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ASPECTS OF LOVE: THE EFFECT OF MORTALITY SALIENCE AND ATTACHMENT STYLE ON ROMANTIC BELIEFS

REBECCA SMITH

EMMA MASSEY

University of Greenwich

ABSTRACT

Two studies are reported which explore romance as a means of terror management for participants with secure and insecure attachment styles. Mikulincer and Florian (2000) have shown that while mortality salience increases the desire for intimacy in securely attached individuals, the insecurely attached use cultural world views rather than close relationships to cope with fear of death. Study 1 used the romantic belief scale to compare the effects of attachment style and mortality salience on the cultural aspects of close relationships and showed that the only the insecurely attached were more romantic following mortality salience. Study 2 replicated this effect and demonstrated that this difference was not simply due to lower self-esteem in the insecurely attached. The additional inclusion of the Relationship assessment questionnaire failed to provide any evidence that the securely attached were affected by the mortality salience manipulation, even on a more interpersonal measure.

INTRODUCTION

This article investigates the role of love, and more specifically romantic beliefs, as a means of terror management. Established in the late 1980s Terror Management Theory has gained support and become an increasingly popular

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http://baywood.com

perspective within social psychology (Greenberg, Pyszczynski, & Solomom, 1986). The key idea is that fear of death motivates much of our behavior and that cultural world views and self-esteem serve to reduce this existential anxiety. More recently, researchers (most notably Florian and Mikulincer) have argued that close relationships are crucial to this process, subject to individual difference in attachment style. First let us set the scene by discussing TMT in its original form.

Greenberg, Solomon, and Pyszczynski (1986, 1997) developed TMT as a psychological theory but were heavily influenced by the earlier writings of Ernest Becker, a cultural anthropologist and philosopher. He put forward the idea that fear of death is central to the human condition and that in order to cope with it we have developed cultural world views (which include religion and other ideologies) as a means to attain a sense of immortality. Greenberg et al. adapted and developed these ideas to formulate a testable psychological theory.

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1986

According to TMT, as well as evolving survival instincts, humans also inherited the poisoned chalice of consciousness. While this self awareness provides the foundation for various intellectual capabilities, it also means that we know we will someday die. This knowledge has the potential to fill us with "paralyzing terror" unless it is successfully managed. To do this we have developed an anxiety buffer which consists of two components. The first is a belief in a cultural world view (CWV) which gives life a sense of meaning and the comfort of being a part of something which will outlast ones physical existence. The second component is self-esteem. According to TMT self-esteem is derived from the feeling that one is living up to the standards and values of one's CWV and thus on the path toward immortality. Religion provides a good example since it offers the chance of literal immortality in the form of an afterlife. For a Christian, living up to the teachings of the church and the bible will lead to high self-esteem and a place in heaven. Christians who feel they are failing to live in accordance with these values will have low self-esteem since their prospects do not look so good.

This leads to the two key predictions central to TMT. The first is known as the morality salience hypothesis which states that reminders of mortality will increase the need to defend and validate the CWV. In hundreds of experiments, death primes have consistently resulted in participants behaving favorably to those who share their own CWV but negatively toward those who challenge them or hold different CWVs (see Pyzczynski, Solomon, & Greenberg, 2003, for a detailed review). Mortality salience increases the harshness of punishment recommended for those who break the law, but increases the rewards suggested for those who help to uphold it (Rosenblatt, Greenberg, Solomon, Pyszczynski & Lyon, 1989). Mortality salience also increases ingroup favoritism, (Greenberg, Pyzczynski, Solomon, Rosenblatt, Veeder, Kirkland, et al., 1990) paired with increased national identification (Castano Yzerbyt, Paladino, & Sacchi, 2002), increases the use of stereotypes (Schimel, Simon, Greenberg, Pyzczynski, Solomon, Waxmonsky, et al., 1999), increases aggression toward those who criticize one's country (Lieberman, Solomon, Greenberg, & McGregor, 1999)

and increases reluctance to violate cultural icons (Greenberg, Simon, Porteus, Pyzczynski, & Solomon, 1995). Conversely, threats to ones CWV increase the accessibility of death related thoughts (Schimel, Hayes, Williams, & Jahrig, 2007).

The second TMT prediction centers around the self-esteem component of the anxiety buffer, and holds that high self-esteem will reduce the need for world view defensiveness following mortality salience since these people are successful terror managers. This has been supported in studies that boost self-esteem (Greenberg, Pyzczynski, Solomon, Pinel, Simon, & Jordon, 1993) as well as those that compare those who have naturally high or low self-esteem (Simon, Harmon-Jones, Solomon, & Pyszczynski, 1996).

QA: need ref. The effects of mortality salience on depressed and non-depressed individuals to those who violate or uphold cultural values. PERSONALITY AND SOCIAL PSYCHOLOGY BULLETIN, 22, 81-90

More recently, another strand of research has been developed by Mikulincer and Florian (2000) who claim that close relationships also play a role in the management of mortality concerns. They argue that close relationships are distinct from CWVs as a terror management mechanism and, moreover, that they are the primary means for dealing with fear of death. They point out that close relationships perform a range of functions that provide a means for prolonging life as well as attaining symbolic mortality. Close relationships can provide the basis for reproduction, offer safety and support for self and offspring, and provide comfort via attachment mechanisms. Additionally, they are universally endorsed by different cultures, boost self-esteem, and leave people to remember us when we are gone (Mikulincer, Florian, & Hirschberger (2004).

In support of this position there is considerable evidence that mortality salience increases our tendency to seek out others and to deepen existing relationships. Mikulincer and Florian (2000, Study 5), found that participants in conditions of mortality salience exhibited a greater desire for intimacy in their romantic relationships than those in conditions of control. Death reminders also appears to draw people toward one another at a more basic level; Wisman and Koole (2001) found that when given the choice of isolated or clustered seating, participants who had been exposed to mortality salience were more inclined to chose the latter than control participants. Similarly, Taubman-Ben-Ari, Findler, and Mikulincer (2002) showed willingness to initiate social interaction and appreciation of interpersonal skills both increased following MS while rejection sensitivity decreased, suggesting the first steps to building a relationship are facilitated by death primes.

QA: need ref. X Date should be 2003

It should be noted that these studies compare participants asked to contemplate mortality with those asked to think about a neutral topic such as watching TV. Critics of early Terror Management studies have argued that such a comparison could just show the effects of aversive versus non-aversive stimuli or an increase in anxiety. These criticisms were answered by researchers and have shown that on a number of occasions mortality effects are not mediated by anxiety nor are they equivalent to other aversive topics (Greenberg, Simon, Harmon Jones, Solomon, Pyszczynski, & ~~Lyon~~, 1995), however, experiments now tend to use an aversive control topic (such as dental pain).

QA: need ref.

Greenberg, J. Simon, L. Harman-Jones, E, Solomon, S. Pyszczynski, T and Chatel, D. (1995) Testing alternative explanations for mortality effects: Terror management, value accessibility or worrisome thoughts? EUROPEAN JOURNAL OF SOCIAL PSYCHOLOGY, 12, 417-433

Florian, Mikulincer, and Hirschberger (2002) acknowledge this issue, pointing out that seeking closeness to others following a threat has already been shown to be a robust effect. However, they go on to demonstrate that MS increases commitment to a partner whereas other aversive stimuli, such as experiencing physical pain, do not. Moreover, in this experiment a neutral stimulus (watching TV) condition was also included and participants in this group failed to act any differently to the participants presented with the aversive control subject.

Florian, Mikulincer, and Hirschberger (2002) provided further convincing evidence for the anxiety buffering role of relationships by demonstrating that if relationship commitment was made salient following MS, the usual negative reaction to social transgressors was eradicated. This implies that they can override the need to defend a cultural world view. A final study showed that by making thoughts of problems within a relationship salient increased participants' death thought accessibility, again suggesting close relationships are central to the terror management process.

But not all of us are lucky in love, nor equally well equipped to deal with it. Mikulincer, Florian, and Hirschberger (2003) have pointed out that attachment style has a lasting effect on our abilities to form healthy relationships in later life. They have shown that while the securely attached are more inclined to use close relationships than those scoring high on dimensions of insecure attachment, who are more inclined to react to mortality salience with world view defense. Additionally, Taubman-Ben-Ari et al. (~~2005~~) found that it was primarily the securely attached (those scoring low on insecure anxious and insecure avoidant dimensions) who became more social following MS.

QA: need ref. X incorrect date should be 2002 (in ref list).

That the role of close relationships and CWV is differentially impacted by attachment style does seem to suggest that the two represent separate means of terror management; however, we must consider this critically. Could it be that love is simply a part of our CWV and this is enough to explain its role in the equation? After all, as Pyszczynski points out, attachment forms the basis for socialization which ultimately leads to the development of our understanding of our culture and is therefore implicated in CWV as well as relationship development. Hart, Shaver, and Goldenberg (2005) have gone as far as suggesting attachment is a component additional to CWV and self-esteem within the anxiety buffer mechanism. They have shown that attachment threat produces similar effects to mortality salience in that it increases worldview defense and that threats to self-esteem and CWV effect attachment seeking. It becomes clear that close relationships and attachment are implicated in terror management, but whether this is as part of a CWV or in addition to it remains an issue of contention.

Mikulincer et al. (2003) address the interrelated nature of love and culture and stress they do not argue that the two are not mutually exclusive mechanisms. They do argue that they are distinct though, pointing out that people chose to be close to others who have different values to themselves rather than remaining alone with their values unchallenged when mortality is made salient (Wisman &

Koole, 2003). Also, MS increases the closeness but not the morality component of relationship commitment (Florian et al., 2002), suggesting it is not simply love as a cultural world view that responds to death primes.

There does seem to be persuasive evidence from Mikulincer et al. that there is something special about relationships as a means of terror management; however, all of their researchers focuses on the interpersonal aspects of love, while their justification of the importance of close relationships also include their more cultural function, such as avoiding the stigma of being alone and conforming to the norm of family life. For this reason, we propose to examine the reactions to mortality salience on a more ideological measure: romantic beliefs. Cunningham and Antill (1981) argue that romantic ideology is distinct from the subjective affection we may feel for a specific person. Once we move away from the specifics of particular relationships we may be able to discover more about how mortality salience effects the insecurely attached. If the insecurely attached only use cultural but not interpersonal methods of coping with mortality then their reaction to the cultural ideology of close relationships becomes a key issue in establishing how these aspects of love fit together.

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Love and romance are notoriously difficult to define and most would agree there are different types of love and different types of relationships; however, there has been a considerable amount of research on romanticism and certain themes seem to occur. The ancient Greeks identified a number of different types of love, such as agape (selfless unconditional love), eros (passionate love), ludos (sexual or romantic game playing), philia (friendly or brotherly love) and mania (obsessive, possessive love). In current Western culture, Eros and Agape are most strongly associated with our romantic ideology (Sprecher & Metts, 1989). More specifically, Sprecher and Metts (1989) identify the following beliefs as central to a romantic ideology: the belief in love at first sight; the belief that there is one true love; the belief that that person is ideal, that love can conquer all; and the belief that one should follow love above all else.

STUDY 1

Method

Design

A 2 × 2 between subjects design was used to compare participants with an insecure attachment style to those who were securely attached under conditions of mortality salience or control on Sprecher and Metts (1989) Romantic belief scale.

Participants

A mixed gender sample of 92 participants was recruited from the undergraduate psychology program at the University of Greenwich: 48 were allocated

to the mortality salience condition and 44 to the control. Participants received participation points for taking part which they could then offer as an incentive in their own research. Fifty-six participants identified themselves as securely attached, and 36 felt that one of the two insecure attachment styles best summed them up.

Materials

Participants were required to complete the standard MS manipulation, whereby they are asked to write about how they feel and what physically happens to them when they die or, in the case of controls, when they experience dental pain.

Participants were categorized as securely or insecurely attached using Hazan and Shaver's original (1987) self-report measure of adult attachment which simply requires them to pick from three descriptions the one that best describes the way they relate to others. This simple scale identifies approximately the same spread of securely attached (56%), avoidant insecurely attached (25%), and anxious/ambivalent insecurely attached (19%) in college students and samples drawn from the general population via responses to a newspaper advertisement. Very similar distributions were also reported by Freeney and Noller (1990) and Pistole and Clarke (1995).

The Romantic belief scale, developed by Sprecher and Metts (1989), was selected to measure the participants' endorsement of a romantic ideology. The scale is made up of four subscales that measure beliefs concerning idealization, the path of love, soul mates, and love at first sight. Sprecher and Metts found that scale related to the others and gave a Cronbach alpha of 0.81, which did not improve if any of the scales were dropped from analysis. It was therefore decided to use a simple overall romantic belief score in this study. The romantic belief scale has been shown to correlate with both Spaulding's Romantic love complex scale (1970) and Weisss, Slosnerick, Cate, and Sollie's (1986) sex, love, and marriage scale. Additionally, the scale developed by Sprecher and Metts did not include particularly intrusive questions and did not address the issue of marriage and so was a particularly appropriate means of assessing participants views on love as an idea rather than the specifics of a relationship.

Procedure

Participants were recruited via e-mail and completed their questionnaires online using 2Ask. Participants were made aware that this website did not keep track of their e-mail addresses and so their responses were anonymous. Participants' first task was the mortality manipulation where they were required to write their thoughts about their own death or about the experience of dental pain. They were then asked to complete some arithmetic problems which were included

Hazan, C. and Shaver, P. 1987

QA: need ref. Romantic Love conceptualized as an attachment process. JOURNAL of PERSONALITY and SOCIAL PSYCHOLOGY 53 (2) 511-524

QA: need refs.

Freeny, J.A. and Noller, P (1990) Attachment Style as a predictor of adult romantic relationships. JOURNAL of PERSONALITY and SOCIAL PSYCHOLOGY 58 (2) 281-291

Pistole, MC, Clarke, EM and Tubbs, A. L. (1995) Love relationships: Attachment style and the investment model JOURNAL of MENTAL HEALTH COUSELING 17, 194-209

as a delay task, since the effects of mortality salience are best observed after a short break (Arndt, Cook, & Routledge, 2004; Arndt, Greenberg, Solomon, Pyszczynski, & Simon, 1997). Following that, participants were presented with Hazan and Shaver's three descriptions relating to secure attachment style, insecure anxious, and insecure ambivalent styles, and were simply asked to select which they felt best described them. At this point, both subtypes of insecure attachment style were grouped together. Finally, participants completed the romantic belief scale and were debriefed and thanked for their participation.

Ethical Considerations

The methods used in the following studies were given ethical approval by the university research ethics committee. A number of steps were taken to minimize any potential upset that participating in the study might cause, particularly since death is a sensitive issue but cannot be addressed directly in a consent form since that could constitute mortality salience. Instead, participants were told of the basic procedure and advised that if they had recently undergone a significant emotional event, they may not wish to take part since some items were of a sensitive nature. Participants responses were anonymous and they were instructed that they were free to withdraw from the study at any time up to the analysis of the data (which left them 3 weeks after participation to withdraw). Participants were fully debriefed and suitable support contacts were provided in case the study raised issues for any of the participants.

Results

There was no main effect for attachment style, $F(1, 88) = 0.06$, $p > 0.05$, but a main effect was found for Mortality Salience, $F(1, 88) = 3.95$, $p = 0.05$ (partial eta squared = .043), in which the participants under conditions of mortality salience scored more highly on the romantic belief scale. This effect was qualified by a significant interaction with attachment style, $F(1, 88) = 5.51$, $p = 0.022$ (partial eta squared = .058), which revealed that in conditions of control the insecurely attached are less romantic than the securely attached, but when presented with a death prime, their endorsement of romantic ideology is higher. Analysis of the simple effects showed that there was no difference between the mortality and control conditions for the securely attached participants, $t(54) = 0.26$, $p > 0.05$, but mortality salience had a significant effect on the insecurely attached, $t(34) = 2.91$, $p = 0.01$. Similarly, when we compare the two attachment styles following a death prime, the insecurely attached are significantly more romantic, $t(46) = 2.39$, $p = 0.02$. Yet in control conditions the difference between them was not significant, $t(42) = 1.01$, $p > 0.05$. (See Table 1.)

Table 1. Mean (and Standard Deviation) Score on the Romantic Belief for Participants with Secure and Insecure Attachment Under Conditions of MS or Control

	Participants with secure attachment style	Participants with insecure attachment style
Control	65.24 (13.58)	61.05 (13.57)
Mortality Salience	64.32 (12.46)	72.71 (9.95)

DISCUSSION

The results of this first study are not quite what were expected. On the face of things, using a more ideological measure of love has allowed the insecurely attached to use it as a means of managing their mortality concerns. However, the securely attached participants failed to react at all to the death prime manipulation. This would suggest that romance can be divided into interpersonal and cultural components, the former appealing to the securely attached (as demonstrated by Mikulincer et al., 2003), and the latter to the insecurely attached, as evidenced here. To further explore this apparent dichotomy, Study 2 will be expanded to use a more interpersonal measure of romance as well as the romantic belief scale. The findings could simply indicate that insecurely attached are more sensitive to MS, which may in turn parallel TMT's original postulation that those with low self-esteem are more susceptible to MS. Shaver et al. have shown that the insecurely attached are typically lower in self-esteem than the securely attached, and so it is necessary to check whether the MS effects reported here are due to self-esteem or attachment style. Taubman-Ben-Ari et al. (2005) have previously shown that the MS and attachment style interaction are not mediated by either personal or global self-esteem, and so we can be confident that the interaction reported here will also remain even when self-esteem is accounted for.

QA: need refs.

A final area to consider for improvement in Study 2 concerns the details obtained about the participants, specifically their relationship status and should they be insecurely attached, whether they are avoidant or anxious-ambivalent. There is evidence to suggest that the two subtypes of insecure attachment react differently under conditions of MS (Mikulincer & Florian, 2000). Additionally, it has been documented that the insecurely attached are more likely to be single, thus our effects could simply indicate romantic longing or even hopefulness in those without a partner.

In summary, the aim of Study 2 is to further explore the interaction between attachment style and love by measuring both ideological and the more interpersonal dimensions of close relationships. The study will also explore the role of self-esteem and relationship status in this context.

incorrect ref should be Hunt Singer, E.T. and Luecken L.J. (2004) Attachment relationships and health behaviour: the mediational role of self-esteem. PSYCHOLOGY + HEALTH 19(4) 515-526

incorrect date, should be (2002). (ref list correct).

STUDY 2

Method

Design and Participants

Originally a 3 × 2 between subjects design was planned comparing participants with each of the attachment styles; however, only six participants identified with the insecure anxious-ambivalent category, and so this condition was dropped. Participants with secure attachment styles (N = 62) were compared with those with insecure-ambivalent attachment style (N =27) under conditions of control or MS. As well as completing the Romantic belief scale, participants were also required to answer the Relationship assessment questionnaire (Snell & Finney, 1993). Once again, participants were recruited from the undergraduate psychology program and awarded research tokens for taking part.

Materials

As in Study 1, the questionnaire contained Hazan and Shavers Adult attachment measure, the MS writing task, and the Romantic Belief Scale.

Study 2 additionally contained the relationship assessment questionnaire (Snell & Finney, 1993) and Rosenberg's (1965) self-esteem scale.

The relationship assessment questionnaire consists of three subscales: relational preoccupation, relational esteem, and relational depression. Snell and Finney found high reliability for each of the three subscales, with Cronbach's alpha of 0.86, 0.86, and 0.90, respectively.

Procedure

The same basic procedure for Study 1 was followed in Study 2 with the addition of the self-esteem and relationship assessment scales. Participants were recruited via university e-mails and completed the questionnaire online using 2Ask. Following consent and procedural information, participants were presented with Rosenberg's self-esteem scale which they completed before choosing which of Hazan and Shaver's three categories of adult attachment best described them. They were then presented with the writing task which required them to write about either their own death or dental pain. Once again they were asked to do some arithmetic problems as a delay task before completing the romantic belief scale and the relationship assessment questionnaire, the order of which was counterbalanced. Finally, participants were thanked and debriefed.

Results

Romantic Beliefs

As suspected, self-esteem was significantly lower in the insecurely attached, $t(87) = 5.17$, $p < 0.01$; however, when self-esteem was entered as a covariate the interaction between mortality salience and attachment style remained significant, $F(1, 84) = 4.01$, $p = 0.048$ (partial eta squared = .046). Further exploration of this interaction revealed that it differed in comparison to Study 1. This time the only simple effect was in the control condition where the securely attached were significantly higher in romantic beliefs than the insecurely attached, $t(41) = 2.04$, $p = 0.048$; however, MS raised the insecurely attached scores to the point that they no longer differed from their securely attached counterparts, $t(44) = 0.90$, $p > 0.05$. When we consider the securely attached in isolation, no significant difference was apparent between the MS and control condition, $t(60) = 1.53$, $p > 0.05$, and this time there was no significant difference for insecurely attached participants either, $t(25) = 1.3$, $p > 0.05$.

There were no significant main effects for either attachment, $F(1, 84) = 0.7$, $p > 0.05$, or MS, $F(1, 84) = 0.17$, $p > 0.05$. (See Table 2.)

Participants' Relationship Status

Additional analysis explored the relationship status of participants (single or in a relationship) which showed that the securely attached were more likely to be part of a couple than the insecurely attached (chi-squared = 10.45, $p < 0.01$). Forty-seven of the securely attached participants were part of a couple and 12 were single, whereas 14 of the insecurely attached were single and just 11 part of a couple (those who chose not to disclose their relationship status were discounted from the analysis). It was therefore important to check that the effects of attachment style on romantic beliefs were not simply a reflection of status; however, ANOVA revealed that romantic status had no effect on romantic belief, $F(1, 84) = .002$, $p > 0.05$, nor did it significantly interact with MS to produce an effect on this measure, $F(1, 84) = 1.25$, $p > 0.05$.

Table 2. Mean (and Standard Deviation) Score on the Romantic Belief for Participants with Secure and Insecure Attachment Under Conditions of MS or Control

	Participants with secure attachment style	Participants with insecure attachment style
Control	31.32 (7.53)	27.00 (6.70)
Mortality Salience	27.90 (7.99)	31.40 (8.85)

QA: Same title as Table 1?

Yes please

Relationship Assessment Questionnaire

The additional relationship assessment questionnaire was included to explore the more interpersonal side of close relationships as opposed to the more ideological romantic belief scale. This new measure is made up of three subscales; relationship preoccupation, relationship esteem, and relationship depression—each will be considered in turn. (See Table 3.)

Analysis of relationship preoccupation showed that it was affected in the same way as relationship beliefs. A significant interaction was found between attachment style and MS where preoccupation rose when mortality was made salient for the insecurely attached but dipped for the ordinarily higher scoring securely attached participants, $F(1, 85) = 4.69$, $p = 0.03$. Thus, we still have no evidence that securely attached participants use close relationships as a means of terror management but the insecurely attached do.

Analysis of relationship depression showed that it was significantly higher in the insecurely attached, $F(1, 85) = 24.32$, $p < 0.001$. MS had no effect, $F(1, 85) = 1.79$, $p > 0.05$, nor was there an interaction, $F(1, 85) = 0.71$, $p > 0.05$.

Relationship esteem was significantly higher in the securely attached, $F(1, 85) = 22.92$, $p < 0.001$. Again, MS had no effect, $F(1, 85) = .032$, $p > 0.05$, nor was there an interaction, $F(1, 85) = 1.23$, $p > 0.05$.

GENERAL DISCUSSION

The results of Study 2 largely corroborate those of Study 1 in that the insecurely attached increase their belief in romance following mortality salience, but the securely attached do not. In fact, in this study death primes resulted in lower endorsement of romantic beliefs for the securely attached (though this may be

Table 3. Mean (and Standard Deviation) Score on Each of the Three Subscales of the Relationship Assessment Questionnaire for Participants with Secure and Insecure Attachment Under Conditions of MS or Control

	Participants with secure attachment style			Participants with insecure attachment style		
Relationship scale	Preoccu-pation	Depres-sion	Self-esteem	Preoccu-pation	Depres-sion	Self-esteem
Control	31.35 (7.53)	17.12 (8.53)	36.80 (6.35)	27.00 (6.70)	24.83 (7.00)	26.75 (7.76)
Mortality Salience	27.90 (7.99)	18.06 (8.42)	34.61 (7.64)	31.40 (8.85)	28.93 (7.39)	28.33 (8.39)

due to particularly high control scores for the secure). Analysis of the self-esteem data in this second study also allows us to conclude that the differential impact of mortality salience on the secure and insecurely attached is not simply a by-product of their differing levels of self-esteem or involvement in relationships but truly a reflection of attachment style.

Inclusion of the interpersonal romance scale showed that while the securely attached had generally higher relationship esteem and lower relationship depression than the insecurely attached, this was not affected by mortality salience and so we have no evidence of these participants using any romantic means of dealing with death. Rather, the mortality effects were once again observed for the insecurely attached participants and apparent on the romantic preoccupation dimension of the measure. Once again, mortality salience increased their romantic concerns.

Overall we seem to have a somewhat different outcome to the results reported by Mikulincer et al. (2003) and Taubman-Ben-Ari et al. (2002) in that it is insecurely attached not the securely attached who use romance as a means of terror management. There are a number of methodological factors that could explain this discrepancy. The first concerns our choice of romantic measurement scales. The use of the romantic belief scale was selected precisely because it would target the more cultural side of love. If this measure is more an indication of CWV then these findings are entirely in line with Mikulincer and Florian's argument—that the insecurely attached use CWV to cope with death, whereas the securely attached use close relationships. This begs the question of why the securely attached failed to increase their scores on the interpersonal measure of romance following the death prime. They neither increased their ratings of their own ability or optimism in a romantic domain, nor did they become any more preoccupied with romantic concerns. The reason for this may be due to the measurement scales we selected.

Much of the measurements of close relationship seeking chosen by Mikulincer and colleges were either behavioral (such as sitting with others or instigating social interactions) or were routed in investment in current relationships. Even the interpersonal scale used in Study 2 was pretty abstract and concerned with attitudes about ones' relationship. However, an increase in relationship self-esteem and a decrease in relationship depression would still be expected to occur since self-esteem striving is a classic reaction to mortality salience. Following the logic of Florian, Mikulincer, and Hirschberger's (2002) argument, relationship preoccupation was also expected to rise as the importance of closeness increases following mortality salience. Perhaps the scale was not sensitive enough to detect a change, or maybe the participants did not react strongly to the mortality manipulation. It has been shown that the duration of the delay task is key to an effective mortality salience manipulation and so the research could be improved by using a longer distracter task (Burke, Martens, & Faucher, 2010). ✓ AS in ref list

Yes
QA: are these correct refs?

Burke, BL. Martens, A. and Faucher, E.H. (2010) Two decades of terror management theory: A meta-analysis of mortality salience research. PERSONALITY AND SOCIAL PSYCHOLOGY REVIEW 14, 155-195

What our studies show is that the insecurely attached do increase their romantic concerns following MS but maybe their lack of confidence in this domain in particular inhibits them from actively pursuing comfort from close relationships. This is essentially Mikulincer and Florian's point and moreover adds weight to the argument that love is the default means of terror management unless interrupted.

There are further limitations to the research reported here which mean that any conclusions we draw should be tentative, and that more research is needed. The main issue is that we only explored the insecure avoidant but not the insecure anxious-ambivalent in Study 2 and it is highly likely that they only made up a small proportion of the sample in Study 1 (since both samples were drawn from the same pool). Mikulincer and Florian (2000) have shown that insecure anxious participants react more immediately to MS than other participants as they are prone to focusing on negative thoughts (whereas the insecure avoidant deny them). Based on such a finding, we may predict a greater preoccupation with romance coupled with low relational esteem and high relationship depression even in conditions of control for the insecure anxious which may be magnified following a death prime.

The use of a student sample is also somewhat limiting, a broader age range or a study which explored age as an independent variable would be particularly valuable in this area since one's view of romance is likely to alter with age as is one's view of death.

Another issue concerning our sample was the disproportionately large number of females used. This is of particular importance here since belief in the romantic ideal is stereotypically associated with women, yet research has shown that it is males who show significantly higher scores on the romantic belief scale (Sprecher & Metts, 1989). However, this difference in romanticism between the genders does not always occur, Cunningham and Antill (1981) found no difference in their Australian sample. To complicate matters further, while males were more romantic, femininity rather than masculinity was most closely correlated with romanticism.

While these gender differences do not account for the differential impact of mortality salience on those with different attachment styles, it does mean that a male sample could react differently. Schimel, Simon, Greenberg, Pyszczynski, Solomon, Waxmonski, et al. (1999) have shown that mortality leads to a preference for gender stereotype confirming information and so it may be the case that participants would self stereotype along the lines of gender following a death prime. The issue of romance may be particularly likely to produce different effects, as Goldenberg, Landau, Pyszczynski, Cox, Greenberg, Solomon, et al. (2005) have demonstrated that gender affects how participants react to infidelity when mortality is made salient. Specifically, males find sexual infidelity more serious, and women react more negatively to emotional infidelity. It would therefore seem likely that they would value different aspects of romance and

QA: need ref. (2003)

Goldenberg, J.L., Landau, M., Pyszczynski, T., Cox, C. Greenberg, J., Soloman, S, & Dunnam, H (2003) Gender-typical responses to sexual and emotional infidelity as a function of mortality salience induced self-esteem striving. PERSONALITY and SOCIAL PSYCHOLOGY BULLETIN, 29. 1585-1595

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close relationships following death primes. This in turn is likely to depend on the individual's wider political beliefs, which have been shown by Fritsche and Jonas (2005) to be sensitive to mortality salience. These researchers found that women's attitudes became more pro-women under mortality conditions, but men's attitudes became less pro-women. It would be particularly interesting to see how this gender conflict and feminist ideals are related to romantic beliefs and how they are impacted by mortality salience. In a similar vein, differences in sexuality could also be explored in terms of romance, ideology, and self-stereotyping. QA: need ref.

There is clearly much to investigate around these issues, but the current experiments do provide greater insight into the role that love plays as a means of terror management, particularly for those with an insecure attachment style. By combining the finding here with previous work by Mikulincer, it appears there is a discrepancy between what the insecurely attached want: the romantic ideal and what they feel they can get or chose to pursue. It would be of particular value to explore how individuals view these problems; for example, do they attribute it internally or externally? That this discrepancy is more apparent under conditions of mortality salience suggest it is a central existential concern that may be denied in day-to-day life. As such, exploring the issue further could help establish therapeutic strategies to help the insecurely attached in their relationships. Viewing the issue from a different angle, an understanding of how differentially attached individuals use relationships could inform us on how best to help them cope with death. In the case of individuals facing terminal illnesses or bereavement, an understanding of attachment style could help us to identify those who may struggle in establishing supportive relationships.

The wider questions concerning whether love should be considered a separate component to CWV within the anxiety buffer remain an issue of contention; however, it certainly seems that different aspects of love are effected by mortality salience for different people. This is hardly surprising since definitions are numerous and varied, as are means of measurement as well as subjective understanding. While it may be difficult to pin down, it is certainly an inspiring area of study.

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Direct reprint requests to:

Dr. Rebecca Smith
University of Greenwich
Avery Hill Road
Eltham
London SE9 2UG
e-mail: r.t.smith@greenwich.ac.uk