Nostalgia Restores Meaning in Life for Lonely People

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Abstract

Lonely individuals lack meaning in life. We hypothesized that nostalgia, a bittersweet emotion that entails reflecting sentimentally on the past, helps restore meaning for lonely people. In two studies, we measured trait loneliness, measured state nostalgia (Study 1) or experimentally induced nostalgia (Study 2), and assessed meaning. Results supported the hypothesis: The relation between loneliness and meaning deficits was reduced among nostalgic individuals and this was driven by the fact that nostalgia (whether measured or experimentally induced) was linked with greater meaning for highly lonely individuals.

Keywords: nostalgia, meaning in life, loneliness

Meaning in life, the subjective experience of purpose, worth, and coherence, is a basic psychological need important for well-being (King & Hicks, 2021). Social ties are a source of meaning. Having others desire one's company can validate one's existence, providing worth. Moreover, caring for others can provide purpose. Consequently, lonely individuals have lower meaning (Stillman & Lambert, 2013). Nostalgia may help provide the meaning lonely individuals lack.

Nostalgia ("a sentimental longing or wistful affection for the past"; *The New Oxford Dictionary of English*, 1998, p. 1266) is a largely positive and low arousal emotion (van Tilburg, Wildschut, & Sedikides, 2018). Nostalgic reminiscence promotes positive affect (Leunissen et al., 2021; Turner & Stanley, 2021). However, nostalgia is bittersweet, as it also contains sadness and irretrievable loss (van Tilburg, Wildschut, & Sedikides, 2018). Indeed, it is also associated with negative affect (Newman et al., 2020), and can increase ambivalent affect (Leunissen et al., 2021). Despite its ambivalence, nostalgia promotes psychological well-being (Sedikides et al., 2015).

Most relevant, research has found that nostalgia combats loneliness. People turn to nostalgia when lonely (Zhou et al., 2008; Zhou et al., 2021), and nostalgic memories typically have strong themes of belonging and meaningful social bonds (Sedikides & Wildschut 2019). Recruiting nostalgia when lonely is a coping response; as nostalgia increases a sense of social connectedness (Wildschut et al., 2006), and mitigates the associations between loneliness and reduced social support (Zhou et al., 2008) and loneliness and unhappiness (Zhou et al., 2021), respectively. Moreover, nostalgia helps lonely individuals overcome reluctance to pursue social goals for intimacy (Abeyta et al., 2020). However, no prior research has tested whether nostalgia can restore the meaning that lonely individuals lack.

We propose nostalgia restores meaning for lonely people. Nostalgia increases meaning (Routledge et al., 2011) and buffers threats to meaning, such as manipulated meaninglessness (Routledge et al., 2011), death thoughts (Juhl et al., 2010), and disillusionment (Maher et al., 2021). As mentioned, social connectedness provides meaning (Stillman & Lambert, 2013), and research has documented that nostalgia bolsters meaning via increasing social connectedness (Routledge et al., 2011). Lonely individuals, with their belongingness deficit, stand to gain the most social connectedness from nostalgia. Thus, by restoring this connectedness for lonely individuals (Abeyta et al., 2020; Zhou et al., 2008), nostalgia may restore meaning.

If nostalgia helps restore meaning for lonely individuals, then (1) lonely individuals who are nostalgic should have greater meaning than those who are not and (2) the negative relation between loneliness and meaning should be smaller among those feeling nostalgic. We tested this in two studies. In both studies, we measured meaning as an outcome of the interaction between loneliness and state nostalgia. In Study 1, we assessed state nostalgia and in Study 2, we experimentally manipulated it. In both studies, we aimed to recruit as many participants as possible in one semester, with the stipulation that we recruit at least 141, the sample size required to detect a small to medium sized effect ($f^2 = .08$; power = .80, alpha = .05) using linear regression. These studies were approved by Rutgers University Institutional Review Board and were not preregistered. Data and research materials are available at:

https://osf.io/5hgys/?view_only=a4ef03cf93bc4d53b553b154a277223a

Study 1

We measured trait loneliness, state nostalgia, and state meaning. We hypothesized that (1) nostalgia would be associated with higher meaning, particularly for high-loneliness

participants and (2) the negative loneliness-meaning relation would be smaller for high-nostalgia participants**.**

Method

Participants, Procedure, and Materials

Undergraduate students (N = 210; 148 women) participated for course credit (M_{age} = 19.78, SD_{age} = 3.78). Following informed consent, participants completed the study online, in the following order: trait loneliness, state nostalgia, and state meaning. Descriptive statistics and correlations are in Table 1.

Trait Loneliness. Participants completed the 10-item UCLA Loneliness Questionnaire (Russell, 1996; e.g., "How often do you feel that you lack companionship?"; 1 = *never,* 4 = *always*; α = .84).

State Nostalgia. Participants completed a modified version (Abeyta et al., 2020) of the Nostalgia Inventory (NI; Batcho, 1995). First, they read that "Nostalgia is defined by the Oxford English Dictionary as a sentimental longing for the past." Next, whereas the original NI asks participants to report how much they "miss" 20 aspects of their past, participants reported "how nostalgic" they "currently felt" about 20 aspects of the past (e.g., "family", "places"; 1 = *not at all nostalgic,* 7 = *very nostalgic*; α = .90).

State Meaning in Life. Participants completed a state version of the 5-item Presence of Meaning in Life scale (Steger et al., 2006; "At the moment I feel… I understand my life's meaning", 1 = *absolutely untrue,* 7 = *absolutely true*; α = .87).

Results and Discussion

Loneliness was negatively associated with meaning, b = -0.98, SE = 0.17, β = -.38, t = -5.89, p < .001, 95% CI [-1.31, -0.65]. Nostalgia was positively associated with meaning, b =

0.18, $SE = 0.07$, $\beta = .17$ $t = 2.46$, $p = .015$, 95% CI [0.04, 0.33]. We used Model 1 of PROCESS (Hayes, 2018) to examine the interactive effect of loneliness and nostalgia. We entered nostalgia as the independent variable, loneliness as the moderator, and meaning as the dependent variable. The interaction was significant, $b = 0.30$, $SE = 0.14$, $t = 2.18$, $p = .030$, 95% CI [0.03, 0.57].

We used the Johnson and Neyman (1936) technique to estimate the effect of nostalgia on meaning across loneliness scores. The relation between nostalgia and meaning was more strongly positive at higher loneliness and became significant at moderate loneliness (1.92 [slightly below the mean] and greater). Using the same technique to probe the effect of loneliness on meaning across nostalgia scores, we entered loneliness as the independent variable and nostalgia as the moderator. The strength of the loneliness and meaning relation was less negative as nostalgia increased and became non-significant at high nostalgia (6.12 [1.46 SD above the mean] and greater; Figure 1).

The negative loneliness-meaning association was weaker among those feeling greater nostalgia and this was driven by the fact that nostalgia was associated with greater meaning for those high in loneliness. This supports our proposal that nostalgia restores meaning among lonely people. However, we cannot make causal claims about nostalgia's effect because the study was correlational. We addressed this in Study 2.

Study 2

We measured trait loneliness, experimentally induced nostalgia (vs. control), and then measured state meaning. We hypothesized that (1) nostalgia would increase meaning particularly for high-loneliness participants and (2) the negative loneliness-meaning relation would be smaller for nostalgia-condition participants.

Method

Participants, Procedure, and Materials

Undergraduate students (N = 229; 183 women) participated for course credit (M_{age} = 19.83, SD_{age} = 4.29). Following informed consent, participants completed the study online, in the following order: trait loneliness, nostalgia (vs. control) induction, and state meaning. Descriptive statistics and correlations are in Table 1.

Loneliness. Participants completed the 10-item UCLA loneliness questionnaire described in Study 1 (α = .84).

Event Reflection Task. We used the well-validated Event Reflection Task (Sedikides et al., 2015) to manipulate nostalgia. We randomly assigned participants to a nostalgia condition, where they read the aforementioned nostalgia definition and wrote about a nostalgic autobiographical memory, or a control condition, where they wrote about an ordinary autobiographical memory.

Meaning in Life. Participants completed the 4-item meaning subscale of the State Functions of Nostalgia scale (Hepper et al., 2012; e.g., "I feel like my life has purpose", 1 = *strongly disagree,* 5 = *strongly agree*; α = .82)*.*

Results and Discussion

Loneliness was negatively associated with meaning, b = -0.57, SE = 0.08, β = -.43, t = -7.26, p < .001, 95% CI [-0.73, -0.42]. Nostalgia-condition participants reported higher meaning (M = 4.21, SD = 0.64) than control-condition participants (M = 4.06, SD = 0.71). This effect was marginally significant, $t(227)$ = 1.71, p = .088, Cohen's d = .23. The interaction between nostalgia (vs. control) and loneliness was significant, b = 0.44, SE = 0.16, t = 2.86, p = .005, f^2 = .03, 95% CI [0.14, 0.75] (PROCESS; Model 1; Hayes, 2018).

The Johnson and Neyman (1936) test revealed that nostalgia (vs. control) increased meaning at high loneliness (2.37 [slightly above the loneliness mean] and greater). This analysis also revealed that at the lowest possible value of loneliness (1.00), there was greater meaning in the control (vs. nostalgia) condition, b = -0.41, p = .043. However, this later finding is not meaningful because 1.00 is 2.33 standard deviations below the mean of loneliness (0.4th percentile) and only one participant, who was in the nostalgia condition, scored this low. There was not a participant in the control condition at this level to make a meaningful comparison against the nostalgia condition. Additionally, loneliness was associated with lower meaning in both conditions, but was more strongly negative in the control condition, b = -0.78, SE = 0.11, t = -7.20, p < 001, 95% CI [-1.00, -0.57], than the nostalgia condition, b = -0.34, SE = 0.11, t = -3.09, p = .002, 95% CI [-0.56, -0.12]. The fact that the omnibus interaction was significant demonstrates that the difference between these slopes is significant (Hayes, 2018) (Figure 2).

Taken together, nostalgia reduced the negative loneliness-meaning association, and this was driven by the fact that nostalgia increased meaning for high loneliness participants. Nostalgia helped restore meaning for lonely persons.

General Discussion

Previous research has demonstrated that nostalgia provides meaning in life (Routledge et al., 2011) and can restore social connectedness for lonely individuals (Zhou et al., 2008). Lonely individuals also lack meaning. We built upon this work to show that nostalgia can restore meaning among lonely people. Our initial proposal rested on prior work showing that: (1) nostalgia mitigated loneliness by increasing social connectedness (Wildschut et al., 2006; Zhou et al., 2008), (2) social connectedness is a source of meaning (Stillman & Lambert, 2013), and (3) nostalgia fosters meaning by increasing social connectedness (Routledge et al., 2011). Our

studies were not designed to test whether nostalgia restores meaning for lonely individuals via restoring a sense of social connectedness. Post hoc, however, we realized that one-way to indirectly examine this in Study 1, is to split the NI items up into two groups: social items and nonsocial items (Abeyta et al., 2015, Study 4), and compute separate social nostalgia and nonsocial nostalgia scores. We did this and re-ran the analysis in Study 1 for each subscale. The hypothesized interaction pattern was stronger for social nostalgia scores; it was weaker and nonsignificant for nonsocial nostalgia scores (see Supplemental Analysis). This provides evidence consistent with the proposal that nostalgia increases meaning for lonely individuals because of its social nature and capacity to encourage social connectedness. Follow-up research should investigate this more directly.

One limitation of our research is that we compared a nostalgic memory to an ordinary memory in Study 2. Past research has evidenced that nostalgia bolsters meaning relative to other controls, such as happy memories and desired future events (Routledge et al., 2012), and when inducing nostalgia with non-narrative manipulations, such as song lyrics (Routledge et al., 2011). Moreover, nostalgia evoked by scents (Reid et al., 2015) and weather (van Tilburg, Sedikides, & Wildschut, 2018) predicts increased meaning. Future research should use such controls, as well as non-narrative inductions when examining nostalgia's effect on meaning among lonely people. Another potential limitation of the nostalgia manipulation was participants in the nostalgia condition thought of a memory "that stands out… as truly nostalgic." Recalling peak nostalgic experiences may not reflect how nostalgia operates in daily life. This concern is mitigated by the fact that we found parallel results when measuring state nostalgia. Future research should go a step further and test nostalgia's capacity to restore meaning with ecological momentary assessments. Additionally, we did not include a manipulation check in Study 2. However, prior

research has shown that the Event Reflection Task reliably increases nostalgia (e.g., Wildschut et al., 2006; Zhou et al., 2022).

The present findings may seem to run counter to some prior research. One study found that trait nostalgia negatively correlated with meaning (Newman et al., 2020), perhaps suggesting that nostalgia does not cultivate meaning. Because this study was correlational, direction of causality is uncertain. The negative correlation could result from low meaning causing people to become more nostalgic in order to restore meaning. Consistent with this, experimentally induced meaninglessness leads to nostalgia (Routledge et al., 2011).

Another study potentially at odds with ours is a daily diary study in which nostalgia predicted poorer affective well-being when people were feeling lonely (Newman & Sachs, 2020), suggesting nostalgia does not buffer the adverse consequences of loneliness. This study is correlational and did not include lagged analysis. Thus, direction of causality cannot be established. It is possible that high loneliness and high negative affect led to more nostalgia to cope with these aversive states. Indeed, several experiments have shown that aversive states, including negative affect (Wildschut et al., 2006) and loneliness (Zhou et al., 2008), lead to nostalgia.

The scales used to measure nostalgia may also help explain the contradictory findings. We used the NI (Batcho, 1995). Newman et al. (2020) and Newman and Sachs (2020) used the Personal Inventory of Nostalgic Experiences (PINE; Newman et al., 2020). The PINE may more heavily reflect nostalgia's bitter, rather than sweet, side compared to the NI. One of PINE's four items reflects yearning for the past. The desire to return to the past is just one of nostalgia's 18 central features (Hepper et al., 2012). However, this negatively-toned item accounts for one-fourth of participants' PINE score. Another difference between the scales is that the NI we used

asks participants to consider specific aspects of their past, whereas the PINE assesses general

feelings. Newman et al. (2020) proposed that whereas general spontaneous feelings of nostalgia

measured by the PINE may be negative, the deliberate recollection of specific nostalgic

memories is positive. Because the NI asks participants to consider specific aspects of their past,

the results in Study 1 likely reflect nostalgia experienced from reflecting on the past.

Our findings bear practical implications. Nostalgia may be a simple intervention to help

lonely people find meaning in life. Chronic loneliness is a risk factor for poor health. Successful

interventions are those that address negative cognitive biases in addition to offering opportunities

to connect (Hawkley & Cacioppo, 2010). Research suggests that nostalgia interventions

(repeated nostalgic reflection) hold promise as therapeutic tools to promote meaning (Layous et

al., 2021). Future research should test such interventions among lonely persons.

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Table 1

Descriptive Statistics and Correlations among Measured Variables

	M	*SD*	Nostalgia	MIL
Study 1				
Loneliness	2.20	0.48	.12	-.38**
Nostalgia	4.57	1.14	--	.17*
Meaning in Life (MIL)	4.75	1.23		--
Study 2				
Loneliness	2.21	0.52		-.43**
MIL	4.14	0.68		--

Note. * *p* < .05, ** *p* < .001.

Figure 1

The Loneliness x Nostalgia Interaction on Meaning in Life in Study 1.
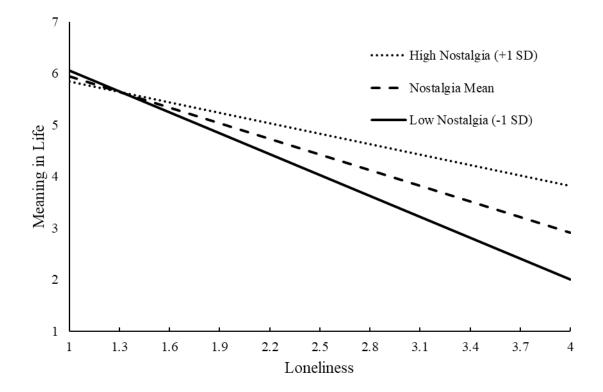
Figure 2

The Loneliness x Nostalgia Interaction on Meaning in Life in Study 2.