

From Cradle to Grave: Does Mortality Salience Facilitate a Preference for Our Own Attachment Styles?

Danielle N. Poes, Ryan F. Diak, and Rim M. Woldelessie

University of Minnesota

Mario Casa de Calvo

University of North Texas at Dallas

Abstract

Terror Management Theory (Greenberg, Pyszczynski, & Solomon, 1986) depicts humanity as fundamentally driven by the motivation to escape or transcend mortality concerns. Recent research shows that close relationships serve as anxiety buffers against death-related thoughts (Hirschberger, Florian, & Mikulincer, 2002; Smieja, Kalaska, & Adamczyk, 2006). The current research investigated whether mortality salience prompts individuals to exhibit preferences for those other who share their attachment styles. Participants were assessed on their own attachments styles and were randomly assigned to mortality salience or control conditions. Participants then rated their levels of attraction toward vignettes that exhibited secure, fearful, preoccupied, or dismissive characteristics. Results indicated that participants rated self-matching attachment vignettes significantly more favorably than non-matching vignettes, but only in the mortality salience condition. The current research suggests that attachments style may serve as a component of one's subjective worldview that predicts interpersonal preferences when confronting mortality concerns.

Keywords: terror management theory, attachment style, mortality salience, existential psychology, mate preferences

From birth, we develop a certain bond to our parents through secure, fearful-avoidant, preoccupied, and dismissive attachment styles (Holmes & Johnson, 2009). As we form these attachments, we may carry them with us into adulthood, and these relationship templates may help us to understand how we function within our closest relationships (Smieja et al., 2006). It is human nature to desire close relationships, as they help give life a strong sense of meaning (Carvallo & Gabriel, 2006). Similarly, a sense of meaning and purpose also comes from one's self-esteem and cultural worldview, which happen to be key components of Terror Management Theory (TMT).

Research suggests that attachment styles may be integrally related to TMT. TMT proposes that, as humans, we are distinct from other species in that we possess a unique awareness of our limited lifespan. With this awareness comes a distinct knowledge of our own inevitable death, which may result in an intense fear of our own mortality (Florian & Mikulincer, 1994). TMT may help explain human attachment and our need to associate with others. Having successful relationships and approval from loved ones is a significant source of self-esteem. Self-esteem is a central component of TMT that is utilized to combat humans' fear of death (Florian et al., 1994). Indeed, recent research indicates that having close relationships may serve as a buffer against death anxiety (Hirschberger, Florian, & Mikulincer, 2002).

Correspondence concerning this article should be addressed to Mario Casa de Calvo, Department of Sociology and Psychology, University of North Texas at Dallas, 7300 University Hills Blvd. Dallas, TX 75241. Email: Mario.Casadecalvo@untdallas.edu.

The research examines the relationship between TMT and attachment theory. In order to better understand the nature of the two, each theoretical construct of interest is discussed individually.

Terror Management Theory

TMT (Greenberg, Pyszczynski, & Solomon, 1986; Solomon, Greenberg, & Pyszczynski, 1991) is based on humans' awareness of the inevitability of death, and is thought to be an explanation of the motivational underpinnings of human behavior. According to TMT, our natural instinct for self-preservation, combined with the knowledge of our mortality, creates the potential for existential anxiety and terror. Unlike other living beings, humans possess the cognitive capacity to understand that they are alive and that ultimately they will die (Hirschberger, Florian, Mikulincer, Goldenberg, & Pyszczynski, 2002). To ward off thoughts of death, humans have devised various symbolic defense mechanisms comprising a dual-process model that consists of both proximal and distal defenses (Hirschberger, Florian, Mikulincer, Goldberg, et al., 2002). The proximal defenses attempt to suppress concerns over death by shifting the problem of death into the distant future. The distal defenses include attempts to modify people's perceptions of themselves and of the world in which they live (Smieja et al., 2006).

Two main distal defenses against the anxiety facilitated by awareness of death are cultural worldview and self-esteem. Cultural worldviews are symbolic constructions that give order and meaning to the world, provide standards of value and behavior, and also the promise of transcendence (Simon, Arndt, Greenberg, Pyszczynski, & Solomon, 1998). According to TMT, when a person is confronted with thoughts of death, one is motivated to protect their cultural worldview, to have that worldview be positively validated, and to reject those who hold an opposite view (Florian & Mikulincer, 1994; McGregor et al., 1998). These effects appear only when thinking about death (when mortality salience is present); other traumatic events (e.g., physical pain) do not produce similar reactions (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994).

According to TMT, the second distal defense mechanism against death anxiety is self-esteem, which is achieved when individuals emulate cultural expectations or behave in a culturally-valued way, thereby allowing them to feel that they are exemplars of their culture (Hirschberger et al., 2002). It has been found that experimentally-induced high self-esteem attenuates the need to utilize cultural defenses under mortality salience (MS) conditions, due to its capability to reduce the accessibility of death-related constructs (Harmon-Jones, Greenberg, Solomon, & Simon, 1994). TMT posits that when confronted with MS, individuals are more likely to defend their cultural worldviews. Self-esteem plays a role in this aspect of TMT (Routledge et al., 2010); indeed, adhering to one's worldview may allow individuals the possibility of high self-esteem. By having a cultural standard by which to measure oneself, it is possible for individuals to meet or exceed these standards, thereby resulting in high self-esteem. High self-esteem allows individuals to believe that they will have a long-lasting impact on the world. In turn, these beliefs help soften the impact of being reminded that they will indeed one day die.

Attachment Theory

Holmes and Johnson (2009) define four specific types of attachment styles: Secure, fearful, preoccupied, and dismissive. A secure attachment style is demonstrated when individuals have a positive view of themselves and others that is filled with love, acceptance, and openness. Fearful attachment is defined through both high anxiety and avoidance along with negative views of one's self and others. Even though fearful individuals want close relationships, they often fear rejection and are distant toward others in order to protect themselves. Preoccupied attachment is defined by high anxiety and low avoidance, meaning that these individuals have a negative view of the self and thrive on positive acceptance from others. Individuals with this type of attachment style often feel unworthy of love and have expectations of others becoming distant toward them and rejecting them. Dismissive attachment is defined as low anxiety and high avoidance, resulting in an individual having discomfort with intimacy and closeness within relationships. Even though these individuals have a positive view of the self, they often negatively evaluate others as clingy, needy, and dependent.

When individuals form romantic relationships as adults, their infant attachment styles may influence how they behave toward their romantic partners. A secure attachment in infancy is seen as favorable, and is associated with more stable and higher-quality romantic relationships in adolescence and early adulthood (Scott & Cordova, 2002). A secure attachment style also leads infants to trust and confide in other humans more easily, and this trust is also likely to continue into adulthood. On the contrary, insecure attachment styles have been shown to lead to behavioral and relationship problems in later life, including anger, anxiety, and aggressive tendencies (Scott &

Cordova, 2002). Given the possible influence of early attachment style on relationships developed in adulthood, it may be helpful to view attachment style as a fundamental component of one's worldview.

Despite some differences in emphasis, attachment theories and TMT share some common roots. TMT is based on cultural worldviews and self-esteem and can clarify how people manage death anxiety (via close relationships and social bonds). Death awareness increases the need for attachment, commitment, and intimacy (Cox, 2008). Relatedly, infants are eager to form attachments with others who offer care and protection against existential threats (Scott, 2002). Importantly, infant attachment styles can be carried over into adulthood, romantic relationships, and friendships (Brennan, Clark, & Shaver, 1998). Reminders of death can lead people to initiate interactions with other people, heighten feelings of personal competence, and increase desire for intimacy and commitment in romantic relationships (Cox, 2008).

Current Research

Recent research has shown that close relationships serve as an anxiety buffer when individuals are confronted with death-related thoughts. Furthermore, the variables of cultural worldview, self-esteem, and attachment style may interact in facilitating the buffering effects of close relationships within mortality-salient contexts. Smieja et al. (2006) investigated the interaction of these variables; the results indicated that both participants with low and high self-esteem rated the attractiveness of potential partners similarly. However, participants with secure attachment styles rated potential partners more favorably under mortality salience conditions than did insecure participant. Ultimately, secure attachment style may serve as a buffer against existential terror.

Previous research has not investigated whether mortality salience prompts individuals to exhibit a preference for others who share the same attachment style. We hypothesized that reminders of mortality would activate one's corresponding attachment style (as a component of one's worldview), which would thereby impact their preferences toward others. More specifically, we hypothesized that when primed with mortality salience, individuals would prefer a potential dating partner with the same attachment style.

Method

Participants

The current research solicited 110 undergraduate students from a small, Midwestern university to participate in the study. Participants were solicited from various psychology courses and received some form of course credit for participation. All data were kept confidential, and the names of the participants were not associated with the data in any way.

Procedure and Materials

Given the sensitive nature of the mortality salience manipulation, the researchers took utmost concern in protecting the welfare of the participants by following all standard and typical APA ethical procedures throughout the study. This research also based its mortality salience manipulation around the work of Rosenblatt, Greenberg, Solomon, Pyszczynski, and Lyon (1989), to make certain that this type of mortality salience manipulation had been utilized effectively in previous research. During the consent process, participants were told generally what the study was about (i.e., TMT and attachment style), and were given information about whom to contact if they felt disturbed during or after the study. Participants were also reminded that they could quit the study at any time without penalty. Finally, upon completion of the study, participants were funnel debriefed (e.g., Cheng & Chartrand, 2003) to determine whether any of them were negatively affected by the mortality salience manipulation, and none of the participants indicated any disturbance.

Participants were given a packet containing the consent form and various survey measures. The consent form instructed participants that the study assessed the relationship between attachment theory and TMT. After providing consent, participants were randomly assigned to either a mortality salience (i.e., MS) condition or dental pain (i.e., control) condition. For the MS condition, participants were asked to complete the fear of death scale (Templer et al., 2006; Cronbach's $\alpha = .71$). In the dental pain/control condition, participants completed the same scale with the lone exception that dental pain-related terms replaced the death-related terms (Cronbach's $\alpha = .74$).

The dental pain control condition is commonly used in TMT research (e.g., Arndt, Greenberg, & Cook, 2003) and is designed to show that the effects of the mortality salience manipulation are due to thoughts about death alone rather than thoughts about physical pain in general.

Because there is precedence to include a buffer task after initiating MS (Jonas et al., 2008), participants then completed a self-esteem questionnaire (Rosenberg, 1965; Cronbach's $\alpha = .67$). Following the completion of the self-esteem scale, participants completed two sets of measures that were presented in a counterbalanced order. The first was an adult attachment style measure, which categorized each participant as a particular attachment style based on responses to the measure's four subscales (i.e., secure, Cronbach's $\alpha = .88$; fearful, Cronbach's $\alpha = .73$; preoccupied, Cronbach's $\alpha = .91$, and dismissive, Cronbach's $\alpha = .73$; Brennan, Clark, & Shaver, 1998). The second measure presented four different vignettes of individuals who were explained as potential dating partners. Each vignette included statements that resembled characteristics of the various attachment styles (i.e., secure, Cronbach's $\alpha = .94$; fearful, Cronbach's $\alpha = .88$; preoccupied, Cronbach's $\alpha = .93$, and dismissive, Cronbach's $\alpha = .95$). Participants rated each vignette (i.e., potential dating partner) on how likely they would be to date someone with those corresponding characteristics. Finally, upon completion of the study, participants were funnel debriefed (e.g., Cheng & Chartrand, 2003).

Results

Four 2 (Mortality Salience: MS vs. Control) x 4 (Participant Attachment Style: Secure vs. Fearful vs. Preoccupied vs. Dismissive) ANOVAs were performed on each of the dependent variables (i.e., the four attachment vignettes). The first analysis revealed a main effect of participant attachment style on participants' evaluations of the secure vignette, $F(3, 102) = 11.29, p < .01, \eta_p^2 = .25$ (see Figure 1). Participants with secure attachment styles rated the secure vignette significantly more favorably ($M = 6.20, SD = .56$) than their preoccupied ($M = 5.80, SD = .67$), fearful ($M = 5.31, SD = .97$), and dismissive ($M = 4.67, SD = 1.50$) counterparts (see Table 1 and Figure 1).

Table 1
Main Effect of Participant Attachment Style on Favorability Ratings of Secure Vignette

Participant Attachment Style	<i>M</i>	<i>SD</i>
Secure	6.20	.56
Preoccupied	5.80	.67
Fearful	5.31	.97
Dismissive	4.67	1.50

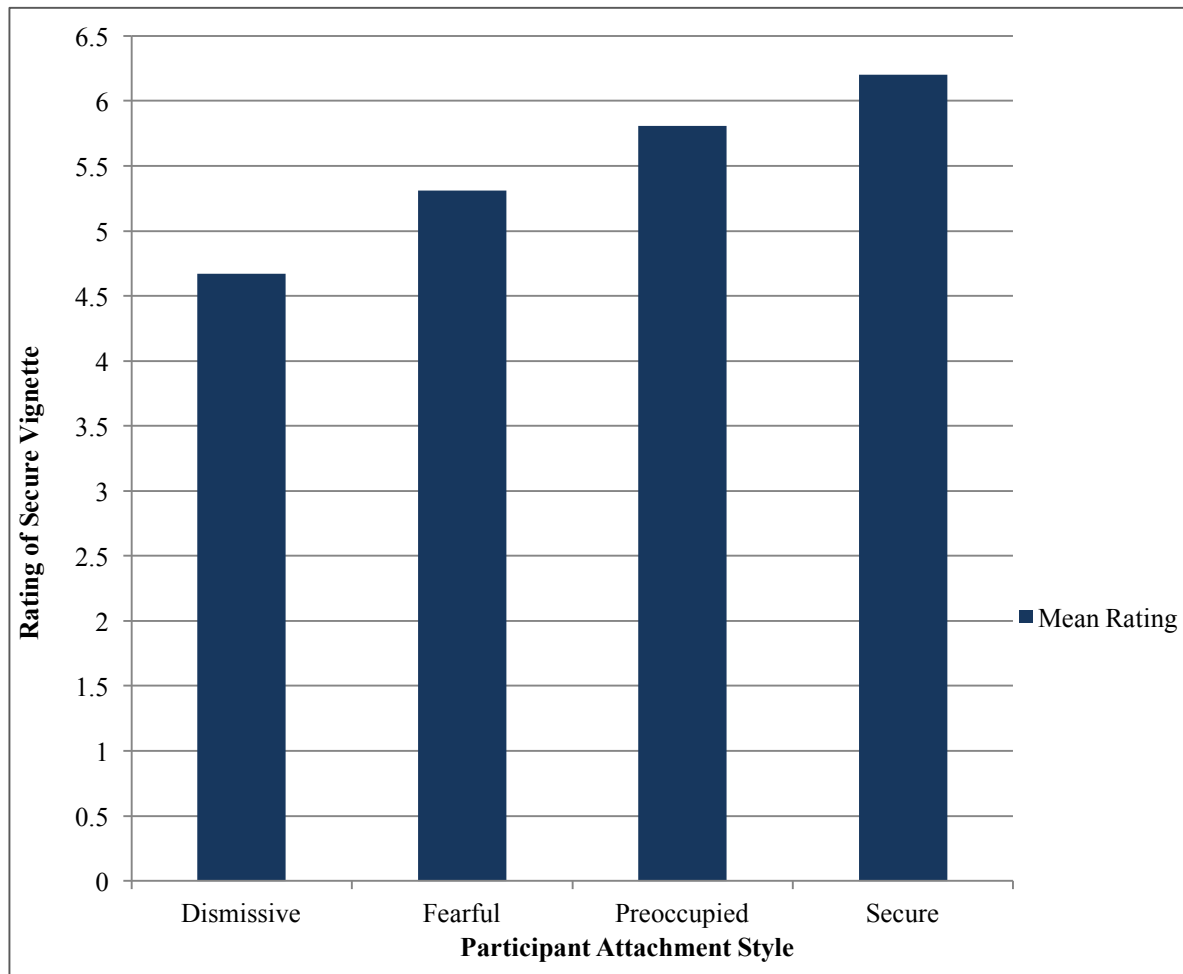


Figure 1. Main effect of participant attachment style on evaluations of the secure vignette, $F(3, 102) = 11.29, p < .01$, partial $\eta^2 = .25$. Participants with secure attachment styles rated secure vignette more favorably ($M = 6.20$) than their preoccupied ($M = 5.80$), fearful ($M = 5.31$), and dismissive ($M = 4.67$) counterparts.

The second analysis on participants' evaluations of the fearful vignette revealed a marginal main effect of mortality salience $F(1, 102) = 3.37, p = .07, \eta_p^2 = .03$, qualified by the predicted interaction, $F(3, 102) = 3.29, p = .02, \eta_p^2 = .09$ (see Table 2 and Figure 2). For participants with fearful attachment styles, those in the mortality salience condition evaluated the fearful vignette significantly more favorably ($M = 4.55, SD = 1.34$) than those in the control condition ($M = 2.39, SD = .65$), $t(102) = 4.50, p < .05, d = 2.05$.

Table 2

Favorability Ratings of Fearful Vignette as a Function of Participant Attachment Style and Mortality Salience Condition

	<u>Dental (Control)</u>	<u>Mortality Salience</u>
Participant Attachment Style	<i>M (SD)</i>	<i>M (SD)</i>
Secure	2.83 (1.30)	2.67 (.78)
Preoccupied	2.77 (1.05)	2.88 (1.48)
Fearful	2.39 (.65)	4.55 (1.34)
Dismissive	3.14 (1.10)	3.11 (2.01)

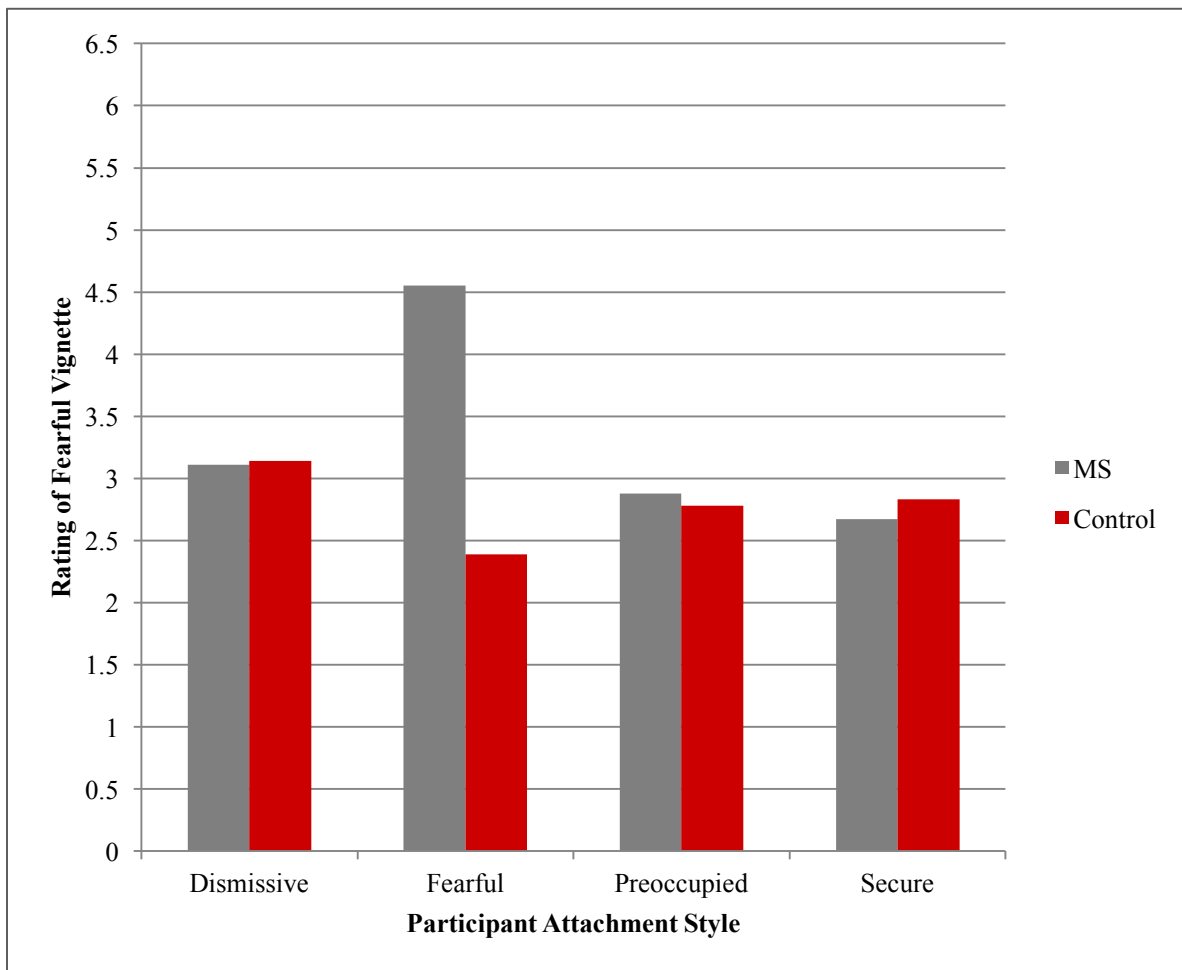


Figure 2. Interaction between mortality salience and participant attachment on ratings of fearful vignette, $F(3, 102) = 3.29, p = .02, \eta_p^2 = .09$. For participants with fearful attachment styles, those in mortality salience condition evaluated fearful vignette more favorably ($M = 4.55$) than those in the control condition ($M = 2.39$), $t(102) = 4.50, p < .05$.

The third analysis on participants' evaluations of the preoccupied vignette revealed main effects of participant attachment style $F(3, 102) = 7.28, p < .01, \eta_p^2 = .18$, and mortality salience $F(1, 102) = 6.38, p = .01, \eta_p^2 = .06$, qualified by the predicted interaction, $F(3, 102) = 4.61, p < .01, \eta_p^2 = .12$ (see Table 3 and Figure 3). For participants with preoccupied attachment styles, those in the mortality salience condition evaluated the preoccupied vignette significantly more favorably ($M = 4.88, SD = 1.11$) than those in the control condition ($M = 2.97, SD = 1.12$), $t(102) = 5.84, p < .05, d = 1.71$.

Table 3
Favorability Ratings of Preoccupied Vignette as a Function of Participant Attachment Style and Mortality Salience Condition

	<u>Dental (Control)</u>	<u>Mortality Salience</u>
Participant Attachment Style	<i>M (SD)</i>	<i>M (SD)</i>
Secure	3.47 (1.23)	4.39 (1.09)
Preoccupied	2.97 (1.12)	4.88 (1.11)
Fearful	4.50 (.75)	3.91 (1.76)
Dismissive	2.10 (1.03)	2.56 (1.31)

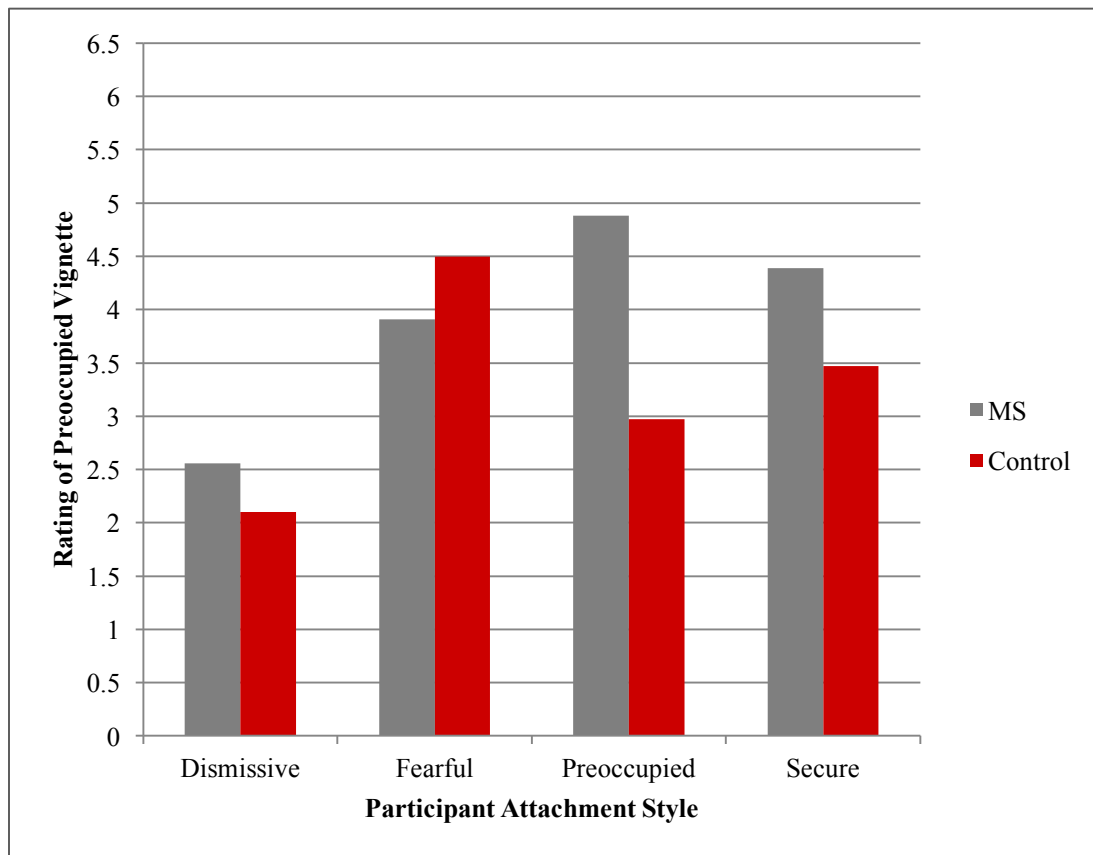


Figure 3. Interaction between mortality salience and participant attachment on preoccupied vignette, $F(3, 102) = 4.61, p < .01, \eta_p^2 = .12$. For participants with preoccupied attachment styles, those in mortality salience condition evaluated preoccupied vignette ($M = 4.88$) more favorably than those in the control condition ($M = 2.97$), $t(102) = 5.84, p < .05$.

The final analysis on participants' evaluations of the dismissive vignette revealed main effects of participant attachment style $F(3, 102) = 4.80, p = .004, \eta_p^2 = .12$, and mortality salience $F(1, 102) = 49.31, p < .01, \eta_p^2 = .33$, qualified by the predicted interaction, $F(3, 102) = 4.18, p = .008$, partial $\eta^2 = .11$ (see Table 4 and Figure 4). For participants with dismissive attachment styles, those in the mortality salience condition evaluated the dismissive vignette significantly more favorably ($M = 6.00, SD = 1.35$) than those in the control condition ($M = 2.38, SD = .36$), $t(102) = 6.46, p < .05, d = 3.66$.

Table 4
Favorability Ratings of Dismissive Vignette as a Function of Participant Attachment Style and Mortality Salience Condition

	<u>Dental (Control)</u>	<u>Mortality Salience</u>
Participant Attachment Style	<i>M (SD)</i>	<i>M (SD)</i>
Secure	2.53 (.65)	3.61 (1.29)
Preoccupied	2.21 (.75)	3.42 (1.62)
Fearful	2.61 (.44)	3.94 (1.68)
Dismissive	2.38 (.36)	6.00 (1.35)

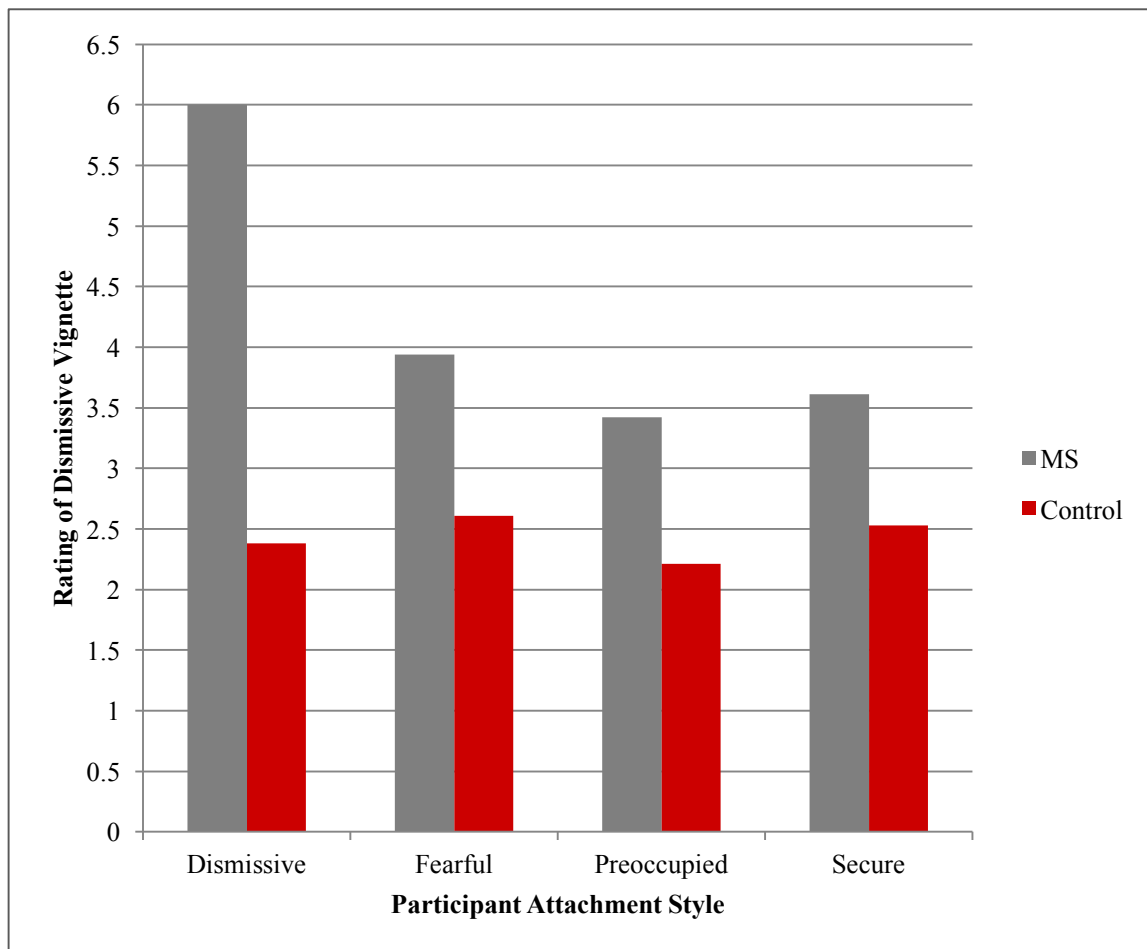


Figure 4. Interaction between mortality salience and participant attachment on ratings of dismissive vignette, $F(3, 102) = 4.18, p = .008, \eta_p^2 = .11$. For participants with dismissive attachment styles, those in mortality salience condition evaluated fearful vignette more favorably ($M = 6.00$) than those in the control condition ($M = 2.38$), $t(102) = 6.46, p < .05$.

Discussion

The goal of the current research was to examine how the interaction of mortality salience and attachment style may ultimately affect our interpersonal preferences. Overall, the effect of participants' attachment styles on participants' ratings of hypothetical dating vignettes depended upon mortality salience condition (i.e., MS vs. control). Participants with dismissive, fearful, or preoccupied attachment styles rated their own respective attachment vignettes more favorably than their dissimilar attachment counterparts, but only in the mortality salience condition. Consistent with TMT, these results suggest that when reminded of death, individuals will cling to their own worldviews and beliefs. Importantly, these results also suggest that individual attachment style is a fundamental component of one's worldview.

Limitations of this study include the possibility that the relationship statuses of our participants may have somehow affected their responses. Relationship status was not measured, so we do not know of its impact (if any) on the data. Another limitation is that we do not know whether individuals would actually show preferential *behaviors* toward others who share their own attachment styles under conditions that prompt death awareness, or if these results are a product of survey methodology. Finally, data were collected at the end of the semester, and we do not know how the potentially diminished motivations and engagement levels of our participants affected their responses.

Future research could replicate our results in different cultures and contexts to determine if the relationship between attachment style and mortality salience exists in the same manner as in the current sample. Furthermore, it would be interesting to determine whether various other conditions (e.g., rating a potential individual with whom to perform a task; rating a teammate, classmate, friend, or potential employee) would exhibit the same preference for similarity when primed with awareness of death. Additional future research may include the creation of a longitudinal study that assesses whether mortality awareness-inducing events (e.g., near death experiences, death of a loved one) interact with individuals' attachment styles to produce changes in relationship choice or satisfaction. Finally, it may also be beneficial to conduct a study examining whether participants would be willing to die for dating partners with similar attachment styles when primed with mortality salience. Would participants cling to their partners in an ultimate test of worldview similarity?

References

- Arndt, J., Greenberg, J., & Cook, A. (2003). Mortality salience and the spreading activation of worldview-relevant constructs: Exploring the cognitive architecture of terror management. *Journal of Experimental Psychology*, *131*(3), 307-324. doi:10.1037//0096-3445.131.3.307
- Brennan, K., Clark, C., & Shaver, P. (1998). Self-report measurement of adult attachment: An integrative overview. In I. A. Simpson, & W. S. Rholes (Eds.), *Attachment Theory and Close Relationships* (pp. 46-76). New York: Guilford Press.
- Carvallo, M., & Gabriel, S. (2006). No man is an island: The need to belong and dismissing avoidant attachment style. *Personality and Social Psychology Bulletin*, *32*(5), 697-709. doi:10.1177/0146167205285451
- Cheng, C. M., & Chartrand, T. L. (2003). Self-monitoring without awareness: Using mimicry as a nonconscious affiliation strategy. *Journal of Personality and Social Psychology*, *85*(6), 1170-1179. doi:10.1037/0022-3514.85.6.1170
- Cox, C. R. (2008). Terror management and adults' attachment to their parents: The safehaven remains. *Journal of Personality and Social Psychology*, *94*(4), 696-717. doi:10.1037/0022-3514.94.4.696
- Florian, V., & Mikulciner, M. (1994). Fear of personal death and the judgment of social transgressions: An expansion of terror management theory. Unpublished manuscript, Bar-Ilan University, Ramat Gan, Israel.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public Self and Private Self* (pp. 189-212). New York: Springer-Verlag.
- Greenberg, J., Pyszczynski, T., Solomon, S., Simon, L., & Breus, M. (1994). The role of consciousness and the specificity to death of mortality salience effects. *Journal of Personality and Social Psychology*, *67*, 627-637. doi:10.1037/0022-3514.67.4.627
- Harmon-Jones E., Greenberg, J., Solomon, S., & Simon, L. (1994). The effects of mortality salience on intergroup discrimination in the minimal group paradigm. Unpublished manuscript, University of Arizona, Tucson.

- Hirschberger, G., Florian, V., & Mikulincer, M. (2002). The anxiety buffering function of close relationships: Mortality salience effects on the readiness to compromise mate selection standards. *European Journal of Social Psychology, 32*, 609-625. doi:10.1002/ejsp.110
- Hirschberger, G., Florian, V., Mikulincer, M., Goldenberg, J., & Pyszczynski, T. (2002). Gender differences in the willingness to engage in risky behavior: A terror management perspective. *Death Studies, 26*(2), 117-141. doi:10.1080/074811802753455244
- Holmes M. B., & Johnson R. K. (2009). Adult attachment and romantic partner preference: A review. *Journal of Social and Personal Relationships, 26*(6) 833-852. doi:10.1177/0265407509345653
- Jonas, E., Martens, A., Kayser, D. N., Fritsche, I., Sullivan, D., & Greenberg, J. (2008). Focus theory of normative conduct and terror-management theory: The interactive impact of mortality salience and norm salience on social judgment. *Journal of Personality and Social Psychology, 95*(6), 1239-1248. doi:10.1037/a0013593
- McGregor, H. A., Lieberman, J. D., Greenberg, J., Solomon, S., Arndt, J., Simon, L., & Pyszczynski, T. (1998). Terror management and aggression: Evidence that mortality salience motivates aggression against worldview-threatening others. *Journal of Personality and Social Psychology, 74*(3), 590-605. doi:10.1037/0022-3514.74.3.590
- Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton, NJ: Princeton University Press.
- Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory I: The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology, 57*(4), 681-690. doi:10.1037/0022-3514.57.4.681
- Routledge, C., Ostafin, B., Juhl, J., Sedikides, C., Cathey, C., & Liao, J. (2010). Adjusting to death: the effects of mortality salience and self-esteem on psychological well-being, growth motivation, and maladaptive behavior. *Journal of Personality and Social Psychology, 99*(6), 897-907. doi:10.1037/a0021431
- Scott, R. L., & Cordova, J. V. (2002). The influence of adult attachment styles on the association between marital adjustment and depressive symptoms. *Journal of Family Psychology, 16*(2), 199-208. doi:10.1037/0893-3200.16.2.199
- Simon, L., Arndt, J., Greenberg, J., Solomon, S., & Pyszczynski, T. (1998). Terror management and meaning: Evidence that the opportunity to defend the worldview in response to mortality salience increases the meaningfulness of life in the mildly depressed. *Journal of Personality, 66*, 359-382.
- Smieja, M., Kalaska, M., & Adamczyk, M. (2006). Scared to death or scared to love? Terror management theory and close relationships seeking. *European Journal of Social Psychology, 36*, 279-296. doi:10.1002/ejsp.301
- Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). A terror management theory of social behavior: The psychological functions of self-esteem and cultural worldviews. *Advances in Experimental Social Psychology, 24*(93), 159.
- Templer, D. I., Awadalla, A., Al-Fayez, G., Frazee, J., Bassman, L., & Connelly, H. J. (2006). *Construction of a Death Anxiety Scale-Extended*. US: Baywood Publishing. doi:10.2190/BQFP-9ULN-NULY-4JDR