The past as a resource for the bereaved: nostalgia predicts declines in distress

Chelsea A. Reid, Jeffrey D. Green, Stephen D. Short, Kelcie D. Willis, Jaclyn M. Moloney, Elizabeth A. Collison, Tim Wildschut, Constantine Sedikides & Sandra Gramling

Published online: 23 Sep 2020.

Submit your article to this journal ⬈

Article views: 262

View related articles ⬈

View Crossmark data ⬈

Routledge
Taylor & Francis Group

Check for updates

The past as a resource for the bereaved: nostalgia predicts declines in distress

Chelsea A. Reid[a], Jeffrey D. Green[b], Stephen D. Short[a], Kelcie D. Willis[b], Jaclyn M. Moloney[c], Elizabeth A. Collison[d], Tim Wildschut[e], Constantine Sedikides [e] and Sandra Gramling[b]

[a]Department of Psychology, College of Charleston, Charleston, SC, USA; [b]Department of Psychology, Virginia Commonwealth University, Richmond, VA, USA; [c]Department of Psychological Sciences, College of William & Mary, Williamsburg, VA, USA; [d]Division of General, Geriatric and Hospital Medicine, University of Kansas Medical Center, Kansas City, KS, USA; [e]School of Psychology, University of Southampton, Southampton, UK

ABSTRACT

Nostalgia, a sentimental longing for one's past, can serve as a resource for individuals coping with discomforting experiences. The experience of bereavement poses psychological and physical risks. In a longitudinal study, we examined whether dispositional nostalgia predicted reductions in distress associated with the death of a loved one. Undergraduate students ($N = 133$) provided information regarding their loss (time elapsed since loss, expectedness) and levels of initial grief, nostalgia, and distress (hyperarousal, intrusion, avoidance) at three time points over a one-month period (Times 2 and 3 occurred one week and one month after the initial session, respectively). Individuals experiencing higher nostalgia reported a decrease in intrusive thoughts across time, whereas those experiencing lower nostalgia reported no change in intrusive thoughts across time. Hyperarousal (physical symptoms, negative feelings) decreased across time among individuals with higher initial grief who experienced greater nostalgia, but increased across time among those with higher initial grief who experienced lesser nostalgia. No changes occurred in avoidance. Nostalgia can palliate bereavement.

The term nostalgia was coined in 1688 by Swiss medical student Johannes Hofer (1688/1934) through the combination of two Greek words: nostos (a desire for home) and algos (pain). Hofer, who focused on Swiss mercenaries, along with contemporary scholars considered nostalgia to be a brain or psychiatric disorder characterised by an array of alarming symptoms (e.g. despondency, bouts of weeping, fainting, anorexia, fever, cardiac palpitations, suicidal ideation) and caused by longing for the Swiss homeland. The view of nostalgia as dysfunctional and damaging persisted for over 300 years. By the turn of the twentieth century, nostalgia was considered an unhealthy emotion marked by loneliness or sadness, and confined to a few populations such as seamen, immigrants, or boarding school students (Batcho, 2013a; Sedikides et al., 2004).

Hofer (1688/1934) and his contemporaries, however, made an inferential error. They assumed a causal path from nostalgia to loneliness or sadness based on mere co-occurrence. Instead, recent empirical work has documented the reverse pathway: discomforting experiences evoke nostalgia, which, in turn, operates as a coping resource (Sedikides et al., 2015). We examined whether dispositional nostalgia can palliate one of the most common and challenging experiences humans endure: the death of a loved one.

Bereavement and grieving

The death of a loved one poses a potential double threat to individuals: It may prompt the existential threat of mortality salience as well as the social connection threat of an irrevocable loss of a valued

---

relationship. Bereavement, the condition of having lost a loved one, is a universal human experience denoted by a variety of distressing psychological (affective, cognitive, behavioural) and physical symptoms (Fagundes & Wu, 2020; Stroebe et al., 2007). The bereaved may mention feeling sadness, detachment, guilt, anger, and panic or anxiety (Hogan et al., 2001). The bereaved may also report such physical symptoms as headaches, dizziness, upset stomach, back pain, sleep disturbances, along with cold signs (e.g. coughing, sneezing, itchy or watery eyes; Pennebaker, 1982). Moreover, the bereaved are more susceptible to psychiatric conditions, such as Major Depression Disorder, anxiety-related disorders, and, especially in the cases of traumatic or sudden loss, Posttraumatic Stress Disorder. Further, these symptoms may cascade into an impaired immune functioning and a relatively higher mortality rate among the bereaved (Stroebe et al., 2007).

Although bereavement is a fundamental human experience, individual reactions are nuanced. Bereavement does not translate to one single state, time, or emotion (Shear, 2017). It is a complex phenomenon that may take various courses (Bonanno et al., 2011). In a prospective study of over 200 older adults (Bonanno et al., 2002), several grief trajectories emerged. Although 45.9% of participants demonstrated resilience following the loss, others varied in the duration and intensity of grief. Only 10.7% of participants, for example, exhibited common grief, that is, depressive symptoms immediately following the loss that steadily improved over time. Other participants experienced patterns of chronic grief (15.6%), chronic depression (7.8%), depressed-improved (10.2%), delayed grief (3.9%), delayed-improved (4.9%), or improved-relapsed (1.0%). Further, researchers and clinicians (e.g. Simon et al., 2007) have advocated a new diagnosis for experiences of grief that are markedly impairing. Prolonged Grief Disorder (also known as complicated, pathological, or traumatic grief disorder) describes a chronic and debilitating reaction following loss characterised by "intense intrusive thoughts, pangs of severe emotion, distressing yearnings, feelings of excessive emptiness, avoidance of tasks reminiscent of the deceased, unusual sleep disturbances, and maladaptive levels of loss of interest in personal activities" (DSM-5; American Psychiatric Association, 2013). Regardless, although individual reactions to bereavement can be complex and variable, losing a loved one is generally a distressing,

threatening experience that places individuals at risk for harmful health consequences.

What contributes to distress among bereaved individuals? They may engage in general and event-specific negative appraisals that will likely culminate in poorer health outcomes. Bereaved individuals who suffer violent losses engage in negative appraisals specific to the loss by reporting recurrent imagery about their loved one's death, such as reenactment, rescue (of the deceased), and remorse. Each of these forms of recurrent imagery is associated with elevated distress (i.e. intrusions, avoidance, hyperarousal), depression severity, and grief intensity (Baddeley et al., 2015). Similarly, rumination, a process of thinking pervasively about negative feelings and problems that coincides with maladaptive cognitive styles and depressive symptoms (Nolen-Hoeksem et al., 2008), may negatively impact bereaved individuals. Loss-related rumination often accompanies bereavement and predicts higher levels of grief (Lafarge et al., 2019) and depression (Van der Houwen et al., 2010), as well as distress symptoms of intrusion, avoidance, and hyperarousal (Taku et al., 2008). Bereaved individuals who engage in greater general (rather than event-specific) rumination report lower positive affect and, in turn, less meaning in life and inhibited post traumatic growth. Rumination among these individuals also predicts more negative affect and, in turn, reduced sense of meaning in life (Boyraz & Efstathiou, 2011).

Whereas maladaptive processes such as rumination enhance distress among the bereaved, other forms of appraisal can be beneficial. Both sense-making (Bogensperger & Lueger-Schuster, 2014) and deliberate rumination (i.e. repetitive and *purposeful* thoughts focusing on specific aspects of the difficult event; Lafarge et al., 2019; Taku et al., 2008) are linked to greater posttraumatic growth. Similarly, greater reflection (i.e. more open and exploratory thinking about the self) predicts positive affect and, in turn, both meaning and posttraumatic growth (Boyraz & Efstathiou, 2011). Additionally, bereaved individuals undergoing a mindfulness-based treatment (Thieleman et al., 2014), a cognitive narrative treatment focused on constructing meaning (Barbosa et al., 2014), and a restorative retelling treatment (Saindon et al., 2014) all reported improvement pre- to post-treatment in their symptoms of distress (e.g. intrusion, hyperarousal, avoidance), with the exception of a study that did not find a decline in

avoidance symptoms due to a possible floor effect (Saindon et al., 2014).

Research has documented the benefits of written expressive disclosure on health and psychological outcomes across a variety of populations (Pennebaker, 1997). However, written expressive disclosure does not appear to benefit the bereaved or depressed (Frattaroli, 2006; Stroebe et al., 2002). A reason, though, may be that these emotion-focused strategies call for bereaved individuals to connect with their negative emotions (e.g. sadness, loneliness). We propose that nostalgic reverie will be beneficial to the bereaved due to this emotion's unique profile in comparison to maladaptive processes (e.g. rumination). Both nostalgia and rumination are linked to a greater use of autobiographical memory to meet current goals and needs, but nostalgia has a substantially more positive profile (Cheung et al., 2018). Specifically, rumination is positively associated with the function of bitterness revival (i.e. using autobiographical memories to rekindle resentment toward others), but not with intimacy maintenance (i.e. drawing on memories to achieve symbolic proximity to close other in lieu of physical presence), whereas nostalgia is associated with higher levels of intimacy maintenance, but not bitterness revival. Bitterness revival is linked to many aspects of poor mental health (Westerhof et al., 2010), whereas nostalgia may allow individuals to maintain proximity to close (deceased) others while remaining free of maladaptive resentment. Nostalgia also serves self-oriented (i.e. perceptions of a positive future), existential (i.e. perceptions of life as meaningful), and social (i.e. sense of social connectedness) functions (Sedikides et al., 2015), all of which may be under threat from the irrevocable loss of a relationship.

Nostalgia: a resource for coping with negative experiences

Nostalgia is "a sentimental longing or wistful affection for the past" (The New Oxford Dictionary of English, 1998, p. 1266). Nostalgic reverie refers to reflecting on meaningful moments in one's past (e.g. graduations, anniversaries, cultural rituals such as Thanksgiving), close relationships, or valued objects (e.g. keepsakes), and it can entail a redemptive structure in which the narrative progresses from a negative life event to a triumphant or positive one (Abeyta et al., 2015; Wildschut et al., 2006). Nostalgia is an ambivalent but mostly positive emotion: Recall of cherished moments, relationships, or objects is often accompanied by yearning (Hepper et al., 2012; Leunissen et al., 2020; Sedikides & Wildschut, 2016a).

Nostalgia, like other self-relevant emotions (e.g. self-compassion), involves more complex emotional and cognitive processes (e.g. self-awareness, self-evaluation) than basic emotions (e.g. fear), and it is characterised by low arousal, positive valence, and approach orientation (Van Tilburg et al., 2018). An approach motivation, or an impulse to move toward positive stimuli, is essential to successful physical and psychological adaptation (Elliot, 2008). Framing nostalgia as an approach-oriented psychological state, Sedikides et al. (2015) proposed a regulatory or homeostatic model, in which nostalgia operates as a corrective mechanism to alleviate the negative impact of adverse events. Further, individuals who are high on nostalgia are more approach oriented (i.e. "feeling ready for enacting a new idea or plan"; Stephan et al., 2015, p. 1406). Batcho (2013b) noted that a lack of a relation between nostalgia and avoidance strategies indicates that "theories that portray nostalgia as escapist or as a retreat to an idealized nonexistent past" are inaccurate; rather, nostalgia promotes coping that is "socially, emotionally, cognitively, and behaviorally active" (p. 365). Nostalgia, then, has motivational properties (Abeyta et al., 2015; Abeyta & Routledge, 2016; Sedikides & Wildschut, 2016b) and is associated with constructive, pro-active, and future-oriented responding (Batcho, 2013b; Biskas et al., 2019; Cheung et al., 2019).

Individuals who are high (than low) on nostalgia derive more psychological benefits from it (Sedikides et al., 2015). In particular, they report more social connectedness (i.e. acceptance, support; Sedikides & Wildschut, 2019), meaning in life (Sedikides & Wildschut, 2018), optimism (Cheung et al., 2013, 2016), and inspiration (Sedikides et al., 2018; Stephan et al., 2015). Importantly, individuals who are high on nostalgia are better able to use nostalgia as a coping resource in times of adversity. Chronic loneliness is a case in point. Lonely persons feel socially unsupported, but they also feel nostalgic. Nostalgia, in turn, is positively associated with perceived social connectedness, thwarting the effect of loneliness (Zhou et al., 2008). Chronic boredom is another example. Bored individuals experience a drop in meaning in life, but also evince more nostalgia. Nostalgia, in turn, is linked to increases in meaning in life, thus alleviating boredom (Van Tilburg et al., 2013). Existential threat is a final example. When threatened with awareness

of their own death (i.e. mortality salience), individuals who are higher (than lower) on nostalgia manifest lower death anxiety (Juhl et al., 2010). Taken together, nostalgia serves a restorative function, helping individuals higher on it to re-establish psychological homeostasis in the aftermath of distress.

Overview and hypotheses

Empirical findings indicate that nostalgia acts as a regulatory resource in the presence of discomforting states (Wildschut et al., 2011; Wildschut & Sedikides, 2020). To date, however, research has not examined whether nostalgia can help individuals cope with an extremely discomforting, complex, and demanding experience, such as bereavement. According to the entrenched and recently challenged view of nostalgia as maladaptive (for reviews, see: Batcho, 2013a; Sedikides et al., 2004), we would expect that a personal and profound loss would send highly nostalgic individuals into a further downward spiral. However, according to a burgeoning literature (Sedikides et al., 2015; Sedikides & Wildschut, 2018, 2019), high levels of nostalgia would help bereaved individuals cope with their loss.

In a longitudinal study, we assessed the extent to which bereaved persons reported intrusive thoughts, hyperarousal (e.g. physical symptoms, negative feelings), and avoidance across time. Although we did not develop specific hypotheses regarding initial level of loss-related grief, we did explore the potential link between initial grief and our outcomes, given that individual grief responses in bereavement can vary (Bonanno et al., 2002). We hypothesised that higher levels of nostalgia would predict reductions of distress (i.e. intrusive thoughts, hyperarousal) related to the loss of a loved one across time. However, we did not expect nostalgia to influence avoidance across time, as previous research has found no correlation between nostalgia and avoidance (Batcho, 2013b).

Method

Participants

Participants were introductory students ($N = 133$; 106 women, 23 men, 4 undeclared; $M_{age} = 19.93$ years, $SD_{age} = 3.75$ years) at a large, public, mid-Atlantic university. We recruited them from the research participant pool of the Psychology Department in exchange for course credit for a longitudinal study involving "college students who have lost a loved one". Participation was limited to those who reported the loss of a loved one in the prior two years, and participants received course credit. Their ethnicity varied: White/Caucasian = 29.3%, Black/African-American = 28.6%, Asian = 18%, Hispanic/Latino = 8.3%, Other/Mixed Race = 12.8%, 3% did not report.

An average of 13.18 months ($SD = 8.32$) had elapsed since the participants' losses occurred. A majority of reported losses were of grandparents (51.1%), extended family members (23.3%), parents (5.3%), or friends (9.8%), with the remaining (10.5%) deaths reported as significant others, acquaintances, other, or undeclared. The losses were nearly equally expected (46.6% "expected" or "very expected") and unexpected (49.6% "unexpected" or "very unexpected"), with 3.8% undeclared. Participants reported a moderate level of closeness to the deceased (1 = not very close, 5 = extremely close; $M = 3.87$, $SD = 1.04$).

Procedure

This study was part of a larger investigation of bereavement among college students that included an initial laboratory session (T1) and two follow-up sessions completed online one week (T2) and one month (T3) after the initial session. Participants were informed at the study outset that questions focused on their "loss experience" and their "feelings about [their] loved one who has passed away". They received instructions that "These questions regard the loss of a family member, friend, or loved one. If you have experienced the loss of more than one significant other, please respond regarding your most significant loss experience from the past 2 years". During the initial laboratory session, participants listed demographic information, and reported characteristics of their loss (i.e. relationship to the deceased, closeness with the deceased, months since the loss, expectedness of the loss). Participants also responded to a series of questionnaires (i.e. initial grief, nostalgia, distress elicited by the loss). In the two follow-up sessions, participants responded online only to questionnaires assessing nostalgia and distress elicited by the loss.

Measures

Grief

The 61-item Hogan Grief Reaction Checklist (HGRC; Hogan et al., 2001) instructs participants to report

the extent to which they have experienced a variety of thoughts and feelings related to their loss within the past two weeks, including the day of assessment (e.g. "I agonize over his or her death", "I frequently have muscle tension") (1 = *does not describe me at all*, 7 = *describes me very well*). To measure initial levels of grief, we averaged responses from the initial (Time 1) laboratory session; higher scores reflected greater initial levels of grief ($a = .92$).

Nostalgia

The 7-item Southampton Nostalgia Scale (Barrett et al., 2010; Routledge et al., 2008) assesses frequency and personal relevance of nostalgic engagement (e.g. "How often do you experience nostalgia?", "How valuable is nostalgia for you?"; 1 = *not at all*, 7 = *very much*). We averaged responses at each time point; higher scores reflected greater levels of nostalgia (Cronbach's $a_{T1} = .88$, $a_{T2} = .92$, $a_{T3} = .93$).

Distress

The 22-item Impact of Event Scale-Revised (Weiss & Marmar, 1997) is a measure of subjective distress caused by traumatic events. The measure instructs participants to report the extent to which they have been bothered by difficulties in the past seven days and contains three subscales: *intrusion* (8 items; e.g. "I thought about it [referring to the loss] when I didn't mean to"), *hyperarousal* (6 items; e.g. "I felt irritable and angry"), and *avoidance* (8 items; "I stayed away from reminders about it") (0 = *not at all*, 4 = *extremely*). We averaged responses for each subscale at each time point; higher scores reflected greater levels of intrusion ($a_{T1} = .87$, $a_{T2} = .86$, $a_{T3} = .90$), avoidance ($a_{T1} = .86$, $a_{T2} = .89$, $a_{T3} = .89$), and hyperarousal ($a_{T1} = .79$, $a_{T2} = .87$, $a_{T3} = .81$) at each time point.

Results

Attrition and initial analyses

First, we assessed whether attrition impacted our variables. Most participants ($n = 114$; 85.71%) took part at the second time point; 74.44% of them ($n = 99$) took part in the final data collection session. We conducted independent samples *t*-tests to examine whether individuals who did (vs. did not) participate in the final data collection session differed on initial levels of grief, nostalgia, intrusion, avoidance, and hyperarousal; no significant differences emerged (*p*s ranged from .67 to .80).

Next, we conducted independent samples *t*-tests to examine whether women and men differed in initial grief as well as nostalgia, intrusion, avoidance, and hyperarousal at each time point. No significant effects of gender emerged (*p*s ranged from .28 to .92). We tested if our variables were influenced by whether the loss was expected. Participants who reported unexpected losses mentioned greater avoidance at Time 1 ($M = 1.34$, $SD = 1.07$) and Time 2 ($M = 1.16$, $SD = 1.03$) compared to those who reported expected losses at Time 1 ($M = 0.96$, $SD = 0.71$) and Time 2 ($M = 0.66$, $SD = 0.67$), respectively (t_{T1} [121] = 2.31, $p = .02$, Cohen's $d = 0.42$; t_{T2} [103] = 2.81, $p = .01$ Cohen's $d = 0.56$). No other significant differences emerged (*p*s ranged from .10 to .96). We also examined correlations of the time elapsed since the loss and closeness to the deceased with initial grief or nostalgia, intrusion, avoidance, and hyperarousal at each time point. Time elapsed since the loss did not correlate with any of the variables (*p*s ranged from .11 to .84). Modest but significant positive relations emerged between relationship closeness and Time 1 intrusion (r [122] = .25, $p = .01$), Time 2 intrusion (r [101] = .22, $p = .02$), and Time 2 hyperarousal (r [104] = .23, $p = .02$); no other significant associations emerged (*p*s ranged from .09 to .88).

Multilevel modeling analysis plan

We used multilevel modelling to analyze the longitudinal data, with an individual's scores on a subscale measure of distress at each time point (i.e. level 1) nested within the individual (i.e. level 2). We estimated separate models using maximum likelihood for each of the three subscale measures of distress (i.e. intrusion, avoidance, hyperarousal); all models contained random slopes and intercepts. We implemented a build-up modelling approach with an initial model of an individual's nostalgia at each time point (level 1), time (level 1; coded in units of weeks), and the two-way Time × Nostalgia interaction included as predictors of a subscale measure of distress. We then estimated a second model with initial grief (level 2) included as an additional predictor along with all possible two-way interactions and the three-way interaction (Time × Nostalgia × Initial Grief). We used a likelihood ratio (i.e. deviance) test (Bickel, 2007; Snijders & Bosker, 2011) to compare the two models, with significance at the .05 level indicating that the more complex second model had improved fit to the data. We conducted these multilevel analyses

using the *nlme* package (Pinheiro et al., 2017) within R software (R Core Team, 2016). Finally, we used Preacher et al. (2006) online calculators to examine any significant interactions and test simple slopes.

Associations of nostalgia and initial grief with distress: multilevel models

Table 1 includes the results from the retained multilevel model for each of the three subscale measures of distress reported in more detail below. Given that significant relations were present between loss expectedness and avoidance, and between relationship closeness and intrusion as well as hyperarousal, we also estimated models described in the section with these variables as potential covariates. Stated otherwise, we estimated models of intrusion and hyperarousal with the inclusion of relationship closeness, and we estimated the model of avoidance with the inclusion of loss expectedness. We observed the same pattern of results when we included or removed these variables from the models, and thus we interpreted and reported the more parsimonious hypothesised models.

Table 1. Results from multilevel regression analyses for each measure of distress.

Retained model for each measure of distress	b	SE	df	t	p
Intrusion					
Intercept	0.29	0.22	122	1.34	.18
Time	0.14	0.08	122	1.75	.08
Nostalgia	0.16	0.05	122	3.44	<.001
Time × Nostalgia	0.04	0.02	122	−2.49	.01
Hyperarousal					
Intercept	−1.83	0.85	119	−2.17	.03
Time	−0.91	0.33	119	−2.71	<.05
Nostalgia	−0.06	0.18	119	−0.32	.75
Grief	1.12	0.40	92	2.84	<.05
Time × Nostalgia	0.22	0.07	119	3.10	<.01
Time × Grief	0.48	0.16	119	3.10	<.01
Nostalgia × Grief	0.06	0.08	119	0.68	.50
Time × Nostalgia × Grief	0.12	0.03	119	−3.60	<.01
Avoidance					
Intercept	−0.40	1.17	119	−0.34	.74
Time	−0.30	0.43	119	−0.70	.49
Nostalgia	−0.24	0.24	119	−0.98	.33
Grief	0.58	0.55	92	1.06	.29
Time × Nostalgia	0.07	0.09	119	0.77	.44
Time × Grief	0.08	0.20	119	0.38	.71
Nostalgia × Grief	0.13	0.11	119	1.15	.25
Time × Nostalgia × Grief	−0.03	0.04	119	−0.65	.52

Note: Estimates (b) represent unstandardised coefficients. Time is centred at Time 2 and coded in units of weeks. Other predictors are unaltered from the raw metric.

Intrusion

The second model with the inclusion of initial grief did not significantly improve model fit, $\chi^2(3) = 1.84$, $p = .61$; thus, we retained the initial model with nostalgia, time, and the Nostalgia × Time interaction. The Nostalgia × Time interaction was significant, $b = -0.04$, $t(122) = -2.49$, $p = .01$. Figure 1 displays simple slope analyses conducted to examine the change in intrusion across time at different levels of nostalgia. For participants experiencing lower nostalgia, defined as one standard deviation below the mean, the change in intrusions across time was not significant, $b = 0.04$, $t(122) = 0.51$, $p = .61$. For participants experiencing higher nostalgia, defined as one standard deviation above the mean, intrusive thoughts significantly decreased across time, $b = -0.23$, $t(122) = -3.48$ $p < .001$. Region of significance analyses indicated that this significant ($p < .05$) decrease of intrusions across time was predicted to be present when participants reported nostalgia scores equal to or greater than 4.49. Put differently, participants who reported a level of nostalgia at or exceeding 4.49 were estimated to experience a significant decline in intrusions.

Hyperarousal

The Time × Nostalgia × Initial Grief interaction was a significant predictor of hyperarousal, $b = -0.12$, t
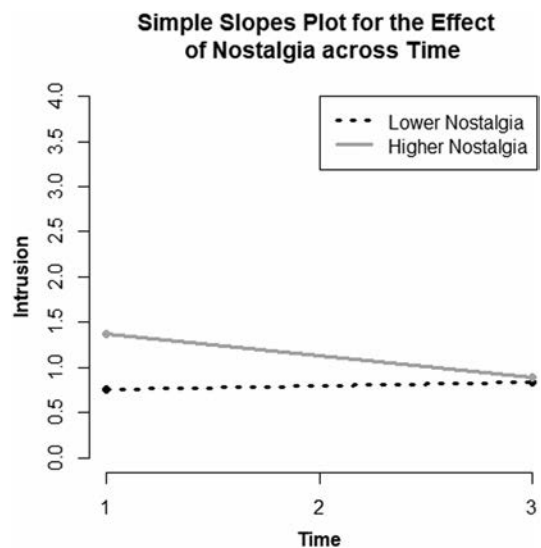

Figure 1. Simple slopes plot for effect of time × nostalgia on intrusion.

Note: Nostalgia ($M = 4.52$, SD = 1.39). Lower nostalgia is one standard deviation below the mean (3.13) and higher nostalgia is one standard deviation above the mean (5.91). Solid lines indicate significant simple slope ($p < .05$), whereas dashed lines indicate non-significant simple slope.

(119) = −3.60, $p < .01$, and this full model demonstrated significantly improved model fit when compared to the initial model of time, nostalgia, and Time × Nostalgia, $\chi^2(3) = 11,80$, $p < .01$. We conducted simple slopes analyses to examine the association of nostalgia with hyperarousal across time for different levels of initial grief, with lower and higher levels of nostalgia and initial grief defined as one standard deviation below and above the mean, respectively.

Among participants at lower initial grief intensity (one standard deviation below the mean; initial grief = 1.72), there was no significant change in hyperarousal across time for those experiencing either lower, $b = −0.03$, $t(119) = 0.35$, $p = .72$, or higher nostalgia, $b = 0.06$, $t(119) = 0.70$, $p = .49$. Figure 2(a) displays the relation between nostalgia and hyperarousal across time for such participants.

Among participants at higher initial grief (one standard deviation above the mean: initial grief = 2.66), those experiencing lower nostalgia reported a significant increase in hyperarousal across time, $b = 0.21$, $t(119) = 2.28$, $p = .02$. Participants with higher initial grief experiencing higher nostalgia evinced a significant decrease in hyperarousal across time, $b = −0.24$, $t(119) = −3.62$, $p < .001$. Region of significance analyses indicated that, for participants with higher initial grief, a significant ($p < .05$) increase in hyperarousal across time was predicted to be present when they reported nostalgia scores less than or equal to 3.42, whereas a significant decrease in hyperarousal across time was predicted to be present when they reported a nostalgia score greater than or equal to 5.06. Figure 2(b) displays the relation between nostalgia and hyperarousal across time for such participants.

Avoidance

We observed no significant main effect of time, nostalgia, or Nostalgia × Time interaction in the initial model. When we included initial grief as a predictor, and estimated the full model with all interactions, no significant effects were present. Therefore, nostalgia did not predict declines across time in avoidance. We report results for this model in the bottom section of Table 1.

Discussion

Our findings indicate that dispositional nostalgia predicts reductions in distress among bereaved individuals. Individuals experiencing greater dispositional nostalgia reported a decrease in intrusive thoughts across time, whereas individuals experiencing lower dispositional nostalgia did not report a similar
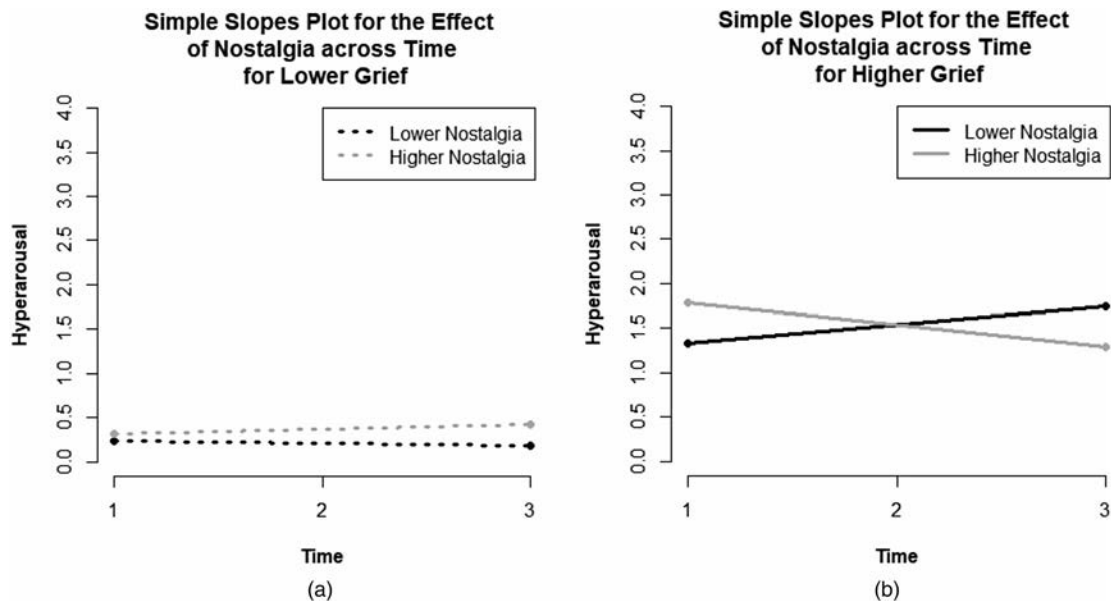

Figure 2. (a and b) Simple slopes plot for effect of time × nostalgia on hyperarousal at lower and higher grief.

Note: Nostalgia ($M = 4.52$, SD = 1.39). Lower nostalgia is one standard deviation below the mean (3.13) and higher nostalgia is one standard deviation above the mean (5.91). Grief ($M = 2.19$, SD = 0.47). Lower grief is one standard deviation below the mean (1.72). Higher grief is one standard deviation above the mean (2.66). Dashed lines indicate non-significant simple slope. Solid lines indicate significant simple slope ($p < .05$).

decline across time. Additionally, hyperarousal (e.g. irritability, physical reactions to the loss) declined across time among individuals with higher initial grief who experienced higher nostalgia, but hyperarousal increased across time among individuals with higher initial grief who experienced lower nostalgia. No changes occurred in avoidance.

In general, nostalgia helped bereaved individuals by buffering the impact of bereavement across time without encouraging escapist strategies. Regardless of an individual's initial level of grief, higher levels of nostalgia predicted reductions in intrusive thoughts about the loss across time, and higher levels of nostalgia predicted reductions in physical and emotional hyperarousal across time for participants with higher initial grief. These results are consistent with our hypotheses.

Implications

Individuals relate to the past through a variety of means (e.g. nostalgia, rumination, counterfactual thinking), but nostalgia operates as a more positive and constructive method of connecting to the past than alternatives (Cheung et al., 2018). Nostalgia is an active homeostatic process (Sedikides et al., 2015; Wildschut & Sedikides, 2020) that promotes an optimistic outlook (Cheung et al., 2013, 2016) and can follow a redemptive narrative structure progressing from difficulty to resolution (Wildschut et al., 2006). In this way, nostalgia may help bereaved individuals reflect on a loss with less distress and pursue a more constructive trajectory.

We expanded prior literature (Batcho, 2013b; Sedikides et al., 2015; Sedikides & Wildschut, 2020) by demonstrating that nostalgia serves a restorative function for those faced with a profound and wrenching threat: the death of a loved one. First, higher levels of nostalgia predicted reductions in intrusive thoughts across time, which aligns with research examining other cognitive responses to loss: Eulogising the dead with praise and idealisation reduces death-thought accessibility (Hayes, 2016). It is notable that individuals higher (than lower) on nostalgia started out with more intrusive thoughts (Figure 1). One potential explanation for the positive relation between initial levels of intrusion and nostalgia may be continuing bonds. Specifically, higher levels of symptomology (e.g. poor biopsychosocial functioning, traumatic perception of loss) predict a greater likelihood of maintaining an ongoing relationship with

the deceased, potentially because individuals with higher symptomology seek more frequently and actively a continued bond (e.g. through memory recovery) as a means of assisting coping and reducing grief (Sirrine et al., 2018). This pattern is similar to the function of nostalgia, in that nostalgia occurs naturally in response to threats and attenuates their psychological impact (Juhl et al., 2010; Van Tilburg et al., 2013; Zhou et al., 2008).

Greater nostalgia predicted declines in hyperarousal among individuals higher in initial grief only. In our sample, individuals lower in initial grief reported less hyperarousal from the initial assessment, leaving little room for further declines across time and, hence, scant opportunity to detect a role for nostalgia (i.e. floor effect; Figure 2(a)). Individuals higher in initial grief, however, evinced a considerably greater range of hyperarousal, creating space for nostalgia's soothing, low-arousal character (Van Tilburg et al., 2018) to come into play (Figure 2(b)).

Nostalgia was not linked with maladaptive avoidant strategies, supporting Batcho's (2013b) rejection of the negative caricature of nostalgia as a feeble retreat or escape from reality. Instead, greater nostalgia was linked to better emotional and instrumental social coping, as well as with planning, action taking, and positive reframing goal-directed strategies (Batcho, 2013b). Approach and avoidance motivations are conceptually distinct: approach involves movement *toward* a stimulus and facilitates thriving, whereas avoidance involves movement *away* from a stimulus and facilitates merely surviving. More specifically, approach helps individuals promote new, and maintain existing, positive situations, whereas avoidance helps individuals prevent new, and escape existing, negative situations (Elliot, 2008). Thus, individuals can approach (i.e. recall) cherished memories while being no more or less likely to avoid (i.e. suppress) unpleasant ones, perhaps accounting for the lack of relation between nostalgia and avoidance in our research.

Our findings have clinical implications for those who work closely with the bereaved, including grief counsellors, hospital chaplains, and palliative care clinicians. First, nostalgia appears to facilitate reductions in intrusive thoughts over time. Indeed, the relevance of nostalgia identified in our work maps closely to various third-wave cognitive therapies (e.g. Acceptance and Commitment Therapy; Hayes et al., 2009) and mindfulness-based approaches, which seek to amend one's *reaction* to thoughts instead of changing

the thoughts themselves. Our results also indicate that nostalgia is particularly important for individuals who are most severely affected by their loss. Those experiencing higher initial grief intensity who were more prone to nostalgia showed a reduction in hyperarousal across time, but those with higher initial grief who were less prone to nostalgia evinced an increase in hyperarousal across time. Professionals assisting the bereaved may be able to help severely affected clients cope better by fostering nostalgia through regular sessions. Programmes have been developed to help individuals cultivate other dispositional qualities (e.g. humility; Lavelock et al., 2014), and similar programmes could be developed for fostering nostalgia. This practice may also serve as a safe method for guiding bereaved individuals to thoughts about their lost loved ones, as nostalgia represents a redeemable, positive experience that does not deny (and is, in fact, embedded within) longing.

Limitations and future research

Our research is the first to examine whether nostalgia functions as a resource for bereaved individuals. However, our study contains limitations. We focused on dispositional nostalgia. As such, we could not tell what types of nostalgia interventions may be effective in reducing distress among bereaved individuals. Although prior research has examined dispositional nostalgia as a resource to counteract loneliness (Zhou et al., 2008) and to engage in adaptive coping strategies (Batcho, 2013b), additional work has demonstrated that nostalgia can be induced through a variety of methods, including narratives (Wildschut et al., 2006), music and song lyrics (Barrett et al., 2010; Routledge et al., 2011), and scents (Reid et al., 2015). Follow-up investigations could rely on these methods to develop and test nostalgia interventions with bereaved individuals. Such investigations would illuminate the potential benefits of *state* nostalgia. Further, whereas nostalgia does serve as a resource for coping with specific threats (Juhl et al., 2010; Van Tilburg et al., 2013; Zhou et al., 2008), an intervention that targets relationship-specific nostalgia (Mallory et al., 2018) for the deceased may produce more pronounced beneficial effects. Given that prominent models of bereavement (e.g. Dual Process Model, Meaning Reconstruction, Cognitive Behavioural) include some form of nostalgic reverie, dismantling strategies would be most useful in identifying the unique contribution of nostalgia (Stroebe & Schut, 2001).

Our findings add to current literature by examining bereavement among college students. Bereavement in this age group is a "silent epidemic", with 30% and 39% of traditional age (i.e. 18–23 years of age) college students reporting having lost a loved one within the past 12 and 24 months, respectively (Balk et al., 2010). However, younger adults may receive less empirical attention than older individuals, as the latter report more frequently multiple losses than the former (Shah & Meeks, 2012), and prior loss predicts complicated grief (Hays et al., 1997). Complicated grief, which is associated with excessive bitterness over the loss (Mauro et al., 2019), is more prevalent in older adults relative to other age groups (Kersting et al., 2011; Newson et al., 2011). Furthermore, older adults may have less access to social support and smaller networks (Pinquart & Sörensen, 2001). We expect that nostalgia be particularly beneficial for older adults, as it can be elicited through a variety of stimuli without the actual presence of others in the moment (Barrett et al., 2010; Reid et al., 2015; Routledge et al., 2011; Wildschut et al., 2006). Nostalgia may become more prominent later in life, as bereavement and frailty may make older adults vulnerable to loneliness and prone to reliving close relationships (Hepper et al., 2020), while enhancing perceived bonds is thought to be a particularly promising strategy to combat late-life mental health risks (Chang et al., 2017). Thus, follow-up work could extend our findings by identifying nostalgia as a potential coping mechanism and examining its impact on intrusive thoughts, hyperarousal, and avoidance among older bereaved adults.

Future research may benefit from larger samples. The nature of our population (bereaved individuals) and study design (multiple assessment times) presented a challenge in both recruiting and maintaining participants, but resulted in an adequate sample size ($N = 133$; we did not conduct a priori power analyses) and number of time points (3) for investigating cross-level interactions (Mathieu et al., 2012). Future research may also benefit from extended periods of assessment. We carried out our research over a relatively short time-period: The final assessment occurred one month after the initial assessment. Granted, similar research designs of bereaved undergraduates reported significant effects as early as one week and three months following initial assessment (Lichtenthal & Cruess, 2010). Yet, we recommend that researchers pondering the trade-off between collecting more participants or measuring the same participants across

more time points prioritise the latter to achieve the largest increase in power (Moerbeek et al., 2008; Scherbaum & Ferreter, 2009). Furthermore, initial data collection for each participant occurred after differing lengths of time since the death of the loved one ($M = 13.18$, $SD = 8.32$ months elapsed). Although time elapsed did not correlate with our measured variables, it is possible that findings could change in periods of time beyond one month. For example, bereaved individuals may experience a recurrence of their symptoms at the anniversary of the loss, typically during the anniversary month but also during the preceding months as they anticipate the anniversary (Chow, 2010). It is worth testing whether nostalgia's restorative function promotes individual coping at this particularly difficult time.

Lastly, future research may benefit from different measurements of distress. The majority (77.27%) of items in our measure of distress (i.e. Impact of Event Scale-Revised; Weiss & Marmar, 1997) contained event-specific language, and we repeatedly instructed our participants to respond in reference to loss of their loved one. Yet, this measure contains a few items (e.g. "I had trouble falling asleep") that participants could complete in reference to general rather than event-specific distress. Follow-up work could compare participants' responses across both event-specific and general measures of distress to determine if differences emerge.

Conclusion

Once misinterpreted as a maladaptation, nostalgia operates as a coping resource: It buffers against threats and restores homeostasis. Our research demonstrates that the benefits of nostalgia extend to even one of the most profound threats that humans can experience over the span of their lives: the death of a loved one. Bereavement often is accompanied by aversive states of intrusive thoughts and frustration or irritability, and nostalgia serves to allay these discomforting states.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Constantine Sedikides ⬤ http://orcid.org/0000-0003-3681-4332

References

Abeyta, A. A., & Routledge, C. (2016). Fountain of youth: The impact of nostalgia on youthfulness and implication for health. *Self and Identity*, 15(3), 356–369. https://doi.org/10.1080/15298868.2015.1133452

Abeyta, A. A., Routledge, C., & Juhl, J. (2015). Looking back to move forward: Nostalgia as a psychological resource for promoting relationship goals and overcoming relationship challenges. *Journal of Personality and Social Psychology*, 109(6), 1029–1044. https://doi.org/10.1037/pspi0000036

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.

Baddeley, J. L., Williams, J. L., Rynearson, T., Correa, F., Saindon, C., & Rheingold, A. A. (2015). Death thoughts and images in treatment-seekers after violent loss. *Death Studies*, 39(2), 84–91. https://doi.org/10.1080/07481187.2014.893274

Balk, D. E., Walker, A. C., & Baker, A. (2010). Prevalence and severity of college students bereavement examined in a randomly selected sample. *Death Studies*, 34(5), 459–468. https://doi.org/10.1080/07481180903251810

Barbosa, V., Sa, M., & Rocha, J. C. (2014). Randomised controlled trial of a cognitive narrative intervention for complicated grief in widowhood. *Aging & Mental Health*, 18(3), 354–362. https://doi.org/10.1080/13607863.2013.833164

Barrett, F. S., Grimm, K. J., Robins, R. W., Wildschut, T., Sedikides, C., & Janata, P. (2010). Music-evoked nostalgia: Affect, memory, and personality. *Emotion*, 10(3), 390–403. https://doi.org/10.1037/a0019006

Batcho, K. I. (2013a). Nostalgia: The bittersweet history of a psychological concept. *History of Psychology*, 16(3), 165–176. https://doi.org/10.1037/a0032427

Batcho, K. I. (2013b). Nostalgia: Retreat or support in difficult times? *The American Journal of Psychology*, 126(3), 355–367. https://doi.org/10.5406/amerjpsyc.126.3.0355

Bickel, R. (2007). *Multilevel analysis for applied research: It's just regression!* Guilford Press.

Biskas, M., Cheung, W.-Y., Juhl, J., Sedikides, C., Wildschut, T., & Hepper, E. G. (2019). A prologue to nostalgia: Savoring creates nostalgic memories that foster optimism. *Cognition and Emotion*, 33(3), 417–427. https://doi.org/10.1080/02699931.2018.1458705

Bogensperger, J., & Lueger-Schuster, B. (2014). Losing a child: Finding meaning in bereavement. *European Journal of Psychotraumatology*, 5(1), 1–9. https://doi.org/10.3402/ejpt.v5.22910

Bonanno, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, 7(1), 511–535. https://doi.org/10.1146/annurev-clinpsy-032210-104526

Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., Carr, D., & Nesse, R. M. (2002). Resilience to loss and chronic grief: A prospective study from preloss to 18-months postloss. *Journal of Personality and Social Psychology*, 83(5), 1150–1164. https://doi.org/10.1037/0022-3514.83.5.1150

Boyraz, G., & Efstathiou, N. (2011). Self-focused attention, meaning, and posttraumatic growth: The mediating role of positive and negative affect for bereaved women. *Journal of*

Loss and Trauma, *16*(1), 13–32. https://doi.org/10.1080/15325024.2010.507658

Chang, Q., Chan, C. H., & Yip, P. S. F. (2017). A meta-analytic review on social relationships and suicidal ideation among older adults. *Social Science & Medicine*, *191*, 65–76. https://doi.org/10.1016/j.socscimed.2017.09.003

Cheung, W.-Y., Hepper, E. G., Reid, C. A., Green, J. D., Wildschut, T., & Sedikides, C. (2019). Anticipated nostalgia: Looking forward to looking back. *Cognition and Emotion*, *34*(3), 511–525. https://doi.org/10.1080/02699931.2019.1649247

Cheung, W.-Y., Sedikides, C., & Wildschut, T. (2016). Induced nostalgia increases optimism (via social connectedness and self-esteem) among individuals high, but not low, in trait nostalgia. *Personality and Individual Differences*, *90*, 283–288. https://doi.org/10.1016/j.paid.2015.11.028

Cheung, W.-Y., Wildschut, T., & Sedikides, C. (2018). Autobiographical memory functions of nostalgia in comparison to rumination and counterfactual thinking: Similarity and uniqueness. *Memory*, *26*(2), 229–237. https://doi.org/10.1080/09658211.2017.1346129

Cheung, W.-Y., Wildschut, T., Sedikides, C., Hepper, E. G., Arndt, J., & Vingerhoets, A. J. J. M. (2013). Back to the future: Nostalgia increases optimism. *Personality and Social Psychology Bulletin*, *39*(11), 1484–1496. https://doi.org/10.1177/0146167213499187

Chow, A. Y. M. (2010). Anticipatory anniversary effects and bereavement: Development of an integrated explanatory model. *Journal of Loss and Trauma*, *15*(1), 54–68. https://doi.org/10.1080/15325020902925969

Elliot, A. J. (2008). Approach and avoidance motivation. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 3–14). Routledge.

Fagundes, C. P., & Wu, E. L. (2020). Matters of the heart: Grief, morbidity, and mortality. *Current Directions in Psychological Science*, *29*(3), 235–241. https://doi.org/10.1177/0963721420917698

Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin*, *132*(6), 823–865. https://doi.org/10.1037/0033-2909.132.6.823

Hayes, J. (2016). Praising the dead: On the motivational tendency and psychological function of eulogizing the deceased. *Motivation and Emotion*, *40*(3), 375–388. https://doi.org/10.1007/s11031-016-9545-y

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2009). *Acceptance and commitment therapy*. American Psychological Association.

Hays, J. C., Gold, D. T., & Pieper, C. F. (1997). Sibling bereavement in late life. *OMEGA-Journal of Death and Dying*, *35*(1), 25–42. https://doi.org/10.2190/YE89-2GU8-C8U3-MRNX

Hepper, E. G., Ritchie, T. D., Sedikides, C., & Wildschut, T. (2012). Odyssey's end: Lay conceptions of nostalgia reflect its original Homeric meaning. *Emotion*, *12*(1), 102–119. https://doi.org/10.1037/a0025167

Hepper, E. G., Wildschut, T., Sedikides, C., Robertson, S., & Routledge, C. (2020). Time capsule: Nostalgia shields well-being from limited time horizons. *Emotion*. Advance online publication. https://doi.org/10.1037/emo0000728

Hogan, N. S., Greenfield, D. B., & Schmidt, L. A. (2001). Development and validation of the Hogan Greif Reaction Checklist. *Death Studies*, *25*(1), 1–32. https://doi.org/10.1080/074811801750058609

Juhl, J., Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2010). Fighting the future with the past. Nostalgia buffers

existential threat. *Journal of Research in Personality*, *44*(3), 309–314. https://doi.org/10.1016/j.jrp.2010.02.006

Kersting, A., Brähler, E., Glaesmer, H., & Wagner, B. (2011). Prevalence of complicated grief in a representative population-based sample. *Journal of Affective Disorders*, *131*(1), 339–343. https://doi.org/10.1016/j.jad.2010.11.032

Lafarge, C., Usher, L., Mitchell, K., & Fox, P. (2019). The role of rumination in adjusting to termination of pregnancy for fetal abnormality: Rumination as a predictor and mediator of post-traumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy*, *12*(1), 101–109. https://doi.org/10.1037/tra0000440

Lavelock, C. R., Worthington, E. L., Davis, D. E., Griffin, B. J., Reid, C. A., Hook, J. N., & Van Tongeren, D. R. (2014). The quiet virtue speaks: An intervention to promote humility. *Journal of Psychology & Theology*, *42*(1), 99–110. https://doi.org/10.1177/009164711404200111

Leunissen, J., Wildschut, T., Sedikides, C., & Routledge, C. (2020). The hedonic character of nostalgia: An integrative data analysis. *Emotion Review*. Advance online publication. https://doi.org/10.1177/1754073920950455

Lichtenthal, W. G., & Cruess, D. G. (2010). Effects of directed written disclosure on grief and distress symptoms among bereaved individuals. *Death Studies*, *34*(6), 475–499. https://doi.org/10.1080/07481187.2010.483332

Mallory, A. B., Spencer, C. M., Kimmes, J. G., & Pollitt, A. M. (2018). Remembering the good times: The influence of relationship nostalgia on relationship satisfaction across time. *Journal of Marital and Family Therapy*, *44*(4), 561–574. https://doi.org/10.1111/jmft.12311

Mathieu, J. E., Aguinis, H., Culpepper, S. A., & Chen, G. (2012). Understanding and estimating the power to detect cross-level interaction effects in multilevel modeling. *Journal of Applied Psychology*, *97*(5), 951–966. https://doi.org/10.1037/a0028380

Mauro, C., Reynolds, C. F., Maercker, A., Skritskaya, N., Simon, N., Zisook, S., Lebowitz, B., Cozza, S. J., & Shear, M. K. (2019). Prolonged grief disorder: Clinical utility of ICD-11 diagnostic guidelines. *Psychological Medicine*, *49*(5), 861–867. https://doi.org/10.1017/S0033291718001563

Moerbeek, M., Van Breukelen, G. J. P., & Berger, M. P. F. (2008). Optimal designs for multilevel studies. In J. de Leeuw & E. Meijer (Eds.), *Handbook of multilevel analysis* (pp. 177–206). Springer.

The New Oxford Dictionary of English. (1998). (J. Pearsall, Ed.). Oxford University Press.

Newson, R. S., Boelen, P. A., Hek, K., Hofman, A., & Tiemeier, H. (2011). The prevalence and characteristics of complicated grief in older adults. *Journal of Affective Disorders*, *132*(1), 231–238. https://doi.org/10.1016/j.jad.2011.02.021

Nolen-Hoeksem, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science*, *3*(5), 400–424. https://doi.org/10.1111/j.1745-6924.2008.00088.x

Pennebaker, J. W. (1982). *The psychology of physical symptom*. Springer-Verlag.

Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, *8*(3), 162–166. https://doi.org/10.1111/j.1467-9280.1997.tb00403.x

Pinheiro, J., Bates, D., DebRoy, S., Sarkar, D., & R Core Team. (2017). *nlme: Linear and Nonlinear Mixed Effects Models*. R

package version 3.1-131. https://CRAN.R-project.org/package=nlme

Pinquart, M., & Sörensen, S. (2001). Influences on loneliness in older adults: A meta-analysis. *Basic and Applied Social Psychology*, *23*(4), 245–266. https://doi.org/10.1207/S15324834BASP2304_2

Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, *31*(4), 437–448. https://doi.org/10.3102/10769986031004437

R Core Team. (2016). *R: A language and environment for statistical computing (version 3.3.2)* [Computer software]. R Foundation for Statistical Computing. https://www.R-project.org/

Reid, C. A., Green, J. D., Wildschut, T., & Sedikides, C. (2015). Scent-evoked nostalgia. *Memory*, *23*(2), 157–166. https://doi.org/10.1080/09658211.2013.876048

Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2008). A blast from the past: The terror management function of nostalgia. *Journal of Experimental Social Psychology*, *44*(1), 132–140. https://doi.org/10.1016/j.jesp.2006.11.001

Routledge, C., Arndt, J., Wildschut, T., Sedikides, C., Hart, C. M., Juhl, J., Vingerhoets, A., & Schlotz, W. (2011). The past makes the present meaningful: Nostalgia as an existential resource. *Journal of Personality and Social Psychology*, *101*(3), 638–652. https://doi.org/10.1037/a0024292

Saindon, C., Rheingold, A. A., Baddeley, J., Wallace, M. M., Brown, C., & Rynearson, E. K. (2014). Restorative retelling for violent loss: An open clinical trial. *Death Studies*, *38*(1-5), 251–258. https://doi.org/10.1080/07481187.2013.783654

Scherbaum, C. A., & Ferreter, J. M. (2009). Estimating statistical power and required sample sizes for organizational research using multilevel modeling. *Organizational Research Methods*, *12*(2), 347–367. https://doi.org/10.1177/1094428107308906

Sedikides, C., & Wildschut, T. (2016a). Nostalgia: A bittersweet emotion that confers psychological health benefits. In A. M. Wood & J. Johnson (Eds.), *Wiley handbook of positive clinical psychology* (pp. 25–36). Wiley.

Sedikides, C., & Wildschut, T. (2016b). Past forward: Nostalgia as a motivational force. *Trends in Cognitive Sciences*, *20*(5), 319–321. https://doi.org/10.1016/j.tics.2016.01.008

Sedikides, C., & Wildschut, T. (2018). Finding meaning in nostalgia. *Review of General Psychology*, *22*(1), 48–61. https://doi.org/10.1037/gpr0000109

Sedikides, C., & Wildschut, T. (2019). The sociality of personal and collective nostalgia. *European Review of Social Psychology*, *30*(1), 123–173. https://doi.org/10.1080/10463283.2019.1630098

Sedikides, C., & Wildschut, T. (2020). The motivational potency of nostalgia: The future is called yesterday. *Advances in Motivation Science*, *7*, 75–111. https://doi.org/10.1016/bs.adms.2019.05.001

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). Guilford Press.

Sedikides, C., Wildschut, T., Routledge, C., Arndt, J., Hepper, E. G., & Zhou, X. (2015). To nostalgize: Mixing memory with affect and desire. *Advances in Experimental Social Psychology*, *51*, 189–273. https://doi.org/10.1016/bs.aesp.2014.10.001

Sedikides, C., Wildschut, T., & Stephan, E. (2018). Nostalgia shapes and potentiates the future. In J. P. Forgas & R. F. Baumeister (Eds.), *The social psychology of living well* (pp. 181–199). Routledge. https://doi.org/10.4324/9781351189712

Shah, S. N., & Meeks, S. (2012). Late-life bereavement and complicated grief: A proposed comprehensive framework. *Aging & Mental Health*, *16*(1), 39–56. https://doi.org/10.1080/13607863.2011.605054

Shear, K. (2017). *What is complicated grief? Perspectives from an insider and outsider*. Symposium presented at the Association for Death Education and Counseling Conference, Portland, OR, April 5-8, 2017.

Simon, N. M., Shear, K. M., Thompson, E. H., Zalta, A. K., Perlman, C., Reynolds, C. F., Frank, E., Melhem, N., & Silowash, R. (2007). The prevalence and correlates of psychiatric comorbidity in Individuals with complicated grief. *Comprehensive Psychiatry*, *48*(5), 395–399. https://doi.org/10.1016/j.comppsych.2007.05.002

Sirrine, E. H., Salloum, A., & Boothroyd, R. (2018). Predictors of continuing bonds among bereaved adolescents. *OMEGA – Journal of Death and Dying*, *76*(3), 237–255. https://doi.org/10.1177/0030222817727632

Snijders, T. A. A., & Bosker, R. J. (2011). *Multilevel analysis: An introduction to basic and advanced multilevel modeling* (2nd ed.). Sage Publications.

Stephan, E., Sedikides, C., Wildschut, T., Cheung, W.-Y., Routledge, C., & Arndt, J. (2015). Nostalgia-evoked inspiration: Mediating mechanisms and motivational implications. *Personality and Social Psychology Bulletin*, *41*(10), 1395–1410. https://doi.org/10.1177/0146167215596985

Stroebe, M. S., & Schut, H. (2001). Meaning making in the dual process model of coping with bereavement. In R. A. Neimeyer (Ed.), *Meaning reconstruction and the experience of loss* (pp. 55–73). American Psychological Association.

Stroebe, M., Schut, H., & Stroebe, W. (2007). Health outcomes of bereavement. *Lancet*, *370*(9603), 1960–1973. https://doi.org/10.1016/S0140-6736(07)61816-9

Stroebe, M., Stroebe, W., Schut, H., Zech, E., & van den Bout, J. (2002). Does disclosure of emotions facilitate recovery from bereavement? Evidence from two prospective studies. *Journal of Consulting and Clinical Psychology*, *70*(1), 169–178. https://doi.org/10.1037/0022-006X.70.1.169

Taku, K., Calhoun, L. G., Cann, A., & Tedeschi, R. G. (2008). The role of rumination in the coexistence of distress and posttraumatic growth among bereaves Japanese university students. *Death Studies*, *32*(5), 428–444. https://doi.org/10.1080/07481180801974745

Thieleman, K., Cacciatore, J., & Wonch Hill, P. (2014). Traumatic bereavement and mindfulness: A preliminary study of mental health outcomes using the ATTEND model. *Clinical Social Work Journal*, *42*(3), 260–268. https://doi.org/10.1007/s10615-014-0491-4

Van der Houwen, K., Stroebe, M., Schut, H., Stroebe, W., & Van den Bout, J. (2010). Mediating processes in bereavement: The role of rumination, threatening grief interpretations, and deliberate grief avoidance. *Social Science and Medicine*, *71*(9), 1669–1676. https://doi.org/10.1016/j.socscimed.2010.06.047

Van Tilburg, W. A. P., Igou, E. R., & Sedikides, C. (2013). In search of meaningfulness: Nostalgia as antidote to boredom. *Emotion*, *13*(3), 450–461. https://doi.org/10.1037/a0030442

Van Tilburg, W. A. P., Wildschut, T., & Sedikides, C. (2018). Nostalgia's place among self-relevant emotions. *Cognition &*

Emotion, *32*(4), 742–759. https://doi.org/10.1080/02699931.2017.1351331

Weiss, D. S., & Marmar, C. R. (1997). The impact of event scale-revised. In J. P. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD: A practitioner's handbook* (pp. 399–411). Guilford Press.

Westerhof, G. J., Bohlmeijer, E., & Webster, J. D. (2010). Reminiscence and mental health: A review of recent progress in theory, research, and interventions. *Ageing & Society*, *30*(4), 697–721. https://doi.org/10.1017/S0144686X09990328

Wildschut, C., Sedikides, C., & Cordaro, F. (2011). Self-regulatory interplay between negative and positive emotions: The case of loneliness and nostalgia. In I. Nyklicek, A. J. J. M. Vingerhoets, & M. Zeelenberg (Eds.), *Emotion regulation and well-being* (pp. 67–83). Springer. https://doi.org/10.1007/978-1-4419-6953-8

Wildschut, T., & Sedikides, C. (2020). The psychology of nostalgia: Delineating the emotion's nature and functions. In M. H. Jacobson (Ed.), *Nostalgia now: Cross-disciplinary perspectives on the past in the present* (pp. 47–65). Routledge Press.

Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: Content, triggers, functions. *Journal of Personality & Social Psychology*, *91*(5), 975–993. https://doi.org/10.1037/0022-3514.91.5.975

Zhou, X., Sedikides, C., Wildschut, T., & Gao, D. G. (2008). Counteracting loneliness: On the restorative function of nostalgia. *Psychological Science*, *19*(10), 1023–1029. https://doi.org/10.1111/j.1467-9280.2008.02194.x