



Journal of Articles in Support of the Null Hypothesis

Vol. 4, No. 1

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An Experimental Test of the Discontinuity Hypothesis: Examining the Effects of Mortality Salience on Nostalgia

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The present study used the mortality salience paradigm to test experimentally the discontinuity hypothesis that nostalgia emerges in response to threats to the continuity of identity. Forty-seven university students were primed to think about their own death, taking a difficult exam, or watching television. Following a delay, participants completed two measures of nostalgia. Participants in the mortality salience condition did not differ from participants in the other conditions in their ratings of the present, future, or past state of the world. Participants in the mortality salience condition choose to write about the future instead of the past more often than did participants in the other two conditions. The results failed to support the discontinuity hypothesis.

The goal of the present paper was to experimentally test the discontinuity hypothesis that nostalgia is elicited in response to identity threats that occurs during times of uncertainty. The extant literature offers little support for a relation between uncertainty and nostalgia but this research has been exclusively correlational in nature. The mortality salience paradigm used in research on Terror Management Theory (TMT; Solomon, Greenberg, & Pyszczynski, 1991) offers an experimental approach for assessing the hypothesis that nostalgia emerges in response to anxiety about uncertainty. A large body of research using the mortality salience (MS) paradigm indicates that reminding people of their mortality leads to defensive responses involving identity consolidation (Solomon, Greenberg, & Pyszczynski, 2004). If nostalgia is elicited by threats to identity continuity, then mortality salience ought to be a powerful elicitor of nostalgia because death represents the ultimate threat to identity.

Nostalgia

Johannes Hofer (1688/1934) coined the term nostalgia by combining the Greek words *nostos* (referring to a yearning for return home) and *algos* (meaning suffering). Therefore, the term literally means suffering caused by yearning to return home and was used by Hofer to describe the despondency of Swiss mercenaries fighting in foreign lands. However, Davis (1979) reported that research participants viewed nostalgia as a distinct emotion separate from homesickness. This distinction is supported by a fracture in the literatures on homesickness and nostalgia (Sedikes, Wildschut, & Baden, 2004). Some researchers have differentiated between historical and personal nostalgia, with the former reflecting a general view that life had been better in an earlier period and the latter reflecting a longing for aspects of past personal experience (Stern, 1992). Several researchers have argued that nostalgia, especially personal nostalgia, rather than being a form of psychopathology might have positive implications for psychological wellbeing, such as augmenting identity and decreasing alienation (Batcho, 1998; Sedikes et al., 2004).

The conceptualization of nostalgia that has generated the most research attention is the discontinuity hypothesis (Davis, 1979). Davis (1979) argued that nostalgia serves the function of protecting personal identity against threats of discontinuity. From this perspective, rather than being a pathological or immature feeling, nostalgia is an adaptive response to the basic human problem of developing a stable and enduring sense of self in the face of an often uncertain and chaotic world. Therefore, nostalgia arises from a defensive motive to avoid the anxiety associated with failing to maintain a sense of self-continuity. Davis (1979, p. 34) expressed it this way “the nostalgic evocation of some past state of affairs always occurs in the context of present fears, discontents, anxieties, or uncertainties, even though they may not be in the forefront of awareness.” A few studies have attempted to test the discontinuity hypothesis that nostalgia will be experienced more strongly during times of change or uncertainty. Best and Neslon (1985), using single item measures of nostalgia from four large archival survey sources, failed to find support for the discontinuity hypothesis. Inconsistent with the discontinuity hypothesis, respondents who had moved or changed jobs were no more nostalgic than were respondent who had not moved or changed jobs. Batcho (1995) examined the discontinuity hypothesis by having participants rate the quality of the world as it currently is, was in the past, and would be in the future and rate how much they missed each of 20 things from when they were younger.

Contrary to the discontinuity hypothesis, nostalgia for things from the past was related only to ratings of the quality of the past but not with ratings of the present or future. This finding is inconsistent with the prediction that nostalgia should increase with current uncertainties and fears about the future.

Sedikides et al. (2004) suggested that the problem with the existing literature on nostalgia and discontinuity is that the studies have been correlational in nature. These authors argue that if nostalgia is elicited by threats to continuity of identity then experimentally inducing such threats should result in greater nostalgia. They further asserted that existential threats such as the mortality salience manipulation used in research on Terror Management Theory (Solomon et al., 2004) might be a good candidate for such experimental tests.

Terror Management Theory

The basic premise of TMT (Solomon et al., 1991) is that human beings are motivated to avoid the potential terror that would occur from experiencing fully the uncertainty surrounding the exact circumstance of inevitable personal death. According to these theorists, the same psychological abilities of symbolic thinking and imagination that gave rise to the uniquely human awareness of personal death also gave rise to psychological defenses against the anxiety elicited by that awareness. These defenses represent symbolic and not literal protection against death as the individual attempts to forge a sense of identity that will transcend corporeal death. The mortality salience (MS) paradigm has emerged as a means for experimentally testing the tenets of TMT. The logic underlying this paradigm is that to the extent that psychological mechanisms serve a terror management function then experimentally induced reminders of personal mortality should intensify the need for and use of those mechanisms (Pyszczynski, Greenberg, & Solomon, 1997).

The goal of the present study was to experimentally test the discontinuity hypothesis regarding nostalgia using the mortality salience paradigm. Mortality salience represents a threat to continuity of identity. Therefore, reminding participants of personal death should increase nostalgia.

Method

Participants

Participants were 42 women and 5 men enrolled in psychology classes at Lander University. Of these participants, 14 identified their race as Black, 32 as White, and 1 as Hispanic. Participants ranged in age from 18 to 40 years ($M = 20.1$, $SD = 3.3$). Participants received extra credit towards their class grade.

Materials and Procedure

Participants arrived in small groups of no more than 10 to a social psychology laboratory where they were informed that this was a study about the relation between personality and language skill. After obtaining informed consent, the experimenter distributed the questionnaire packets. In the first part of the questionnaire, participants completed some filler questionnaires to give credibility to the purported interest in

personality. The next section of the questionnaire required participants to respond to two essay questions (presumably to serve as a measure of language skill). It was in this context that mortality salience was manipulated. Following a procedure described by Hirschberger and Ein-Dor (2005), participants were randomly assigned to write about their own death, taking a difficult exam, or watching television. Manipulating the independent variable at three levels was important in order to distinguish the effects of mortality salience from other non-death related but aversive mood manipulations. If nostalgia emerges in response to threats to identity continuity, then writing about death should elicit more nostalgia than either writing about taking a difficult exam or writing about watching television. Next, all participants completed the Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS requires participants to indicate the extent to which they currently feel 10 positive and 10 negative affective states. As in previous experiments using the MS paradigm, the PANAS was included in the present study in order to create a delay between the manipulation and the dependent measure because the effects of mortality salience have been shown to be strongest following such a delay (Pyszczynski et al., 1997). Participants then completed two dependent measure assessing nostalgia. The first measure was presented as another writing task in which participant were asked to choose from two alternative essay questions. They could write either about something they looked forward to in the future or about something they missed from when they were younger. The order in which the options were presented was counterbalanced. Nostalgia was operationally defined as the choice of writing about something they missed from when they were younger. On the second measure, following a procedure described by Batcho (1995), participants were asked to rate the world as it is now, would be 20 years in the future, and was when they were younger.

Results

Choice of essay topic differed across condition but not in the predicted direction, $\chi^2(2, N = 47) = 14.2, p < .001$, with 69 % of participants writing about the past in the exam condition compared to only 25 % in the television condition and 7 % in the MS condition. The results for the other measure of nostalgia were examined using a 3 x 3 mixed ANOVA with time (past/present/future) as a repeated measures variable and essay condition (TV/Exam/MS) as an independent groups variable. The results are presented in Table 1. Only the main effect for time reached statistical significance, $F(2, 88) = 31.4, p < .001$. In order to follow up on the omnibus effect, paired sample t-tests were used to assess all possible pair-wise comparisons. The past was rated as better than the present, $t(46) = 6.0, p < .001$ and as better than the future, $t(46) = 6.8, p < .001$ and the present was rated as better than the future, $t(46) = 2.3, p < .05$. The time x essay condition interaction did not approach statistical significance ($F < 1$), as the pattern of ratings did not differ across conditions.

Discussion

The results of the present study failed to support the discontinuity hypothesis. Responses to the two measures of nostalgia were contradictory. Although the majority of participants chose to write about the future rather than the past, participants also expected the world to be much worse in the future than it was when they were younger. The finding in the present study that participants viewed the past as better than the present is consistent

with previous findings by Batcho (1995). However, whereas participants in Batcho's study rated the future as slightly (although not statistically) better than the present, participants in the present study rated the future as statistically worse than the present. The participants in the present study seemed to endorse a worldview that things are getting progressively worse. The endorsement of such an outlook is also consistent with the finding reported by Best and Nelson (1985) that the majority of respondents endorsed the idea that things for the average person were getting worse not better.

The discrepancy in the present study between ratings of the general state of the world and the choice of writing about the past or future might reflect the distinction advanced by Batcho (1995) between nostalgia as a stable disposition and nostalgia as a transient affective state. Ideas about the general state of the world are likely shaped by years of previous experiences and therefore may be relatively fixed and not easily influenced by experimentally induced states. Consistent with this perspective, the mortality salience manipulation in the present study had no impact on participants' more negative view of the future than the past.

The choice of writing about the past or future should have been a better measure of a transient state of nostalgia (although even this measure could still reflect a general disposition). Scores on this presumably more malleable measure did differ as a function of the manipulation, but not in the predicted direction. Participants in the MS condition wrote about the future more frequently than did participants in the exam and television conditions. One possible explanation would be that MS made reflecting on the past aversive because awareness of the impermanent and fleeting nature of accomplishments and relationships is heightened by reminders of death. This position is congruent with the clinical observations of Firestone (1993), who argued that people may become less invested in life goals and withdraw from close relationships to protect against the pain inherent in the recognition of the inevitability of death. Another possible explanation is that MS could lead to enhanced focus on the future. One could respond to discontinuity threat by seeking to solidify personal identity through future accomplishments (e.g., I look forward to the future when I can get a good job and find a good mate). While both of these interpretations seem reasonable, it is not clear why more participants in the television condition than in the exam condition would choose to write about the future. Although this finding was unexpected and difficult to interpret, it is not essential to the main goal of the experiment, which was to test the discontinuity hypothesis. The key aspect of the results for testing the hypothesis of the present study was that MS did not increase nostalgia on either measure.

The lack of support for the discontinuity hypothesis reported here should be interpreted in light of limited external validity because the participants were young college students. Although Batcho (1995) found greater nostalgia among college students than older adults, it seems intuitive that nostalgia would be a more likely response to identity threat for older than for younger people. Further research is needed to experimentally test the discontinuity hypothesis among different populations.

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Table 1

Ratings of the past, present, and future world as a function of experimental condition

<u>Experimental Condition</u>	<u>Ratings of the world</u>		
	Past M (SD)	Present M (SD)	Future M (SD)
Television Saliency (n = 16)	3.69 (0.95)	2.50 (0.73)	2.00 (1.03)
Exam Saliency (n = 16)	4.06 (1.12)	2.81 (1.27)	2.50 (1.27)
Mortality Saliency (n = 15)	4.20 (1.08)	3.00 (0.76)	2.60 (1.18)
Total (n = 47)	3.98 (1.05)	2.77 (0.96)	2.36 (1.17)

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Received: 12/18/05

Revised: 3/3/06

Accepted: 3/9/06

