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Terror Management and Self-Enhancement: The Moderating Role of Self-Esteem and Need For Closure

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Terror Management and Self-Enhancement:
The Moderating Role of Self-Esteem and Need For Closure

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
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ABSTRACT

Terror management theory posits that self-esteem ultimately protects people from death anxiety. Much research has demonstrated that individuals reminded of death tend to self-enhance. However, more recent research suggests that need for closure and self-esteem might moderate these findings, but no research has directly tested this. It was hypothesized that for people high in self-esteem, mortality salience will not affect self-enhancement. However, for individuals low in self-esteem, it will either increase enhancement (if low in closure) or increase verification (if high in closure). These hypotheses were fully supported using Christian's perceptions of God's love as the dependent variable. Implications for terror management theory, self-verification theory, and religious belief are discussed.

Introduction

Self-Enhancement, Self-Verification and God's Love

Christianity teaches that God judges every human being for their actions and their beliefs. Moreover, through prayer, it teaches that a relationship can be developed between God and humans. Correlational research indicates that that these relationships reduce loneliness (Kirkpatrick, Shillito & Kellas, 1999) and, just like human to human relationships, they differ according to self-esteem (Kirkpatrick, 1998) with people low in self-esteem believing that God is less loving. Ironically, however, low self-esteem individuals are more drawn to these relationships than individuals with high self-esteem (Kirkpatrick, 1998). But why would individuals low in self-esteem be drawn to an unloving God (especially in light of the possibility that an unloving God could sentence them to eternal damnation)?

From a traditional terror management perspective (Greenberg, Pyszczynski & Solomon, 1986), Christians should be motivated to believe that God views them favorably, because self-esteem is essential to managing death concerns. Supporting this, mortality salience increases self-enhancement (e.g., Dechesne et al., 2003) and group enhancement (e.g., Dechesne, Greenberg, Arndt & Schimel, 2000) and trait self-esteem reduces mortality salience induced worldview defense (Arndt & Greenberg, 1999; Harmon-Jones et al., 1997). Although TMT posits that epistemic needs such as certainty, structure and predictability also help people manage death anxiety (e.g., Landau et al.,

2004), esteem needs are typically viewed as more central to managing anxiety (e.g., Greenberg, 2008).

However, the picture is likely not as simple as mortality salience always leading to self-esteem promotion. First, because self-esteem has been found to moderate mortality salience effects on worldview defense (e.g., Arndt & Greenberg, 1999), individuals high in self-esteem (who are buffered from death salience by their self-esteem) might not have the need to enhance when death is salient. Secondly, research based on self-verification theory (SVT; Swan, 1983) suggests that, at least under certain conditions, people address epistemic needs at the expense of esteem needs. For instance, individuals, even if they are low in self-esteem, choose relationship partners that perceive them as they perceive themselves (self-verify them; Hixon & Swann, 1993; Swann, Wenzlaff & Tafforadi, 1992). Because mortality salience also heightens epistemic needs (Landau et al., 2004; Dechesne & Wigboldus, 2001; Schimel et al., 1999), it could be that people high in these needs will self-verify when death is salient even when this conflicts with self-esteem protection (e.g., low self-esteem individuals choosing partners that treat them less positively). In terms of perceptions of God's love, this suggests that death concerns might actually motivate low self-esteem Christians to view God as less loving, because this verifies their self-view and, in turn, provides epistemic needs.

In the following research, I measured self-esteem and need for closure before exposing people to mortality salience or an aversive control topic. I then gave (Christian) participants the opportunity to self-enhance by agreeing or disagreeing with a positive or negative message about God's love for them. In doing so, I was able to test my hypotheses that (a) people high in self-esteem should not self-enhance when death is

salient, and (b) that for individuals low in self-esteem, but high in epistemic needs, reminders of mortality will motivate self-verification even though this conflicts with self-enhancement.

Terror Management Theory and Self-Esteem

The need for self-esteem is clearly powerful. Research indicates that people see themselves as better than average in a wide range of things, such as morality (Baumhart, 1968), health (Larwood, 1978) and reliability (Hoorens, 1993). In addition, people often resort to various strategies to preserve or strengthen this image such as downward comparison (Vohs & Heatherton, 2004), avoiding threats to the self (Pyszczynski, 1982), lowering expectations (Norem & Cantor, 1986) and discounting sources of criticism (Miller & Ross, 1975). Moreover, research shows that people display a “cognitive conceit” even at an implicit level, preferring their own initials to others and even tending to choose careers, marital partners and living places that share letters with one’s name (e.g., Pelham, Mirenberg & Jones, 2002).

Building on the work of Ernest Becker, (1971/1972) terror management theory (TMT; Greenberg, Solomon & Pyszczynski, 1986) posits that people are strongly motivated to self-enhance and protect self-esteem, because doing so protects them from anxiety associated with death. According to TMT, the awareness of death places humans in a unique and potentially terrifying predicament. Although humans share with other animals the biological inclination toward self-preservation, humans also have a unique ability to see into the future, which ultimately makes them aware of their inevitable demise. This is problematic because no matter what people devote their lives to, people know that deep down it could ultimately end. Leo Tolstoy (as cited in James, 1902,

p.141) captured this existential angst poignantly stating, “This is the literal incontestable truth ... Why should I live? ... Is there in life any purpose which the inevitability of death that awaits me does not undo and destroy?”

In response to this realization, TMT argues that humans developed shared standards of what is valued in a culture (cultural worldviews). By living up to these standards, humans develop self-worth. By contributing to cultural meaning systems that continue beyond death, humans achieve symbolic immortality (a sense that they have left their “mark” and will be remembered) and/or literal immortality, which is the sense that one will live in a future life.

Over 250 studies have supported hypotheses derived from terror management theory (Greenberg, 2008). In support of the role of worldviews in terror management, people reminded of their mortality (mortality salience) show an increased defense of their cultural worldview (e.g., Arndt, Greenberg, Pyszczynski & Solomon, 2002). For instance, people in the United States who are reminded of death, compared to aversive control topics, become more supportive of US wars (Pyszczynski et. al, 2006), show increased disdain for an anti-US author (Greenberg et. al, 1990) and show more discomfort using the US flag in culturally inappropriate ways (Greenberg, Simon, Porteus & Solomon & Pyszczynski, 1995). Perhaps more strikingly, H. McGregor et al., (1998) found that mortality salience lead to actual violence against worldview threatening others. Specifically, participants were given the opportunity to administer amounts of hot sauce to people who threatened their political views. When thinking about death, they administered more hot sauce to this target. Interestingly, more recent work has also found that implicit death cognitions (e.g., completing GR___ with “grave” rather than “grape”)

increase when people's beliefs are challenged (Friedman, 2008; Schimel, Hayes, Williams & Jahrig, 2007) and dissipate when people have the chance to defend their beliefs (Schmeichel & Martens, 2005). This body of work suggests that, consistent with TMT, mortality salience increases negative, even violent, reactions toward others that threaten people's beliefs and that defending such beliefs help people manage existential concerns associated with death.

More directly related to the proposed research, terror management theory posits that self-esteem is an anxiety buffer that ultimately protects people from fear of death. Accordingly, from a TMT perspective, if self-esteem buffers people from death anxiety, then thinking about death should increase the pursuit of self-esteem. Supporting this, participants reminded of death exaggerate the success of their own group (Dechesne et al., 2000) and de-identify with groups that are framed negatively, but identify more strongly with groups framed positively (Arndt, Greenberg, Schimel & Pyszczynski, 2002). Further, they show increased intentions to engage in behaviors they derive self-esteem from, even if they are risky (e.g., reckless driving; Taubman, Florian & Mikulincer, 2003). Moreover, mortality salience has been found to increase self-serving attributional biases (Mikulincer & Florian, 2002) and self-enhancement (e.g., agreement with positive personality feedback; Dechesne et. al, 2003). Interestingly, just like worldviews, challenging people's self-esteem also increases death thoughts (Hayes, Schimel, Faucher & Williams, 2008) and reducing the threat of death by exposing participants to "scientific evidence" of an afterlife eliminates self-enhancement under mortality salience (Heflick & Goldenberg, 2009)

At first glance, this body of research seems consistent with TMT researchers' (e.g., Mikulincer & Florian, 2002) assertion that all people should deal with mortality concerns by enhancing the self. Importantly, however, research *has never simultaneously tested if self-enhancement under mortality salience differs as a function of trait self-esteem or epistemic needs*. Below, I explore the potential implications of testing for moderation of epistemic needs and trait self-esteem.

TMT research shows that people self-enhance and protect self-esteem more when death is salient. But, research has never tested if self-esteem moderates enhancement when death is salient. So, why is this problematic? First, worldview defense is often reduced under mortality salience for individuals high in self-esteem (Arndt & Greenberg, 1999). Harmon-Jones, Simon, Greenberg, Pyszczynski and Solomon (1997) increased people's self-esteem or provided them with neutral feedback. People with increased self-esteem later did not respond to mortality salience with worldview defense; however, individuals provided with neutral feedback did. In follow-up studies, they also found that high trait self-esteem protects people from psychological defenses when death is salient. Thus, although TMT theorists have consistently concluded that people always promote or at least protect self-esteem (Landau & Greenberg, 2006) when death is salient, other research in this tradition (and the theory itself) suggests that this might not be true for people high in self-esteem.

Secondly, this is problematic because most people have a positive self-concept (e.g., Alicke et al., 1995). So, when most people respond to mortality salience with increased self-esteem pursuit, they are also responding to it with increased self-verification (wanting others to view them as they view themselves). In turn, because they

have not looked at self-esteem's role in self-enhancement under mortality salience, researchers could be inaccurately drawing conclusion viewed as consistent with terror management theory (i.e. that reminders of death motivate self-enhancement because it promotes self-esteem), without actually testing if the motive is self-esteem protection or self-verification. As will be discussed below, this is problematic because the awareness of death motivates both esteem and epistemic needs, and epistemic needs are often served by self-verification (Swann, Rentfrow & Guinn, 2003).

Terror Management and Need for Closure

Building on the theorizing of Lecky (1945), self-verification theory (SVT: Swann, 1987) posits that individuals are strongly motivated to create social worlds that enable others to see them as they see themselves. For individuals high in self-esteem, verification and esteem needs lead to the same outcome (e.g., choosing a partner that holds them in high regard). However, for individuals low in self-esteem, verification leads to creating a world that reinforces one's own negative self-image. According to SVT (Swann, 1983), people choose to self-verify, often at the expense of self-enhancement, for both relationship and epistemic needs. In terms of epistemic needs, self-verification enables individuals to know what to expect, and with that comes certainty, predictability and coherence. In contrast, enhancement, when it is not also verifying, is more related to confusion and a lack of structure and clarity, because social situations that are not consistent with the self-concept are more unpredictable. As Swann, Rentfrow and Guinn (2003, pp. 368) wrote:

People's self-views represent the lens through which they perceive reality, lending meaning to all experiences. Should people's self-views flounder,

they will have been stripped of their fundamental means of knowing the world.

Research (e.g., Swann, Pelham & Krull, 1989) shows the pervasiveness of the need to self-verify, which according to SVT, facilitates epistemic needs. For instance, people seek out interaction partners that verify their self-concept (Swann, Pelham & Krull, 1989). In addition, mildly depressed college students are more likely to elicit negative than positive feedback from their roommates and the more frequently this occurs, the more likely they are to be roommates the following semester (Swann, Wenzloff, Krull & Pelham, 1990). Further, research shows that marriages in which both partner's view of the other is consistent with each partner's self-view have higher levels of intimacy (Burke & Stets, 1999; De La Ronde & Swann, 1998). Outside of relationships, when the self-concept is threatened, people show increased pursuit of self-verifying information (Swann & Read, 1981; Swann & Hill, 1982). Interestingly, people also remember information better if it is consistent with their self-concept (Swann & Read, 1981), and spend more time reading such evaluations. This body of work suggests that people not only have a motivation to self-verify in relationships, but also have a cognitive tendency toward preserving memories consistent with their self-view.

Another theory demonstrating the power of epistemic needs is lay epistemic theory (Kruglanski, 1989). Lay epistemic theory (LET) holds that people acquire knowledge and beliefs through observation and experience with others. Because knowledge strongly motivates human behavior and attitudes, LET stresses the importance of epistemic needs (predictability, structure, coherence) in understanding human behavior and mental processes.

Within LET, most research has explored the human motivation to maintain the need for closure, which is defined as the need to achieve definite knowledge on a given topic (Kruglanski & Webster, 1996) and consists of five cognitive-motivational traits: predictability, order, decisiveness, tolerance of ambiguity and closed mindedness. Research suggests that the need for closure is served by being a firm, staunch supporter of a worldview; individuals high in need for closure are more negative toward different others (Doherty, 1998), display more out-group stereotyping (Dijksterhuis, van Knippenberg, Kruglanski & Schaper, 1996) and have higher levels of in-group bias (Shah, Kruglanski, & Thompson, 1998). Moreover, individuals that are high in need for closure are more likely to endorse political views that resist change (Jost et al., 2007), and religious beliefs that are more dogmatic (Saraglou, 2002). This suggests that people high in closure might defend their views (even self-views) more when death is salient, which should lead to verification and not enhancement.

Terror management theory has long posited that worldviews provide people with the certainty, predictability and coherence that enable people to develop self-esteem and hence, manage mortality concerns (Greenberg et al., 1991). Research is now accumulating to demonstrate the essential role of epistemic needs in managing death anxiety (Dechesne, Janssen & van Knippenberg (2001). For instance, Landau and colleagues (2004) found that mortality salience increases desire for clear, well structured information and for paintings that have a clear, coherent meaning (Landau et al., 2006). Further, death salience has been found to increase preference for more cultivated landscapes (Koole & Van den Berg, 2003), for letter sequences that have clear patterns (e.g., AAAABBBB instead of ABBBAABA; Dechesne & Wigboldus, 2002) and

stereotypical individuals (Schimel et al., 1998). Lastly, these effects are typically stronger among people that are high in epistemic needs (e.g., Landau et al., 2004), including need for closure (e.g., Schimel et al., 2004). Thus, a wide body of evidence suggests that epistemic needs are heightened by death salience, and often moderate psychological reactions toward death.

Need for Closure and Self-Esteem

The prevailing view from TMT researchers (e.g., Greenberg, 2008) is that mortality salience leads to the enhancement and protection of self-esteem. However, work within this tradition (e.g., Harmon-Jones et al., 1997) also has found that people high in self-esteem tend to not respond to reminders of mortality with increased worldview defense, suggesting that, contrary to researchers' conclusions, mortality salience might not lead all people to self-enhance (people high in self-esteem might be buffered). In addition, research is accumulating that demonstrates the role of epistemic needs in terror management (e.g., Landau et al., 2004); and SVT suggests that epistemic needs are served by self-verification (e.g., Swann, 1982). Merging this theorizing, I hypothesize that people high in self-esteem will not self-enhance when death is salient (they will be buffered). For individuals low in self-esteem, if they are high in epistemic needs, they will self-verify when death is salient. But, if people are low in self-esteem and low in closure, then they will self-enhance.

Method

Pilot Testing

Past research stresses that self-verification occurs more when the feedback and the measure of self-esteem are specific and matching (the matching-specificity hypothesis, Bosson & Swann, 1999). Because I was interested in whether participants self-verify when mortality is salient, I conducted pilot testing in which participants ($N = 120$) received one of six messages about the self and God's love and then completed four measures of self-esteem (Rosenberg's global measure, 1965; God contingency, Crocker, & Luhtanen, 2003; self-liking and self-competence, Taforadi & Swann, 1995). The six messages were comprised of three sets of two parallel messages, with one of each set framed positively and one framed negatively. The strongest correlations were found between the statements, "The message of Christianity is clear: You are worthy (or unworthy) of God's love" and the self-liking measure of self-esteem ($r = .45$ for positive message, and $-.23$ for negative message), suggesting that these messages were verifying for people depending on self-esteem (e.g., high self-esteem people agreed more with positive message and less with negative message).

Participants

Participants were 145 (50 male) undergraduates that did not participate in the pilot testing. Because the manipulation discussed what Christianity teaches, participation was limited to students who answered yes to "do you identify as a Christian?" in a mass testing questionnaire. To ensure that the messages were at least somewhat relevant to the participants, participation was further limited to individuals who had attended at least one religious service in the past year.

Materials and Procedure

Materials were identical except for the mortality salience (death, no death) prime and the message (worthy, unworthy) each participant read. These differences were crossed for all participants and materials were completed in the following order:

Self-Liking Scale. Based on the pilot testing described above, participants completed the 8-item self-liking subscale of The Self-Liking/Self-Competence Revised Scale, which has been found to have high reliability and validity (Taforadi & Swann, 2000). This scale measures the extent to which people like themselves. Sample items include, “I tend to de-value myself” (reverse coded) and “I feel great about who I am.” It was measured on a Likert Scale (1 = strongly disagree; 4 = strongly agree) and was reliable in the current study ($\alpha = .82$).

Need for Closure Scale. Next, they completed the 47-item Need for Closure Scale (Kruglanski & Freund, 1983) which has also been found to be high in validity and reliability (Leone, Wallace & Modglin, 1999). This scale measures the extent to people value predictability, structure and clarity. Example items include “I dislike unpredictable situations” and “I would rather know bad news than be in state of uncertainty.” It was measured on the same 4-point Likert scale and was reliable ($\alpha = .89$).

Mortality Salience Prime. After this, participants were primed with either dental pain or mortality. As in prior TMT research (e.g., Greenberg et al., 1991), the mortality salience prime asked participants respond to two short items: “Please briefly describe the emotions that the thought of your own death arouses in you” and “Jot down, as specifically as you can what will happen to you as you physically die and once you are

physically dead.” The dental pain prime asked people to respond to two parallel questions related to dental pain and sitting in the chair waiting for the dentist.

Self and God’s love. Next, to measure participants’ views about God’s love each participant was randomly assigned to read one of the two statements chosen as a result of the pilot testing (i.e., “The message of Christianity is clear: You are worthy (or unworthy) of God’s love”). Next, participants rated how much they agreed with the statement they read by responding to three questions. The first read, “The statement I just read was an accurate reflection of how God views me.” The second read, “I believe that this statement is a valid measure of how God feels about me,” and the third read, “My friends could learn a lot about me by reading this statement.” All questions were Likert scored on a 9-point scale (1 = strongly disagree; 9 = strongly agree). These questions formed a reliable scale ($\alpha = .86$).

Results

To assess whether Christians self-verified or self-enhanced in their relationship with God, I performed multiple regression using mortality salience and message type and mean centered closure and self-esteem as the independent variables with agreement as the dependent variable. I entered all main effects at step 1, followed by all 2-way interactions and then all 3-way interactions, and finally, the 4-way interaction. The results revealed no significant main effect for esteem ($p = .21$), or mortality salience ($p = .93$), but did reveal a main effect for closure, $\beta = .35$, $SE = .17$, $p = .03$, and message type $\beta = .56$, $SE = .21$, $p < .01$. Participants agreed more with the positive message than the negative message. Also, regardless of message, participants high in need for closure agreed more than participants low in need for closure. In contrast, no interaction effects approached significance ($ps > .4$), including the 4-way interaction ($p = .22$).

Split Analyses

Although the 4-way interaction did not approach significance, I examined the hypothesized interaction between closure, self-liking, and mortality salience separately for participants exposed to the positive and negative message.

For participants who read the positive message, there was a significant 3-way interaction between closure, self-esteem and mortality salience, $\beta = -.84$, $SE = .31$, $p < .01$. Testing for simple interactions revealed that for participants high in self-esteem, there was no interaction between need for closure and mortality salience ($p > .3$), whereas for participants that were low in self-esteem, there was a significant closure by mortality salience interaction, $\beta = .41$, $SE = .14$, $p < .01$. Specifically, for low self-esteem

participants, low need for closure related to more agreement (self-enhancement) when death was salient compared to the control topic, $\beta = -4.5$, $SE = 2.4$, $p = .048$. In contrast, low self-esteem participants that were high in need for closure agreed less with the positive message (self-verified) when death was salient than in the control condition, $\beta = 4.4$, $SE = 2.1$, $p = .04$ (see Figure 1).

I next conducted the same analyses with only data from participants that read the unworthy message. Results revealed no interaction effects ($ps > .3$), including no 3-way ($p > .3$), but did reveal a main effect for closure, $\beta = .56$, $SE = .24$, $p < .04$. People high in need for closure agreed more with the unworthy message than people low in need for closure, $\beta = .19$, $SE = .07$, $p < .02$.

Discussion

I started with the question of why some Christians seem drawn to a view of a less loving God (Kirkpatrick, 1998). Consistent with TMT (Greenberg, Solomon & Pyszczynski, 1986), I hypothesized that high self-esteem should buffer mortality concerns, such that people with high self-esteem should not be influenced by the death prime. But drawing on SVT (Swann, 1983), and work merging lay epistemic theory and TMT (Dechesne & Kruglanski, 2002), individuals low in self-esteem (and high in need for closure), should actually endorse epistemic needs over esteem needs. Thus, they should self-verify. Support for these hypotheses was found in response to how much people agreed with the positive message: you are worthy of God's love. In this condition, individuals high in self-esteem, regardless of closure, were not influenced by the death prime. But, people low in self-esteem, but high in need for closure, believed this message less when death was salient (self-verified). And also as predicted, people low in self-esteem and closure agreed more (enhanced) when death was salient.

In terms of religious belief, people low in self-esteem view god as less loving, but also are more drawn to these relationships (Kirkpatrick, 1998). However, over time, they are less likely to remain devout to religion (Kirkpatrick, 1998). This process of wanting a relationship with a less loving God, and then not remaining devout to this relationship could be driven somewhat by existential concerns. Specifically, this study suggests that these concerns motivate these individuals (that are high in need for closure) to view God as less loving. In so far as their self-esteem remains low, just like in human relationships with non-verifying partners (e.g., De la Ronde & Swann, 1998), messages in church about God's unconditional love could actually hurt their chances of remaining devout to

that religion. However, and somewhat ironically, perhaps more negative messages surrounding their worthiness of love (e.g., every human sins and deserves Hell) could perhaps keep them more devoted (just like negative views of spouses can increase intimacy). Although speculative, it is likely that these individuals are drawn to God at a time when they are higher in epistemic needs (e.g., uncertain about life, seeking answers) and this, in conjunction with low-self esteem, could pose a potentially strong threat to remaining religiously devote. This work suggests that this is because existential concerns (which also are likely primed in this context) drive these individuals to seek out low self-esteem affirming messages, which is somewhat inconsistent with the message that God's love is unconditional.

Further, this process could partially explain why a correlation between religiosity and subjective well-being exists (e.g., Myers, 2002). Take two people who are “new” to religion that are low in self-esteem (Bob and Jimmy). If Bob is high in need for closure, he will be existentially driven to verify that negative image, which could cause him to be less devout or even to “quit” religion. Jimmy, however, is low in need for closure, so he will be existentially driven to self-enhance and, because this would likely increase his self-esteem over time, he will become more devout. Thus, in both cases, the link between happiness and religion is maintained. But, the correlational link could be that happy people remain religious, whereas unhappy people try religion and then drop out or become less devout, as opposed to religion increasing happiness or vice versa.

Terror Management and Self-Esteem

Terror management theorists have long championed the need for need for self-esteem in managing death concerns (Greenberg, Pyszczynski & Solomon, 1986).

Research supporting this has found that mortality salience increases self-esteem protection and self-enhancement (Mikulincer & Florian, 1998) and high self-esteem (whether induced or trait) reduces the effects of mortality salience on worldview defense (Harmon-Jones et al., 1997). Consistent with, but building onto, past work, this study found that high self-esteem also can buffer the effects of mortality salience on self-esteem defense. This is interesting because it demonstrates that self-esteem can buffer mortality concerns even when the measured variable is directly related to self-esteem. Moreover, this work demonstrates that high self-esteem also buffers individuals high in epistemic needs, which have typically been associated with more defensiveness (e.g., need for structure, Landau et al., 2006). This suggests that self-esteem is a truly powerful factor in managing death concerns.

However, this work also demonstrates that not all people (even individuals who are not buffered by self-esteem) self-enhance when death is salient. Specifically, for individuals low in self-esteem but high in need for closure, mortality salience actually motivates less agreement with the positive feedback. The finding that individuals would self-verify at the expense of self-esteem protection runs in stark contrast to TMT and certainly merits future research attention.

Terror Management and Epistemic Needs

This research stands in a growing line of research demonstrating the need for closure, structure and coherence in managing death anxiety. Specifically, the finding that individuals high in need for closure, but low in self-esteem, self-verified suggests that the need for closure can trump the need for self-esteem when death is salient. This is consistent with the theorizing of Dechesne and Kruglanski (2004). However, unlike their

work, it was not found that people high in need for closure agreed more with a negative statement about the self when death is salient. Instead, they agreed more with the negative statement regardless of the death prime. This could be because I measured self-esteem in addition to need for closure and they did not. To examine this possibility, I removed esteem from the regression analysis. Again, however, there was no significant effect for mortality salience compared to the control group in the negative message condition ($p > .12$). Thus, it appears that other differences accounted for the discrepancy in our findings.

Implications for Self-Verification

This research is the first to demonstrate that some people might not self-enhance when death is salient. Thus, it adds to the understanding of the antecedents and conditions for self-verification and self-enhancement. However, unlike SVT, which posits verification as a global need that hinges on situational influences, this work demonstrates that individuals' epistemic needs might make them more likely to self-verify. This seems consistent with the notion that people verify for epistemic needs. This is also consistent with overlapping work in self-verification and need for closure work. For instance, participants high in need for closure are more likely to have strong views and perceive these views as important, both of which are related to more verification. Thus, this work at least suggests that individual differences in need for closure are a factor in verification, and in turn, could contribute to better understanding of these processes in the future.

Following Swann, I have suggested that people self-verified in this study in order to serve epistemic needs. But, these needs very much overlap with the other need posited to be served by verification: relationships. Thus, in so far as these two things can be

teased apart, it could be that participants were verifying to serve relationship needs with God. More likely, though, both of these needs were being met by individuals verifying under mortality salience in this study.

Moreover, the urge to verify under mortality salience might be (like verification when death is not salient) increased when the view is important and the view is specific and matches the esteem measure. Because I pre-selected the measures based on matching and specificity, it is possible that this increased verification under mortality salience. Moreover, because there was a correlation between closure and religiosity ($r = .56$), perhaps people verified under mortality salience, just like when mortality is not salient, because of the importance of religion.

Seize and Freeze

Dechesne and Kruglanski (2004) have argued that mortality salience increases need for closure, and in turn, people should cling more to any feedback (or any information) when death is salient. From this perspective, I should have found increased agreement with both positive and negative feedback when death was salient regardless of self-esteem. For instance, Dechesne, Janssen and van Knippenberg (2001) found that participants high in closure agree more with feedback more under mortality salience whether it is positive or negative, that people agree more with both a vignette supporting an afterlife and one not supporting an afterlife and with completely contrary articles about the reality of miracles. These results appear to conflict with my study. However, in this work, these authors presented the feedback to individuals before mortality salience, prompt them to remember it, and then rate their agreement after mortality salience (I presented it only after mortality salience). Thus, in accord with research on need for

closure, people high in need for closure are clinging to whatever is in the environment. If no self-view is primed (like this study), then they rely on their readily available information (self-views). However, if a view is primed prior to the study, then they seize and freeze onto that.

Coda

Much theory and research have explored and demonstrated the power of epistemic needs or self-esteem needs in human motivation and attitudes. This study suggests that both of these interact to influence attitudes. To its credit, the theory of terror management stands practically alone (with self-verification theory) in noting the importance of both these needs. However, TMT has long championed esteem needs over epistemic needs (Greenberg, 2008). The current study suggests, however, that the typical TMT view of self-esteem being most important in managing mortality concerns might be incorrect, at least in certain cases. Specifically, people high in need for closure might be more motivated by epistemic needs than esteem needs, even to the extent of believing they are less worthy of God's love.

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