

Running Head: NOSTALGIA

**Nostalgia: Content, Triggers, Functions**

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### Abstract

Seven methodologically diverse studies addressed 3 fundamental questions about nostalgia. Studies 1 and 2 examined the content of nostalgic experiences. Descriptions of nostalgic experiences typically featured the self as a protagonist in interactions with close others (e.g., friends) or in momentous events (e.g., weddings). Also, the descriptions contained more expressions of positive than negative affect and often depicted the redemption of negative life-scenes by subsequent triumphs. Studies 3 and 4 examined triggers of nostalgia and revealed that nostalgia occurs in response to negative mood and the discrete affective state of loneliness. Studies 5, 6, and 7 investigated the functional utility of nostalgia and established that nostalgia bolsters social bonds, increases positive self-regard, and generates positive affect. These findings demarcate key landmarks in the hitherto uncharted research domain of nostalgia.

### **Nostalgia: Content, Triggers, Functions**

Approximately three millennia ago, Homer composed his epic poem *The Odyssey* and with it created one of the most gripping literary accounts of nostalgia. The poem revolves around the adventures of Odysseus who, after emerging victoriously from the Trojan War, embarks on a quest to return to his homeland, the island of Ithaca, and reunite with his faithful wife, Penelope. This quest was to last ten years, seven of which were spent in the possessive arms of the seductive sea-nymph Calypso. In an attempt to persuade Calypso to set him free, Odysseus confides to her: “Full well I acknowledge Prudent Penelope cannot compare with your stature of beauty, for she is only a mortal, and you are immortal and ageless. Nevertheless it is she whom I daily desire and pine for. Therefore I long for my home and to see the day of returning.” (Homer, *The Odyssey*, trans. 1921, Book V, pp. 78-79). The Greek words for return and suffering are “nostos” and “algos,” respectively. The literal meaning of nostalgia, then, is the suffering caused by the yearning to return to one’s place of origin.

#### A Brief History of Nostalgia

The term “nostalgia” was actually introduced by the Swiss physician Johannes Hofer (1688/1934) to refer to the adverse psychological and physiological symptoms displayed by Swiss mercenaries who plied their trade on foreign shores. Hofer conceptualized nostalgia as a medical or neurological disease. Symptoms were thought to include persistent thinking of home, bouts of weeping, anxiety, irregular heartbeat, anorexia, insomnia, and even smothering sensations (McCann, 1941). Hofer regarded nostalgia as “a cerebral disease” (p. 387) caused by “the quite continuous vibration of animal spirits through those fibers of the middle brain in which impressed traces of ideas of the Fatherland still cling” (p. 384). The physician J. J. Scheuchzer (1732), a contemporary of Hofer’s, proposed instead that nostalgia was due to “a sharp differential in atmospheric pressure causing excessive body pressurization, which in turn drove blood from the heart to the brain, thereby producing the observed affliction of sentiment” (cited in Davis, 1979, p. 2). Scheuchzer applied this theory to account for the supposedly high incidence of nostalgia among Swiss mercenaries who left their Alpine homes to fight on the

plains of Europe. Finally, not content with either explanation, some military physicians proposed that nostalgia was largely confined to the Swiss due to the unremitting clanging of cowbells in the Alps, which inflicted damage upon the eardrum and brain (Davis, 1979). This view of nostalgia as a neurological affliction persisted throughout the 17<sup>th</sup> and 18<sup>th</sup> century.

By the early 19<sup>th</sup> century, definitions of nostalgia had shifted. Nostalgia was no longer regarded as a neurological disorder but, instead, came to be considered a form of melancholia or depression (Rosen, 1975; McCann, 1941). Nostalgia remained relegated to the realm of psychological disorders for much of the 20<sup>th</sup> century. Scholars in the psychodynamic tradition described nostalgia as an “immigrant psychosis” (Frost, 1938, p. 801), a “mentally repressive compulsive disorder” (Fodor, 1950, p. 25), and “a regressive manifestation closely related to the issue of loss, grief, incomplete mourning, and, finally, depression” (Castelnuovo-Tedesco, 1998, p. 110).

In part, this gloomy perspective can be attributed to the fact that nostalgia has long been equated with homesickness. It was only in the latter part of the 20<sup>th</sup> century that nostalgia acquired a separate conceptual status. Davis (1979), for instance, showed that college students associated words like “warm,” “old times,” “childhood,” and “yearning” more frequently with nostalgia than with homesickness, suggesting that students could discriminate between these two concepts. Current dictionary definitions of homesickness and nostalgia also reflect their distinctness. *The New Oxford Dictionary of English* (1998) defines “homesick” as “experiencing a longing for one’s home during a period of absence from it” and “nostalgia” as “a sentimental longing for the past.”

There is now a sizeable literature on homesickness, which concentrates on the psychological problems associated with transition to boarding school or university (Van Tilburg, Vingerhouts, & van Heck, 1996). Empirical research on nostalgia, on the other hand, remains scarce and largely confined to the field of advertising and consumer psychology (Holak & Havlena, 1998; Schindler & Holbrook, 2003). Focused mainly on accounting for the market success of certain consumer goods, research in this tradition has demonstrated how product

styles (e.g., of music, motion pictures, and automobiles) that were popular during an individual's youth influence the individual's lifelong preferences. Although we do not mean to suggest that such findings are uninteresting or unimportant, we do believe that a broader perspective is required if one is fully to investigate and, ultimately, understand nostalgia and its postulated significance to the self (Davis, 1979), interpersonal relationships (Batcho, 1998), memory (Cavanaugh, 1989), and affect (Kaplan, 1987).

Given that we found ourselves in largely uncharted territory, we perceived a need to address three fundamental questions about nostalgia. First, what is the content of nostalgic experiences (*content question*)? Second, what are the triggers of nostalgia (*trigger question*)? Third, what, if any, are the psychological functions of nostalgia (*function question*)? We addressed these questions in 7 methodologically diverse studies. Studies 1 and 2 examined the content question. Studies 3 and 4 examined the trigger question. Finally, Studies 5, 6, and 7 examined the function question.

#### Studies 1 and 2: Content of Nostalgic Experiences

Studies 1 and 2 sought to answer four questions about the content of nostalgic experiences. These related to: the salience of the self in nostalgic experiences; the objects of nostalgia; the manner in which positive and negative affective states are juxtaposed in nostalgic experiences; and the affective signature of nostalgia.

##### *Salience of the Self in Nostalgic Experience*

We take as our point of departure the idea that nostalgia refers to a personally experienced past. From the outset, then, we distinguish the case of personal nostalgia from other proposed forms of nostalgia such as organizational (Gabriel, 1993) or historical (Stern, 1992) nostalgia. We suggest that nostalgia is a *prima facie* self-relevant emotion in the sense that the self is a salient protagonist in the nostalgic experience (Sedikides, Wildschut, & Baden, 2004).

##### *Objects of Nostalgia*

We propose that nostalgia possesses an important social element. Qualitative descriptions of nostalgic experiences indicate that these experiences often involve interactions between the

self and close others, such as family members, friends, and romantic partners (Holak & Havlena, 1992). Although we expect close others to figure prominently in nostalgic experiences, other types of personal experience may also provide a fertile soil for nostalgia. Likely candidates include momentous events, such as anniversaries and births, and experiences involving specific settings, such as one's hometown.

#### *Redemption versus Contamination in Nostalgic Experience*

Nostalgia pertains to a personally experienced past, but not all past experience evokes nostalgia. How can we delineate more precisely the domain of nostalgic experiences? One possibility relates to the manner in which affective states are juxtaposed in these experiences. Davis (1977) noted that, in those cases where the nostalgic experience contains negative elements, these “hurts, annoyances, disappointments, and irritations [...] are filtered forgivingly through an ‘it was all for the best’ attitude” (p. 418). Relevant to this point, McAdams and colleagues (McAdams, 2001; McAdams, Reynolds, Lewis, Patten, & Bowman, 2001) identified two narrative patterns or strategies that people use to give their life stories meaning and coherence. In a redemption sequence, the narrative progresses from a negative life scene to a positive or triumphant one. By contrast, in a contamination sequence the narrative moves from an affectively positive life scene to an affectively negative one. McAdams et al. (2001) found that psychological well-being was positively correlated with redemption sequences in life narratives and negatively associated with contamination sequences. We propose, in keeping with Davis, that nostalgic experiences are more typically characterized by redemption than by contamination sequences.

#### *Affective Signature of Nostalgia*

What is the affective signature of nostalgia? We distinguish three perspectives bearing on this question. These perspectives emphasize the positive, negative, and bittersweet affective correlates of nostalgia, respectively.

##### *Positive Affect*

Davis (1979) defined nostalgia as a “positively toned evocation of a lived past” (p. 18) and argued that, “... the nostalgic ... experience is infused with imputations of past beauty, pleasure, joy, satisfaction, goodness, happiness, love .... Nostalgic feeling is almost never infused with those sentiments we commonly think of as negative—for example, unhappiness, frustration, despair, hate, shame, and abuse” (p. 14). The point of view that nostalgia is associated with positive affect is shared by Batcho (1995), Gabriel (1993), Holak and Havlena (1998), and Kaplan (1987).

#### *Negative Affect*

Other theorists, however, highlight the negative side of nostalgia. Ortony, Clore, and Collins (1988), for instance, view nostalgia as part of the negative subset of well-being emotions. Specifically, they categorize nostalgia under the distress and loss emotions. The affective signature of nostalgia is considered to be sadness or mourning about the past. Best and Nelson (1985), Hertz (1990), and Peters (1985) also endorse the view that nostalgia involves the wounding realization that some desirable aspect of one’s past is irredeemably lost.

#### *Mixed Affect*

Still, a third category of theorists emphasize the affectively mixed or bittersweet nature of nostalgia. Johnson-Laird and Oatley (1989) define nostalgia as positive emotion with tones of loss. They view nostalgia as a complex emotion, characterized by high-level cognitive appraisal and propositional content. In their opinion, nostalgia is a happiness-related emotion, yet, at the same time, it is thought to invoke sadness due to the realization that some desirable aspects of the past are out of reach. A similar view is endorsed by Werman (1977), who proposed that nostalgia involves “wistful pleasure, a joy tinged with sadness” (p. 393).

### Study 1

Study 1 is a content analysis of autobiographical narratives published in the periodical *Nostalgia* and serves as a preliminary investigation into the content of nostalgic experience. Like any psychological methodology, the study of autobiographical narratives has both strengths and limitations. It is, for example, difficult to assess the extent to which autobiographical narratives

are free of systematic bias (e.g., due to selective encoding and/or retrieval). On the other hand, the subjectivity of autobiographical narratives can be construed as an asset. These narratives offer a window into the individual's personal view of their everyday experiences and feelings. As such, narratives complement experimental methods that often involve studying behavior in a controlled laboratory environment (Baumeister, Wotman, & Stillwell, 1993). Indeed, autobiographical narratives have proved to be a valuable source of information regarding a wide range emotional states, including inspiration (Thrash & Elliot, 2003, 2004); anger (Baumeister, Stillwell, & Wotman, 1990); unrequited love (Baumeister, Wotman, & Stillwell, 1993); shame and guilt (Tangney, 1991); and hurt feelings (Leary, Springer, Negel, Ansell, & Evans, 1998).

### *Method*

#### *Sample*

Forty-two autobiographical narratives were retrieved from issues 24—27 of *Nostalgia*, which appeared throughout 1998 and 1999. Instructions to the authors were brief and read: "True personal experience, reflective, insightful." The narratives were between 1,000—1,500 words in length. No author submitted more than one story. Twenty-nine authors were female, 13 male. No information regarding author age was available, but in some cases age could be estimated based on the content of narratives and photographs of the authors. One of the youngest authors was in his early 20s, whereas one of the oldest authors was in his late 80s and described an experience from 1931.

#### *Coding*

Two trained judges with experience in qualitative data analysis independently coded the autobiographical narratives. Coding items were selected a priori and refined following inspection of a random sample of 10 narratives. These items will be described in the Results section together with the findings.

### *Results*

Inter-rater reliability, as assessed by Cohen's kappa ranged from .70—.88 for the coded measures. Judges resolved remaining disagreements through discussion.

### *Content of Nostalgic Experience*

*Salience of the self.* Table 1 lists the 4 categories used to code salience of the self, the proportion of narratives coded into each category, and a brief example for each category. Paired comparisons (Table 1) revealed that the self figured more frequently in a “major role” than in any of the three other roles (i.e., “sole actor,” “minor role,” or “outside observer”). Frequencies for these other roles did not differ significantly. The finding that the self was a salient protagonist in almost all narratives is consistent with the idea that nostalgia is a self-relevant emotion. The finding that the self rarely figured as either an “outside observer” or as “sole actor” reinforces the idea that nostalgia has important social facets.

*Object of nostalgia.* Table 2 lists the 7 categories used to code objects of nostalgia, the proportion of narratives coded into each category, and a brief example for each category. The most common objects of nostalgia were “persons” (33%). Paired comparisons (Table 2) revealed that “persons” were more frequently the object of nostalgia than all other objects except “momentous events” and, somewhat surprisingly, “animals.” “Momentous events” were more frequently the object of nostalgia than “past selves” and “periods in life,” and “animals” were more frequently the object of nostalgia than “periods in life” only.

*Redemption versus contamination.* Redemption and contamination sequences were treated as mutually exclusive and judges made a single judgment as to whether a given narrative was characterized by a redemption sequence (i.e., negative progresses to positive), a contamination sequence (i.e., positive progresses to negative), or neither. Table 3 presents the proportion of narratives coded into each category and a brief example for each category. Paired comparisons (Table 3) revealed that redemption sequences (67%) were significantly more prevalent than contamination sequences (29%).

*Affective signature.* Feelings expressed in the narratives were coded as a proxy for the affective signature of nostalgia. Judges rated on a 5-point scale the extent to which each of 20 feelings was expressed in the narratives (1 = *not at all*, 5 = *extremely*). The feelings were taken from the Positive and Negative Affect Scheme (PANAS; Watson, Clark, & Tellegen, 1988). Five

feelings (“attentive,” “interested,” “alert,” “nervous,” “jittery”) were omitted from our final analysis, because they proved difficult to code reliably. The average Spearman-Brown corrected inter-rater correlation across the final 15 feelings was .68 (range = .35—.95). We created composite measures of positive ( $\alpha = .81$ ) and negative ( $\alpha = .84$ ) affect by first averaging across judges and then averaging across positive and negative feelings, respectively. A paired comparison indicated that the narratives were richer in expressions of positive ( $M = 3.12$ ) than negative ( $M = 1.25$ ) affect,  $F(1, 41) = 147.62, p < .001$ .

### *Discussion*

This initial study of nostalgia paints a picture of a positively toned and self-relevant emotion that is often associated with the recall of experiences involving interactions with important others or of momentous life events. Although most narratives contained negative as well as positive elements, these elements were often juxtaposed so as to form a redemption sequence—a narrative pattern that progresses from a negative to a positive or triumphant life scene. This finding may explain why, despite the descriptions of disappointments and losses that they contained, the overall affective signature of the nostalgic narratives was predominantly—albeit not purely—positive. Shakespeare (1609/1996) captured sublimely this intricate pattern of relationships between nostalgia, redemption, and affect in his Sonnet #30:

When to the sessions of sweet silent thought  
I summon up remembrance of things past,  
I sigh the lack of many a thing I sought,  
And with old woes new wail my dear time's waste;  
...  
But if the while I think on thee, dear friend,  
All losses are restor'd and sorrows end. (p. 47)

### Study 2

The objectives of Study 2 were threefold. The first objective was to provide a conceptual replication of the key Study 1 findings. To this end, we extended our investigation in three ways.

(1) We used a sample that differed from the Study 1 sample in several respects. Whereas the Study 1 sample consisted of US nationals who submitted their narratives to the periodical *Nostalgia*, the Study 2 sample consisted of British nationals whose narratives were solicited. Furthermore, whereas in Study 1 we used a community sample characterized by a wide age range, in Study 2 we used an undergraduate sample characterized by a much narrower age range. The use of such diverse samples allows us to assess the generality of our findings. (2) We gave participants more detailed instructions. Whereas authors in Study 1 were instructed to write about “true personal experience,” Study 2 participants were asked specifically to write about a nostalgic experience, thus sharpening the focus of our inquiry. Furthermore, in Study 2 we asked participants to write specifically about the feelings they experienced due to remembering the nostalgic event. This allowed us to examine more directly than in Study 1 the affective signature of nostalgia. (3) We used multiple converging methodologies. Whereas Study 1 relied exclusively on content analysis, in Study 2 we also administered a series of self-report measures which were intended to supplement the content analysis.

The second objective of Study 2 was to assess the frequency with which nostalgia is typically experienced. Is nostalgia an esoteric experience or is it something that most persons experience on a regular basis? Although Boym (2002) argues, in her recent literary and cultural treatise of nostalgia, that it is an emotion experienced by almost all adults, there is little empirical evidence to speak to this claim.

The third objective of Study 2 was to conduct a preliminary investigation of the triggers and functions of nostalgia. We therefore solicited participants’ descriptions of circumstances that evoke nostalgia and of nostalgia’s desirable and undesirable features.

### *Method*

#### *Participants and Procedure*

Participants were 172 University of Southampton undergraduate students (148 females, 23 males, 1 of undeclared gender) who received course credit. Materials were administered in sessions ranging in size from 1—8 persons. Participants were seated at small desks separated by

partitions and completed the materials anonymously at their own pace. Debriefing concluded the testing session.

### *Materials*

*Nostalgic narrative.* Materials were presented in a single printed booklet. Instructions on the cover sheet read as follows:

Please think of a past event in your life that has personal meaning for you. This should be an event that you think about in a *nostalgic* way. Specifically, please try to think of an important part of your past (e.g., event or episode) that makes you feel *most nostalgic*.

Please bring this nostalgic experience to mind and think it through. Take a few minutes to think about your nostalgic experience.

Participants were instructed to write about the nostalgic experience “in all its vivid detail” and were encouraged to “be as detailed, thorough, and descriptive” as possible. The narratives were coded by the same two judges and using the same coding scheme as in Study 1.

*Affective signature of nostalgia.* After completing the narratives, written instructions prompted participants to “articulate as well as you can the emotions and feelings that you are experiencing *right now*, due to remembering this nostalgic experience.” Once participants completed the description of their emotions and feelings, they were asked to complete the PANAS. Participants were instructed to indicate how they felt as a result of having remembered the nostalgic experience by rating the PANAS items on a 5-point scale (1 = *not at all*, 5 = *extremely*).

*Triggers of nostalgia.* On the next page of the booklet, participants received written instructions prompting them to give a detailed description of the circumstances that trigger nostalgia. Development of coding categories was aided by descriptions of triggers collected in a pilot sample ( $N = 18$ ). These coding categories will be described in the Results section together with the findings.

*Desirable and undesirable features of nostalgia.* Participants were then asked to list as many general desirable and undesirable features of nostalgia as possible (counterbalanced for

order). After completing this task, participants were instructed to review their lists and rate the desirability of each feature on a 7-point scale (-3 = *not at all desirable*, 3 = *extremely desirable*).

*Frequency of nostalgia.* Finally, participants indicated how often they brought to mind nostalgic experiences by checking one of the following 7 options: “*at least once a day*”; “*three to four times a week*”; “*approximately twice a week*”; “*approximately once a week*”; “*once or twice a month*”; “*once every couple of months*”; and “*once or twice a year.*”

### Results

Given that there were no significant gender differences on any of the dependent measures, we omitted this variable from the analyses reported below. Inter-rater reliability, as assessed by Cohen’s kappa, ranged from .75—.82. Judges resolved remaining disagreements through discussion.

#### *Content of Nostalgic Experience*

*Salience of the self.* To facilitate a comparison with Study 1 findings, results for coded salience of the self are presented in the right-most column of Table 1. As in Study 1, the self was a central character in almost all narratives and was rarely isolated (i.e., figured as “sole actor” or “outside observer”). Paired comparisons (Table 1) revealed that the self figured more frequently in a “major role” than in any of the three other roles (i.e., “sole actor,” “minor role,” or “outside observer”). The self figured less frequently as “outside observer” than in a “minor role” or as “sole actor.”

*Object of nostalgia.* Results pertaining to the object of nostalgia are presented in the right-most column of Table 2. As in Study 1, the two most common objects of nostalgia were “persons” (28%) and “momentous events” (34%). These two objects again played a role in the majority of narratives. Paired comparisons (Table 2) revealed that “momentous events” were more frequently the object of nostalgia than all other objects except “persons.” “Persons,” in turn, were more frequently the object of nostalgia than all other objects except “settings” and “periods in life.” Note, finally, that “momentous events” often involved the presence of close others, such that judges sometimes had difficulty distinguishing these categories.

*Redemption versus contamination.* Results pertaining to the prevalence of redemption and contamination sequences are presented in the right-most column of Table 3. As in Study 1, redemption sequences (76%) were significantly more prevalent than contamination sequences (15%).

*Affective signature: Coded affect.* After participants completed the narrative, they were instructed to describe how writing about the nostalgic experience made them feel. Judges rated the extent to which participants expressed the 20 PANAS feelings (1 = *not at all*, 5 = *extremely*). The average Spearman-Brown corrected inter-rater correlation was .87 (range = .47-.97). We created composite measures of coded positive ( $\alpha = .86$ ) and negative ( $\alpha = .82$ ) affect by first averaging across judges and then averaging across the positive and negative feelings, respectively. Participants expressed significantly more positive ( $M = 2.37$ ) than negative ( $M = 1.37$ ) affect,  $F(1, 171) = 196.56, p < .001$ .

*Affective signature: Self-reported affect.* After participants described how writing about the nostalgic event made them feel, they completed the 20-item PANAS. Reliability alphas for self-report measures of positive and negative affect were .89 and .85, respectively. Participants reported more positive ( $M = 3.06$ ) than negative ( $M = 1.53$ ) affect,  $F(1, 171) = 294.61, p < .001$ . Scale means suggest that, although positive affect exceeds negative affect by a wide margin, nostalgia gives rise to gentle contentment rather than exuberant exaltation. This corroborates the results for coded affect described above and obtained in Study 1.<sup>1</sup>

*Ambivalence.* We drew on the attitude-ambivalence literature (see Eagly & Chaiken, 1993, for a review) to assess the degree to which participants reported ambivalent affect after completing the nostalgic narrative. We calculated ambivalence based on the self-report measures because we believe these provide the most direct reading of participants' affective responses. Following Kaplan (1972), ambivalence was defined as

$$A = PA + NA - |PA - NA|.$$

Here, A refers to ambivalence, PA to positive affect, and NA to negative affect. We subtracted a constant of 1 from PA and NA, so that the possible range of A becomes 0—8, with

0 indicating the absence of ambivalence. The mean for A was 0.90 ( $SD = 0.94$ ), indicating that nostalgia evoked only mild affective ambivalence. In light of these findings, Werman's (1977) characterization of nostalgia as "a joy tinged with sadness" (p. 393) seems particularly fitting.<sup>2</sup>

#### *Frequency of Nostalgia*

Sixteen percent of participants indicated that they experienced nostalgia "at least once a day"; 26% that they experienced nostalgia "three or four times a week" (mode); 19% that they experienced it "approximately twice a week" (median); and 18% that they experienced it "approximately once a week". Thus, 79% of participants indicated that they experienced nostalgia once a week or more. A further 17% of participants indicated that they experienced nostalgia "once or twice a month" and only 4% indicated that they experienced nostalgia less frequently than that (2% each for "once every couple of months" and "once or twice a year"). For the vast majority of participants, then, nostalgia is a common experience.

#### *Triggers of Nostalgia: Preliminary Findings*

Participants provided detailed descriptions of the circumstances under which they wax nostalgic. The coding categories, a brief description of the categories, and the proportion of descriptions coded into each category are presented in Table 4. The most common trigger of nostalgia was negative affect (38%). Paired comparisons (Table 4) revealed that negative affect was reported more frequently than any other trigger of nostalgia. Two other common triggers—sensory inputs and social interaction—did not differ significantly from each other but were both significantly more prevalent than all less common triggers.

Given the relative prominence of negative affect as a trigger of nostalgia, we examined more closely descriptions coded into this category. We made a distinction between discrete negative affective states (e.g., "lonely," "scared") and generalized affective states often referred to as negative mood (e.g., "sad," "depressed"). In contrast to more discrete affective states, which "arise from appraisals of specific actual or contemplated states of the world" (Bodenhausen, Sheppard, & Kramer, 1994, p. 46), mood often lacks a clearly delineated referent or antecedent (Schwartz & Clore, 1988).

Some participants mentioned both discrete and generalized negative affective states (e.g., “If I ever feel lonely or sad, I tend to think of my friends or family who I haven’t seen for a long time”), therefore the two categories were not treated as being mutually exclusive. Of those who listed negative affect as a trigger of nostalgia, 78% referred to negative mood and 58% referred to discrete negative affective states. Within the latter category, 59% of participants referred to loneliness, making it by far the most frequently mentioned discrete affective state.

#### *Functions of Nostalgia: Preliminary Findings*

Participants listed as many desirable and undesirable features of nostalgia as possible and then rated the desirability or undesirability of each feature. Participants listed significantly more desirable ( $M = 5.60$ ) than undesirable ( $M = 4.16$ ) features,  $F(1, 171) = 34.33, p < .001$ . To compare the rated desirability of the desirable features to the rated undesirability of the undesirable features, we folded the desirability scale by reversing the sign of negative ratings (e.g., -3 became +3). Desirable features were rated as being more desirable ( $M = 2.46$ ) than undesirable features were rated as being undesirable ( $M = 2.02$ ),  $F(1, 156) = 59.91, p < .001$ .<sup>3</sup> Thus, not only did participants list more desirable than undesirable features, but the desirable features were also regarded as being of greater consequence.

Next, we examined which desirable and undesirable features of nostalgia were mentioned most frequently. A research assistant transcribed all 1675 features listed and then sorted synonymous features into groups.<sup>4</sup> This resulted in 34 groups of synonymous desirable features and 22 groups of synonymous undesirable features. From these groups of synonyms, we then distilled 5 broad categories of desirable features and 5 broad categories of undesirable features by assembling groups of synonyms that we judged to be conceptually related (Table 5). Two independent judges then used this coding scheme to categorize all 1675 features listed. For each broad category, we counted the number of listed features it comprised and expressed this number as a proportion of the number of features listed. We did this separately for desirable features (column 3 of Table 5), undesirable features (column 4), and all features combined (column 5). The three most prominent categories of desirable features were “positive affect,” “social bonds,”

and “self-regard.” Sixty-seven percent of all desirable features were captured by these broad categories. Additional desirable features of nostalgia related to its perceived capacity to conserve positive memories and to promote personal growth.

Although participants listed fewer undesirable than desirable features of nostalgia, almost all participants (95%) could think of at least one undesirable feature. Most prominent by far was “negative affect.” Furthermore, the number of desirable and undesirable features listed were positively correlated,  $r(172) = .27, p < .01$ . These findings suggest that, rather than evaluating nostalgia in predominantly positive or negative terms, participants showed considerable nuance—acknowledging simultaneously desirable and undesirable features of nostalgia. They also underscore a vital point: nostalgia, despite its predominantly positive affective signature, is not a purely hedonic experience.

### *Discussion*

Study 2 findings corroborated the preliminary description of nostalgia that emerged from Study 1. In both studies, nostalgia was associated with memories in which the self figured prominently and that typically related to interactions with important others or to momentous events. Nostalgic narratives often contained descriptions of disappointments and losses but, in the vast majority of cases, these negative life scenes were redeemed or mitigated by subsequent successes or triumphs over adversity. And although nostalgic narratives did not always tell happy stories (Table 3), they evoked considerably more positive than negative affect, with little trace of ambivalence. This between-study consistency is particularly noteworthy bearing in mind that (1) the two studies used samples that differed in terms of nationality, age range, and recruitment method; (2) participants in Study 2 but not those in Study 1 were requested explicitly to write about nostalgic experiences; and (3) results for self-report measures of affect collected in Study 2 converged with results from the content analysis of narratives in both studies.

Results further indicated that, for the vast majority of participants, nostalgia is a common experience. Just under 80% of participants indicated that they experience nostalgia at least once a week, and close to half of all participants (42%) indicated that they experience nostalgia at least

three or four times a week. These findings show that nostalgia is not an esoteric phenomenon but, rather, a strand in the fabric of everyday life.

Study 2 also provided insight into the triggers of nostalgia. Chief among these was negative affect. The high frequency with which this trigger was listed is consistent with Davis's (1979) notion that nostalgia "occurs in the context of present fears, discontents, anxieties, and uncertainties" (p. 34) and suggests that participants may retrieve nostalgic memories in an attempt to counteract negative affect. Consistent with the latter idea, Josephson, Singer, and Salovey (1996) found that participants in a sad-mood condition who retrieved positive autobiographical memories frequently described this as an attempt at mood repair. Other common triggers were social interaction (e.g., conversations with friends) and sensory input (e.g., smells). The role of social interaction underscores the interpersonal aspects of nostalgia. Not only are important others often the object of nostalgia, frequently they are also a trigger of nostalgia. In the words of one astute participant, nostalgia often arises from "being in the presence of the people concerned." Such social sharing of nostalgic episodes may help to maintain their accessibility (Walker, Skowronski, & Thompson, 2003). In addition, the role of sensory input is consistent with findings that tastes and odors can trigger vivid, affect-laden memories (i.e. the "Proust phenomenon"; Chu & Downes, 2000).

Finally, Study 2 offered initial insights into the functions of nostalgia. Chief among the perceived benefits of nostalgia were its capacity to generate positive affect, bolster social bonds, and increase positive self regard.

#### Studies 3 and 4: Triggers of Nostalgia

In Studies 3 and 4, we sought to examine in more detail the notion that nostalgia occurs in reaction to negative affect. By focusing on negative affect, we do not mean to suggest that other triggers of nostalgia—such as social interaction or sensory input—do not merit further investigation or to claim that negative affect is always the primary trigger of nostalgia. Study 2 revealed, however, that negative affect is widely considered to be an important trigger of nostalgia and it was this finding that provided the initial impetus for the present studies.

Although there exists, to the best of our knowledge, no research on the link between negative affect and nostalgia, a sizeable literature on the link between affect and self-relevant cognitions has emerged. This literature generally supports the idea that negative affect is associated with negative self-relevant cognitions, including the retrieval of negative autobiographical memories (i.e., mood congruency; for reviews, see: Sedikides, 1992; Sedikides & Green, 2001; Rusting, 1998). There is, however, some evidence to suggest that negative affect can also increase the retrieval and accessibility of positive autobiographical memories under certain circumstances (i.e., mood incongruency).

Research documenting a link between negative affect and retrieval of positive autobiographical memories has typically involved asking participants to write brief accounts of events that happened when they were in high school. The dependent variable in these studies was the valence (positive vs. negative) of the autobiographical narratives as rated by participants, independent judges, or both. Results indicated that negative affect can increase retrieval of positive autobiographical memories but only when self-esteem is high (Smith & Petty, 1995), when persons acknowledge rather than attempt to repress the negative affect (McFarland & Buehler, 1997), when persons are unaware of the relevance of their moods to the experiment (Parrott & Sabini, 1990), or when persons both believe that they will be successful in their efforts to regulate negative moods and engage in positive reappraisal of the mood-inducing event (Rusting & DeHart, 2000). Research documenting a link between negative affect and accessibility of positive autobiographical narratives has involved cued recall tasks. Memory accessibility was operationalized as the time elapsed between cue (e.g., “a time in your life when you were particularly happy”) and recall of the event. Results revealed that negative affect can increase the accessibility of positive autobiographical memories but only for persons who are inclined to repress rather than acknowledge negative affect (Boden & Baumeister, 1997), or for non-dysphoric persons (Joormann & Siemer, 2004).

The present studies share certain similarities with those referenced above. For instance, they share the assumption that persons may draw on certain aspects of their past to counteract

negative affect. Still, there are also some important distinctions. Past research has focused almost exclusively on the valence of autobiographical memories. Findings from Studies 1 and 2 indicate, however, that it would be an oversimplification to regard nostalgic memories as either entirely positive or negative. Nostalgic narratives often contained both negative and positive ingredients (usually in that order; see the redemption vs. contamination findings of Studies 1 and 2). Furthermore, although Study 2 participants listed more desirable than undesirable features of nostalgia, almost all participants could think of some undesirable features.

Another important distinction is that previous research was concerned with autobiographical memory for a narrowly delineated period of life (e.g., one's high-school years) or domain of skills (e.g., social skills). We recognize that, when research is concerned with the valence of autobiographical memory, it is reasonable to define clearly a specific period of life to which the autobiographical memory should pertain to facilitate between-condition comparisons and eliminate potential sources of error variance. When the focus is on nostalgia, however, this methodological practice seems unnecessarily constraining. In Studies 3 and 4, we therefore focused on the relation between negative affect and feelings of nostalgia for a broad range of aspects of one's past.

### Study 3

We found in Study 2 that a majority of participants who listed negative affect as a trigger of nostalgia described diffuse affective states often referred to as negative mood (e.g., "down," "sad," "depressed"). This provides one rationale for exploring first the effect of negative mood on nostalgia. There is also a strong theoretical rationale. Research has uncovered a wealth of evidence that people respond to negative mood with a wide array of mood-regulation strategies (Larsen & Prizmic, 2004). Confirmation of the postulated effect of negative mood on nostalgia would raise the interesting possibility that nostalgia can serve to counteract negative mood.

The key objective of Study 3 was to examine whether participants in a negative mood state experience more nostalgia than those in a neutral mood state. An additional objective of Study 3 related to the role of positive mood. We examined the possibility that nostalgia is

triggered by both negative and positive mood states (i.e., deviations from neutral in either direction). In this case, participants in either a negative or positive mood state should experience more nostalgia than neutral mood participants.

### *Method*

#### *Participants and Design*

Participants were 62 female undergraduate volunteers enrolled at the University of Southampton. They were randomly assigned to either the negative, neutral, or positive mood condition.

#### *Materials and Procedure*

Participants received a booklet containing the mood manipulation and dependent measures. In the negative mood condition, they read a news story based on the tsunami that struck coastal regions in Asia and Africa in December, 2004. In the neutral mood condition, participants read a news story based on the January, 2005 landing of the Huygens probe on Titan, one of Saturn's moons. In the positive mood condition, participants read a news story based on the November, 2004 birth of a polar bear in the Detroit Zoo (we substituted "London Zoo" for "Detroit Zoo"). Participants in all conditions were then instructed to write down 3 to 5 keywords that captured their "emotional response to this event" and to think about how the event made them feel. After approximately 2 minutes, participants then proceeded to complete measures of positive and negative affect, and of nostalgia.

*Manipulation check.* The manipulation check comprised 12 items, 6 each to assess positive (e.g., "happy," "content") and negative (e.g., "sad," "depressed") affect. The items were rated on a 5-point scale (1 = *not at all*, 5 = *very much*). Reliability alphas were .96 and .94 for measures of positive and negative affect, respectively.

*Nostalgia.* We administered two measures of nostalgia. Participants first completed Batcho's (1995) Nostalgia Inventory (NI). They rated on a 5-point scale (1 = *not at all*, 5 = *very much*) the extent to which they missed 18 aspects of their past ( $\alpha = .88$ ). The items were: "my family," "not having to worry," "places," "music," "someone I loved," "my friends," "things I

did,” “my childhood toys,” “the way people were,” “feelings I had,” “my school,” “having someone to depend on,” “holidays I went on,” “the way society was,” my pets,” “not knowing sad or evil things,” “past TV shows, movies,” and “my family house.”<sup>5</sup> Batcho (1995, 1998) provided preliminary evidence for the validity of the NI. Nonetheless, we were concerned that certain properties of the NI could bias our findings. For instance, by instructing participants to rate the extent to which they “miss” aspects of their past, the NI focuses attention on just a single facet of what we consider to be a multifaceted emotion. For this reason, we constructed an additional measure of nostalgia comprising 3 items that were rated on a 6-point scale (1 = *strongly disagree*, 6 = *strongly agree*). The items were: “Right now, I am feeling quite nostalgic,” “Right now, I am having nostalgic thoughts,” and “I feel nostalgic at the moment” ( $\alpha = .95$ ). The use of convergent operations of nostalgia can provide valuable information regarding the construct validity of our measures.

### *Results*

#### *Manipulation Check*

The mood manipulation was successful. There was a significant effect for the mood manipulation on negative affect,  $F(2, 59) = 76.95, p < .001$ . Relevant means are presented in Table 6. Post-hoc tests (Tukey’s HSD) revealed that participants in the negative mood condition experienced significantly more negative affect than those in the neutral and positive mood conditions. The neutral and positive mood conditions did not differ significantly.<sup>6</sup> There was also a significant effect for the mood manipulation on positive affect,  $F(2, 59) = 35.40, p < .001$ . Post-hoc tests revealed that participants in the positive mood condition experienced significantly more positive affect than those in the neutral and negative mood conditions. Participants in the neutral mood condition experienced significantly more positive affect than those in the negative mood condition. As intended, then, participants in the negative mood condition reported high levels of negative affect and low levels of positive affect, those in the positive mood condition reported high levels of positive affect and low levels of negative affect, and those in the neutral mood condition reported low levels of both negative and positive affect.

### *Nostalgia*

There was a significant effect for the mood manipulation on the average NI score,  $F(2, 57) = 12.53, p < .001$ . Relevant means are presented in Table 6. Consistent with the postulated link between negative affect and nostalgia, post-hoc tests (Tukey's HSD) revealed that participants in the negative mood condition scored higher on the NI than those in the neutral and positive mood conditions. The neutral and positive mood conditions did not differ significantly.

Although the NI forms an internally consistent measure, given the uncharted domain of this research, we wanted to explore the mood effect in greater detail. We therefore tested for each NI item a contrast between the negative mood condition and the neutral and positive mood conditions pooled. Fourteen out of 18 comparisons revealed higher ratings in the negative mood condition. Of these 14 comparisons, 8 were statistically significant ( $\alpha = .05/18 = .0028$ ). Negative mood increased significantly the ratings of the following items: "my family," "someone I loved," "my friends," "the way people were," "having someone to depend on," "my family house," "the way society was," and "things I did." These item-level results should be interpreted with caution, but they do suggest that negative mood increased in particular feelings of nostalgia associated with social aspects of participants' past.

Analysis of the second measure of nostalgia also revealed a significant effect for the mood manipulation,  $F(2, 59) = 7.23, p < .01$ . In agreement with NI results, post-hoc tests revealed that participants in the negative mood condition felt significantly more nostalgic than those in the neutral and positive mood conditions (Table 6). The neutral and positive mood conditions did not differ significantly. Evidence for the convergent validity of the two nostalgia measures was provided by their average within-cell correlation, which was substantial,  $r(62) = .55, p < .001$ .

### *Discussion*

Consistent with the postulated causal link between negative mood and nostalgia, there was a significant difference between the neutral and negative mood condition on each nostalgia measure. Inconsistent with the possibility that nostalgia is triggered by positive as well as

negative mood states, there was no significant difference between the neutral and positive mood condition on either nostalgia measure. These findings lend credence to the descriptions of triggers provided by participants in Study 2 and raise the interesting possibility that nostalgia serves to counteract negative mood.

There are, however, at least two limitations to the present study. First, we think it is important to look beyond global negative mood and focus on the role of discrete affective states to achieve a more detailed understanding of the link between negative affect and nostalgia. On this point, we find ourselves in agreement with other investigators who have emphasized the unique influences of discrete affective states on outcomes such as persuasion (Tiedens & Linton, 2001), intergroup hostility (Mackie, Devos, & Smith, 2000), and stereotyping (Bodenhausen et al., 1994). Second, our mood manipulation may have produced variation not only in mood but also in participants' thoughts and motivations (Forgas & Ciarrochi, 2002). Such threats to construct validity are particularly relevant when, as in the present study, a novel rather than well-established manipulation is used. To corroborate the preliminary evidence for a causal link between negative affect and nostalgia, it is therefore desirable to use an alternative manipulation in a related experiment. We seek to address these two issues in Study 4.

#### Study 4

Study 4 had two related objectives. First, we sought to examine the effect of discrete rather than global negative affective states on nostalgia. Study 2 showed that participants who listed a discrete negative affective state as trigger of nostalgia frequently described feelings of loneliness. This finding provides one rationale for exploring in greater detail the effect of loneliness on nostalgia. There is also a compelling theoretical reason for targeting loneliness. Research has shown that deficiencies in belongingness elicit compensatory mechanisms. For instance, Williams and Sommers (1997) found that women responded to rejection from a group by working harder on a subsequent collective task. In a similar vein, Gardner, Pickett, and Brewer (2000) found that rejection experiences resulted in selective retention of social

information. Confirmation of the postulated effect of loneliness on nostalgia would raise the interesting possibility that nostalgia can serve to redress deficiencies in belongingness.

The second objective of Study 4 was to provide a conceptual replication of Study 3 using an alternative manipulation of negative affect. Thus, we manipulated loneliness by offering participants false feedback from a personality test that allegedly assessed their level of loneliness.

### *Method*

#### *Participants and Design*

Participants were 43 University of Southampton undergraduate students (40 females; 3 males) who received course credit. They were randomly assigned to one of two conditions (high vs. low loneliness).

#### *Materials and Procedure*

Experimental session ranged in size from 1—10 persons. Participants completed, first, a questionnaire labeled “Southampton Loneliness Scale.” Participants indicated whether they agreed or disagreed with each of 15 statements drawn from the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980). Statements administered to participants in the high loneliness condition were phrased so as to elicit agreement. This was achieved by prefacing each statement with the words “I sometimes,” as in “I sometimes feel isolated from others.” Statements administered to participants in the low loneliness condition were phrased so as to elicit disagreement. This was achieved by prefacing each statement with the words “I always,” as in “I always feel alone.” As intended, participants in the high loneliness condition ( $M = 8.70$ ) agreed with a greater number of statements than did participants in the low loneliness condition ( $M = 0.80$ ),  $F(1, 41) = 121.66, p < .001$ . This set the stage for the second part of the loneliness manipulation. After participants completed the loneliness questionnaire, they were told that the experimenter would score their questionnaires and provide them with feedback regarding their level of loneliness. This feedback was provided on a form containing the following information:

The University of Southampton Loneliness scale has been administered to a large number of University students over the last five years. Based on the responses of over twelve hundred students, we have developed a way of scoring your answers. This allows us to provide you with valid and detailed feedback regarding your level of loneliness.

Participants in the high loneliness condition were informed that they were in the 62<sup>nd</sup> percentile of the loneliness distribution and that, compared to other University of Southampton students, they were therefore “above average on loneliness.” Participants in the low loneliness condition were informed that they were in the 12<sup>th</sup> percentile of the loneliness distribution and that, compared to other University of Southampton students, they were “very low on loneliness.” Next we asked participants to explain their loneliness score on a separate sheet of paper. This instruction was aimed at strengthening the loneliness manipulation.

Next, participants completed the manipulation check and a measure of nostalgia. The manipulation check consisted of three items ( $\alpha = .91$ ) designed to assess state loneliness (e.g., “Right now, I feel a bit lonely”). The items were rated on a 5-point scale (1 = *strongly disagree*; 5 = *strongly agree*). Nostalgia was measured with the 18-item NI ( $\alpha = .83$ ).

### *Results and Discussion*

#### *Manipulation Check*

As intended, participants in the high-loneliness condition ( $M = 2.90$ ) reported higher levels of loneliness than those in the low-loneliness condition ( $M = 1.28$ ),  $F(1, 41) = 54.91$ ,  $p < .001$ .

#### *Nostalgia*

Consistent with a causal effect of loneliness on nostalgia, the average rating across all NI items was higher in the high-loneliness ( $M = 3.01$ ) than in the low-loneliness ( $M = 2.56$ ) condition,  $F(1, 41) = 6.11$ ,  $p < .05$ . As before, we also conducted for each NI item a t-test comparing the high- and low-loneliness conditions. Fifteen out of 18 comparisons revealed higher ratings in the high-loneliness condition. Of these 15 comparisons, 4 were statistically

significant. High loneliness increased significantly the ratings of the following items: “my family,” “the way people were,” “having someone to depend on,” and “not having to worry.”

Replicating conceptually Study 3, the present findings provide further corroborating evidence for a causal link between negative affect and nostalgia. These findings extend Study 3 findings in two important ways. First, whereas before we focused on the link between global negative mood and nostalgia, we now provide evidence for a link between a discrete negative affective state—loneliness—and nostalgia. This constitutes a critical first step beyond a singular focus on global negative mood and toward a more differentiated understanding of the discrete affective antecedents of nostalgia. Second, whereas before we manipulated negative mood by presenting participants with one of two factually-based news stories, in the present study we manipulated loneliness by providing participants with false feedback from a personality test. The use of such different yet converging manipulations in related studies is crucial, because it contributes toward establishing the construct validity of said studies.

Why might negative mood and loneliness elicit feelings of nostalgia? Studies 3 and 4 raised the interesting possibility that nostalgia may serve to counteract negative mood and loneliness. They did not, however, test these ideas directly. In Studies 5—7, we made the functional utility of nostalgia the central focus of our investigation.

#### Studies 5, 6, and 7: Functions of Nostalgia

In the search for functions of nostalgia, Study 2 provides valuable leads. Recall that participants in this study listed as many desirable and undesirable features of nostalgia as they could. Most desirable features of nostalgia referred to its perceived capacity to generate positive affect, increase positive self-regard, and bolster social bonds. It is these functional aspects of nostalgia that constitute the focus of Studies 5, 6, and 7. We do not mean to suggest that this set of functions exhausts all possibilities or that other possible functions of nostalgia are uninteresting or unimportant. However, both extant conceptual treatises of nostalgia and the wider social-psychological literature provide a sound theoretical rationale for targeting these particular functions.

### *Social Bonds*

Individuals have a fundamental need to belong (Baumeister & Leary, 1995). This is illustrated, for instance, by findings that persons form social bonds with relative ease (Festinger, Schachter, & Back, 1950) and are reluctant to break social bonds (Vaughan, 1986). However, life transitions (e.g., graduating from college, finding new employment) inevitably lead to changes in social settings. The deterioration or even dissolution of valued social bonds that often accompanies such transitions can make people feel adrift and isolated (Colson, 1971). In addition, social bonds can be threatened by more momentary interpersonal rejections (Williams, 1997). We propose that by re-igniting meaningful relationships nostalgia bolsters social bonds and renders accessible positive relational knowledge structures (i.e., working models of self and others in the context of relationships; Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996). In nostalgic reverie, "... the mind is 'peopled'" (Hertz, 1990, p. 195). Important figures from one's past are brought to life and become part of one's present (Cavanaugh, 1989). As such, nostalgia may even play a role in coping with bereavement (Mills & Coleman, 1994).

### *Self-Regard*

People are motivated to establish and maintain a positive self-concept (Sedikides, Gaertner, & Toguchi, 2003; Sedikides & Strube, 1997). We propose that nostalgia offers a way to protect and increase self-regard by affirming valued aspects of the self that "reinforce one's overall self-adequacy" (Steele, Spencer, & Lynch 1993, p. 885). Nostalgia can bestow "an endearing luster" on the self and cast "marginal, fugitive, and eccentric facets of earlier selves in a positive light" (Davis, 1979, pp. 41-46). Furthermore, nostalgic reverie can serve to affirm one's positive qualities as a friend, family member, or member of other important groups (Kleiner, 1977).

### *Positive Affect*

Positive affect is associated with a host of desirable outcomes. To name but a few, it facilitates approach behavior (Watson, Wiese, Vaidya, & Tellegen, 1999), increases subjective well-being (Diener, Sandvik, & Pavot, 1991), fosters psychological resiliency (Aspinwall &

Taylor, 1997), and gives rise to thought patterns that are flexible, creative, integrative, and efficient (Isen, 2004). We propose that nostalgia serves as a store of positive affect. Kaplan (1987) characterized nostalgia as a “joyous” experience that gives rise to “an expansive state of mind” and “a feeling of elation” (p. 465). Similarly positive characterizations have been offered by Batcho (1995, 1998), Chaplin (2000), Davis (1977, 1979), Gabriel (1993), and Holak and Havlena (1998). The findings of Studies 1 and 2 further attest to the predominantly positive affective tone of nostalgia.

### Study 5

Study 5 is a preliminary investigation of three functions of nostalgia. Participants were instructed to think about either a nostalgic or ordinary event from their past and then completed brief 2-item measures of social bonding, self-regard, and positive and negative affect. Items were drawn from representative desirable and undesirable features of nostalgia listed by Study 2 participants (Table 5). Negative affect was assessed because Study 2 identified it as the most undesirable feature of nostalgia. This suggests the possibility that nostalgia increases both positive and negative affect.

### *Method*

#### *Participants and Design*

Participants were 52 University of Southampton undergraduate volunteers (45 females; 7 males). They were randomly assigned to one of two conditions (nostalgia vs. control).

#### *Materials and Procedure*

Participants received a booklet containing instructions relevant to the experimental manipulation of nostalgia, a manipulation check, and a set of dependent measures. In the nostalgia condition, participants were instructed to “...bring to mind a nostalgic event in your life. Specifically, try to think of a past event that makes you feel most nostalgic.” In the control condition, they were instructed to “...bring to mind an ordinary event in your daily life—an event that took place in the last week.” Participants were then instructed to write down four keywords relevant to the event, and to take a few moments to think about the event and how it made them

feel. Subsequently, they completed the manipulation check and the remaining dependent measures.

*Manipulation check.* Participants rated on a 6-point scale (1 = *strongly disagree*; 6 = *strongly agree*) 2 items designed as a check on the nostalgia manipulation. The items were: “Right now, I am feeling quite nostalgic” and “Right now, I’m having nostalgic feelings” ( $\alpha = .96$ ).

*Functions.* Participants rated on a 5-point scale (1 = *not at all*; 5 = *extremely*) the extent to which thinking about the nostalgic or ordinary event made them feel “loved,” and “protected” (to measure social bonding); “significant,” and “high self-esteem” (to measure positive self-regard); “happy,” and “content” (to measure positive affect); and “sad” and “blue” (to measure negative affect). All reliability alphas exceeded .75.

## *Results*

### *Manipulation Check*

Analysis of the manipulation check revealed that, as intended, participants in the nostalgia condition ( $M = 4.52$ ) felt more nostalgic than those in the control condition ( $M = 2.81$ ),  $F(1, 50) = 21.69, p < .001$ .

### *Functions*

Relative to participants in the control condition, those in the nostalgia condition scored higher on measures of social bonding ( $M = 3.79$  vs. 2.65),  $F(1, 50) = 12.88, p < .001$ , positive self-regard ( $M = 3.81$  vs. 2.81),  $F(1, 50) = 15.63, p < .001$ , and positive affect ( $M = 4.21$  vs. 3.27),  $F(1, 50) = 8.05, p < .01$ . These results provide evidence for the three postulated functions of nostalgia. There was no significant difference between the nostalgia ( $M = 1.58$ ) and control ( $M = 1.37$ ) conditions for negative affect,  $F(1, 50) = 0.79, p < .38$ . The latter result is important in light of the Study 2 finding that participants considered negative affect to be the most undesirable feature of nostalgia. The present findings indicate that, although thinking about a nostalgic event may elicit some level of negative affect, this level does not exceed significantly that elicited by thinking about an ordinary event.

### *Discussion*

These findings advance in two important ways our understanding of nostalgia and its functions. First, they demonstrate the feasibility of manipulating in-the-moment feelings of nostalgia. Second, they provide vital preliminary support for the idea that nostalgia bolsters social bonds, increases self-regard, and generates positive affect.

There are, however, at least two limitations to the present study. The first limitation concerns the construct validity of our brief, 2-item measures. Although confirmation of the predicted nostalgia effects on measures of social bonding, self-regard, and positive affect can be regarded as evidence for the construct validity of said measures (Cronbach & Meehl, 1955), it is desirable to replicate these results with well-established and validated measures of the focal outcome variables. This was the first objective of Study 6.

The second limitation concerns the manipulation of nostalgia. It is likely that this single manipulation underrepresented or failed to capture entirely the experience of nostalgia. For instance, the instruction to think for “a few moments” about the nostalgic (or ordinary) experience may not have elicited the deeper reflection that can accompany feelings of nostalgia. Furthermore, we did not provide participants with a definition of nostalgia. The reason for not doing so was that we did not want to constrain or steer participants’ personal conceptualizations of nostalgia. It is, however, important to rule out the possibility that the present findings stem from an idiosyncratic conceptualization of nostalgia specific to our sample. The second objective of Study 6, then, was to use instructions that were designed to immerse participants more deeply in the nostalgic experience and included a dictionary definition of nostalgia. This use of alternative instructions in related experiments allows us to establish the generalizability of our findings across procedures. This is particularly important when, as in the present case, there is no established body of research to inform our experimental manipulations.

### Study 6

#### *Method*

#### *Participants and Design*

Participants were 54 University of Southampton undergraduates (46 females, 8 males) who received course credit. They were randomly assigned to one of two conditions (nostalgia vs. control).

### *Materials and Procedure*

On arrival at the laboratory, participants were seated in separate cubicles. In the nostalgia condition, participants received the following instructions:

According to the Oxford Dictionary, ‘nostalgia’ is defined as a ‘sentimental longing for the past.’ Please think of a nostalgic event in your life—a nostalgic event that has personal meaning for you. Specifically, try to think of a past event that makes you feel most nostalgic. Bring this experience to mind. Immerse yourself in the nostalgic experience. How does it make you feel? Then, write about this experience in the space below. Describe the experience and how it makes you feel nostalgic.

In the control condition, instructions read:

Please think of an ordinary event in your life that took place in the last week. Try to bring this event to mind and think it through as though you were an observer of the event, rather than directly involved. Imagine the event as though you were an historian recording factual details (e.g., I got on the number 37 bus). Then, please write about this everyday event in the space below. Write a purely factual and detailed account (e.g., like in a court of law, avoiding emotionally expressive words).

Participants were given 6 minutes to complete their narratives. They then responded to a manipulation check (identical to Study 5;  $\alpha = .86$ ) and filled out validated measures of social bonding, positive self-regard, and positive and negative affect.

*Social bonding.* We administered the Revised Experiences in Close Relationships Scale (ECR-R; Fraley, Waller, & Brennan, 2000) as a measure of social bonding. The ECR-R assesses the dimensions of attachment anxiety (e.g., “I worry that romantic partners won’t care about me as much as I care about them”) and attachment avoidance (e.g., “I am very uncomfortable with being close to romantic partners”). The anxiety ( $\alpha = .90$ ) and avoidance ( $\alpha = .96$ ) subscales each

consisted of 18 items that were rated on a 7-point scale (1 = “*strongly disagree*”; 7 = “*strongly agree*”).

*Positive self-regard.* We administered the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) to measure self-regard ( $\alpha = .88$ ). Items were rated on a 6-point scale (1 = *strong disagreement*; 6 = *strong agreement*).

*Positive and negative affect.* We administered the 20-item version of the PANAS to measure positive ( $\alpha = .88$ ) and negative affect ( $\alpha = .82$ ). Items were rated on a 5-point scale (1 = *not at all*; 5 = *extremely*).

## Results

### Manipulation Check

The manipulation check revealed that, as intended, participants in the nostalgia condition ( $M = 4.80$ ) felt more nostalgic than those in the control condition ( $M = 2.92$ ),  $F(1, 52) = 65.21, p < .001$ .

### Functions

Results revealed a successful conceptual replication of Study 5 findings. Consistent with the postulated capacity of nostalgia to bolster social bonds and render accessible positive relational knowledge structures, participants in the nostalgia condition evinced a more secure attachment style than those in the control condition. Relative to controls, participants in the nostalgia condition reported lower levels of attachment anxiety ( $M = 2.40$  vs.  $2.90$ ),  $F(1, 52) = 4.34, p < .05$ , and lower levels of attachment avoidance ( $M = 2.35$  vs.  $2.87$ ),  $F(1, 52) = 3.14, p < .08$ .

Consistent with the postulated capacity of nostalgia to increase self-regard, participants in the nostalgia condition ( $M = 5.08$ ) reported significantly higher self-esteem than those in the control condition ( $M = 4.62$ ),  $F(1, 52) = 5.71, p < .05$ .

Consistent with the postulated capacity of nostalgia to generate positive affect, participants in the nostalgia condition ( $M = 2.81$ ) reported more positive affect than those in the control condition ( $M = 2.29$ ),  $F(1, 52) = 7.03, p < .01$ . Participants in the nostalgia ( $M = 1.24$ )

and control condition ( $M = 1.37$ ) did not differ significantly on negative affect,  $F(1, 52) = 1.32, p < .26$ .

### *Discussion*

By demonstrating that Study 5 results generalize across different measures and manipulations, the present findings offer vital reinforcement for the idea that nostalgia bolsters social bonds, increases self-regard, and generates positive affect. There is, however, at least one remaining issue that should be addressed. This relates to the evenness with which the ECR-R, the RSE, and the PANAS assess the postulated functions of social bonding, self-regard, and positive affect, respectively.

In particular, we were concerned that the ECR-R, because it relates exclusively to interactions with romantic partners, may not have captured strength of social bonds to the same extent as the RSE captured self-regard or the PANAS captured positive (and negative) affect. To address this issue, Study 7 investigated the effect of nostalgia on three domains of interpersonal competence in everyday social interactions. If nostalgia bolsters social bonds and renders accessible positive relational knowledge structures, it should increase people's perceived ability to form, maintain, and develop successfully not only romantic relationships but interpersonal relationships in general. A secondary objective of Study 7 was to provide a strong test of gender differences. With the exception of Study 1, the high female-to-male ratio in our participant pool ( $\approx 8:1$ ) was reflected in our samples, rendering tests of gender differences either meaningless or underpowered. In Study 7, we succeeded in recruiting approximately equal numbers of female and male participants through campus-wide advertisements.

### *Study 7*

#### *Method*

##### *Participants and Design*

Participants were 121 University of Southampton undergraduate volunteers (67 females, 52 males, 2 of undeclared gender). They were randomly assigned to one of two conditions (nostalgia vs. control).

### *Procedure and Materials*

Participants received a booklet containing instructions relevant to the manipulation of nostalgia, a manipulation check, and an assessment of three domains of interpersonal competence. The manipulation of nostalgia was identical to the manipulation used in Study 5. The manipulation check was identical to the one used in the two preceding studies ( $\alpha = .96$ ).

*Interpersonal competence.* We administered the Initiation, Disclosure, and Emotional Support subscales from the Interpersonal Competence Questionnaire (ICQ; Buhrmeister, Furman, Wittenberg, & Reis, 1988) to assess perceived competence in, respectively, initiating interactions and relationships (“Going to parties or gatherings where you don’t know people well in order to start up new relationships”), self-disclosing personal information (“Telling a close companion how much you appreciate and care for him or her”), and providing emotional support to others (e.g., “Helping a close companion get to the heart of a problem he or she is experiencing”). These three domains of interpersonal competence were assessed with 8 items each (alphas  $> .92$ ). Ratings were made on a 5-point scale (1 = *disagree*; 5 = *agree*).

### *Results and Discussion*

Initial analyses revealed no significant or marginal effects involving gender. Therefore gender was not included as independent variable in the final analyses reported below.

Denominator degrees of freedom vary due to missing values.

#### *Manipulation Check*

As intended, participants in the nostalgia condition ( $M = 3.90$ ) felt more nostalgic than those in the control condition ( $M = 2.79$ ),  $F(1, 118) = 19.39, p < .001$ .

#### *Interpersonal Competence*

Relative to participants in the control condition, those in the nostalgia condition evinced greater interpersonal competence in the domains of initiation ( $M = 3.12$  vs. 2.61),  $F(1, 118) = 6.97, p < .01$ , self-disclosure ( $M = 3.17$  vs. 2.59),  $F(1, 119) = 9.81, p < .001$ , and emotional support ( $M = 3.47$  vs. 2.97),  $F(1, 119) = 6.71, p < .05$ . These findings provide further

corroborating evidence for the idea that nostalgia bolsters social bonds and, importantly, show that this effect generalizes beyond the realm of romantic relationships and across gender.

### General Discussion

Although the term “nostalgia” was not coined until the late 17<sup>th</sup> century (Hofer, 1688/1934), references to its meaning can be traced back as far as the writings of Shakespeare, Caesar, Hippocrates, and Homer. Indeed, it is surprising that nostalgia has long been neglected in psychological scholarship. Granted, there has been speculation, mostly from a psychodynamic perspective, about the nature of nostalgia but rarely have these ideas been tested empirically. To find our bearings in this novel territory, we sought to address three basic questions pertaining, respectively, to the content, triggers, and functions of nostalgia.

### *Summary of Findings*

#### *The Content Question*

Studies 1 and 2 sought to examine the content of nostalgic experience using a phenomenon-based approach (Sternberg & Grigorenko, 2001) that both acknowledged the breadth of lay conceptualizations of nostalgia and was informed by existing theoretical treatises on the topic. Study 1 was a content analysis of autobiographical narratives published in the periodical *Nostalgia*. Study 2 used a vivid-recall methodology in which participants recalled a nostalgic experience, wrote a narrative account of this experience, and completed self-report measures regarding the experience. Despite the fact that these studies were methodologically diverse in areas of recruitment (e.g., US vs. British nationality, heterogeneous vs. homogeneous age composition), procedure (e.g., absence vs. presence of explicit nostalgia instructions), and measurement (e.g., absence vs. presence of self-report measures), they yielded remarkably consistent findings. In both Studies 1 and 2, nostalgic narratives typically featured the self as central character and revolved around interactions with important others (e.g., friends, loved ones) or momentous events (e.g., graduation ceremonies, birth of a child). The narratives often contained descriptions of disappointments and losses but, in a large majority of cases, these negative life scenes were redeemed or mitigated by subsequent triumphs over adversity.

Furthermore, nostalgic narratives were richer in expressions of positive than negative affect (Study 1), and participants reported experiencing more positive than negative affect after recalling a nostalgic event (Study 2).

### *The Trigger Question*

Our second basic question related to the triggers of nostalgia and was addressed directly in Studies 3 and 4. Study 3 provided strong evidence for a causal link between negative mood and nostalgia. Following a mood manipulation, participants completed two measures of nostalgia: the NI (Batcho, 1995) and a 3-item measure designed to assess in-the-moment feelings of nostalgia. Participants in the negative mood condition scored significantly higher on both measures of nostalgia than participants in the neutral and positive mood conditions. The latter two conditions did not differ significantly on either measure. Study 4 made two additional contributions. First, it examined the role of a discrete affective state—loneliness—in order to achieve a more detailed understanding of the link between negative affect and nostalgia. The second contribution of Study 4 was that our manipulation of loneliness, which involved giving participants false feedback from a personality test, departed considerably from the mood manipulation used in Study 3, which involved presenting participants with one of three factually-based news stories. Relative to participants in the low loneliness condition, those in the high loneliness condition scored higher on the NI. This finding constitutes a critical first step beyond a singular focus on global negative mood and toward a more differentiated understanding of the discrete affective triggers of nostalgia. Finally, the particular significance attached by participants in both studies to social aspects of their past is consistent with, and reinforces, the earlier finding that friends, family, and loved ones are important objects of nostalgia.

### *The Function Question*

The third question that we sought to answer related to the functions of nostalgia. We took as our point of departure the idea that nostalgia bolsters social bonds, increases positive self-regard, and generates positive affect. In Study 5, we manipulated nostalgia by instructing participants to bring to mind either a nostalgic or ordinary event in their lives. Results revealed

that, relative to participants in the control condition, those in the nostalgia condition scored higher on brief measures of social bonding, positive self-regard, and positive affect. There was no significant difference between the nostalgia and control condition for negative affect. Study 6 replicated these findings with a more immersive manipulation of nostalgia and validated measures of social bonding, positive self-regard, and affect. Relative to participants in the control condition, those in the nostalgia condition reported less attachment anxiety and avoidance, higher self-esteem, and more positive affect. As before, there was no significant difference for negative affect. Study 7 revealed that the capacity of nostalgia to bolster social bonds is not limited to the domain of romantic relationships. Relative to participants in the control condition, those in the nostalgia condition reported greater confidence in their ability to initiate interactions and relationships, disclose personal information, and provide emotional support to others.

### *Broader Implications*

#### *Emotions*

Emotion theorists are unanimous in labeling nostalgia an emotion (Frijda, 1986; Johnson-Laird & Oatley, 1989; Kemper, 1987; Ortony, Clore, & Collins, 1988). We subscribe in particular to Johnson-Laird and Oatley's view that nostalgia is a happiness-related emotion (Sedikides, Wildschut, Arndt, & Routledge, 2006). To be sure, there is compelling evidence that nostalgia is in a league with other positive emotions such as love (Izard, 1977), pride (Lewis, 1993), and joy (Ellsworth & Smith, 1988). Our findings indicate that, like love, nostalgia bolsters social bonds; that, like pride, nostalgia increases positive self-regard; and that, like joy, nostalgia generates positive affect. The classification of nostalgia as a happiness-related or positive emotion suggests various avenues for future research. For instance, is nostalgia associated with physical health? Although there is no direct evidence addressing this question, we can speculate based on some interesting findings. Danner, Snowdon, and Friesen (2001), for instance, coded the emotional content of brief autobiographical sketches written by Catholic nuns (ages 75-95) at the time they entered their convent in early adulthood. Early positive emotionality as expressed in these sketches was found to predict survival rates 60 years later. In another relevant study,

Stone, Cox, Valdimarsdottir, Jandorf, & Neale (1987) used an experience-sampling methodology to examine the relation between daily mood and immunological changes. They found increased immunocompetence on days with high positive mood relative to days with low positive mood. Future research should harness the experience-sampling methodology to provide a window on the daily experience of nostalgia and its links to both psychological and physical well-being.

### *The Self*

People are motivated to protect and enhance the positivity of the self-concept (Sedikides & Gregg, 2003; Sedikides & Strube, 1997). Self-protection and self-enhancement mechanisms are typically activated when circumstances or events are perceived as self-threatening (Campbell & Sedikides, 1999; Sedikides, Green, & Pinter, 2004). Prior work on compensatory self-inflation (Baumeister & Jones, 1974; Greenberg & Pyszczynski, 1985) and self-affirmation (Steele, 1988) has revealed that, when people encounter self-threats, rather than countering directly the specific threat, they have the option of eliminating its effects by affirming essential, positive aspects of the self. We propose that nostalgia constitutes a benign mechanism through which people affirm valued aspects of the self. This suggests an interesting direction for future research. Given that efforts to protect and enhance the self often have undesirable consequences, such as reduced receptivity to critical feedback (Kumashiro & Sedikides, 2005), can nostalgia be used as a resource for responding to self-threats in a more open and constructive manner? Consistent with this possibility, recent evidence indicates that nostalgia attenuates the effect of mortality salience—a particularly potent self-threat (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004)—on death-thought accessibility (Routledge, Arndt, Sedikides, & Wildschut, 2006).

### *Relationships*

In a resolute call to arms, Mikulincer and Shaver (2005) highlighted the need to identify “how various experiences and techniques, including psychotherapy, family therapy, skilled meditation, and participation in religious or charitable organizations, might enhance a person’s sense of [attachment] security” (p. 37). Our findings suggest that, by bolstering social bonds and rendering accessible positive relational knowledge structures, nostalgia offers an additional

avenue to enhancing in-the-moment attachment security. The implications are far-reaching and manifold. Attachment security is associated with a host of desirable outcomes. For instance, research has shown that momentary or primed attachment security give rise to greater compassion (Mikulincer et al., 2001) and altruism (Mikulincer, Shaver, Gillath, & Nitzberg, 2004). Can nostalgia, by virtue of its effect on attachment security, produce similar desirable outcomes?

### *Limitations*

Before generalizing from the findings, one must keep in mind that the samples consisted predominantly of college-age, British females. The question whether age-related changes in motivation have a bearing on nostalgia presents one suitable avenue for future research. The interaction between gender and culture in shaping nostalgia is another issue that deserves careful scrutiny.

According to socio-emotional selectivity theory (Carstensen, Isaacowitz, & Charles, 1999), with advancing age people come to view their life-span as limited and shift attention from future-oriented, knowledge-related goals toward a desire to find purpose and meaning in life, to enjoy intimate friendships, and to be embedded in a social network. This raises two important issues pertaining to nostalgia. First, are such age-related changes in motivation reflected in the frequency and content of nostalgia? We would expect older (as compared to younger) adults to be more prone to nostalgia and more likely to give center stage to close others in their nostalgic reverie. The second issue is whether nostalgia acquires greater significance in old age. Although the problem of loneliness is not specific to old age (Ellaway, Wood, & MacIntyre, 1999), bereavements and declines in health status may render older adults particularly vulnerable to social isolation (Victor, Scambler, Bowling, & Bond, 2005), thus impairing the formation of intimate friendships and social networks they so highly value. Under these circumstances, nostalgia may play a vital role in reestablishing at least a symbolic connection with significant others (Batcho, 1998; Cavanaugh, 1989; Mills & Coleman, 1994).

It seems plausible that British college students do not identify strongly with narrowly prescribed gender roles. Where we succeeded in recruiting sufficient male participants to perform a meaningful test of gender differences (Studies 2 and 7), no such differences were found. In cultural contexts that place a stronger emphasis on traditional gender roles, however, differences between females and males may well arise. In general, gender differences are shaped by culture (Hyde, 2003) and so it would be unwarranted to generalize our findings for gender to very different cultural settings.

#### *Nostalgia as Compared to Other Past-Oriented Subjective States*

Before closing, we should address one final issue. Johnson-Laird and Oatley (1989) assign nostalgia to the category of complex emotions, which, unlike basic emotions, arise from high-level cognitive processing and possess propositional content. This raises the question of how nostalgia differs from other processes—denoted with such words as “recall,” “recollection,” “reminiscence,” and “remembrance”—which also involve the cognitively demanding task of reconstructing the past. Davis (1977) proposed that “to merely *remember* the places of one’s youth is not the same as to feel nostalgia for them. Neither for that matter, does active reminiscence—however happy, benign or tortured its content—necessarily capture the subjective state characteristic of nostalgic feeling” (p. 418). We concur, but ultimately this is an issue that should be settled empirically. Our point of departure is that nostalgia shares with other past-oriented subjective states the involvement of high-level cognitive processing but can be distinguished from them, for instance in terms of its unique affective signature and its psychological functions (Castelnuovo-Tedesco, 1980; Cavanaugh, 1989).

#### *Conclusion*

Nostalgia is a prevalent and fundamental human experience—one that serves a number of key psychological functions. As evidenced by the present findings, nostalgia may be uniquely positioned to offer integrative insights across several important facets of human functioning. We hope that this and future research will redress the paucity of knowledge regarding nostalgia and award it its proper place in the pantheon of emotions.

## References

- Abelson, R. P., Kinder, D. R., Peters, M. D., & Fiske, S. T. (1982). Affective and semantic components in political person perception. *Journal of Personality and Social Psychology*, *42*, 619-630.
- Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin*, *121*, 417-436.
- Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Koh-Rangarajoo, E. (1996). Social-cognitive conceptualization of attachment working models: Availability and accessibility effects. *Journal of Personality and Social Psychology*, *71*, 94-109.
- Batcho, K. I. (1995). Nostalgia: A psychological perspective. *Perceptual and Motor Skills*, *80*, 131-143.
- Batcho, K. I. (1998). Personal nostalgia, world view, memory, and emotionality. *Perceptual and Motor Skills*, *87*, 411-432.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497-529.
- Baumeister, R. F., & Jones, E. E. (1978). When self-presentation is constrained by the target's knowledge: Consistency and compensation. *Journal of Personality and Social Psychology*, *36*, 608-618.
- Baumeister, R. F., Stillwell, A., & Wotman, S. R. (1990). Victim and perpetrator accounts of interpersonal conflict: Autobiographical narratives about anger. *Journal of Personality and Social Psychology*, *59*, 994-1005.
- Baumeister, R. F., Wotman, S. R., & Stillwell, A. M. (1993). Unrequited love: On heartbreak, anger, guilt, scriptlessness, and humiliation. *Journal of Personality and Social Psychology*, *64*, 377-394.
- Best, J., & Nelson, E. E. (1985). Nostalgia and discontinuity: A test of the Davis hypothesis. *Sociology and Social Research*, *69*, 221-233.

- Boden, J. M., & Baumeister, R. F. (1997). Repressive coping: Distraction using pleasant thoughts and memories. *Journal of Personality and Social Psychology, 73*, 45-62.
- Bodenhausen, G. V., Sheppard, L. A., & Kramer, G. P. (1994). Negative affect and social judgment: The differential impact of anger and sadness. *European Journal of Social Psychology, 24*, 45-62.
- Boym, S. (2002). *The future of nostalgia*. New York: Basic Books.
- Buhrmeister, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology, 55*, 991-1108.
- Campbell, K. W., & Sedikides, C. (1999). Self-threat magnifies the self-serving bias: A meta-analytic integration. *Review of General Psychology, 3*, 23-43.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously. A theory of socioemotional selectivity. *American Psychologist, 54*, 165-181.
- Castelnuovo-Tedesco, P. (1980). Reminiscence and nostalgia: The pleasure and pain of remembering. In S. I. Greenspan & G. H. Pollack (Eds.), *The course of life: Psychoanalytic contributions toward understanding personality development: Vol. III: Adulthood and the aging process* (pp. 104-118). Washington, DC: US Government Printing Office.
- Cavanaugh, J. C. (1989). I have this feeling about everyday memory aging .... *Educational Gerontology, 15*, 597-605.
- Chaplin, S. (2000). *The psychology of time and death*. Ashland, OH: Sonnet Press.
- Chu, S., & Downes, J. J. (2000). Long live Proust: the odor-cued autobiographical memory bump. *Cognition, 75*, B41-B50.
- Colson, E. (1971). *The social consequences of resettlement*. Manchester, England: Manchester University Press.
- Cox, J. L. (1988). The overseas student: Expatriate, sojourner or settler? *Acta Psychiatrica Scandinavica, 78*, 179-184.

- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, *52*, 281-302.
- Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Finding from the nun study. *Journal of Personality and Social Psychology*, *80*, 804-813.
- Davis, F. (1977). Nostalgia, identity, and the current nostalgia wave. *Journal of Popular Culture*, *11*, 414-425.
- Davis, F. (1979). *Yearning for yesterday: A sociology of nostalgia*. New York: Free Press.
- Diener, E., Sandvik, E., & Pavot, W. (1991). Happiness is the frequency, not the intensity, of positive versus negative affect. In F. Strack (Ed.), *Subjective well-being: An interdisciplinary perspective* (pp. 119–139). Oxford, England: Pergamon Press.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL.: Harcourt Brace Yovanovich.
- Ellaway, W. Wood, S., & MacIntyre, S. (1999). Someone to talk to? The role of loneliness as a factor in the frequency of GP consultations. *British Journal of General Practice*, *49*, 363-367.
- Ellsworth, P. C., & Smith, C. A. (1988). Shades of joy: Patters of appraisal differentiating pleasant emotions. *Cognition and Emotion*, *2*, 301-331.
- Festinger, L., Schachter, S., & Back, K. (1950). *Social pressures in informal groups: A study of a housing community*. Palo Alto, CA: Stanford University Press.
- Fodor, N. (1950). Varieties of nostalgia. *Psychoanalytic Review*, *37*, 25-38.
- Forgas, J. P., & Ciarrochi, J. (2002). On managing moods: Evidence for the role of homeostatic cognitive strategies in affect regulation. *Personality and Social Psychology Bulletin*, *28*, 336-345.
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, *78*, 350-365.

- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises?: A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11<sup>th</sup>, 2001. *Journal of Personality and Social Psychology, 84*, 365-376.
- Frijda, N. H. (1986). *The emotions*. New York: Cambridge University Press.
- Frost, I. (1938). Homesickness and immigrant psychoses. *Journal of Mental Science, 84*, 801-847.
- Gabriel, Y. (1993). Organizational nostalgia: Reflections on "The Golden Age." In S. Fineman (Ed.), *Emotion in organizations* (pp. 118-141). London: Sage.
- Gardner, W. L., Pickett, C., & Brewer, M. B. (2000). Social exclusion and selective memory: How the need to belong influences memory for social events. *Personality and Social Psychology Bulletin, 26*, 486-496.
- Greenberg, J., & Pyszczynski, T. (1985). Compensatory self-inflation: A response to the threat to self-regard of public failure. *Journal of Personality and Social Psychology, 49*, 273-280.
- Hertz, D. G. (1990). Trauma and nostalgia: New aspects of the coping of aging holocaust survivors. *Israeli Journal of Psychiatry and Related Sciences, 27*, 189-198.
- Hofer, J. (1688/1934). Medical dissertation on nostalgia. (C. K. Anspach, Trans.). *Bulletin of the History of Medicine, 2*, 376-391.
- Holak, S. L., & Havlena, W. J. (1992). Nostalgia: An exploratory study of themes and emotions in the nostalgic experience. *Advances in Consumer Research, 19*, 380-386.
- Holak, S. L., & Havlena, W. J. (1998). Feelings, fantasies, and memories: An examination of the emotional components of nostalgia. *Journal of Business Research, 42*, 217-226.
- Homer. (1921). *The Odyssey*. (F. Caulfield, Trans.). London: G. Bell and Sons.
- Hyde, J. S. (2003). *Half the human experience: The psychology of women*. Boston, MA: Houghton-Mifflin.
- Izard, C. E. (1977). *Human emotions*. New York: Plenum.

- Johnson-Laird, P. N., & Oatley, K. (1989). The language of emotions: An analysis of semantic field. *Cognition and Emotion*, *3*, 81-123.
- Joormann, J., & Siemer, M. (2004). Memory accessibility, mood regulation, and dysphoria: Difficulties in repairing sad mood with happy memories? *Journal of Abnormal Psychology*, *113*, 179-188.
- Josephson, B. R., Singer, J. A., & Salovey, P. (1996). Mood regulation and memory: Repairing sad moods with happy memories. *Cognition and Emotion*, *10*, 437-444.
- Kaplan, H. A. (1987). The psychopathology of nostalgia. *Psychoanalytic Review*, *74*, 465-486.
- Kaplan, K. J. (1972). On the ambivalence-indifference problem in attitude theory and measurement: A suggested modification of the semantic differential technique. *Psychological Bulletin*, *77*, 361-372.
- Kemper, T. (1987). How many emotions are there? Wedding the social and autonomic components. *American Journal of Sociology*, *93*, 263-289.
- Kleiner, J. (1977). On nostalgia. In C. W. Socarides (Ed.), *The world of emotions* (pp. 471-498). New York: International University Press.
- Kumashiro, M., & Sedikides, C. (2005). Taking on board liability-focused feedback: Close positive relationships as a self-bolstering resource. *Psychological Science*, *16*, 732-739.
- Larsen, R. J., & Prizmic, Z. (2004). Affect regulation. In R. F. Baumeister and K. D. Vohs (Eds.), *Handbook of Self-Regulation*. New York: Guilford.
- Leary, M. R., Springer, C., Negel, L., Ansell, E., & Evans, K. (1998). The causes, phenomenology, and consequences of hurt feelings. *Journal of Personality and Social Psychology*, *74*, 1225-1237.
- Lewis, M. (1993). Self-conscious emotions: Embarrassment, pride, shame, and guilt. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (pp. 563-573). New York: Guilford.
- Lipkus, I. M., Green, J. D., Feaganes, J. R., & Sedikides, C. (2001). The relationship between attitudinal ambivalence and desire to quit smoking among college smokers. *Journal of*

- Applied Social Psychology*, 31, 113-133.
- Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology*, 79, 602-616.
- McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology*, 5, 100-122.
- McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narratives and their relation to psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin*, 27, 474-485.
- McCann, W. H. (1941). Nostalgia: A review of the literature. *Psychological Bulletin*, 38, 165-182.
- McFarland, C., & Buehler, R. (1997). Negative affective states and the motivated retrieval of positive life events: The role of affect acknowledgement. *Journal of Personality and Social Psychology*, 73, 200-214.
- Mikulincer, M., Gillath, O., Halevy, V., Avihou, N., Avidan, S., & Eshkoli, N. (2001). Attachment theory and reactions to others' needs: Evidence that activation of the sense of attachment security promotes empathic responses. *Journal of Personality and Social Psychology*, 81, 1205-1224.
- Mikulincer, M., & Shaver, P. R. (2005). Attachment security, compassion, and altruism. *Current Directions in Psychological Science*, 14, 34-38.
- Mikulincer, M., Shaver, P. R., Gillath, O., & Nitzberg, R. E. (2004). *Attachment, caregiving, and altruism: Boosting attachment security increases compassion and helping*. Manuscript submitted for publication.
- Mills, M. A., & Coleman, P. G. (1994). Nostalgic memories in dementia: A case study. *International Journal of Aging and Human Development*, 38, 203-219.

- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. Cambridge, England: Cambridge University Press.
- Parrott, W. G., & Sabini, J. (1990). Mood and memory under natural conditions: Evidence for mood incongruent recall. *Journal of Personality and Social Psychology*, *59*, 321-336.
- Peters, R. (1985). Reflections on the origin and aim of nostalgia. *Journal of Analytical Psychology*, *30*, 135-148.
- Pyszczynski, T., Greenberg, J., Solomon, S., Arndt, J., & Schimel, J. (2004). Why do people need self-esteem?: A theoretical and empirical review. *Psychological Bulletin*, *130*, 435-468.
- Rosen, G. (1975). Nostalgia: A “forgotten” psychological disorder. *Psychological Medicine*, *5*, 340-354.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2006). *A blast from the past: Nostalgia buffers the effect of mortality salience on death-thought accessibility*. Manuscript submitted for publication.
- Russell, D., Peplau, L.A., & Cutrona, C.E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, *39*, 472-480.
- Rusting, C. L. (1998). Personality, mood, and cognitive processing of emotional information: Three conceptual frameworks. *Psychological Bulletin*, *124*, 165-196.
- Rusting, C. L., & DeHart, T. (2000). Retrieving positive memories to regulate negative mood: Consequences for mood-congruent memory. *Journal of Personality and Social Psychology*, *78*, 737-752.
- Schindler, R. M., & Holbrook, M. B. (2003). Nostalgia for early experience as a determinant of consumer preferences. *Psychology & Marketing*, *20*, 275-302.

- Schwarz, N., & Clore, G. L. (1988). How do I feel about it? The information function of affective states. In K. Fiedler & J. Forgas (Eds.) *Affect, cognition, and social behavior*. (pp. 44-62). Toronto: Hogrefe.
- Sedikides, C. (1992). Mood effects on self-perception. In M. Clark (Ed.), *Review of Personality and Social Psychology*. Beverly Hills, CA: Sage.
- Sedikides, C., Gaertner, L. & Toguchi, Y. (2003). Pan-cultural self-enhancement. *Journal of Personality and Social Psychology*, 84, 60-79.
- Sedikides, C., & Green, J. D. (2001). Affective influences on the self-concept: Qualifying the mood congruency principle. In J. P. Forgas (Ed.), *The Handbook of affect and social cognition* (pp. 145-160). Mahwah, NJ: Lawrence Erlbaum Associates.
- Sedikides, C., & Gregg, A. P. (2003). Portraits of the self. In M. A. Hogg & J. Cooper (Eds.), *Sage handbook of social psychology* (pp.110-138). London: Sage.
- Sedikides, C., Green, J. D., & Pinter, B. (2004). Self-protective memory. In D. R., Beike, J. M. Lampinen, & D. A. Behrend (Eds.), *The self and memory* (pp. 161-179). New York, PA: Psychology Press.
- Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology*, 29, 209-269. New York, NY: Academic Press.
- Sedikides, C., Wildschut, T., Arndt, J., & Routledge, C. D. (2006). Affect and the self. In J. P. Forgas (Ed.), *Affect in social thinking and behavior: Frontiers in social psychology* (pp. 197-215). New York, NY: Psychology Press.
- Sedikides, C., Wildschut, T., & Baden, D. (2004). Nostalgia: Conceptual issues and existential functions. In J. Greenberg, S. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 200-214). New York: Guilford.
- Shakespeare, W. (1996). *The Sonnets*. Cambridge, England: Cambridge University Press.  
Original work published in 1609.

- Smith, S. M., & Petty, R. E. (1995). Personality moderators of mood congruency effects on cognition: The role of self-esteem and negative mood regulation. *Journal of Personality and Social Psychology, 68*, 1092-1107.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). A terror management theory of social behavior: The psychological functions of self-esteem and cultural worldviews. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 24, pp. 93-159). New York: Academic Press.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 261-302). Hillsdale, NJ: Erlbaum.
- Steele, C. M., Spencer, S. J., & Lynch, M. (1993). Self-image resilience and dissonance: The role of affirmational resources. *Journal of Personality and Social Psychology, 64*, 885-896.
- Stern, B. B. (1992). Historical and personal nostalgia in advertising text: The fin de siecle effect. *Journal of Advertising, 21*, 11-22.
- Sternberg, R. J., & Grigorenko, E. L. (2001). The (mis)organization of psychology. *APS Observer, 14*, 1, 18.
- Stone, A. A., Cox, D. S., Valdimarsdottir, H., Jandorf, L., & Neale, J. M. (1987). Evidence that secretory IgA antibody is associated with daily mood. *Journal of Personality and Social Psychology, 52*, 988-993.
- Tangney, J.P. (1991). Moral affect: The good, the bad, and the ugly. *Journal of Personality and Social Psychology, 61*, 598-607.
- The New Oxford Dictionary of English.* (1998). Oxford, England: Oxford University Press.
- Tiedens, L. Z., & Linton, S. (2001). Judgment under emotional certainty and uncertainty: The effects of specific emotions on information processing. *Journal of Personality and Social Psychology, 81*, 973-988.
- Vaughan, D. (1986). *Uncoupling*. New York: Oxford University Press.

- Victor, C. A., Scambler, S. J., Bowling, A., & Bond, J. (2005). The prevalence of, and risk factors for, loneliness in later life: a survey of older people in Great Britain. *Ageing & Society, 25*, 357-375.
- Walker, W. R., Skowronski, J. J., & Thompson, C. P. (2003). Life is pleasant—and memory helps to keep it that way! *Review of General Psychology, 7*, 203-210.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 55*, 1063-1070.
- Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology, 76*, 820–838.
- Werman, D. S. (1977). Normal and pathological nostalgia. *Journal of the American Psychoanalytic Association, 25*, 387-398.
- Williams, K. D. (1997). Social ostracism. In R. M. Kowalski (Ed.), *Aversive interpersonal behaviors* (pp. 133–170). New York: Plenum Press.
- Williams, K. D., & Sommers, K. L. (1997). Social ostracism by one's coworkers: Does rejection lead to loafing or compensation? *Personality and Social Psychology Bulletin, 23*, 693-706.
- Van Tilburg, M. A. L., Vingerhoets, J. J. M., & van Heck, G. L. (1996). Homesickness: A review of the literature. *Psychological Medicine, 26*, 899-912.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-difference metric. *Journal of Personality and Social Psychology, 77*, 1271-1288.

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## Footnotes

<sup>1</sup> Correlations between coded and self-reported affect were .36 for positive affect and .72 for negative affect,  $ps < .001$ . The relatively strong correlation for negative affect is due in particular to between-measure agreement at low levels of negative affect. This may reflect the relative ease of coding accurately for the absence (or near-absence) of negative affect.

<sup>2</sup> We selected the measure proposed by Kaplan (1972) because it is parsimonious, yields a score that is readily interpretable, and possesses construct validity (Lipkus, Green, Feaganes, & Sedikides, 2001). Various alternative operationalizations of ambivalence have been proposed. Abelson, Kinder, Peters, and Fiske (1982), for instance, proposed that ambivalence may be indicated by low correlations between positive and negative affect. In our data, the correlation between coded positive and negative affect was -.17 and the correlation between self-reported positive and negative affect was -.30. Although these small-to-moderate negative correlations might be seen as a sign of ambivalence, this interpretation is clouded by restriction of range in both coded and self-reported negative affect.

<sup>3</sup> Degrees of freedom are reduced by 15 because some participants did not rate the desirability of the listed features.

<sup>4</sup> This number is lower than that obtained by multiplying the number of participants by the average number of features listed by each participant ( $172 * 9.76 = 1679$ ). The discrepancy arises because one booklet was lost before listed features were coded.

<sup>5</sup> The items “church/religion” and “heroes/heroines” were deleted from the original 20-item scale after pre-testing revealed restriction of range due to extremely low ratings.

<sup>6</sup> The mean negative-affect score in the negative mood condition was 3.27. Based on this score, one might question whether participants in this condition were truly experiencing negative mood. Our response to this and a similar question that may arise in Study 4 would be twofold. First, ethical guidelines prevent the use of very strong negative-affect manipulations and, second, the manipulation was successful in as far as participants in the negative mood condition experienced more negative affect than those in the control and positive mood conditions.

Table 1.

*Salience of Self: Coding Categories, Proportions of Narratives Coded Into Categories, and Category Examples—Studies 1 and 2.*

Category	Proportion		Example
	Study 1	Study 2	
Sole actor	.05 <sub>b</sub>	.05 <sub>b</sub>	“Prior to making the phone call I was really nervous and it took me a while to make the call. I even wrote down my name on a piece of paper because I was so muddled. The relief was an amazing feeling. It was a massive weight off my shoulders.”
Major role	.88 <sub>a</sub>	.86 <sub>a</sub>	“I felt like I was really important to him and that no-one else was as close. We had our own sort of ‘code’ and would talk to each other so no-one else knew what we were saying.”
Minor role	.05 <sub>b</sub>	.08 <sub>b</sub>	“At the end of the ceremony, she and her new husband each lit a candle and then they lit one together. It was very symbolic, and during the final hymn I cried.”
Outside observer	.04 <sub>b</sub>	.01 <sub>c</sub>	“One night as we came home from work, my husband caught a glimpse of the cat. Amazingly, as we realize now, he managed to coax her to him and he brought her inside.”

*Note.* Within columns, proportions with different subscripts differ significantly ( $p < .05$ ).

Table 2.

*Objects of Nostalgia: Coding Categories, Proportions of Narratives Coded Into Categories, and Category Examples—Studies 1 and 2.*

Category	Proportion		Example
	Study 1	Study 2	
Persons	.33 <sub>a</sub>	.28 <sub>a,b</sub>	“A smile crinkled the corners of my father's eyes. I hadn't seen him smile in a long time.”
Momentous Events	.21 <sub>a,b</sub>	.34 <sub>a</sub>	“I handed the baton over to the third leg and watched as our team managed to achieve first place. The excitement was amazing.”
Settings	.10 <sub>b,c,d</sub>	.19 <sub>b,c</sub>	“It was like two opposites, this amazing force of water hitting this calm, serene lake.”
Periods in Life	.02 <sub>d</sub>	.16 <sub>c</sub>	“There was hardly any Uni. work and it's this that makes me think: those were the good old days!”
Animals	.17 <sub>a,b,c</sub>	.01 <sub>d</sub>	“My whole family went down to the yard and I groomed her (my loan horse) one last time before the vet came.”
Tangibles	.12 <sub>b,c,d</sub>	.01 <sub>d</sub>	“Since there was only one coat and many young girls, they held a drawing for it ... The coat was soft, plush and beautiful.”
Past selves	.05 <sub>c,d</sub>	.01 <sub>d</sub>	“The dress had made me feel like a princess one night long ago.”

*Note.* Within columns, proportions with different subscripts differ significantly ( $p < .05$ ).

Table 3.

*Redemption Versus Contamination: Coding Categories, Proportions of Narratives Coded Into Categories, and Category Examples—Studies 1 and 2.*

Category	Proportion		Example
	Study 1	Study 2	
Redemption Sequence	.67 <sub>a</sub>	.76 <sub>a</sub>	“My Nan died that weekend and even though it was awful, it was a type of relief for my Nan and us. When I look back at this in my mind, I feel so proud of my Mum and the way she coped, it showed her immense love and devotion to her own mother.”
Contamination Sequence	.29 <sub>b</sub>	.15 <sub>b</sub>	“Playing with my granddad in the back garden on the grass ... The flowers were all in bloom and there was a large jug of juice on the patio table. Shortly after this event my granddad died. I was never allowed to go to the funeral (too young) and have felt like I have never said goodbye.”
Neither	.05 <sub>c</sub>	.09 <sub>b</sub>	“After opening the presents dad had to go to bed as he was feeling ill. It seemed such a shame as I knew he really wanted to enjoy what I know now was to be his last Christmas. We all had a lovely day and that Christmas will always be very special to us all.”

*Note.* Within columns, proportions with different subscripts differ significantly ( $p < .05$ ).

Table 4.

*Triggers of Nostalgia: Categories, Proportions of Narratives Coded Into Categories, and Category Examples—Study 2.*

Category	Proportion	Example
Negative Affect	.38 <sub>a</sub>	“Generally I think about nostalgic experiences when things are not going very well—lonely or depressed.”
Social Interactions	.24 <sub>b</sub>	“Meeting up with people who were there and discussing what happened and laughing/crying about it.”
Sensory Inputs	.19 <sub>b</sub>	“I find that some of the strongest triggers are smells and music.”
Tangibles	.09 <sub>c</sub>	“Anything that reminds me of my nostalgic experiences, i.e. my bridesmaid dress, will bring up emotions and memories.”
Similar Events	.03 <sub>c</sub>	“I usually think of nostalgic experiences when something similar happens and I say ‘remember the time when...’”
Inertia	.03 <sub>c</sub>	“If I have a lot of time to sit and think, like on a long journey, I may start to think of nostalgic memories.”
Positive Affect	.03 <sub>c</sub>	“They usually come to mind when I am feeling happy. They remind me of the good times.”
Anniversaries	.02 <sub>c</sub>	“The days could be my grandfather’s birthday or my grandparents’ wedding anniversaries.”
Settings	.01 <sub>c</sub>	“Whenever I go back to my home town, memories come flooding back of that period of my life.”

*Note.* Within columns, proportions with different subscripts differ significantly ( $p < .05$ ).

Table 5.

*Proportions of Desirable and Undesirable Features of Nostalgia– Study 2.*

Category	Examples	N	Proportion of listed features		
			Desirable	Undesirable	All
<i>Desirable Features</i>					
Positive Affect	“Being really happy”	315	.33		.19
Social Bonds	“Feeling loved”	192	.20		.11
Self-Regard	“High self-esteem”	139	.14		.08
Positive Memories	“Remember fun times”	98	.10		.06
Growth	“Helps develop the person I am”	45	.05		.03
Other		171	.18		.10
Total Desirable		960	1.00		.57
<i>Undesirable Features</i>					
Negative Affect	“Sadness”	284		.40	.17
Loneliness	“Makes me feel alone”	88		.12	.05
Loss	“Feel loss”	82		.11	.05
Rumination	“Think of the past too much”	44		.06	.03
Regret	“Reminds me of things I regret”	34		.05	.02
Other		183		.26	.11
Total Undesirable		715		1.00	.43
Grand Total		1675			1.00

Table 6.

*Means for Negative Affect, Positive Affect, the Batcho (1995) NI, and the 3-Item Nostalgia Measure as a Function of Manipulated Mood.*

	Negative Mood	Neutral Mood	Positive Mood
Negative Affect	3.27 <sub>a</sub>	1.30 <sub>b</sub>	1.23 <sub>b</sub>
Positive Affect	1.12 <sub>a</sub>	1.99 <sub>b</sub>	3.30 <sub>c</sub>
Batcho (1995) NI	2.31 <sub>a</sub>	1.41 <sub>b</sub>	1.70 <sub>b</sub>
3-Item Nostalgia Measure	3.83 <sub>a</sub>	2.59 <sub>b</sub>	2.31 <sub>b</sub>

*Note.* – Within rows, means with different subscripts differ significantly at  $p < .05$  (Tukey's HSD).