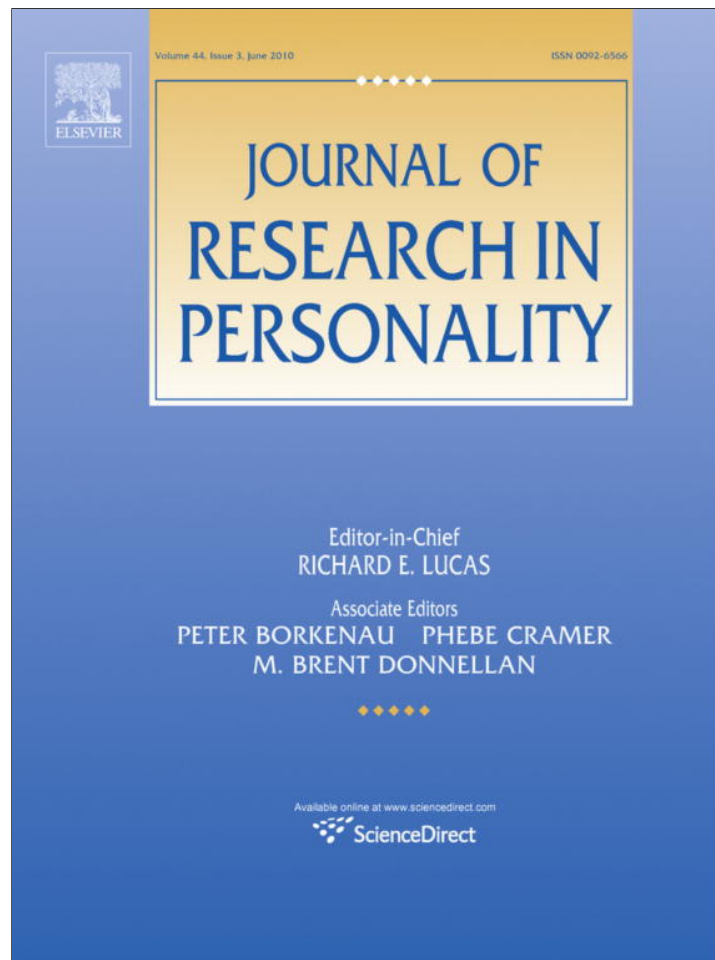


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## Fighting the future with the past: Nostalgia buffers existential threat

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## ABSTRACT

Three studies tested and supported the proposition that nostalgia buffers existential threat. All studies measured nostalgia proneness and manipulated death awareness (mortality salience; MS). In Study 1, at low, but not high, levels of nostalgia proneness, participants in the MS condition responded less positively to an identity threat than participants in the control condition. In Study 2, at low, but not high, levels of nostalgia proneness, participants in the MS condition evidenced greater levels of death anxiety than participants in the control condition. In Study 3, at high, but not low, levels of nostalgia proneness, participants in the MS condition indicated greater feelings of state nostalgia than participants in the control condition.

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## 1. Introduction

“Everybody needs his memories. They keep the wolf of insignificance from the door. Saul Bellow, *Mr Sammler's Planet* (1970, p. 190)”.

Humans' highly evolved cognitive capacities for temporal thought are not only important for self-regulation, but for their survival. The capacity to think about the self in time allows people to reflect on past events, learn from them, and plan for the future (Becker, 1971; Sedikides & Skowronski, 1997; Solomon, Greenberg, & Pyszczynski, 1991). However, these same mental abilities facilitate an awareness of inescapable mortality and thus create the potential for debilitating anxiety about death (Becker, 1973; Kierkegaard, 1849/1989). Building on this premise, terror management theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986; Greenberg, Solomon, & Arndt, 2008) asserts that people are able to live with relative psychological equanimity in the face of this awareness through investing and maintaining faith in psychological structures (e.g., self-esteem, relationships, cultural worldviews) that buffer death anxiety by imbuing life with meaning, order, significance, and self-transcendence.

Considerable research supports these basic assertions of TMT. Much of this work proceeds from the *mortality salience hypothesis*. This hypothesis states that, if psychological structures buffer the consequences of mortality awareness, then experimentally heightening the awareness of death (mortality salience; MS) will result in elevated levels of investment in or defense of these buffering

structures. In support of this hypothesis, participants receiving MS inductions (e.g., writing about their own mortality, being primed with death-related imagery or words, standing in front of a funeral home, engaging in death-priming cancer screenings) relative to participants receiving other, non-death related, aversive control inductions (e.g., writing about a painful medical procedure, experiencing personal failure or uncertainty or social exclusion) show greater commitment to romantic relationships (Florian, Mikulincer, & Hirschberger, 2002), feelings of ingroup entitativity (Castano, Yzerbyt, Paladino, & Sacchi, 2002), belief that one's collective self (e.g., group) will continue to exist long into the future (Sani, Herrera, & Bowe, 2009), and belief in God and divine intervention (Norenzayan & Hansen, 2006).

Because people need to maintain faith in the beliefs and identifications that provide protection from deeply rooted concerns about mortality, the theory predicts that, when reminded of death, people will be more positive to that which supports their beliefs and identifications, and will be less positive or more negative toward that which threatens them. These effects, often referred to as *worldview defenses* in the terror management literature, have been found with respect to a variety of domains. For example, participants reminded of mortality (relative to a control topic) respond less favorably to essays criticizing their nationalistic and university identifications, both in their evaluations of the authors as well as in their willingness to engage in greater physical aggression towards them (McGregor et al., 1998; for a review see Greenberg et al., 2008). Further research has shown that these responses to MS serve to prevent death awareness from turning into death anxiety. Specifically, participants who received a placebo purported to avert the experience of future anxiety did not show the effects of MS described above (Greenberg et al., 2003). In sum,

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when individuals are reminded that they are mortal and thus transient entities, they cling to the relationships, groups, and beliefs that imbue their lives with purpose, stability and permanence; and these responses prevent death cognition from turning into death anxiety.

Recently, it was postulated that nostalgia, a sentimental longing for the past, serves such an existential function (Routledge & Arndt, 2005; Sedikides, Wildschut, & Baden, 2004). Although nostalgia was once regarded as a medical disease and a psychiatric disorder (Sedikides et al., 2004), this recent perspective indicates that nostalgia is a psychological strength, not a liability or pathology (Sedikides, Wildschut, Arndt, & Routledge, 2008). From this perspective, nostalgia is a self-relevant, but highly social, and generally positive emotional reflection on the past that fulfils a number of psychological functions.

First, nostalgia is a source of positive affect. By analyzing the content of nostalgia narratives, Wildschut, Sedikides, Arndt, and Routledge (2006) found that nostalgic reverie was more positive than negative, and, when a nostalgic narrative contained negative elements, the narrative was typically redemptive (i.e., “a narrative pattern that progresses from a negative to a positive or triumphant life scene.”; pp. 978–979). Also, participants who wrote about a nostalgic event (compared to an ordinary event) manifested greater levels of positive affect, but no change in negative affect. Second, nostalgia bolsters the self-concept. Nostalgic narratives are not only self-relevant, but thinking about a nostalgic event (compared to an ordinary event) results in higher levels of state self-esteem and implicit self-positive associations, as well as lower levels of self-serving attributions after receiving negative performance feedback (Vess, Arndt, Routledge, Sedikides, & Wildschut, 2010; Wildschut et al., 2006). Third, nostalgia strengthens social connectedness. In nostalgic narratives, the self is often surrounded by close others (Wildschut et al., 2006). Further, thinking about a nostalgic event (compared to an ordinary event) resulted in greater feelings of being “loved” and “protected,” lower feelings of attachment anxiety and avoidance, and greater feelings of interpersonal competence and support (Wildschut et al., 2006; Zhou, Sedikides, Wildschut, & Gao, 2008).

Finally, and most relevant to the current studies, nostalgia may also serve an existential function. This idea was postulated by Sedikides et al. (2004); see also Routledge and Arndt (2005) in their original theoretical account of the functional nature of nostalgia and was first tested by Routledge, Arndt, Sedikides, and Wildschut (2008). Specifically, these researchers measured trait nostalgia (frequency and importance of nostalgia), induced existential threat via MS, and then assessed the extent to which participants had a sense of meaning in life. Whereas thinking about death resulted in a lower sense of meaning, this effect was not found among participants who were highly nostalgic. Two additional studies assessed the extent to which inducing nostalgia resulted in lower levels of death-thought accessibility after MS. Consistent with research showing that engagement of terror management structures reduces heightened accessibility of death-related thought following death reminders (Arndt, Cook, & Routledge, 2004), Routledge et al. (2008) showed that the effect of MS on elevated death-thought accessibility was lower among nostalgia-prone participants (Study 2) and among participants subjected to an experimental induction of nostalgia (Study 3). In sum, after MS, nostalgia kept levels of death-thought accessibility low and perceptions of meaning high.

Although Routledge et al. (2008) provided initial evidence that nostalgia offers some protection from the consequences of death awareness, important questions regarding nostalgia's capacity to counter the existential reverberation of mortality awareness remain. Routledge et al. (2008) did not consider the extent to which high nostalgia proneness reduces the need to turn to other terror management structures when death is salient. Yet if nostalgia buf-

fers existential threat, individuals who regularly wax nostalgic should not need to engage in other psychological responses that are typically observed following death reminders. In other words, is nostalgia a sufficient existential resource when people are faced with concerns about mortality or, alternatively, are additional psychological defenses needed? We begin to test this idea in Study 1.

In addition, although Routledge et al. (2008) showed that being highly nostalgia-prone reduced the effects of MS on elevated levels of death-thought accessibility, the capacity of nostalgia to reduce levels of death anxiety provoked by reminders of mortality has yet to be determined. Previous research indirectly suggests that nostalgia possesses this capacity. Routledge and Juhl (in press) found that higher perceptions of existential meaning prevented MS from leading to higher levels of death anxiety. That is, MS resulted in elevated levels of anxiety about death, but only for those who lacked a clear sense of meaning in life. Thus, if nostalgia similarly serves an existential function, it should moderate the effects of MS on death anxiety, such that those who are habitually nostalgic should not show heightened death anxiety when mortality is salient. We test this hypothesis in Study 2.

Finally, research has yet to examine whether nostalgic individuals are actually more nostalgic in response to mortality concerns. When exploring the existential function of nostalgia, research has thus far treated nostalgia as a predictor or independent variable, not as a dependent variable. If nostalgia provides protection from mortality concerns for nostalgia prone individuals, then MS (relative to a control condition) may result in greater feelings of nostalgia for individuals high in nostalgia proneness, but not for individuals low in nostalgia proneness. We test this hypothesis in Study 3.

## 2. Study 1

Previous research indicates that, if a psychological structure provides protection from mortality concerns, then those who have this structure firmly established do not display elevated levels of investment in other structures to buffer themselves from heightened death awareness (Greenberg et al., 2008). In the present study, we apply this reasoning to the influence of nostalgia. Specifically, we measured nostalgia proneness, induced MS, and then assessed reactions to criticism of one's university. Following previous research showing that MS leads students to respond less favorably to an essay that disparages their university identity (as a way of affirming faith in their worldview and identifications (Dechesne, Janssen, & van Knippenberg, 2000), we hypothesized that participants in an MS condition (compared to a control condition) will exhibit lower positive evaluations of a critical essay concerning one's university. Importantly, however, this effect should only occur among individuals who are low, rather than high, on nostalgia proneness. Such evidence would expand upon the research by Routledge et al. (2008) to offer convergent support for the notion that nostalgia does indeed serve as a resource capable of mitigating the psychological repercussions of mortality reminders.

### 2.1. Method

#### 2.1.1. Participants and procedure

Eighty-one (43 female) undergraduate psychology students from North Dakota State University (NDSU) participated in exchange for course credit. In this and the subsequent studies, participants were told that the research was concerned with the relationship between personality and attitudes. Participants completed all materials (in the following order) on computers in partitioned workspaces, and in groups ranging in size from 1 to 6.

### 2.1.2. Materials

After completing filler personality measures, participants completed the Southampton Nostalgia Scale (SNS; Routledge et al., 2008). This scale consists of a definition of the word nostalgia followed by five items (one reversed scored) that assess nostalgic tendencies and is anchored on a 7-point scale with higher scores reflecting higher levels of nostalgia proneness.<sup>1</sup> In the current study, these items formed a reliable index ( $\alpha = .92$ ,  $M = 3.64$ ,  $SD = 1.33$ ). Routledge et al. (2008) found this measure to be internally consistent and correlated with other measures of nostalgia. Specifically, in a pilot study, Routledge et al. (2008) reported that the SNS correlated with the 8-items from the Time Perspective Inventory (TPI; Zimbardo & Boyd, 1999) that measures nostalgia-related attitudes toward the past,  $r = .36$ ,  $p < .05$ . Additionally, this pilot study showed that the SNS was correlated with the trait version of the established Batcho Nostalgia Inventory,  $r = .40$ ,  $p < .01$  (Batcho, 1995).

Participants were then randomly assigned to the MS or control condition (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). In the MS condition, they responded to two open-ended questions: "Briefly describe the emotions that the thought of your own death arouses in you" and "Jot down, as specifically as you can, what you think will happen to you physically as you die and once you are physically dead." To control for the adverse nature of MS, those in the control condition responded to two parallel questions regarding the experience of extreme pain. As in previous research, participants completed a distraction task after the salience manipulation. The task involved spending a few minutes searching for neutral words that were embedded in a letter matrix (Greenberg, Arndt, Simon, Pyszczynski, & Solomon, 2000).

Next, participants subsequently read an essay that was ostensibly written by a senior NDSU student answering the question "What do you think of NDSU?" This essay threatened the significance and merit of NDSU, stating that "NDSU just is not that great of a college to be honest" and "I am not originally from this area of the country so maybe I just don't get it but I feel like I may have made a mistake by going to NDSU." Similar essays have been used in previous TMT research to assess defense of university identity (Dechesne et al., 2000). After reading the essay, participants responded to five questions (1 = *not at all*, 9 = *totally*) used in previous terror management research to measure reactions to an essay threatening participants' worldview (Greenberg et al., 1990). Specifically, these items assessed attitudes toward the essay (e.g., "How much do you agree with this person's opinion?") and its author (e.g., "How much do you think you would like this person?"). Responses to the five questions were averaged to yield evaluation scores ( $\alpha = .87$ ,  $M = 4.65$ ,  $SD = 1.73$ ). Given that the essay threatened a relevant identification, lower ratings of the essay and its author are taken to reflect higher levels of defense of that identity.

## 2.2. Results and discussion

First, in this and the subsequent studies, there were no effects involving gender ( $ps > .19$ ). We predicted that MS (compared to pain salience) would result in lower ratings of the essay criticizing NDSU among individuals who are low in nostalgia proneness but not among individuals who are high in nostalgia proneness. To test this prediction, we conducted regression analyses entering nostalgia proneness (centered) and MS (dummy coded) in the first step and the interaction term in the second step as predictors of essay ratings (Aiken & West, 1991). There were no main effects of nostalgia proneness or MS in the first step of the model ( $ps > .37$ ;  $R^2 = .01$ ,  $p > .64$ ). Importantly, however, there was a significant nostalgia

proneness by MS interaction in the second step,  $B = .45$ ,  $SE = .29$ ,  $t(76) = 2.31$ ,  $p < .05$ ;  $R^2$  change =  $.07$ ,  $p < .05$  (Fig. 1).

To examine the nature of this interaction we conducted predicted means tests. Specifically, we re-centered nostalgia proneness scores at  $\pm 1$  one standard deviation around the mean. We computed separate regression equations using each of these new scores, the dummy coded variable for MS, and the new interaction terms using these re-centered scores. In the first regression model, we compared the MS and control condition at low levels of nostalgia ( $-1 SD$ ) and found a significant effect. This analysis revealed that at low levels of nostalgia proneness, participants in the MS condition rated the critical essay less positively than those in the control condition,  $B = -.35$ ,  $SE = .54$ ,  $t(76) = -2.28$ ,  $p < .05$ . In the second regression model, we compared the MS and control condition at high levels of nostalgia ( $+1 SD$ ). This analysis revealed that at high levels of nostalgia proneness, participants in the MS and control condition did not differ significantly,  $B = .15$ ,  $SE = .54$ ,  $t(76) = .99$ ,  $p = .33$ . We also computed two additional separate simple slope regression equations to tests the linear relation between nostalgia proneness and essay evaluations within each the MS and control conditions. Within the MS condition, lower levels of trait nostalgia predicted lower essay evaluations,  $B = .30$ ,  $SE = .21$ ,  $t(76) = 1.88$ ,  $p = .06$ . No such relationship was obtained within the control condition,  $B = -.21$ ,  $SE = .20$ ,  $t(76) = -1.37$ ,  $p = .17$ .

In sum, when nostalgia proneness was low, MS participants responded less favorably to an essay criticizing their university than did control participants. However, this effect did not occur for those high in nostalgia proneness. This finding is consistent with the hypothesis that nostalgia mitigates the need to heighten one's investment in a collective identity in response to reminders of death and complements previous research on the propensity for measured and manipulated nostalgia to buffer the effects of MS on meaninglessness and death-thought accessibility (Routledge et al., 2008).

## 3. Study 2

Whereas Study 1 fortifies the foundation for understanding nostalgia as an existential resource, research has yet to examine what is a central proposition of this analysis: That nostalgia buffers the effects of death awareness on higher levels of death anxiety. According to TMT, the structures that provide existential security should prevent MS from turning into death anxiety. If nostalgia keeps death fears at bay, then high nostalgia proneness should buffer the deleterious effect of MS on death anxiety. To assess this, we measured nostalgia proneness, induced MS, and assessed death anxiety. We hypothesized that participants in the MS condition (compared to those in the control condition) will indicate higher levels of death anxiety for those low (but not high) in nostalgia proneness.

### 3.1. Method

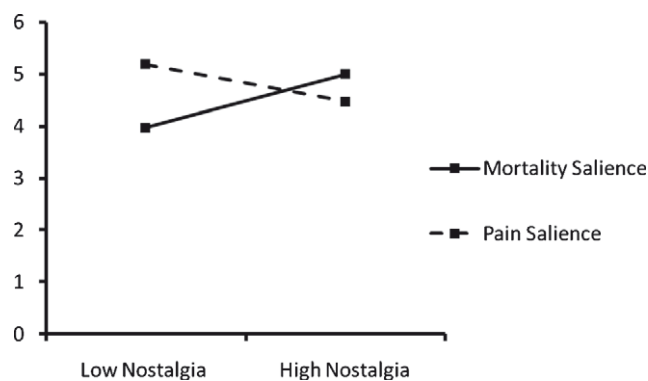
#### 3.1.1. Participants and procedure

Forty-seven (28 female) NDSU undergraduate psychology students participated in exchange for course credit. They completed the materials in the following order.

#### 3.1.2. Materials

As in Study 1, we measured nostalgia proneness with the SNS ( $\alpha = .88$ ,  $M = 4.17$ ,  $SD = 1.36$ ), and we randomly assigned participants to the MS or pain control condition (followed by the word search distraction task). Finally, we assessed death anxiety with the 8-item Death of Self subscale from the Revised Collett-Lester Fear of Death Scale (Lester, 1990). Participants indicated how

<sup>1</sup> To view the entire SNS scale, see Routledge et al. (2008).



Note: Higher scores on the Y-axis reflect higher positive evaluations of the critical essay

Fig. 1. The effects of nostalgia proneness and mortality salience on ingroup identity defense.

anxious they felt (1 = *not anxious*; 5 = *very anxious*) about different aspects of death (e.g., “the shortness of life,” “the total isolation of death”). We averaged responses to the eight items to create death anxiety scores ( $\alpha = .86$ ;  $M = 3.01$ ,  $SD = 1.00$ ). The full scale contains subscales regarding the process of dying and the process of others dying. We administered only the Death of Self subscale so as to measure specifically anxiety about one’s personal mortality, given that it is reflections on personal mortality that produce effects in related TMT research. This subscale is both highly correlated with other measures of death anxiety and sensitive to state changes in death anxiety (Mooney & O’Gorman, 2001).

### 3.2. Results and discussion

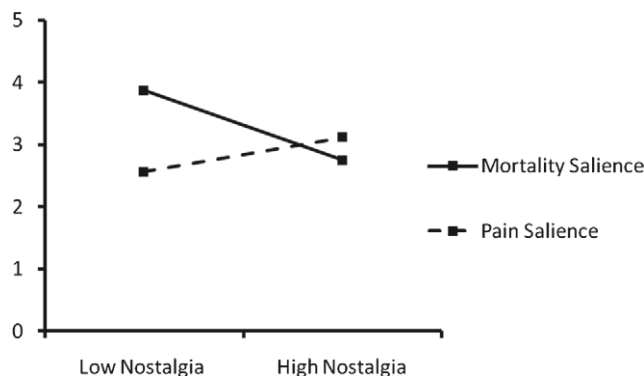
We predicted that MS (compared to pain salience) results in higher levels of death anxiety for those low (but not high) in nostalgia proneness. To test this prediction, we conducted regression analyses entering nostalgia proneness (centered) and MS (dummy coded) in the first step and the interaction term in the second step as predictors of death anxiety. There were no main effects of nostalgia proneness or MS in the first step of the model ( $ps \geq .11$ ;  $R^2 = .07$ ,  $p > .20$ ). There was, however, a significant nostalgia proneness by MS interaction in the second step,  $B = .75$ ,  $SE = .20$ ,  $t(42) = 3.13$ ,  $p < .01$ ;  $R^2$  change = .17,  $p < .05$  (Fig. 2). As in Study 1, we used predicted means tests to unpack this interaction. Specifically, at low levels of nostalgia proneness ( $-1 SD$ ), participants in the MS condition had higher levels of death anxiety than those in control condition,  $B = .66$ ,  $SE = .38$ ,  $t(42) = 3.48$ ,  $p = .001$ . At high levels of nostalgia proneness ( $+1 SD$ ), no such effect was obtained,

$B = -.18$ ,  $SE = .38$ ,  $t(42) = -.97$ ,  $p = .34$ . Further, simple slope tests indicated that within the MS condition, lower levels of nostalgia proneness predicted higher levels of death anxiety,  $B = -.56$ ,  $SE = .15$ ,  $t(42) = -2.84$ ,  $p < .01$ . Within the control condition, no such effect was obtained,  $B = .26$ ,  $SE = .13$ ,  $t(42) = 1.53$ ,  $p = .13$ .

Study 2 provides further support for the notion that nostalgia serves an existential anxiety-buffering function. Participants reminded of mortality (compared to pain) showed higher levels of death anxiety but only among people low in nostalgia proneness. Thus, a proclivity to engage in nostalgia appears to help prevent death thoughts from becoming death fears.

### 4. Study 3

Taken together, the previous two studies support the idea that an inclination to turn nostalgically to the past results in a lower need to invest in other terror management strategies (i.e., university identification) and lower levels of death anxiety after a mortality reminder. However, these studies did not examine whether individuals who are high in nostalgia proneness are in fact more nostalgic as a means to deal with heightened death awareness. In Study 3, we examined whether individuals who are high (compared to low) in nostalgia proneness are more nostalgic when mortality is made salient. To this end, we measured nostalgia proneness, manipulated MS, and assessed state nostalgia. We hypothesized that participants in the MS condition (compared to controls) will exhibit higher levels of state nostalgia for those high (but not low) in nostalgia proneness.



Note: Higher scores on the Y-axis reflect higher levels of death anxiety

Fig. 2. The effects of nostalgia proneness and mortality salience on death anxiety.

## 4.1. Method

### 4.1.1. Participants and procedure

Fifty-four (29 female) NDSU undergraduate psychological students participated in exchange for course credit. They completed the materials in the following order.

### 4.1.2. Materials

As in Studies 1 and 2, we measured nostalgia proneness with the SNS ( $\alpha = .84$ ,  $M = 3.83$ ,  $SD = 1.20$ ). Participants were then randomly assigned to the MS or pain control condition (followed by the word search distraction task). Participants then filled out a state version of the Batcho Nostalgia Inventory (BNI, Batcho, 1995). Specifically, they used a 5-point scale (1 = *not at all*, 5 = *very much*) to rate how much they currently missed 20 aspects of their past (e.g., “someone I loved”, “not having to worry”, “holidays I went on”). We averaged responses to the 20 items to create state nostalgia scores ( $\alpha = .82$ ;  $M = 3.33$ ,  $SD = .64$ ). To ensure that the measure assessed current feelings, participants were instructed to indicate how they felt *right now*. Higher scores indicated higher state nostalgia. Batcho provided evidence for the validity of this measure. Further, Wildschut et al. (2006) found that a state version of the BNI correlated with other face valid items assessing state nostalgia (e.g., “Right now, I feel nostalgic”). In addition, the state version of the BNI yielded theoretically meaningful results in previous research (Wildschut et al., 2006; Zhou et al., 2008).

## 4.2. Results and discussion

We hypothesized that participants in the MS condition (compared to controls) will exhibit higher levels of state nostalgia for those high (but not low) in nostalgia proneness. To test this prediction, we performed regression analyses entering nostalgia proneness (centered) and MS (dummy coded) in the first step and the interaction term in the second step as predictors of state nostalgia. There were no main effects of nostalgia proneness or MS in the first step of the model ( $ps \geq .49$ ;  $R^2 = .01$ ,  $p > .75$ ). However, there was a significant nostalgia proneness by MS interaction in the second step,  $B = .61$ ,  $SE = .14$ ,  $t(49) = 2.72$ ,  $p < .01$ ;  $R^2$  change = .13,  $p < .05$  (Fig. 3). Specifically, predicted means tests demonstrated that at low levels of nostalgia proneness ( $-1 SD$ ), participants in the MS condition had marginally lower levels of state nostalgia than those in the control condition,  $B = -.33$ ,  $SE = .24$ ,  $t(49) = -1.78$ ,  $p = .08$ . More central to the current analysis, however, at high levels of nostalgia proneness ( $+1 SD$ ), participants in the MS condition had higher levels of

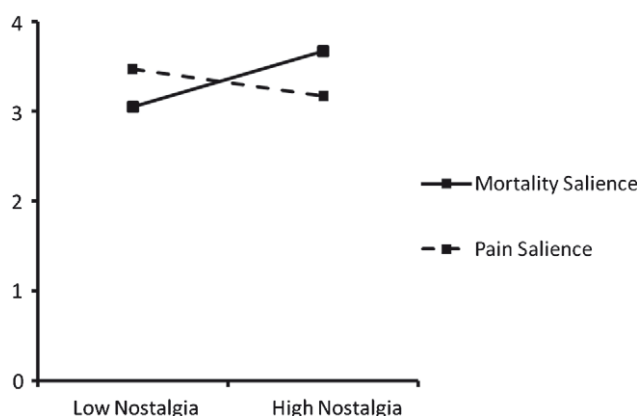
state nostalgia than those in the control condition,  $B = .39$ ,  $SE = .24$ ,  $t(49) = 2.08$ ,  $p < .05$ . Further, simple slope tests indicated that, within the MS condition, higher levels of nostalgia proneness predicted higher levels of state nostalgia,  $B = .48$ ,  $SE = .10$ ,  $t(49) = -2.48$ ,  $p < .05$ . Within the control condition, however, no such effect was obtained,  $B = -.24$ ,  $SE = .10$ ,  $t(49) = -1.32$ ,  $p = .19$ .

Study 3 builds upon the prior findings to further highlight nostalgia as a means to counter heightened death-related cognition. Individuals high in nostalgia proneness reported higher levels of state nostalgia in the MS condition than in the control condition. Notably, both the absence of a nostalgia proneness main effect and the presence of a significant nostalgia proneness by MS interaction suggest that the proneness and state measures of nostalgia were not simply measuring the same construct. Rather, the observed pattern of results is consistent with the hypothesis that nostalgia prone individuals are more nostalgic after MS as a means to manage the awareness of mortality.

## 5. General discussion

The present research produced three important findings that help to paint a richer picture of nostalgia as an existential resource. First, unlike those low in nostalgia proneness, individuals high in nostalgia proneness did not evidence higher levels of defense of their university identity after MS (Study 1). Second, unlike those low in nostalgia proneness, individuals high in nostalgia proneness did not have higher levels of death anxiety after MS (Study 2). Third, unlike those low in nostalgia proneness, individuals high in nostalgia proneness evidenced higher levels of nostalgia after an existential threat (Study 3).

The current research paves the way for a more nuanced understanding of how nostalgia serves an existential function. Given that nostalgia fulfills several psychological functions, and existential threat can be countered in several distinct ways (e.g., self-esteem, close relationships), there are multiple routes by which nostalgia may appease existential concerns and thus mitigate the effects of MS. Though the current findings further demonstrate the types of MS effects that nostalgia can reduce, it is a question for future research to assess more directly the different aspects of nostalgia that may account for this mitigation. This question is complex because, to some extent, the answer may depend on the specific types of experiences (e.g., cultural, self-enhancing, relational) about which the individual is nostalgic. For example, whereas some individuals may wax nostalgic about past experiences with family and friends, others may prefer to reflect on significant



Note: Higher scores on the Y-axis reflect higher levels of state nostalgia

Fig. 3. The effects of nostalgia proneness and mortality salience on state nostalgia.

personal achievements or successes. Further complicating this issue is the possibility that individual differences play an important role in how nostalgia is used to manage concerns about mortality. For example, in a recent series of studies, Wildschut, Sedikides, Routledge, Arndt, and Cordaro (in press) found that it is specifically people low in attachment-related avoidance that use nostalgia to bolster feelings of social connectedness. Therefore, trait-like variables such as attachment style, self-esteem, and chronic affect may further determine precisely how the vehicle of nostalgia is used to navigate existential concerns about mortality. Future research should thus consider how individual differences and the specific content of a nostalgic episode activate a particular mediating channel or set of mediating channels through which psychological security is maintained in the face of existential threat. Yet, it is worth noting that Routledge et al. (2008) found that the effects of nostalgia in attenuating the consequences of reminders of death were above and beyond the effects of related variables (positive affect, self-esteem, belongingness). Granted, these other variables were not measured in the current research. Yet, the Routledge et al. (2008) findings do suggest that nostalgia is not merely a proxy for other related constructs.

Given that the current studies focused only on university students, future research should also consider the role of age in the observed effects. Contrary to popular opinion, nostalgia is not an experience specific to the elderly. Several published studies have found that nostalgia is prevalent across a variety of age groups (e.g., children, university students, older adults) and serves similar functions for all ages (Routledge et al., 2008; Wildschut et al., 2006; Zhou et al., 2008). Thus, there are empirically grounded reasons to believe that nostalgia would serve a similar existential buffering function for older participants. However, there may be interesting age related differences in the types of experiences about which people are nostalgic, the overall frequency of nostalgia, as well as nostalgia's prioritization as a preferred way of dealing with existential concerns. Indeed, certain individuals may be more disposed to (and certain situations may encourage one more) looking toward the future rather than the past as a way of securing an overall view of meaning and significance. The present research provides a foundation from which such generative questions can be pursued.

Whereas the ability to think temporally may open a proverbial can of existential worms, it also creates opportunities to effectively manage this existential predicament. Nostalgia is part of the arsenal of psychological mechanisms that enables people to use the past to fight the future.

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