Thus, TMT proposes that reminders of death should increase people's need to seek (real or symbolic) structures that provide psychological security; conversely, structures that provide psychological security should reduce people's fear of death. We draw on this framework to offer insights about the relationship between power and death anxiety. Specifically, we propose that reminders of death should increase the need for power, especially among men; and having power, in turn, can reduce death anxiety for both men and women.

#### **Power and Death**

Power—the ability to influence others through the control of resources (Keltner et al., 2003)—provides a range of benefits to those who have it. Power improves people's intellectual and executive functioning (Smith, Jostmann, Galinsky, & van Dijk, 2008) and often provides greater status and material wealth (Lovaglia, Willer, & Troyer, 2003), which in turn can enhance happiness and well-being (Diener, Ng, Harter, & Arora, 2010) and even life span (Adler, Epel, Castellazzo, & Ickovics, 2000; Marmot, 2004). Being in a position of power also increases the likelihood that someone will be respected and admired (Lovaglia et al., 2003), and thus, helps fulfill people's need to be remembered (Becker, 1973). Power allows individuals to gain greater control of their social environment and more access to valued resources (e.g., Keltner et al., 2003). People can then use these resources to create and organize meaningful institutions, such as formal organizations and social groups, that can persist into the future (Pauchant, 1995), thereby permitting people to establish a presence that is larger and more permanent than one's physical, mortal self (Pyszczynski, Greenberg, & Solomon, 1999; Wade-Benzoni, 2006; Wade-Benzoni, Tost, Hernandez, & Larrick, 2012).

All of these consequences of having power can help people find meaning and value in their lives and provide a greater sense of psychological security. And indeed, empirical research supports the notion that positions of power do grant people a sense of psychological security. For example, compared with powerless individuals, powerful individuals act more confidently (e.g., Lammers, Dubois, Rucker, & Galinsky, 2013), see themselves more positively (Fast, Gruenfeld, Sivanathan, & Galinsky, 2009; Wojciszke & Struzynska-Kujalowicz, 2007) and report more satisfaction, happiness, and authenticity in their lives (e.g., Kifer, Heller, Perunovic, & Galinsky, 2013). Powerful individuals also behave as if they live charmed lives, invulnerable to danger and threat. For example, compared with people with less power, powerful individuals are more optimistic and willing to take risks (Anderson & Galinsky, 2006), more likely to reject other people's advice (Tost, Gino, & Larrick, 2012), and more likely to believe that they can control events, even those that are objectively beyond their control (Fast et al., 2009).

From a TMT perspective, then, having power can provide outcomes that can help mitigate people's fear of death and, conversely, reminders of mortality can increase people's motivation to acquire power. Consistent with this line of argument, scholars have found that when people were asked to contemplate their death, they expressed a greater desire for power-related totems such as

money (Zaleskiewicz, Gasiorowska, Kesebir, Luszczynska, & Pyszczynski, 2013) and financial success (Kasser & Sheldon, 2000). Furthermore, after priming participants with reminders of money, people became less fearful and anxious about death (Zaleskiewicz et al., 2013).

Thus, if the prospect of mortality causes fear and anxiety, then it should also increase the motivation to seek power and the psychological security that power can provide (Becker, 1973). Moreover, if power provides psychological security, then having power should reduce fear and anxiety about death.

## The Moderating Role of Gender

Although power can provide individuals with many benefits that offer psychological security, we also recognize that not everybody would respond to mortality salience by seeking power. A central tenet of TMT is that people seek protection from the threat of death by engaging in behaviors that are consistent with their culture's worldviews and considered praiseworthy by their culture's standards (e.g., Pyszczynski et al., 1997). Other scholars (e.g., Grant & Wade-Benzoni, 2009) have also noted that when people are reminded of their mortality, they seek protection that is appropriate for their identity and image (Ashford, Blatt, & VandeWalle, 2003; Larrick, 1993; Leary, 2007). For instance, Dechesne and colleagues (2003), in a replication of Kasser and Sheldon (2000), found that mortality salience increased the prevalence of extreme greed in men but not in women, for whom displays of greed would be deemed less culturally appropriate. Therefore, we empirically examined the idea that gender would moderate the effect of mortality salience on power seeking.

In the United States, the notion of actively *seeking power* is more closely associated with men than with women. The literature on gender role expectations and leadership (e.g., Eagly, Makhijani, & Klonsky, 1992; Eagly & Karau, 2002) consistently reports that men are seen as more appropriate for leadership roles, while women get punished more harshly for enacting typical leadership behaviors (e.g., Brescoll & Uhlmann, 2008; Rudman, 1998). Furthermore, compared with women, men tend to find power (Hays, 2013; Offermann & Schrier, 1985; although see Winter, 1988), competition (e.g., Gneezy & Rustichini, 2004; Niederle & Vesterlund, 2007), and hierarchies (e.g., Pratto, Sidanius, Stallworth, & Malle, 1994) more desirable.

These findings suggest that *seeking power* may be an intuitive and culturally appropriate response to psychological insecurity arising from reminders of mortality for men but not for women. Thus, we suspected that, because *power seeking* is more consistent with the image and identity of men than with women, men would be more likely than women to seek power when reminded of death.

Hypothesis 1: Reminders of mortality should increase power seeking more strongly for men than for women.

However, once power is attained, it should reduce death anxiety for men and women similarly. Our theoretical model suggests that power reduces death anxiety *because it provides psychological security*. Researchers have found that power provides both men and women with psychological security. For instance, after being primed with power, both men and women see their lives as having value and worth (Fast et al., 2009; Wojciszke & Struzynska-Kujalowicz, 2007); both men and women also report being more

happy, satisfied, and authentic when they are in positions of power (Kifer et al., 2013). Moreover, at least in the United States, researchers have consistently found that power induces similar psychological effects for both men and women (e.g., Anderson & Galinsky, 2006; Anderson & Berdahl, 2002; De Dreu & Van Kleef, 2004; Fast & Chen, 2009; Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008; Goldstein & Hays, 2011; Gruenfeld, Inesi, Magee & Galinsky, 2008; Overbeck & Park, 2001, 2006; Powell, 1990; Watson & Hoffman, 1996). Overall, these findings suggest that anyone who feels powerful should feel more psychologically secure. Therefore, both men and women should feel similarly less anxious about death when they feel more powerful.

Hypothesis 2: To the extent that people feel more powerful, they would feel less anxious and fearful when reminded of death and their mortality.

We explore these two hypotheses in six studies. The first three studies examined Hypothesis 1, the effect of making mortality salient on power seeking and the differential effects of mortality salience on power seeking for men and women. The next three experiments explored Hypothesis 2, how differences in power affect people's psychological reactions to being reminded of death.

#### Study 1

In Study 1, we experimentally manipulated mortality salience and observed its effect on people's desire for power. We predicted that reminding people about their death would lead them to want power more, and that this effect would hold more strongly for men than for women.

## Method

**Participants.** Nine hundred thirty-five individuals from a third party online panel company participated in this experiment (434 males, 496 females, 5 unreported;  $M_{age} = 35.08$ ,  $SD_{age} = 10.81$ ). The sample consisted of Blacks (14%), Whites (69%), Asian Americans/ Pacific Islanders (6%), Latino Americans (10%), and Native Americans (<1%; 11 people did not indicate their ethnicity). Participants received a small payment for participating in the study.

**Procedure.** We recruited participants for a study on "Social Perception." We followed the typical protocol in terror management studies (e.g., see Burke et al., 2010 for a meta-analysis) and randomly assigned participants one of two writing tasks. In *the mortality salience condition*, we asked participants to write an essay about what would happen to them as they physically die (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). In the *control condition*, we asked participants to write an essay about dental pain, something that is also unpleasant and is a standard control condition in many terror management studies.

After writing their essays, participants reported how much they felt "fearful," "afraid," "scared," "frightened," "anxious," "nervous," and "worried" ( $1 = not \ at \ all, \ 2 = a \ little, \ 3 = somewhat, \ 4 = very, \ 5 = extremely$ ). These items achieved excellent internal consistency ( $\alpha = .94$ , loadings > .68). Therefore, we averaged them to create a composite measure of *fear and anxiety*.

Participants then completed a brief word search puzzle, as previous research suggests that the effects of mortality salience are sometimes more robust after a brief time delay (see Burke et al., 2010; Green-

berg, Pyszczynski, Solomon, Simon, & Breus, 1994). The word search puzzle was a  $10 \times 10$  matrix containing neutral words (e.g., "book," "grass"). We gave participants 3 min to work on this task.

Next, participants answered our principal dependent measure. They rated their agreement ( $1 = strongly\ disagree$ ,  $7 = strongly\ agree$ ) with 10 items ( $\alpha = .94$ , loadings > .53) that assessed their motivation to achieve power<sup>1</sup>: (a) "I would like to be in a powerful position in an organization," (b) "I would like to be in a high-ranking position in an organization," (c) "I seek out opportunities to advance in the workplace," (d) "I would like a powerful job," (e) "I would like to be a powerful person," (f) "I want other people to do what I want," (g) "I want people to listen to me," (h) "I want to be able to make the decisions," (i) "I would like an active role in the leadership of a group," and (j) "In a group setting, I want to be the dominant figure." Participants then completed a demographic questionnaire and were thanked for participating.

#### Results

Descriptive statistics and intercorrelations between Study 1 variables are summarized in Table 1.

Effect of mortality salience on fear and anxiety. Before testing our formal hypotheses, we first examined how our manipulations influenced people's feelings of fear and anxiety. We expected that writing about death would trigger greater feelings of fear and anxiety than writing about dental pain. Indeed, this was the case. Participants who wrote an essay about their death reported feeling relatively greater fear and anxiety afterward ( $M_{\rm death}=1.85$ ,  $SD_{\rm death}=.96$ ) compared with participants who wrote an essay about dental pain ( $M_{\rm dental}=1.70$ ,  $SD_{\rm dental}=.88$ ), t(933)=2.39, p=.02.

**Desire for power.** Hypothesis 1 states that reminders of mortality would increase the motivation to acquire power, and that this effect would hold more strongly for men than for women. To test Hypothesis 1, we regressed desire for power on condition (0 = dental prime, 1 = death prime), gender (0 = males, 1 = females), and their interaction (Aiken & West, 1991). Five participants did not report their gender and consequently they were excluded from this analysis.

The Condition  $\times$  Gender interaction was statistically significant, b = -.57, t(926) = -3.44, p < .001 (see Figure 1). Among male participants, those who wrote about their death ( $M_{male/death} = 5.05$ ,  $SD_{male/death} = 1.16$ ) desired power more strongly compared with those who wrote about dental pain ( $M_{male/dental} = 4.79$ ,  $SD_{male/dental} = 1.41$ ), b = .27, t(926) = 2.18, p = .03. By contrast, for female participants, writing about their death ( $M_{female/death} = 4.55$ ,  $SD_{female/death} = 1.17$ ) led to a *lower* desire for power compared with writing about dental pain ( $M_{female/dental} = 4.86$ ,

Table 1
Descriptive Statistics and Zero-Order Correlations of Study
1 Variables

Variables	Mean	SD	1	2	3
1. Gender	_	_			
2. Condition	_	_	01		
3. Anxiety	1.77	.92	03	.08*	
4. Power motivation	4.81	1.28	$08^{*}$	02	.09**

 $\it Note.$  Gender:  $0 = {\rm male}, \ 1 = {\rm female}; \ {\rm condition:} \ 0 = {\rm control}, \ 1 = {\rm mortality \ salience}.$ 

 $SD_{\text{female/dental}} = 1.32$ ), b = -.31, t(926) = -2.70, p < .01.<sup>2</sup> Although we did not predict this latter finding, it is consistent with the argument that the threat of death prompts people to seek protective psychological structures that are consistent with their image and identity (Ashford et al., 2003; Grant & Wade-Benzoni, 2009; Larrick, 1993; Leary, 2007; Pyszczynski et al., 1997).

We next explored whether feelings of fear and anxiety mediated the effect of mortality salience on desire for power (for our male participants; see Figure 2). We followed recommendations to estimate mediation through a bootstrapping procedure (see Preacher & Hayes, 2004). We conducted a bias-corrected bootstrap analysis (1,000 iterations) in which condition was the independent variable, fear and anxiety was the mediator variable, and desire for power was the dependent variable. This analysis indicated that the indirect effect of mortality salience on desire for power via feelings of fear and anxiety was significant, 95% CI [.003, .052]. Thus, relative to male participants who wrote about dental pain, male participants who wrote about their death were more likely to want power, in part, because reminders of death triggered more fear and anxiety.<sup>3</sup>

In addition, we examined how well this scale correlates with past power-seeking behaviors. Specifically, we asked participants in our validation study four questions ( $\alpha=.93$ ) that assessed how much they had sought to acquire positions of power in the last 12 months ("In the last twelve months . . . I sought opportunities to advance to a higher-ranking position in my organization," ". . . I actively sought opportunities to get promoted," ". . . I sought opportunities to be in positions of power," and ". . . I sought opportunities to be in a more powerful job"; 1 = strongly disagree, 7 = strongly agree). As expected, individuals who scored higher on the desire for power scale were more likely to have sought opportunities to be in positions of power within the last twelve months (r = .69, p < .001).

<sup>2</sup> We also conducted a second regression analysis predicting desire for power with a planned contrast ( $Male_{MS} = 3$ ,  $Male_{Dental} = -1$ ,  $Fe-male_{MS} = -1$ ,  $Female_{Dental} = -1$ ). This analysis revealed that male participants who imagined their death showed the strongest desire for power compared with all other participants, b = .08, t(928) = 3.27, p = .001.

<sup>\*</sup> p < .05. \*\* p < .01.

 $<sup>^{1}</sup>$  We created these items based on face validity and conducted an additional study with a separate sample of full-time employed adults from Amazon Mechanical Turk (N=202) to provide preliminary evidence of validity (please see the Supplementary Online Material). To explore the number of factors or components in our scale, we used the nFactors package in R (Raiche & Magis, 2015), which recommended that only one factor should be retained (all loadings >.47). To establish convergent validity, we also examined how well this scale correlates with other theoretically relevant measures. We found that those who scored high on our desire for power scale tended to have higher *dominance motivation* (Cassidy & Lynn, 1989; r=.80), prestige motivation (Cassidy & Lynn, 1989; r=.78), need for social status (Flynn et al., 2006; r=.68), and preference for hierarchies (SDO; Ho et al., 2012; Pratto et al., 1994; r=.26), all ps<.001.

<sup>&</sup>lt;sup>3</sup> We also found that for our female participants, controlling for fear and anxiety increased the strength of the *negative* direct effect of mortality salience on power seeking, *point estimate*: –.33, 95% CI [–.55, –.10] (see Figure 2). This pattern indicates a suppression effect and is consistent with our theorizing. That is, even though mortality salience led to greater feelings of fear and anxiety, which is associated with an increased desire for power, there are additional reasons why mortality salience makes women desire power less once fear and anxiety is controlled for. We also saw the same pattern of suppression effects in Study 2, although it was less reliable (i.e., not significant, see Figure 4).

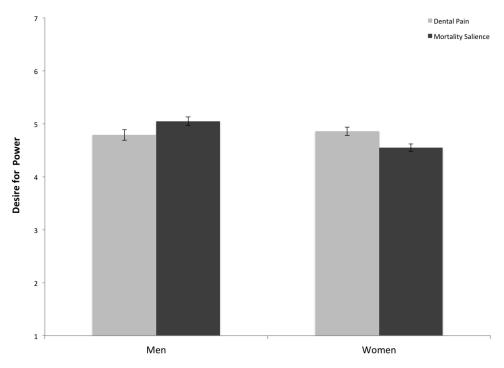


Figure 1. Desire for power as a function of gender and condition in Study 1.

#### Discussion

In Study 1, we found that compared with thinking about a painful experience (i.e., dental pain), thinking about death elicited greater feelings of fear and anxiety. However, men and women diverged in their response to mortality salience. Specifically, when reminded of their death, men desired power more, while women desired power less.

We further found that, for men, fear and anxiety accounted for some of the effect of mortality salience on their desire for power. However, the mediation results also suggest that fear and anxiety did not fully account for the relationship between mortality salience and desire for power among our male participants. These results suggest that there are additional reasons why mortality salience may increase men's desire for power. We consider this idea in more depth in the General Discussion.

While Study 1 demonstrated the hypothesized effects of mortality salience on the motivation to seek power and also was consistent with our hypothesized gender differences in power seeking, we were interested in exploring whether or not reminding people of their mortality might affect not just their interest in obtaining power, but also their actions in seeking and exercising power. That was the objective of Study 2A.

## Study 2A

In Study 2A, we conducted a longitudinal field experiment. We first asked our participants to write about death or dental pain. Then, a week later, we invited them to take a survey and assessed how much they had engaged in dominance behaviors during the week following the mortality or dental pain priming. We predicted that reminding people about their death would lead them to engage in more dominated that the statement of the s

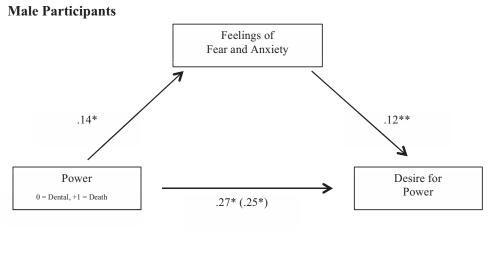
nance behaviors as they actively sought power, and that this effect should hold more strongly for men than for women.

## Method

**Participants.** We recruited participants for an online study in exchange for \$5, letting them know that they would be contacted later for a follow-up survey. To increase the generalizability of any findings, we conducted two separate recruitment efforts in two distinct populations: university students (Sample A) and working adults (Sample B).

Sample A consisted of 188 undergraduate and graduate students from a private West Coast University (69 males, 119 females;  $M_{age}=22.79,\ SD_{age}=3.98;\ 5\%$  Blacks, 46% Whites, 41% Asian Americans/Pacific Islanders, 7% Latino Americans, and 1% Native Americans). These students completed an intake survey online. A week later, 160 of these students (85.11% response rate; 62 males, 98 females;  $M_{age}=22.77,\ SD_{age}=4.08$ ) completed a follow-up survey in exchange for an additional \$6. There were no differences in gender,  $\chi^2(1,N=188)=1.39,\ p=.24,$  or age (p=.88) between those who did and did not complete both surveys in the study.

Sample B consisted of 181 working adults from a subject pool maintained by a private West Coast University (72 males, 108 females, 1 unidentified; 6% Blacks, 68% Whites, 14% Asian Americans/Pacific Islanders, 12% Latino Americans;  $M_{age} = 36.99$ ,  $SD_{age} = 8.64$ ). Approximately two-thirds (67%) of the sample reported having more than 10 years of work experience. These participants also completed the same intake survey online. A week later, 139 of these participants (76.80% response rate; 58 males, 81 females;  $M_{age} = 37.24$ ,  $SD_{age} = 8.93$ ) completed a follow-up survey in exchange for an additional \$6. There were no differences in gender,



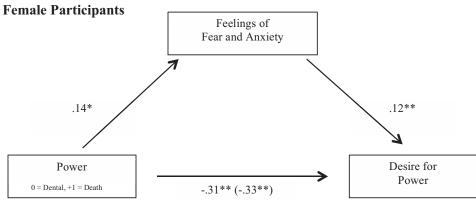


Figure 2. Mediation Model for Study 1. \* p < .05, \*\* p < .01.

 $\chi^2$ [1, N = 181] = .48, p = .49, age (p = .48), or work experience (p = .36) between those who did and did not complete the study.

In the analyses below, we report the results only for participants who completed both Time 1 and Time 2 surveys. The results are virtually identical for both the working adult and student samples. Therefore, for ease of exposition, we combined the two samples. The results below are based on the combined sample ( $N_{total} = 299$ ).

**Procedure.** In the intake survey, we asked participants to write an essay about either death or dental pain, using the same prompts we used in Study 1. After writing their essays, they answered the same fear and anxiety scale used in Study 1 ( $\alpha = .94$ , loadings > .66).

One week later, we asked participants to complete a follow-up survey. We asked them whether they had engaged in the following behaviors at school or work during the past week: (a) "In the past week, I tried to gain more control over others," (b) "In the past week, I tried to get my own way, regardless of what others want," (c) "In the past week, I tried to use aggressive tactics over others," (d) "In the past week, I tried to be more forceful," (5) "In the past week, I tried to act more dominantly," and "(e) In the past week, I tried to intimidate others" (1 = strongly disagree, 7 = strongly agree). We created these six items based on prior research on dominance—the induction of fear, through intimidation and coercion, to attain social rank (e.g., Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013). More important, these items achieved

excellent reliability ( $\alpha = .91$ ; loadings > .72) and were averaged to form a composite scale for *dominance behaviors*.

## Results

Descriptive statistics and intercorrelations between Study 2A variables are reported in Table 2.

<sup>&</sup>lt;sup>4</sup> For the sake of completeness, we also asked participants the extent to which they attempted to gain more prestige among their peers (i.e., respect and admiration; see Cheng et al., 2013), another route for gaining social rank: (a) "In the past week, I tried to gain the respect and admiration of my peers"; (b) "In the past week, I tried to get other people to like me"; (c) "In the past week, I tried to gain more status among my peers"; (d) "In the past week, I tried to gain more influence over others"; (e) "In the past week, I tried to become a more influential person"; and (f) "In the past week, I tried to become more of an expert" ( $\alpha = .90$ ). On this measure, the Condition  $\times$ Gender interaction approached marginal significance, b = -.47, t(295) = -1.75, p = .08. Male participants who wrote about their death reported that they engaged in marginally more prestige behaviors during the week ( $M_{males/death} = 4.85$ ,  $SD_{males/death} = 1.02$ ) than those who wrote about dental pain ( $M_{males/dental} = 4.54$ ,  $SD_{males/dental} = 1.15$ ), b = .31, t(295) = 1.48, p = .14. Among female participants, condition had no effect  $(M_{females/death}=4.29,\ SD_{females/death}=1.15\ vs.\ M_{females/deathal}=4.46,\ SD_{females/deathal}=1.20),\ b=-.16,\ t(295)=-.94,\ p=.35.$ 

Table 2
Descriptive Statistics and Zero-Order Correlations of Study
2A Variables

Variables	Mean	SD	1	2	3	4
1. Sample	_	_				
2. Gender	_	_	.03			
3. Condition	_	_	.02	.06		
4. Fear and anxiety	1.69	.79	03	.03	.20***	
5. Dominance	2.81	1.21	.17**	16**	.11	.23***

*Note.* Sample: 0 = working adults, 1 = students; gender: 0 = male, 1 = female; condition: 0 = dental prime, 1 = death prime.

\*\* p < .01. \*\*\* p < .001.

**Fear and anxiety.** As in Study 1, participants who wrote an essay about death reported feeling more fearful and anxious  $(M_{death} = 1.84, SD_{death} = .82)$  compared with participants who wrote an essay about dental pain  $(M_{dental} = 1.54, SD_{dental} = .73)$ , t(297) = 3.43, p < .001.

**Dominance behaviors.** Next, we tested Hypothesis 1 by examining dominance behaviors. We regressed self-reported dominance behaviors on condition (dummy coded: 0 = dental prime, 1 = death prime), gender (dummy coded: 0 = males, 1 = females), and their interaction. This analysis revealed the predicted Condition  $\times$  Gender interaction, b = -.82, t(295) = -2.93, p < .01 (see Figure 3).

Among male participants, those who wrote about their death reported that they engaged in more dominance behaviors during the following week ( $M_{males/death} = 3.47$ ,  $SD_{males/death} = 1.17$ ) than those who wrote about dental pain ( $M_{males/dental} = 2.69$ ,  $SD_{males/dental} = 1.04$ ), b = .79, t(295) = 3.66, p < .001. Among female participants, thinking about death had no effect on how much they engaged in dominance behaviors ( $M_{females/death} = 2.63$ ,  $SD_{females/death} = 1.12$  vs.  $M_{females/dental} = 2.66$ ,  $SD_{females/death} = 1.32$ ), b = -.03, t(295) = -.16, p = .88.

We then tested whether feelings of fear and anxiety mediated the effect of mortality salience on self-reported dominance behaviors (for our male participants; see Figure 4). We computed the indirect effect of condition on self-reported dominance behaviors via fear and anxiety using a bias-corrected bootstrap (1,000 iterations). This revealed a significant indirect effect, 95% CI [.04, .20]. Thus, compared with male participants who wrote about dental pain, male participants who wrote about their death were more likely to engage in dominance behaviors during the week, in part, because being reminded of their death triggered more fear and anxiety.

Finally, we reran these analyses controlling for the sample type (i.e., working adults vs. students). We found virtually identical results (see Table 3).

## Discussion

According to TMT, reminders of death prompt people to seek protection from the resulting anxiety, in part by turning to and relying on psychological structures that are seen by their culture as appropriate for their identity (e.g., Grant & Wade-Benzoni, 2009; Pyszczynski et al., 1997). Studies 1 and 2A found evidence consistent with this view: Men, but not women, were more likely to want power and engage in power-seeking behaviors (i.e., domi-

nance) when they were reminded of their mortality than when they were reminded of dental pain. We reasoned that this effect occurred because the notion of power seeking is more consistent with the identity and image of men than it is for women.

## Study 2B

One alternative interpretation for the differences by gender we have observed is that the mortality salience manipulation we used is just not effective for women, while our theory states that the mortality salience manipulation should not have an effect on women's power-seeking motivation because power seeking is less consistent with women's identity and is less socially approved as a behavior or motivation for women. To address this alternative interpretation, and, furthermore, to investigate what response mortality salience elicits for women, in Study 2B we examined the effect of mortality salience on a different dependent variable, prosocial behavior.

Prosocial behavior is considered to be culturally appropriate for both men and women and is an identify-affirming response to reminders of mortality (e.g., Grant & Wade-Benzoni, 2009; Jonas, Schimel, Greenberg, & Pyszczynski, 2002). Prosocial behavior permits individuals to affiliate with a larger collective and through engaging in other-directed behavior, help ensure that an individual's legacy will live on through the person's contribution to the collective good. Indeed, early proponents of TMT (Greenberg, Pyszczynski, & Solomon, 1997; Jonas et al., 2002; Solomon et al., 1991) suggested that engaging in generous and compassionate behaviors can provide people with a sense of psychological security because such behaviors are collectively deemed as praiseworthy, enabling people to believe that they are valuable members of the world.

Research supports these claims. For example, scholars have found that reminders of death increased people's charitable (e.g., Jonas et al., 2002) and altruistic behavior (e.g., Wade-Benzoni et al., 2012). Moreover, these effects held for both men and women, presumably because there is a normative understanding that regardless of one's gender, people should strive to be generous, compassionate, and benevolent toward others (e.g., Jonas et al., 2002). Therefore, we expected that mortality salience would increase people's prosocial behavior, and that this effect should occur for *both* men and women.

## Method

**Participants.** We recruited participants for an online study in exchange for \$5, letting them know that they would be contacted later for a follow-up. The sample consisted of 137 working adults from a subject pool maintained by a private West Coast University (67% females,  $M_{age} = 34.32$ ,  $SD_{age} = 9.71$ ). The sample consisted of Blacks (8%), Whites (73%), Asian Americans/Pacific Islanders (13%), and Latino Americans (6%). The majority of participants (56.2%) reported having more than 10 years of work experience.

<sup>&</sup>lt;sup>5</sup> As in Study 1, we conducted a second regression analysis predicting dominance behaviors with a planned contrast  $(M_{males/death} = 3, M_{males/dental} = -1, M_{females/dental} = -1)$ . This analysis revealed that male participants who reflected on their death engaged in more dominance behaviors during the week compared to all other participants, b = .20, t(297) = 4.67, p < .001.

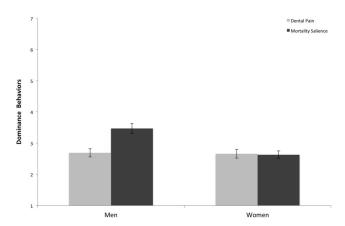


Figure 3. Self-reported dominance behaviors as a function of gender and condition in Study 2A.

A week later, 121 of these participants (88.32% response rate; 66% females,  $M_{age} = 33.86$ ,  $SD_{age} = 9.22$ ) completed a follow-up survey in exchange for an additional \$9. There were no differences in gender,  $\chi^2(1, N=137)=.18$ , p=.67, age (p=.13), or work experience (p=.58), between those who did and did not complete the study. In the analyses below, we report the results only for participants who completed both Time 1 and Time 2 surveys.

**Procedure.** The design of this study followed closely the design of Study 2A. In the intake survey, we asked participants to write an essay about either death or dental pain. One week later, we asked participants to complete a follow-up survey, in which they were asked to report whether they had engaged in the following behaviors during the past week: (a) "In the past week, I tried to volunteer for an organization that I care about," (b) "In the past week, I volunteered my time to help others," (c) "In the past week, I applied my skills in ways that could help others," and (d) "In the past week, I made an effort to help others" (1 = strongly disagree, 7 = strongly agree). We averaged these four items to form a composite for prosocial motivation ( $\alpha = .76$ ).

## **Results**

We theorized that mortality salience would increase people's motivation to engage in prosocial behavior, and that this effect would hold equally for both men and women. Consistent with our expectations, participants who wrote about their death at Time 1 ( $M_{death} = 4.60$ ,  $SD_{death} = 1.32$ ) reported helping others more at Time 2 than did participants who wrote about dental pain ( $M_{dental} = 3.91$ ,  $SD_{dental} = 1.45$ ), t(119) = 2.73, p = .01. To test whether these results were moderated by gender, we regressed self-reported prosocial behavior on condition (dummy-coded: 0 = dental pain, 1 = death), gender (dummy-coded: 0 = male, 1 = female), and their interaction. The Condition  $\times$  Gender interaction term did not reach significance, b = .07, t(117) = .13, p = .90, indicating that mortality salience had a similar effect on the prosocial motivation of both men and women.

## Discussion

In Study 2B, we found that people who were reminded of their death reported helping others more than people who were re-

minded of dental pain. Furthermore, Study 2B found that this effect held for both men and women. Thus, Study 2B provides additional evidence that people strive to live up to their cultural standards after being reminded of their mortality, and rules out the alternative interpretation from the first two studies that our experimental manipulation is simply ineffective for women. Furthermore, Studies 1, 2A, and 2B help illuminate at least two different paths that men and women might take to deal with their mortality: Both men and women engage in more prosocial behaviors (a behavior that is seen as culturally appropriate for everyone; Grant & Wade-Benzoni, 2009; Greenberg et al., 1997; Jonas et al., 2002; Solomon et al., 1991), whereas only men engaged in power seeking (a behavior that is seen as more culturally appropriate for men than for women; Brescoll & Uhlmann, 2008; Eagly & Karau, 2002; Eagly et al., 1992; Rudman, 1998).

We have argued that reminders of death trigger power seeking because power can provide feelings of psychological security, and thus, may help in soothing people's fear and anxiety about death. In Studies 3-5, we examined this theoretical argument directly by testing whether power can make people feel secure and lessen their fear and anxiety toward death. Research suggests that people high in psychological security feel more immune to danger and threats (e.g., Kupor, Laurin, & Levay, 2015; Levav & Argo, 2010), and see their lives as having meaning and worth (see Greenberg, 2008). In Study 3, we asked participants the extent to which they felt invulnerable to threats (perceived invulnerability); in Study 4, we asked participants their sense of worth (i.e., self-esteem). Finally, to provide stronger evidence that power reduces death anxiety through feelings of psychological security, in Study 5 we manipulated power and psychological security independently.

## Study 3

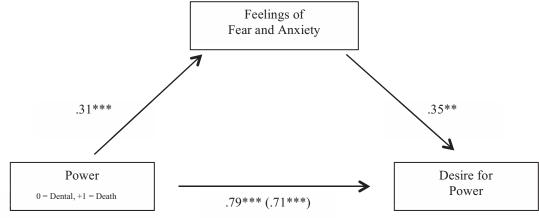
In Study 3, we first manipulated power by assigning participants to play a high power role or a low power role (for similar methods, see Akinola & Mendes, 2014; Anderson & Berdahl, 2002; Chen, Langner, & Mendoza-Denton, 2009; Kipnis, 1972; Moon & Chen, 2014). Then we asked participants to watch a video that contained graphic images of death (adapted from Greenberg et al., 1992). We predicted that participants would express less anxiety in response to seeing the video if they were in a powerful role than in a less powerful role. We further predicted that this effect would occur because high power participants would feel more psychologically secure, in that they would be more likely to believe that they are invulnerable to threats (e.g., Anderson & Galinsky, 2006; Fast et al., 2009; Tost et al., 2012).

#### Method

**Participants.** One hundred forty-nine individuals from a subject pool maintained by a third-party online panel company participated in this experiment (53 males, 95 females, 1 unidentified;  $M_{\rm age} = 38.31$ ,  $SD_{\rm age} = 9.57$ ). The sample consisted of Whites (77%), Latino Americans (6%), Blacks (12%), Asian Americans/Pacific Islanders (3%), and Native Americans (1%; 1 participant did not indicate his ethnicity).

**Procedure.** We informed participants that they would play online with two other people on a task called "The Organizational

## Male Participants



## **Female Participants**

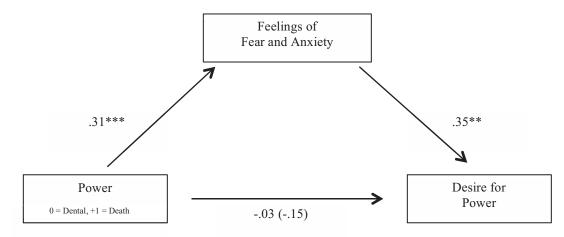


Figure 4. Mediation Model for Study 2A. \*\* p < .01, \*\*\* p < .001.

Hierarchy Game." They read that the game simulated activities and tasks that occurred in real-world organizations, and that each person in their group would be assigned to play a role similar to one that they might encounter in a work setting. In reality, this was a cover story and all participants completed the activity individually.

Participants read that the role they would play would be determined by a personality test called the "Leadership Assessment Profile," a purportedly validated scale of leadership ability (see Akinola & Mendes, 2014; Anderson & Berdahl, 2002; Chen et al., 2009; Kipnis, 1972; Moon & Chen, 2014). We gave participants a few minutes to answer the test; then, we randomly assigned them to one of two feedback conditions. In the *high power condition*, participants learned that they would be suited to play the role of Chief Executive Officer. In the *low power condition*, participants learned that they would be suited to play the role of Subordinate.

The next page of the survey asked participants to complete tasks in line with their role to reinforce our manipulations.

Those assigned to play the role of CEO read "confidential" company documents and made decisions concerning several organizational issues (e.g., bonuses and performance, future strategy). By contrast, those assigned to play the role of "Subordinate" completed secretarial tasks, such as typing company memos.

After completing their tasks, participants answered two measures. First, they used a 5-point scale ( $1 = strongly\ disagree$ ,  $5 = strongly\ agree$ ) to answer the question, "I feel powerful," which served as a manipulation check. Second, they used a 5-point scale ( $1 = not\ at\ all$ , 5 = extremely) to answer five items ( $\alpha = .79$ ) that measured perceived invulnerability: (a) "It is not necessary for me to worry about being injured or harmed," (b) "The rules do not apply to me," (c) "Things that happen to other people do not happen to me," (d) "I can take risks and get away with it that other people can't," and (e) "I can escape dangerous situations."

After answering these measures, we informed participants that their next task consisted of summarizing short videos (adapted

Table 3
Study 2A Results Controlling for Sample

	Dependent variable					
Variables	Fear and anxiety (1)	Dominance (2)	Dominance (3)			
Sample	05	.44	.46			
Condition	t =55 $.31$ $t = 3.44***$	$t = 3.23^{**}$ .81 $t = 3.81^{***}$	$t = 3.48^{***}$ .73 $t = 3.51^{***}$			
Gender	i = 3.44	01	004			
Condition $\times$ Gender		t =08 $87$	t =02 $92$			
Fear and anxiety		$t = -3.16^{**}$	$t = -3.44^{***}$ $.36$ $t = 4.33^{***}$			

Note. Condition (0 = dental prime, 1 = death prime); gender (0 = male, 1 = female); sample (0 = working adults, 1 = students).

from Greenberg et al., 1992). They first watched a weather report, which served as the Time 1 control prime. They wrote a brief summary of the video. Then they reported how much they felt the following: "tense," "upset," "anxious," "nervous," and "worried"  $(1 = not \ at \ all, \ 4 = very; \ \alpha_{Time1} = .81)$ . Our intent with this measure was to capture any individual differences in baseline estimates for people's fear and anxiety.

Participants then watched a second video about a medical autopsy, which served as the Time 2 mortality prime. Again, participants wrote a brief summary of the video. They then answered the same mood items from before ( $\alpha_{\rm Time2} = .87$ ). The second measure assessed participants' fear and anxiety after watching the mortality prime.

After completing these tasks, participants answered a demographic questionnaire. Then, we thanked them for participating.

## Results

Descriptive statistics and intercorrelations between Study 3 variables are summarized in Table 4. Degrees of freedom vary for different analyses because of missing values for some measures. Specifically, three participants did not answer the manipulation check and four participants did not answer the mood items for Time 2. Gender did not moderate any of the results in this study (and the subsequent studies), supporting

Table 4

Descriptive Statistics and Zero-Order Correlations of Study
3 Variables

Variables	Mean	SD	1	2	3	4
1. Gender	_	_				
2. Condition	_	_	.06			
3. Time 1 anxiety	1.12	.28	09	04		
4. Time 2 anxiety	1.53	.56	03	19*	.29***	
5. Perceived invulnerability	1.94	.78	.02	.18*	.08	19*

*Note.* Gender: 0 = male, 1 = female; condition: 0 = low power, 1 = high power.

previous findings that power has similar psychological effects for men and women (e.g., Anderson & Galinsky, 2006; Anderson & Berdahl, 2002; De Dreu & Van Kleef, 2004; Fast & Chen, 2009; Galinsky et al., 2008; Goldstein & Hays, 2011; Gruenfeld et al., 2008; Overbeck & Park, 2001, 2006; Powell, 1990; Watson & Hoffman, 1996). Thus, we present the results collapsed across participant gender.

**Manipulation check.** High power participants (M = 4.04, SD = .70) reported feeling more powerful compared to low power participants (M = 2.94, SD = 1.00), t(144) = 7.81, p < .001, indicating that the manipulation was successful.

**Fear and anxiety.** Hypothesis 2 states that to the extent that people feel more powerful, they would feel less anxious and fearful about death. To test Hypothesis 2, we calculated, for each participant, composites for self-reported anxiety at Time 1 (i.e., after watching the weather video) and at Time 2 (i.e., after watching the autopsy video). Then, using a linear mixed model analysis (Judd, Westfall, & Kenny, 2012), we regressed self-reported anxiety on power  $(0 = low\ power, 1 = high\ power)$ , prime type  $(0 = control\ video\ at\ Time\ 2,\ 1 = autopsy\ video\ at\ Time\ 2)$ , and their interaction.

This analysis revealed a significant Power  $\times$  Prime Type interaction, b=-.19, t=-2.14, p=.03. Although all participants, in general, felt more anxious after watching the autopsy video (see Figure 5), this tendency was greater for low power participants (M=1.64, SD=.66) than for high power participants (M=1.43, SD=.44), b=-.22, t=-2.99, p<.01. Thus, consistent with our hypothesis, those who felt more powerful found the death video less disturbing.

**Perceived invulnerability.** We also found, as expected, that high power participants (M = 2.07, SD = .89) were more likely to think that they were immune to harm compared with low power participants (M = 1.79, SD = .60), t(147) = 2.19, p = .03. We then conducted a mediation analysis to test whether perceptions of invulnerability explained why higher power participants felt less anxious after seeing the mortality prime (see Figure 6, Upper Panel). We used a bias-corrected bootstrap procedure (1,000 iterations) in which power was the independent variable, perceived invulnerability was the mediator, and Time 2 anxiety scores was

<sup>\*\*</sup> p < .01. \*\*\* p < .001.

<sup>\*</sup> p < .05. \*\*\* p < .001.

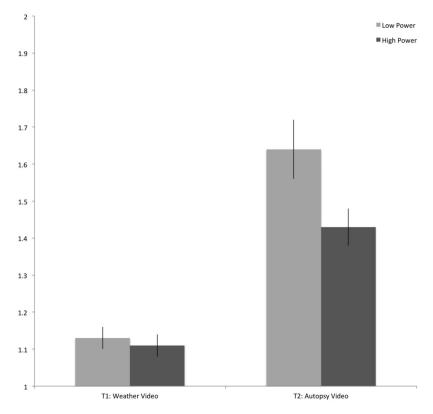


Figure 5. Anxiety as a function of power and prime type (Study 3).

the dependent variable.<sup>6</sup> This analysis revealed a significant indirect effect, 95% CI [-.08, -.01]. These results suggest that compared with low power participants, high power participants were relatively less anxious about death because they were more likely to believe that they were invulnerable.

## Discussion

Study 3 experimentally demonstrated that having power can reduce anxiety when reminded of death and that it does so by increasing perceived invulnerability. Inducing people to feel more powerful increased their tendency to believe that they are immune from harm, which in turn, reduced their anxiety when reminded of death. These results are consistent with the argument that power buffers people from death anxiety by providing them with psychological security.

Study 3 used one particular experimental setting, which raises the issue of whether the results would generalize to other experimental procedures. Therefore, we conducted an additional experiment using a different manipulation of power and a different way of priming mortality to ensure that our effects were not specific to our experimental protocol in Study 3. We also contrasted three power conditions—high-power, low-power, and a control condition—to more precisely examine our effects. Finally, we used a different operationalization of psychological security that could explain why power might buffer death anxiety—namely that power could provide psychological security by increasing people's self-esteem.

## Study 4

## Method

**Participants.** Two hundred ninety-three individuals recruited from a subject pool maintained by a third-party online panel company participated in this experiment (126 males, 165 females, 2 unidentified;  $M_{age} = 38.49$ ,  $SD_{age} = 9.77$ ). The sample consisted of Whites (75%), Latino Americans (9%), Blacks (8%), Asian Americans/Pacific Islanders (8%), and Native Americans (<1%; 1 participant did not indicate her ethnicity).

**Procedure.** Participants began by writing about a time (e.g., Galinsky, Gruenfeld, & Magee, 2003) in which they felt either powerful, powerless, or about a time when they went to the grocery store (control condition). After writing their narratives, participants used a 7-point scale (1 = strongly disagree, 7 = strongly agree) to answer the question "I feel powerful," which served as our *manipulation check*.

The next page of the survey contained the "The Projective Life Assessment Test." It instructed participants to write an essay about what would happen to them as they physically die and how the thought of their death makes them feel (Rosenblatt et al., 1989). This was the same exercise that participants completed in Study 1,

<sup>&</sup>lt;sup>6</sup> We used Time 2 anxiety scores because anxiety did not differ between high and low power participants at Time 1 ( $M_{high} = 1.11$ ,  $SD_{high} = .29$ ;  $M_{low} = 1.13$ ,  $SD_{low} = .26$ ), t = -.34, ns. We also found virtually identical results when we used Time<sub>2</sub>—Time<sub>1</sub> difference scores.

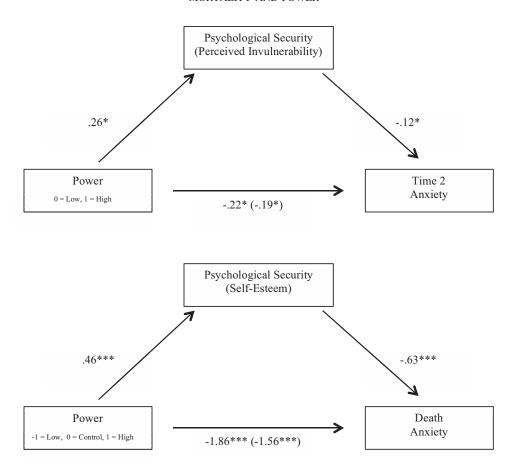


Figure 6. Mediation Model for Study 3 (Upper Panel) and Study 4 (Lower Panel). Note: \* p < .05, \*\*\* p < .001.

Study 2A, and Study 2B, and is the most widely used manipulation in terror management research to prime mortality (see Burke et al., 2010).

After writing their essays, participants completed two sets of dependent measures. First, participants reported *how much they felt anxious about death*: (a) "I am very much afraid to die," (b) "I feel nervous when I imagine my death," (c) "I feel anxious when I think about my death," (d) "I feel worried about my death," (e) "Death scares me," and (f) "I worry about death" (1 = no, 2 = somewhat, 3 = yes;  $\alpha = .91$ ; factor loadings > .76). We created a composite for death anxiety by summing responses to these items.

Second, participants answered Rosenberg's (1965) *self-esteem* scale, a measure of perceived self-worth (e.g., "I feel that I am a person of worth," "I feel that I am a failure" [reverse-scored], "I view myself positively";  $\alpha = .90$ ; 1 = strongly disagree, 7 = strongly agree).

After completing these measures, participants answered a demographic questionnaire. Then, they were thanked for participating.

## Results

Descriptive statistics and intercorrelations between Study 4 variables are summarized in Table 5. To conduct our analysis, we created two dummy-coded variables to represent the three levels of the experimental condition. We created the dummy codes such that

the control condition was the comparison condition. We examined whether the high power condition and the low power condition differed from this comparison.

**Manipulation check.** High power participants (M=4.94, SD=1.49) reported feeling significantly more powerful compared to control participants (M=3.64, SD=1.54), t(290)=6.05, p<0.001, who in turn felt more powerful compared with low power participants (M=2.34, SD=1.50), t(290)=-5.97, p<0.001. These findings indicate that the manipulation of feelings of power was successful.

**Self-esteem.** Consistent with our expectations, high power participants (M = 5.71, SD = .94) felt more positively about

Table 5
Descriptive Statistics and Zero-Order Correlations of Study 4 Variables

Variables	Mean	SD	1	2	3
1. Gender					
2. Condition		_	.01		
<ol><li>Self-esteem</li></ol>	5.40	1.06	.17**	.21***	
4. Death anxiety	10.22	3.68	.06	24***	22***

*Note.* Gender: 0 = male, 1 = female; condition: -1 = low power, 0 = control, 1 = high power.

<sup>\*\*</sup> p < .01. \*\*\* p < .001.

themselves compared with control participants (M=5.41, SD=.99), b=.30, t(290)=2.03, p=.04. By contrast, low power participants (M=5.08, SD=1.15) felt less positively about themselves compared to control participants, b=-.33, t(290)=-2.23, p=.03. The linear contrast (low power = -1, control = 0, high power = 1) was significant, b=.46, t(291)=3.58, p<.001, indicating that greater feelings of power led to higher self-esteem.

**Death anxiety.** Consistent with Hypothesis 2, high power participants (M = 8.98, SD = 2.91) reported feeling significantly less anxious about death than did control participants (M = 10.25, SD = 3.75), b = -1.27, t(290) = -2.51, p = .01. By contrast, low power participants (M = 11.44, SD = 3.92) reported feeling significantly more anxious about death than did control participants, b = 1.18, t(290) = 2.33, p = .02. The linear contrast was also significant, b = -1.86, t(291) = -4.19, p < .001, indicating that greater feelings of power produced lower death anxiety.

We then conducted a mediation analysis to test whether self-esteem mediated the effect of power on death anxiety (see Figure 6, Lower Panel). We used a bias-corrected bootstrap procedure (1,000 iterations) in which power was the independent variable (linearly coded), self-esteem was the mediator, and death anxiety was the dependent variable. This analysis revealed a significant indirect effect, CI = [-.60, -.09]. Thus, participants who felt relatively more powerful had greater self-esteem, which in turn, partly explained why they were relatively less anxious about death.

## Study 5

We have argued that power lowers people's fear and anxiety about death because it provides psychological security, in part by increasing a sense of invulnerability and in part because power increases people's sense of self-esteem. In Studies 3 and 4, we used standard statistical procedures to estimate direct and indirect effects and, specifically, whether the proposed psychological constructs mediated the effect of power on death anxiety. However, Coffman and Zhong (2012) have noted that because individuals are not typically randomly assigned to different levels of the mediator, inferring the causal effect of the mediator on the outcome is not straightforward because of the presence of other confounds.

To address this issue of interpretation at least to some extent, in our final study we implemented a stronger test of our argument by using a moderation-by-process design (Spencer, Zanna, & Fong, 2005). In Study 5, we directly manipulated both the independent variable (power) and the mediator variable (psychological security) independently. We expected that power would reduce death anxiety, as in the previous studies, but that this effect should be attenuated when people felt more secure.

## Method

**Participants.** Two hundred sixty undergraduate and graduate students from a private West Coast university participated in this experiment (87 males, 169 females, 4 unidentified;  $M_{age} = 21.58$ ,  $SD_{age} = 3.14$ ). The sample consisted of Whites (40%), Latino Americans (11%), Blacks (6%), Asian Americans/Pacific Islanders (42%), and Native Americans (<1%; 2 participants did not

indicate their ethnicity). They received a small amount for participating in the study.

**Procedure.** Participants read that the purpose of the study was to examine how people completed tasks and activities that occurred in real-world organizations. They read that the activities that they would perform would be determined by a personality test called the "Leadership Assessment Profile," the same purportedly validated scale of leadership ability from Study 3.

We gave participants a few minutes to answer the test; then, we randomly assigned them to one of two conditions that differed in their amount of power. Half of participants read that they would be suited to play the role of Chief Executive Officer (high power condition); the remaining participants read that they would be suited to play the role of Subordinate (low power condition). Participants then proceeded to complete tasks in line with their role, just as described in Study 3.

After completing their tasks, we had participants complete a short writing exercise. We randomly assigned participants one of two writing tasks. In the *control-security condition*, we asked participants to describe the weather from the previous day. In the *security-boost condition*, we asked participants to write about a fond memory—a time in their life that made them more at ease, safe, and secure. Past research (e.g., Levav & Argo, 2010) has shown that this manipulation can momentarily increase people's feelings of security.<sup>7</sup>

After writing their narratives, participants learned that their final task consisted of summarizing a short video. Participants watched the same medical autopsy video from Study 3. They wrote a brief summary of the video; then they reported how much they felt the following ( $\alpha = .97$ , loadings > .73): "fearful," "afraid," "scared," "frightened," "nervous," "worried," "anxious," "tense," "upset," and "jittery" ( $1 = not \ at \ all, \ 5 = very$ ). Finally, they answered a demographic questionnaire and were thanked for participating.

## **Results**

To test Hypothesis 2, we regressed fear and anxiety scores on power (dummy-coded: 0 = low, 1 = high), security (dummy-coded: 0 = control, 1 = boost), and their interaction. This analysis revealed a significant Power  $\times$  Security interaction, b = .64, t(256) = 2.89, p < .01 (see Figure 7).

Among participants who did not receive a security boost, those who played the role of CEO ( $M_{\rm CEO/control\text{-}security} = 1.68$ ,  $SD_{\rm subor\text{-}dinate/control\text{-}security} = .65$ ) reported lower fear and anxiety about death compared with those who played the role of subordinate ( $M_{\rm subordinate/control\text{-}security} = 2.37$ ,  $SD_{\rm subordinate/control\text{-}security} = 2.37$ 

To confirm this assumption, we pretested these writing tasks with 300 participants from Amazon Mechanical Turk. After writing their narratives, we asked pretest participants how much they felt "at ease," "comfortable," "safe," "secure," "protected," and "accepted" ( $1=strongly\ disagree$ ,  $7=strongly\ agree$ ). We averaged these items to form a composite for psychological security ( $\alpha=.97$ , loadings >.79). Additionally, we asked pretest participants to answer Rosenberg's (1965) self-esteem scale ( $\alpha=.96$ , loadings >.81), a measure of perceived self-worth (Greenberg et al., 1986). Confirming our assumptions and the validity of this manipulation, participants who wrote about a fond memory reported feeling more psychologically secure ( $M_{high}=6.40$ ,  $SD_{high}=6.63$ ) and more positive about themselves ( $M_{high}=5.90$ ,  $SD_{high}=1.16$ ) than did participants who wrote about the weather (security:  $M_{low}=4.64$ ,  $SD_{low}=1.38$ ; self-esteem:  $M_{low}=5.36$ ,  $SD_{low}=1.38$ ), both ps<0.001.

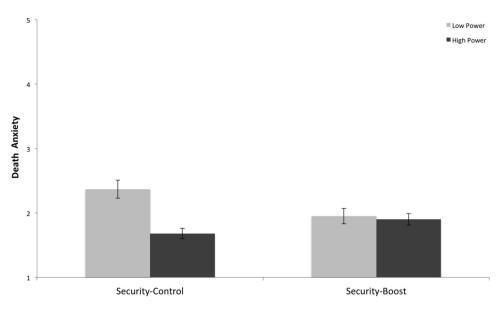


Figure 7. Self-reported death anxiety as a function of power and prime type in Study 5.

1.12), b=-.69, t(256)=-4.40, p<.001. However, among participants who received a security boost, no such differences were observed ( $M_{\rm subordinate/high-security}=1.95$ ,  $SD_{\rm subordinate/high-security}=.96$  vs.  $M_{\rm CEO/high-security}=1.90$ ,  $SD_{\rm CEO/high-security}=.77$ ), b=-.04, t(256)=-.28, p=.78. Overall, these findings support the hypothesis that power lowers death anxiety, and that it does so by providing psychological security.

## Discussion

Study 5 provides a conceptual replication of Study 3 and 4 with random assignment of people to a proposed mediating mechanism, feeling secure. As such, the results of Study 5 provide additional support for both the hypothesized effect of feeling powerful on reducing death anxiety and also strengthen our confidence that we identified at least one of the psychological processes responsible for this effect.

## **General Discussion**

Our analyses of six experiments consistently uncovered the hypothesized relationships between power and mortality anxiety. When we made mortality salient, people felt greater fear and anxiety (Studies 1 and 2), which in turn, caused men, but not women, to exhibit more dominance behaviors in the following week (Study 2A), and more interest in obtaining power (Study 1). We also found that *both* men and women responded to mortality salience by engaging in more prosocial behaviors (Study 2B), which ruled out the possibility that our manipulation was ineffective for women, and provided additional evidence consistent with our theoretical argument that power seeking is a more culturally appropriate response for men than for women.

Furthermore, we found that people's self-perception of their own power influenced their level of death anxiety. When people were led to feel powerful, they expressed less death anxiety. By contrast, when people were led to feel less powerful, they expressed more death anxiety. This occurred because power helped to establish a sense of psychological security (Studies 3–5), created a sense of invulnerability (Study 3) and boosted people's self-esteem (Study 4). These findings are consistent with prior scholarship that demonstrated that efforts to bolster one's sense of personal worth can provide psychological security and afford some degree of protection against mortality anxiety (e.g., Pyszczynski et al., 2004).

We also found that although men and women responded differently to mortality salience, both genders responded to power priming with similar levels of mortality anxiety. How can we reconcile these two findings? Our results suggest that reminders of mortality may motivate men and women toward a similar goal (i.e., attaining psychological security), but because of cultural prescriptions for behavior, men and women seek to achieve that goal in different ways (see also Gabriel & Gardner, 1999). However, men and women feel and have similar reactions once the goal of achieving a sense of psychological security is attained. This result is consistent with past research on power and the psychological security it provides (Fast et al., 2009; Kifer et al., 2013; Wojciszke & Struzynska-Kujalowicz, 2007). In other words, to the extent that people feel powerful, they should feel more secure and less threatened when confronted with reminders of death.

## **Implications**

Although positions of power are desirable because they typically come with many benefits, recent research suggests that people may sometimes feel reluctant to pursue such positions. For example, some people may not want to bear the burden of the responsibilities that come with positions of power (Keltner, Van Kleef, Chen, & Kraus, 2008), and some may express reluctance to pursue power because they see that attaining those positions may also require engaging in certain behaviors that they find undesirable (e.g., networking; see Belmi & Laurin, 2014; Casciaro, Gino,

& Kouchaki, 2014). Thus, getting people to pursue positions of power and assume leadership roles is not always straightforward.

While external and monetary incentives are powerful motivators, our work also implies that appealing to existential motives can be an effective technique to motivate men to assume positions of power. Reminding men of their mortality, perhaps by having them reflect on what they would like their legacy to be, could be a useful tool for strengthening their motivation to acquire power.

However, managers should be cautious in applying the same approach for women, as it may have no effect on their motivation to seek power, or even backfire, as Study 1 suggests. If reminding women of their mortality does not entice them to seek power, but leads them instead to assume more communal and volunteering roles, managers should *not* interpret such behavior as an indication that women simply lack interest in power and leadership. Instead, managers should view such behavior as a reflection of women's strivings to conform to the standards of what they believe is culturally acceptable or appropriate. This also implies that managers should examine the assumptions that their employees hold about positions of power in their organizations.

Because power is associated with many benefits, such as increased status and wealth (Lovaglia et al., 2003), many people intuitively associate power as a pursuit of extrinsic incentives. And people who are perceived as being extrinsically motivated are viewed negatively and stigmatized (Kim & Pettit, 2015; Van Boven, Campbell, & Gilovich, 2010), another reason why people may hesitate to pursue status in social groups (Kim & Pettit, 2015). However, our findings suggest a somewhat different view of power. Our results suggest that the motivation to seek power may also at least partly reflect the desire to resolve people's existential threat derived from a sense of their own mortality. In other words, the intention to seek power should be understood as not only being motivated by the pursuit of status and material wealth, but also as a consequence of a person's efforts to find psychological security and existential meaning.

## **Theoretical Contributions**

As Stein and Cropanzano (2011, p. 1189) noted, notwithstanding the decades-long research on death awareness and its consequences, "management scholars have only recently explored how death awareness can impact organizational functioning." They noted that the finding that mortality salience increases hostility toward outgroup members might help explain aggression in the workplace and also prejudice and discrimination. Other scholars (e.g., Bacharach & Bamberger, 2007; Byron & Peterson, 2002; Grant & Wade-Benzoni, 2009; Sliter, Sinclair, Yuan & Mohr, 2014; Wrzesniewski, 2002) have also started to explore how reminders of mortality can influence how employees think and behave, but research on this topic continues to be sparse.

Our studies further extend and expand research in this area in at least three ways. First, we demonstrated that reminders of mortality can affect the types of behaviors people engage in (i.e., power seeking/dominance, helping). Second, we showed that men and women differ in how they respond to reminders of mortality. And third, we showed that power allows people to feel more positively about themselves and more invulnerable to threatening forces, allowing them to confront their existential concerns.

#### **Future Directions**

We have focused on the idea that power and mortality are related because of people's needs to attain psychological security, something that mortality salience is likely to trigger and something that positions of power can provide. That being said, we also believe it is worth exploring other mechanisms concerning why mortality salience increases men's power seeking and why power reduces one's fear of death. One possibility is that mortality salience increases the need for control, and increasing one's power fulfills such a need. Such a prediction is consistent with prior research findings. Reminding people of their mortality increases their need for control (e.g., Fritsche, Jonas, & Fankhanel, 2008), while having power, makes people feel they are in control of their lives (e.g., Fast et al., 2009; Keltner et al., 2003; Moon & Chen, 2014).

Although we found that reminders of mortality prompt men to seek power in an effort to attain psychological security, we do not know their specific underlying intentions for what they want to do once they attain those positions. On one hand, reminders of mortality might motivate men to seek positions of power to achieve their self-centered goals (e.g., accumulating wealth, status, and praise; McClelland, 1987; Winter, 1973). Achieving these selfcentered goals could help men find meaning and value in their lives and buffer them from the threat of death. Indeed, having more money has been shown to make people feel more secure and less threatened about death (Zaleskiewicz et al., 2013). The quote that opened this article came from an article describing the many instances of CEOs arranging for payouts to continue after their deaths (Maremont, 2008). There is no obvious economic rationale for payments postdeath, as neither retention nor motivation concerns would be salient. Furthermore, many of the people receiving such payments are likely to be already very wealthy. However, salaries that continue over time after death provide a sense of continuity and existence beyond the grave. While executives could not literally "take it with them," they could, by providing continuing payments to their heirs and estates, provide a sense of continuing to live on, at least financially, after they had died.

While there are examples and research that supports self-aggrandizing responses to mortality salience, reminders of mortality might also motivate men to seek positions of power so that they can help others and contribute to their communities. Achieving these *other-centered goals* could also help in finding one's meaning and value, and serve as a buffer from the threat of death. Indeed, scholars have shown that demonstrating altruism and interest in the common good also allow both men and women to feel as if they are symbolically extending themselves into the future, and can help mitigate their concerns about their mortality (Wade-Benzoni et al., 2012).

This distinction between self-centered and other-centered motives of using power (McClelland, 1987; Winter, 1973) suggests some important directions for future research. For example, when do mortality reminders lead to a self-centered path to power, and when do they lead to an other-centered path to power? One possibility is that mortality reminders will lead to a particular type of power seeking depending on the individual's cherished social values. For example, in response to mortality salience, highly competitive individuals might be more likely to seek power, while highly prosocial individuals might be more likely to affiliate and

help others. Another possibility is that culture might be an important moderator. In the United States, at least, people view power as something to be wielded for advancing one's personal agenda (see Torelli & Shavitt, 2010); thus, reminders of mortality may motivate men to seek power for self-interested reasons. However, in more collectivistic cultures where people view power as something to be used for helping others and their communities, reminders of mortality may prompt men to seek power for more altruistic reasons.

A third possibility is that men will engage in one type of power seeking depending on how they experience reminders of mortality. Grant and Wade-Benzoni (2009) theorized that people can experience reminders of mortality in one of two ways. On one hand, reminders of mortality can trigger death anxiety—a "hot" emotional state in which people experience fear, panic, and dread about their mortality. On the other hand, reminders of mortality can also trigger death reflection—a "cool" cognitive state in which people place "their lives in context, contemplate their meaning and purpose, and review how others will look upon them after they have passed" (Grant & Wade-Benzoni, 2009, p. 605; see also Cozzolino, Staples, Meyers, & Samboceti, 2004; Ring, 1984; Ring & Valarino, 1998). Grant and Wade-Benzoni (2009) theorized that death anxiety is more likely to trigger a self-protective response (i.e., an increased desire to defend one's identity and image), while death reflection is more likely to trigger a prosocial response (i.e., an increased desire to protect and promote the welfare of other people; Grant, 2007, 2008). Studies 2A and 2B suggest that both types of responses can occur, and it is plausible that there is a temporal aspect that affects how people respond to reminders of their mortality. Initially, for example, reminders of mortality might trigger fear and anxiety, and thus, lead to more self-protective responses. However, over time, when people have managed their fear and anxiety, and are in a capacity to deliberate and reflect, then reminders of mortality might trigger more prosocial responses.

## Limitations

We necessarily used a limited range of measures and experimental manipulations in the studies reported here. The wide range of paradigms used to examine mortality anxiety suggests that replication using other procedures would be useful. Future research could also incorporate physiological measures of anxiety to overcome the limitations of using strictly paper-and-pencil measures.

#### Conclusion

Because power processes are ubiquitous in organizations and in social life more generally, and because mortality is fundamental to the experience of human existence, there are numerous theoretical and practical implications if the connections between mortality and power that we have elucidated here continue to find support in subsequent research. Motivational processes and social power are fundamental concepts for understanding human behavior, including many dimensions of behavior in work organizations (e.g., Stein & Cropanzano, 2011). Consequently, the link between mortality and power would seem to be an important avenue to pursue to understand behavior in the workplace.

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