Review of General Psychology
2018, Vol. 22, No. 1, 48–61

© 2017 American Psychological Association
1089-2680/18/$12.00 http://dx.doi.org/10.1037/gpr0000109

Finding Meaning in Nostalgia

Constantine Sedikides and Tim Wildschut
University of Southampton, Southampton

Nostalgia—defined as sentimental longing for one's past—is a self-relevant, albeit deeply social, and an ambivalent, albeit more positive than negative, emotion. As nostalgia brings the past into present focus, it has existential implications. Nostalgia helps people find meaning in their lives, and it does so primarily by increasing social connectedness (a sense of belongingness and acceptance), and secondarily by augmenting self-continuity (a sense of connection between one's past and one's present). Also, nostalgia-elicited meaning facilitates the pursuit of one's important goals. Moreover, nostalgia acts as a buffer against existential threats. In particular, it shields against meaning threat, and buffers the impact of mortality salience on meaning, collective identity, accessibility of mortality-related thoughts, and death anxiety. Finally, nostalgia confers psychological benefits to individuals with chronic or momentary meaning deficits. These benefits are higher subjective vitality, lower stress, and regulation of meaning-seeking in response to boredom. Taken together, nostalgia helps people attain a more meaningful life, protects from existential threat, and contributes to psychological equanimity.

Keywords: meaning in life, nostalgia, self-continuity, social connectedness, well-being

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

The construct of nostalgia has a checkered history. Introduced and embellished by Homer in *Odyssey* (ca. 800 B.C.) through the poetic reflections of the eponymous hero when catching his breath from battling assorted monsters and menacing Gods, it remained dormant for 2,500 years. In 1688, a University of Basel medical student, Johannes Hofer, decided somewhat inexplicably to do his Ph.D. thesis on nostalgia, a term he actually coined by combining two Greek words: nostos ("homecoming") and algos ("suffering"). Nostalgia was thought to be the suffering inflicted on expatriates by their desire to return home. In one stroke, the construct metamorphosed. Whereas Homer used it to highlight the property of this bittersweet emotion to sustain and galvanize, Hofer (1934) used it (perhaps not so inexplicably, after all) to characterize the emotional state of young Swiss mercenaries toiling in the courts of European royalty. Their physical symptoms, presumably attributable to pining for the mountainous landscapes of their native country, were daunting: weeping, fainting, stomach pain, fever, cardiac palpitations, suicidal ideation. Nostalgia was labeled a medical or neurological disease, a view that persisted through the 18th and 19th century. The 20th century was not kind to the construct either. It was upgraded, albeit slightly, to a psychiatric disorder symptomatic of anxiety, sadness, pessimism, loss of appetite, and insomnia. By the end of the 20th century, nostalgia was still a psychological illness, but mercifully restricted to four marginalized populations: seamen, soldiers, immigrants, and first-year boarding or university students (Batcho, 2013a; Sedikides, Wildschut, & Baden, 2004).

A good deal of empirical findings over the last 15 years have reversed the tide (Sedikides, Wildschut, Arndt, & Routledge, 2008; Sedikides, Wildschut, Routledge, Arndt, et al., 2015). Nostalgia, the picture emerges, is not a medical disease, psychiatric disorder, or psychological illness. Rather, it is a nourishing and invigorating psychological resource, as Homer thought it to be. Nostalgia does not cause medical, psychiatric, or psychological symptoms. Rather, it is recruited to counter those symptoms (Batcho, 2013b; Sedikides, Wildschut, Routledge, Arndt, & Zhou, 2009; Wildschut, Sedikides, & Cordaro, 2011). Hofer (1934; and many contemporary or succeeding writers) committed an inferential error by confusing the direction of causation between symptoms and nostalgia. Indeed, a key function of the emotion is to serve as a reservoir of meaning.

In this article, we define nostalgia and meaning. Then, we illustrate nostalgia's capacity to help individuals find meaning (i.e., nostalgia as a wellspring of meaning in life). Next, we discuss how nostalgia transmits meaning in life, and review downstream consequences of nostalgia-induced meaning in life. Subsequently, we argue that nostalgia functions as a shield against existential challenges, and examine how nostalgia can benefit individuals with chronic or momentary deficits in meaning in life.

The Character of Nostalgia

Dictionaries define nostalgia as "a yearning for the return of past circumstances, events, etc." (Collins English Dictionary—Complete & Unabridged 10th Edition, 2009), "pleasure and sadness that is caused by remembering something from the past and wishing that you could experience it again" (Merriam-Webster Dictionary, 2014), and "a sentimental yearning for the happiness of a former place or time" (Random House Dictionary, 2014). These definitions underscore yearning, bittersweetness, and positivity. Laypersons conceptualize nostalgia in similar ways, as a

This article was published Online First May 11, 2017.

Constantine Sedikides and Tim Wildschut, Department of Psychology, Center for Research on Self and Identity, University of Southampton, Southampton.

Correspondence concerning this article should be addressed to Constantine Sedikides, Department of Psychology, Center for Research on Self and Identity, University of Southampton, Southampton SO17 1BJ, United Kingdom. E-mail: cs2@soton.ac.uk

prototype analysis revealed (Hepper, Ritchie, Sedikides, & Wildschut, 2012).

According to this analysis (cf. Rosch, 1975), the construct of nostalgia is a fuzzy category in which highly representative (central) features are closer to the prototype or essence of the construct compared with less representative (peripheral) features. Central nostalgia features included (a) fond, rose-colored, memories of one's childhood or close relationships, (b) keepsakes or sensory cues, as well as (c) positive feelings, and, to a lesser degree, negative feelings such as longing and wanting to return to the past. Peripheral features included warmth or comfort, daydreaming, change, calm, regret, success, and lethargy. Taken together, laypersons consider nostalgia a self-relevant, bittersweet (although more sweet than bitter), social, and past-oriented emotion. These prototype-analysis findings were replicated across 18 cultures and five continents (Hepper et al., 2014).

In addition, the findings were replicated and extended with content analyses of nostalgic narratives that were generated by both university students and community residents of varying ages (Abeyta, Routledge, Roylance, Wildschut, & Sedikides, 2015; Havlena & Holak, 1991; Wildschut, Sedikides, Arndt, & Routledge, 2006, Studies 1–2). Nostalgic recollections center not only on close relationships (e.g., family, romantic partners, friends), but also on momentous or atypical (Morewedge, 2013) life events that encompass close others (e.g., vacations, weddings, reunions) and on cultural cultural-life-script events (Berntsen & Rubin, 2004) that subsume close others (e.g., Thanksgiving holidays, Sunday lunches, high school graduations). Moreover, nostalgic recollections are affectively mixed (Sedikides & Wildschut, 2016a), as they consist of mostly positive (e.g., contentment, joy, tenderness, serenity), but also negative (i.e., sadness, loss), elements (Batcho, 2007; Holak & Havlena, 1998; Stephan, Sedikides, & Wildschut, 2012; Wildschut et al., 2006, Studies 1–2). This affective ambivalence is present in lyrics-evoked nostalgia (Batcho, 2007), music-evoked nostalgia (Barrett et al., 2010), and scent-evoked nostalgia (Reid, Green, Wildschut, & Sedikides, 2015). Further, nostalgic recollections (compared with ordinary autobiographical recollections) are associated with, and elicit, an approach orientation (e.g., "I go out of my way to get things I want," "I will often do things for no other reason than that they might be fun"; Stephan et al., 2014; Sedikides & Wildschut, 2016b). Finally, nostalgic recollections more often follow a redemption trajectory (i.e., progression from a harsh beginning to a triumphant end) than a contamination trajectory (i.e., progression from a promising beginning to a dismal end; Wildschut et al., 2006, Studies 1–2; see McAdams, Reynolds, Lewis, Patten, & Bowman, 2001, for a discussion of narrative trajectories).

When nostalgizing, then, the individual brings to mind a fond and personally relevant (i.e., self-defining) occasion, typically involving their childhood or close other(s). The individual reviews the occasion with tenderness and rose-colored glasses, yearns for that time or relationship, and may even wish to return to it. The individual feels sentimental, that is, content or happy but with a tinge of longing.

The Character of Meaning

The issue of life's meaningfulness has also been the subject of much scholarly interest (Baumeister, 1991; Baumeister, Vohs, Aaker, & Garbinsky, 2013; Hicks & Routledge, 2013; Markman, Proulx, & Lindberg, 2013). Definitions of meaning can vary, depending on level of analysis (Arndt, Landau, Vail, & Vess, 2013; Park, 2010). We define meaning in life at the personal level, in accord with the existential writings of Viktor Frankl (2006) and Jean-Paul Sartre (2001). Meaning in life is the subjective sense that one's existence matters, namely, that one's existence is significant (i.e., has worth or value), purposeful (i.e., has goals and direction), and coherent (i.e., has adequate predictability and coherence; King, Heintzelman, & Ward, 2016; Krause & Hayward, 2014). This sense refers to *presence of meaning* (a construct distinct from happiness; Baumeister et al., 2013). A person may also engage in a quest for meaning in life, referred to as *search for meaning*, when experiencing meaning deficits (Steger, Kashdan, Sullivan, & Lorentz, 2008).

Nostalgia as a Wellspring of Meaning

As we mentioned above, nostalgizing pertains to momentous or cultural-life-script occurrences. These occurrences are textured and self-defining. They depict the individual as having a key, if not central, place in a sequence of germane and ritualistic episodes that are enriched by the presence and roles of close others. As such, the occurrences constitute suitable platforms for finding meaning in life. It follows that nostalgia will serve as a wellspring of life meaningfulness: It will be associated with, and promote, meaning (Davis, 1979; Wilson, 2005).

Nostalgia and Meaning: Correlational Evidence

We hypothesized that persons who are prone to nostalgic engagement would perceive their lives as particularly meaningful. Correlational evidence, using converging operationalizations of the two key constructs (Campbell & Fiske, 1959), is consistent with this hypothesis. In one study (Routledge et al., 2011, Preliminary Investigation), U.S. undergraduates completed a nostalgia scale and two meaning scales. The nostalgia scale, the 7-item Southampton Nostalgia Scale (Barrett et al., 2010; Cheung, Sedikides, & Wildschut, 2017), assessed dispositional proneness to nostalgia (e.g., "How prone are you to feeling nostalgic?," "How often do you experience nostalgia," "How important is it for you to bring to mind nostalgic experiences?"). The first meaning scale, the 5-item Presence of Meaning in Life subscale (of the Meaning in Life Questionnaire; Steger, Frazier, Oishi, & Kaler, 2006), assessed the extent to which participants had found meaning in their lives (e.g., "I understand my life's meaning") and so did the second scale, the 4-item Purpose in Life (McGregor & Little, 1998; e.g., "My personal existence is purposeful and meaningful"). The Southampton Nostalgia Scale correlated positively with both meaning scales. In another study (Routledge et al., 2011, Study 1), Dutch community members listened to popular songs and then responded to two single-item measures of nostalgia and meaning. In particular, they reported the degree to which each song made them "feel nostalgic" and that "life is worth living." The more nostalgic a song made them feel, the more meaningful they regarded their lives to be. In yet another study (Batcho, DaRin, Nave, & Yaworsky, 2008), U.S. undergraduates completed a dispositional nostalgia scale, the 20-item Batcho Nostalgia Inventory (Batcho, 1995; e.g., "I miss . . .": "my family," "toys,"

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

"having someone to depend on"), and reported the extent to which four sets of lyrics were meaningful to them. Nostalgia was positively associated with meaningfulness.

We extended these findings into a work environment (Leunissen, Sedikides, Wildschut, & Cohen, 2016, Study 1). Participants, all U.S.-residing organizational employees, indicated on three items how nostalgic they felt about aspects of their organizational past, that is, "your work, and the organization you work in" during their prior month of employment. The items were: "I felt quite nostalgic about my work and organization," "I had nostalgic feelings about my work and organization," and "I felt nostalgic about my work and organization during the past month." Then, participants completed the 4-item Positive Meaning subscale of the Work and Meaning Inventory (Steger, Dik, & Duffy, 2012). Sample items are "I have a good sense of what makes my job meaningful" and "I have found a meaningful career." Nostalgia for one's organizational past (i.e., organizational nostalgia) was positively associated with having found meaning in one's work (i.e., work meaning). In all, nostalgia covaries naturally with meaning in life.

Nostalgia and Meaning: Experimental Evidence

Of course, correlation does not inform causation. We proceeded to hypothesize that nostalgic reverie engenders meaning in life. To test this hypothesis, we experimentally manipulated nostalgia and assessed meaning in life. We followed—here and throughout our research program—a converging operations approach by manipulating nostalgia and operationalizing meaning in multiple ways (Campbell & Fiske, 1959).

Narrative inductions of nostalgia. We typically manipulate nostalgia with the Event Reflection Task (Sedikides, Wildschut, Routledge, Arndt, et al., 2015). Participants in the nostalgia condition visualize a nostalgic event from their past (usually accompanied by a dictionary definition of nostalgia: "sentimental longing for one's past"), whereas participants in the control condition visualize an ordinary (e.g., everyday, regular) event from their past and sometimes a positive event from their past or future-positive (i.e., anticipated) event in their life. (When referring to the Event Reflection Task, we will imply that it consists of the standard nostalgia vs. ordinary conditions, unless we indicate otherwise.) Next, participants list five keywords capturing the gist of the corresponding event, or both list five keywords and write an account of this event (for 5 min). Following a 3-item manipulation check (e.g., "I feel nostalgic at the moment"), which consistently demonstrates the effectiveness of the manipulation, participants respond to the dependent measure—here, meaning in life.

We have already addressed the bittersweetness of nostalgic narratives. This bittersweetness is also manifested in experimental manipulations of nostalgia. Participants in the nostalgic (vs. control) condition typically report higher levels of positive affect (Cheung, Sedikides, & Wildschut, 2016; Cheung et al., 2013, Study 2 and 4; Hepper et al., 2012, Study 7; Lasaleta, Sedikides, & Vohs, 2014, Experiment 4; Sedikides et al., 2016, Experiment 3; Wildschut et al., 2006, Studies 5–7; Zhou, Wildschut, Sedikides, Shi, & Feng, 2012, Study 1), although sometimes the two conditions do not differ (Cheung et al., 2013, Study 3; Zhou, Wildschut, Sedikides, Shi, & Feng, 2012, Studies 2–4; Zhou, Wildschut, Sedikides, Chen, & Vingerhoets, 2012, Study 5; Stephan et al., 2014, Studies 4–5). Nostalgic participants (vs. controls) typically do not report lower levels of negative affect (Cheung et al., 2013, Study 1; Cheung et al., 2016; Wildschut et al., 2010, Study 4). Across dependent measures, we find that nostalgia has unique effects above and beyond positive affect (Sedikides & Wildschut, 2016b; Sedikides, Wildschut, Routledge, Arndt, et al., 2015). Nevertheless, we will report such tests in regards to meaning in life, given that positive affect (including happiness) is a correlate of this construct (Baumeister et al., 2013; Hicks & King, 2008; Ward & King, 2016).

We demonstrated the causal relation between nostalgia and meaning in several experiments. To begin, we (Sedikides et al., 2017, Experiment 1) manipulated nostalgia with the Event Reflection Task among U.K. undergraduates, and subsequently assessed meaning with four items (e.g., "life has a purpose," "life is worth living," "life is meaningful," "there is a greater purpose to life"; Hepper et al., 2012) and positive affect with two items ("happy," "in a good mood"; Wildschut et al., 2016). Nostalgic participants perceived their lives as more meaningful than controls, and this effect was independent of PA. We (Sedikides et al., Experiment 2) replicated this finding among Dutch participants, manipulating nostalgia with the Event Reflection Task and measuring meaning with the same 4-items and positive affect with the same 2-items. Further, we (Hepper et al., 2012, Study 7) manipulated nostalgia by capitalizing on the abovementioned prototype analysis. U.K. participants of varying ages (a mixture of undergraduates and community members) reflected on events characterized either by central nostalgia features (nostalgia condition) or peripheral nostalgia features (control condition), and then completed the abovementioned 4-item meaning in life measure. Nostalgic participants, once again, viewed their lives as more meaningful than controls. Baldwin and Landau (2014, Study 2) also replicated this finding among U.S-residents recruited via Qualtrics; these researchers manipulated nostalgia with the ERT and assessed meaning with the same 4-item measure.

Two experiments, using a variant of the Event Reflection Task, produced similar findings for organizational nostalgia (Leunissen et al., 2016, Studies 2–3) among U.S.-residing employees. In the experimental condition, participants were instructed to "bring to mind a nostalgic event that you have experienced in your organization. Specifically, try to think of a past event you experienced in your organization that makes you feel most nostalgic." In the control condition, participants were instructed to "bring to mind an ordinary event that you have experienced in your organization. Specifically, try to think of a past event you experienced in your organization that is ordinary." Study 2 showed that nostalgic (vs. control) participants reported higher work meaning (as assessed by the Positive Meaning subscale of the Work and Meaning Inventory; Steger et al., 2012; e.g., "I know my work makes a positive difference in the world"), independently of positive affect ("happy," "in a good mood"). Likewise, Study 2 showed that nostalgic (vs. control) participants reported higher work meaning (as assessed by the 10-item Work and Meaning Inventory; Steger et al., 2012), also independently of positive affect ("happy," "in a good mood"). The findings are consistent with speculation that organizational nostalgia "provides a groundrock of loving memories, a life that has been worth living and a source of meaning" (Gabriel, 1993, p. 137).

We further documented the nostalgia-meaning link in two experiments that used a variant of the Event Reflection Task and

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

implemented more stringent controls. We reasoned that undergraduates have a great deal of desirable events to look forward to—events involving strivings in regards to education (e.g., receiving good grades, graduating), personal life (e.g., finding a job, living independently), and relationships (e.g., getting married, being embedded in a community). Imagining such desired events as having been completed would likely foster perceptions of life as meaningful (Feldman, 2013). Does nostalgizing engender meaning in life above and beyond contemplating a desired future event? It does (Routledge et al., 2012, Experiment 1). U.S. undergraduates reported higher meaning (assessed with the Presence of Meaning in Life subscale; Steger et al., 2006) when in the nostalgia than in the control group. Moreover, we reasoned that positive past events can also serve as sources of meaning (King, Hicks, Krull, & Del Gaiso, 2006). Does nostalgizing engender meaning above and beyond reflecting on a positive past event? Here, there is a complexity to be had. Nostalgizing differs from positive past reflection not only on presence of meaning, but also on search for meaning. Individuals initiate a quest for meaning when they lack meaning (Steger et al., 2008). We reasoned that if they happen to find meaning in nostalgia, they will likely terminate their quest. Indeed, this was the case (Routledge et al., 2012, Experiment 2). U.S. undergraduates were more likely to cease their quest for meaning (assessed with the 5-item state version of the Search for Meaning subscale of the Meaning in Life Questionnaire; Steger et al., 2006), when reflecting on a nostalgic than a positive past event.

Non-narrative and vicarious inductions of nostalgia. We have also manipulated nostalgia non-narratively, based on scents or song lyrics, and afterward assessed meaning in life. To find out whether scent-evoked nostalgia can serve as a wellspring of meaning (among U.S. undergraduates), we began with a pilot study aiming to identify suitable scents for use in the ensuing experiment (Reid et al., 2015). Participants sampled, in random order, 33 pleasantly or neutrally scented oils, and then reported how nostalgic each scent made them feel. We kept for further use the 12 scents with the highest item-total correlations (e.g., Chanel #5, apple pie, fresh-cut roses). In the experiment, participants sampled (also in random order) each of the 12 scents, presented in glass test tubes. They rated each scent for nostalgia (i.e., "How nostalgic does this scent make you feel?") and responded to two meaning items (i.e., "life is meaningful," "life has a purpose"). We then tested the association between the nostalgia rating and the meaning rating. Higher levels of scent-evoked nostalgia predicted greater meaning in life.

To find out whether lyrics-evoked nostalgia can serve as a wellspring of meaning (among U.K. undergraduates), we (Routledge et al., 2011, Study 2) asked participants to generate the titles and performing artists of three songs that made them feel nostalgic. We then allocated participants to the nostalgia and control conditions, and proceeded to retrieve the lyrics of one of the three songs they had generated (randomly determined). In the experimental session, approximately a week later, we yoked participants in the control condition to those in the nostalgia condition, after ascertaining that the relevant song was not the one that the control participants had listed as nostalgic. Thus, we held constant the lyrics across conditions. Completion of the Presence of Meaning in Life subscale (Steger et al., 2006) followed. Participants in the nostalgia condition reported greater meaning than controls.

We (Wildschut, Sedikides, & Robertson, 2017, Study 2) also wondered whether nostalgia elevates meaning not only directly, but also vicariously. U.K. undergraduates read one (of five) nostalgic narrative or one (of five) ordinary narratives written by older adults, which we randomly selected from a larger pool of narratives. Participants were instructed to "take a minute to read and reflect on the memory narratives written below" and then were informed that "this is a genuine description of a past event which was recalled and written by an older adult." Completion of a 4-item measure of meaning in life (Hepper et al., 2012) followed. Those exposed to nostalgic (vs. ordinary) narratives reported higher nostalgia and, crucially, perceived their lives as more meaningful. Nostalgia can be experienced vicariously (i.e., intergenerationally), and can promote meaning vicariously.

How Nostalgia Transmits Meaning

We discuss in this section mechanisms though which nostalgia confers the experience of meaning. These mechanisms are social connectedness (a sense of belongingness and acceptance) and self-continuity (a sense of connection between one's past and one's present).

Nostalgia and Social Connectedness

In nostalgic reverie, "the mind is 'peopled'" (Hertz, 1990, p. 195). One reestablishes a symbolic bond with close others, who are brought to life and become part of one's present (Davis, 1979). Indeed, as we mentioned above, nostalgic recollections abound with social motifs (Abeyta et al., 2015; Batcho et al., 2008; Holak & Havlena, 1992; Wildschut et al., 2006, Studies 1–2). Importantly, when experimentally manipulated, nostalgia fosters social connectedness. For example, nostalgic (vs. control) participants: (a) experience lower attachment anxiety and attachment avoidance (Wildschut et al., 2006, Study 7); (b) feel loved, protected, socially supported, connected to others, and trusting of others (Hepper et al., 2012, Study 7; Wildschut et al., 2006, Study 5; Zhou, Sedikides, Wildschut, & Gao, 2008); (c) report being empathetic, seek physical proximity to strangers, want to interact with others—even members of an outgroup, and intend to connect with friends (Abeyta, Routledge, & Juhl, 2015; Stephan et al., 2014, Study 4; Turner, Wildschut, & Sedikides, 2012; Turner, Wildschut, Sedikides, & Gheorghiu, 2013; Zhou, Wildschut, Sedikides, Shi, & Feng, 2012, Studies 1–4); and (d) feel interpersonally competent or more capable of providing support to others, express charitable intentions, donate money to charity, and help others (Stephan et al., 2014, Study 4; Wildschut et al., 2006, Study 7; Wildschut, Sedikides, Routledge, Arndt, & Cordaro, 2010, Study 5; Zhou, Wildschut, Sedikides, Shi, & Feng, 2012, Studies 1–5).

Nostalgia Transmits Meaning Through Social Connectedness

We hypothesized that social connectedness is a key mechanism through which nostalgia transmits meaning. After all, social themes (e.g., family, friends, partners), of which nostalgic reflections are replete, constitute potent sources of meaning (Lambert et al., 2010), as does social connectedness (Lambert et al., 2013; Stavrova & Luhmann, 2016) that nostalgia elicits, whereas social

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

disconnectedness (i.e., exclusion) saps meaning (Twenge, Catanese, & Baumeister, 2003; Stillman et al., 2009; Williams, Cheung, & Choi, 2000). Our hypothesis was supported. Dutch participants who experienced music-evoked nostalgia reported higher social connectedness (i.e., feeling loved) and meaning (i.e., life is worth living"), with social connectedness mediating the association between nostalgia and meaning (Routledge et al., 2011, Study 1). These findings were replicated in an experiment that manipulated nostalgia among U.K. participants with the Event Reflection Task (Routledge et al., 2011, Study 2). Social connectedness was assessed via the 24-item Social Provisions Scale (Cutrona & Russell, 1987), which comprises six provisions afforded by relationships: Attachment (e.g., "I have close relationships that provide me with a sense of security and emotional well-being"), Reliable Alliance (e.g., "There are people I can count on in an emergency"), Nurturance (e.g., "There are people who depend on me for help"), Reassurance of Worth (e.g., "There are people who admire my talents and abilities"), Guidance (e.g., "There is someone I could talk to about important decisions in my life"), and Social Integration (e.g., "I feel part of a group of people who share my attitudes and beliefs"). Meaning was assessed with the Presence of Meaning in Life subscale (Steger et al., 2006). Nostalgic (vs. control) participants reported heightened social connectedness and meaning. Further, social connectedness mediated the effect of nostalgia on meaning.

Nostalgia-Elicited Social Connectedness Transmits Meaning Through Self-Continuity

But how does nostalgia-elicited social connectedness serve as a platform for meaning? We reasoned that it does so through self-continuity (Sedikides, Wildschut, Gaertner, Routledge, & Arndt, 2008; Sedikides, Wildschut, Routledge, & Arndt, 2015). We hypothesized, in particular, that nostalgia-elicited social connectedness elevates self-continuity. The momentous events implicated in nostalgic reverie are typically cultural rituals or communal traditions (Berntsen & Rubin, 2004; Zaragoza, 2013). These events clarify one's life trajectory (i.e., how the person "got here from there," as in the case of a birthday celebration). More importantly, these events weave the narrative thread of relational attachments. For example, nostalgic remembrances of a childhood family Christmas may incite remembrances of other Christmases, culminating in a mental storyboard of one's relational attachments with family members over time. Such a storyboard will likely beget self-continuity. Similarly, nostalgic remembrances of one's first date during a wedding anniversary dinner may frame the relationship and one's self-concept across time and life phases. Such framing will likely strengthen self-continuity. Consistent with the above reasoning, experimentally manipulated nostalgia augments social connectedness, which in turn increases self-continuity (Sedikides et al., 2016).

Furthermore, we hypothesized that nostalgia-elicited social connectedness elevates self-continuity, which in turn provides meaning in life. We mentioned above that nostalgizing refers to cultural rituals or communal traditions that bolster social connectedness, which strengthens self-continuity. The sense of one's life trajectory as continuous (rather than discrete), the perception of one's intimate relationships in historical context, and the realization of one's deeper life roots will likely confer meaning in life. We (Van Tilburg, Sedikides, & Wildschut, 2017) established the causal sequence from nostalgia-induced social connectedness through self-continuity to meaning (nostalgia ⇒ social connectedness ⇒ self-continuity ⇒ meaning) in two experiments. In one experiment, Dutch community members listened sequentially to a nostalgic and a happy (i.e., control) song, and then indicated their level of social connectedness (whether each song made them feel "connected to close others" and "loved"), self-continuity (whether each song made them feel "connected to your past" and "that there is continuity in your life"), and meaning (whether each song made them feel that "life is meaningful" and "life has a purpose"). As hypothesized, nostalgia-elicited social connectedness predicted self-continuity, which in turn predicted meaning in life. This pattern held above and beyond positive affect (whether each song made participant feel "happy" and "cheerful"). The results were replicated in the other experiment with a between-subjects manipulation of nostalgia, in which half of Dutch community members listened to a nostalgic song and half to a non-nostalgic song.

Downstream Consequences of Nostalgia-Induced Meaning

We documented that nostalgia induces meaning in life, and we considered mechanisms though which this might happen. But what are the consequences of nostalgia-induced meaning? We elaborate on two such consequences: a motivational (i.e., goal pursuit) and a behavioral (i.e., turnover intentions).

Motivational Consequence: Goal Pursuit

Although nostalgia confers meaning, it is not clear that meaning will be related to motivation. Some authors have proposed so (Emmons, 2003; Klinger, 1977), and others illustrated a positive association between meaning and approach motivation, curiosity, or exploration (Steger et al., 2008). We (Sedikides et al., 2017) expanded this literature by testing the hypothesis that meaning in life (as induced by nostalgia) will be linked to motivation for goal pursuit.

In Experiment 1, we manipulated nostalgia among U.K. undergraduates with the Event Reflection Task. Subsequently, we assessed meaning in life with a 4-item measure (Hepper et al., 2012). Finally, we assessed motivation for goal pursuit relying on a procedure developed by Milyavskaya, Ianakieva, Foxen-Craft, Colantuoni, and Koestner (2012), and adapted by Stephan et al. (2015, Study 6). We instructed participants to write down five important goals and then identify the most important one. Next, we assessed goal-pursuit by instructing participants to respond to five statements regarding their most important goal (e.g., "I am motivated to pursue this goal," "I want to put more time and effort into pursuing this goal"). Nostalgia (vs. control) increased meaning in life. Also, nostalgia (vs. control) strengthened motivation to pursue one's most important goal. This finding is consistent with literature indicating that nostalgia elicits an approach orientation (Stephan et al., 2014, Studies 3–5; see also Baldwin & Landau, 2014). More importantly, meaning in life mediated the effect of nostalgia on goal pursuit: Nostalgia augmented meaning in life, which in turn strengthened motivation for pursuit of one's most important goal. These effects were independent of positive affect ("happy," "in a good mood").

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

In Experiment 2, we sought to replicate and clarify these findings. We tested a somewhat different hypothesis, namely whether nostalgia fortifies pursuit of one's most important goal, but not of one's least important goal. We asked Danish participants to write down six important goals they had set for the next weeks or months, and then to specify the most important and least important goal. Subsequently, we manipulated nostalgia with the Event Reflection Task, and instructed them to respond to the same five statements as in Experiment 1, but both for their most important goal and least important goal (in random order). Nostalgia augmented meaning in life (albeit marginally) and increased motivation for the most important, but not least important, goal. Crucially, nostalgia boosted motivation to pursue one's most important goal by augmenting meaning in life. These effects held controlling for positive affect ("happy," "in a good mood").

Behavioral Consequence: Turnover Intentions

As we mentioned, organizational nostalgia increases work meaning (Leunissen et al., 2016, Studies 2–3). But does work meaning, in turn, influence organizational outcomes? We focused, in particular, on turnover intentions, a proxy to turnover (the two variables are correlated at .50, according to meta-analytic evidence; Steel & Ovalle, 1984; Tett & Meyer, 1993). Turnover can be costly, as it is accompanied by loss in human resource investment (e.g., training, expertise; Ton & Huckman, 2008), by lower job satisfaction (Krackhardt & Porter, 1985) and productivity (Argote, Insko, Yovetich, & Romero, 1995) among remaining employees, as well as by drop in company profits (Ton & Huckman, 2008). Thus, understanding the antecedents of turnover is highly relevant to organizational functioning. We examined, in two experiments, whether work meaning (induced by nostalgia) qualifies as an antecedent of turnover. Given that speculation has pointed to a negative association between work meaning and turnover intentions (Barrick, Mount, & Li, 2013; Steger et al., 2012), we hypothesized that work meaning would mediate the effect of nostalgia on reduced turnover intentions.

This hypothesis was verified in two experiments. In an MTurk study involving U.S.-residing employees, we (Leunissen et al., 2016, Study 2) manipulated organizational nostalgia (vs. control) with the Event Reflection Task and assessed work meaning with the Positive Meaning subscale of the Work and Meaning Inventory (Steger et al., 2012). Finally, we assessed turnover intentions with five statements (Van Dick et al., 2004), such as "I frequently think of quitting" and "I often study job offers in the daily press." Work meaning, as induced by organizational nostalgia, was associated with a reduction in turnover intention, and this effect was independent of PA. Here, we assessed positive affect by coding the content of participants' narratives with the Linguistic Inquiry and Word Count software (LIWC; Pennebaker, Francis, & Booth, 2001). We replicated these findings in Study 3 of Leunissen et al., which was identical to Study 2 in all ways but two: First, we assessed work meaning with the 10-item Work and Meaning Inventory (Steger et al., 2012), and, second, we assessed positive affect via self-report ("happy," "in a good mood").

Besides turnover, another organizational ailment is burnout, defined as "a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding" (Schaufeli & Greenglass, 2001, p. 501). At any given time, up to 10% of employees (Schaufeli & Buunk, 2003) from all sectors (Kristensen, Borritz, Villadsen, & Christensen, 2005) are subject to severe burnout. Also, burnout impacts negatively on job satisfaction, absenteeism, and, importantly, turnover intentions (Schaufeli & Bakker, 2004). We wondered whether work meaning, as induced by organizational nostalgia, would be more beneficial to employees high than low on burnout. Specifically, we hypothesized that organizational nostalgia would (a) augment work meaning more so among employees high (than low) on burnout, and (b) reduce turnover intentions via work meaning more so among employees high (than low) on burnout.

The hypotheses received experimental backing in an MTurk study testing U.S.-residing employees (Leunissen et al., 2016, Study 3). First, we assessed burnout with the 7-item Work Burnout subscale of the Copenhagen Burnout Inventory (Kristensen et al., 2005). Sample items are: "Do you feel burned out because of your work?" and "Do you feel worn out at the end of the working day?" Next, we manipulated organizational nostalgia with the Event Reflection Task, as in the prior experiment. Finally, we assessed work meaning with the 10-item Work and Meaning Inventory (Steger et al., 2012). Organizational nostalgia infused work meaning more in high- than low-burnout employees, and organizational nostalgia curtailed turnover intentions, via increases in work meaning, among high-burnout employees only. These effect held after controlling for positive affect ("happy," "in a good mood").

Nostalgia Shields Against Existential Challenges

In Saul Bellow's (1970) novel *Mr. Sammler's Planet*, Wallace, one of the characters, asserts that nostalgic memories "keep the wolf of insignificance from the door" (p. 190). Similarly, Davis (1979) declared that nostalgia "quiet[s] our fears of the abyss" (p. 41). We concur that nostalgia, as a wellspring of meaning, has existential utility (Routledge, Sedikides, Wildschut, & Juhl, 2013). It cushions against existential challenges (i.e., meaning threat, mortality threat), thus regulating psychological distress and contributing to psychological homeostasis (Wildschut et al., 2011).

Meaning Threat

Does threat to meaning in life lead to the spontaneous evocation of nostalgia, as a defensive response? We (Routledge et al., 2011, Study 3, p. 643) manipulated life meaninglessness among U.K. undergraduates. In the meaning-threat condition, participants read an essay arguing that life is meaningless: "There are approximately 7 billion people living on this planet. . . . The Earth is 5 billion years old and the average human life span across the globe is 68 years. What is 68 years of one person's rat-race compared with 5 billion years of history? We are no more significant than any other form of life in the universe." In the control condition, participants read an essay arguing that computers have limitations: "the computer never understood a word of this text. A computer does not comprehend what is stored in its 'memory' any more than a book in the library understands what it contains." The essays were of similar length, and were rated as equivalent on interest and originality. Participants then completed a 3-item measure of state nostalgia (e.g., "I feel nostalgic at the moment"; Wildschut et al., 2006). Participants in the meaning-threat condition reported feeling more nostalgic than controls. The threat of a meaningless life evoked nostalgia.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

We also wondered whether evoked nostalgia has the potential to offset threats to meaning in life. According to existential psychologists, a direct way to offset threat is to disparage the very same message and source that undercut meaning (Greenberg et al., 1990). We reasoned that, if nostalgia, as a psychological resource, safeguards the self from threat (Vess, Arndt, Routledge, Sedikides, & Wildschut, 2012; Van Dijke, Wildschut, Leunissen, & Sedikides, 2015), then boosting nostalgia would decrease defensive responding to that threat: There will be no need for defensiveness, because one will have nostalgia. To test this idea, we (Routledge et al., 2011, Study 4) manipulated nostalgia with the Event Reflection Task among U.K. undergraduates, and then introduced the abovementioned manipulation (i.e., life meaninglessness vs. computer limitations). Afterward, we gauged defensive responding through participants' reactions to the essay (two items; e.g., "The essay is convincing in its points") and the author (four items; e.g., "The author is a reliable source"). In the computer limitations condition, nostalgic participants did not differ from controls in intensity of defensive responding. However, in the life meaninglessness condition, nostalgic participants disparaged the essay and its author to a *lesser* degree than controls. Nostalgia relaxed defensive responding to meaning threat.

We have defined and operationalized meaning as presence of meaning or search for meaning. An alternative conception refers to making sense of the world in terms of fundamental relations between objects (Arndt et al., 2013). For example, although representational art reinforces one's sense of meaning (i.e., all pieces of the puzzle are in place), surrealist art can disturb sense of meaning (i.e., objects do not follow typical patterns or structures). We (Routledge et al., 2012, Experiment 3) proceeded to operationalize meaning that way among U.S. undergraduates (as per Proulx, Heine, & Vohs, 2010). In the no meaning-threat condition, we presented participants with a representational painting (John Constable's *Landscape With a Double Rainbow*) depicting a rainbow. However, in the meaning-threat condition, we presented them with a Surrealist painting (Rene Magritte's *The Son of Man*) depicting a man whose face is partially obscured by a green apple. Next, we manipulated nostalgia with the Event Reflection Task (the control condition involved a positive event). Finally, participants completed the Presence of Meaning in Life subscale (Steger et al., 2006). When exposed to the representational painting, nostalgic and control participants did not differ in meaning. However, when exposed to the Surrealist painting, nostalgic participants reported higher meaning than controls. That is, the Surrealist art undermined meaning among control participants, but not among nostalgic participants. Nostalgia buffered against meaning loss.

Mortality Threat

When faced with awareness of their mortality, individuals may revert to nostalgia, as a move toward meaning restoration. The rich repertoire of nostalgic remembrances may replenish the lost sense of meaning imparted by mortality threat. We addressed these issues in the context of mortality-prompted threats in four domains: meaning in life, collective identity, death thought accessibility, and death anxiety.

Nostalgia shields against mortality-prompted threat to meaning in life. We (Routledge, Arndt, Sedikides, & Wildschut, 2008, Experiment 1) examined, in a sample of U.S. undergraduates, whether nostalgia—at the trait level—shields against threat to meaning in life prompted by reminders of one's mortality. We began by assessing dispositional nostalgia with eight items from the Time Perspective Inventory (Zimbardo & Boyd, 1999; e.g., "I get nostalgic about my childhood"). The manipulation followed (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). In the mortality salience condition, participants read: "Briefly describe the emotions that the thought of your own death arouses in you. Jot down, as specifically as you can, what you think will happen to you physically as you die and once you are physically dead." In the dental pain salience (i.e., control) condition, participants read similar instructions substituting "death" for "dental pain." Following a standard 3-min delay (intended to remove explicit death reminders from focal attention; Arndt, Cook, & Routledge, 2004), we assessed meaning with 12 of the 18 No Meaning Scale items (Kunzendorf & Maguire, 1995). These 12 items make no direct reference to death (e.g., "Life is cruel joke," "My place in the universe is like that of an insignificant speck of dust"). In the dental pain salience condition, high and low nostalgics did not differ on reported meaning in life. However, in the mortality salience condition, nostalgic participants expressed greater meaning in life than control. Although awareness of their mortality decreased meaning among controls, it did not do so among nostalgics. The latter managed to counter mortality threat, presumably by relying on their richer meaning reserves.

Nostalgia shields against mortality-prompted threat to collective identity. We (Juhl, Routledge, Arndt, Sedikides, & Wildschut, 2010, Study 1) also examined, among U.S. (i.e., North Dakota State University) undergraduates, whether nostalgia shields against collective identity threat prompted by reminders of one's mortality. After completing the 8-item Time Perspective Inventory (Zimbardo & Boyd, 1999), participants were exposed to the mortality salience versus dental pain salience manipulation (Rosenblatt et al., 1989). Next, they read an essay, ostensibly written by a senior student, that degraded their collective identity: "North Dakota State University just is not that great of a college to be honest . . . I feel like I may have made a mistake by going to North Dakota State University." In the dental pain salience condition, high and low nostalgics did not differ in their defensiveness (i.e., negative evaluation of the essay). However, in the mortality salience condition, high (compared with low) nostalgics responded less defensively. High nostalgics were presumably better able to find meaning in their memories, thus thwarting the assault on their collective identity.

Routledge, Juhl, Abeyta, and Roylance (2014) further tested whether nostalgia armors against mortality-prompted threat to national identity (Study 1) and religious identity (Study 2), among U.S. undergraduates. In Study 1, participants completed the Southampton Nostalgia Scale (Barrett et al., 2010; Routledge et al., 2008), underwent a mortality salience versus extreme pain salience manipulation, and filled out a 3-item nationalistic sacrifice scale (e.g., "I would die for my nation"). In the extreme pain salience condition, low and high nostalgics did not differ on willingness for nationalistic sacrifice. However, in the mortality salience condition, high nostalgics were less inclined toward nationalistic sacrifice than low nostalgics. High nostalgics were less defensive of their national identity. In Study 2, participants worked on a word completion task (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994) designed to assess level of death-thought accessibil-

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

ity. This task comprises 28 word fragments, six of which can be completed to form either a death-related word or a neutral word. For example, COFF_ _ can be completed as COFFIN or COFFEE. The sum of completed death-related words is taken as an index of death-thought accessibility. Following the manipulation of nostalgia with the Event Reflection Task, participants filled out a 3-item religious self-sacrifice scale (e.g., "I would die for my religion"). Control participants were more eager for religious self-sacrifice when death-thought accessibility was high than low—a defensive reaction. However, nostalgic participants did not differ in their eagerness for religious sacrifice, regardless of whether death-thought accessibility was high or low. High nostalgics were less defensive of their religious identity.

Nostalgia shields against mortality-prompted accessibility of death thoughts. We (Routledge et al., 2008, Experiment 2) wondered whether nostalgia guards against consequences of mortality awareness. For example, nostalgia may lessen the accessibility of death thoughts. In a sample of U.S. undergraduates, we assessed dispositional nostalgia (with the Southampton Nostalgia Scale), manipulated mortality awareness (mortality salience vs. dental pain salience), and measured death-thought accessibility with the abovementioned word completion task. Within the dental pain salience condition, nostalgia was unrelated to death-thought accessibility. However, within the mortality salience condition, increased nostalgia was associated with lower death-thought accessibility. Nostalgia armors against mortality awareness by combating death thoughts. We (Routledge et al., 2008, Experiment 3) replicated these findings, again in a sample of U.S. undergraduates, by manipulating instead of measuring nostalgia. Specifically, we started with the mortality salience versus dental pain salience manipulation, administered the Event Reflection Task, and measured death-thought accessibility. In the dental pain salience condition, death-thought accessibility did not vary between nostalgics and controls. However, in the mortality salience condition, nostalgia (relative to control) attenuated death-thought accessibility.

Nostalgia armors against mortality-prompted death anxiety. Does nostalgia go as far as alleviating death anxiety? We (Juhl et al., 2010, Study 2) assessed dispositional nostalgia with the Southampton Nostalgia Scale, manipulated mortality awareness (mortality salience vs. extreme pain salience), and measured death anxiety using the Death of Self subscale of the Revised Collett-Lester Fear of Death Scale (Lester, 1990), which comprises eight aspects of death (e.g., "the shortness of life," "the total isolation of death"), in a sample of U.S. undergraduates. Participants in the mortality salience (vs. extreme pain) condition manifested greater death anxiety when they were low, but not high, on nostalgia. Nostalgia fortifies against death anxiety.

Nostalgia Benefits Individuals With Meaning Deficits

Nostalgia conveys wellbeing benefits to individuals with chronic or momentary deficits in meaning in life. These benefits pertain to three domains: vitality, stress, and boredom.

Vitality

Meaning in life is positively related to wellbeing (King & Hicks, 2014; Steger, 2014). Put otherwise, persons with chronic deficits in meaning are vulnerable to poor wellbeing. We (Routledge et al., 2011, Study 5) operationalized (eudaemonic) wellbeing in terms of subjective vitality (Ryan & Deci, 2001; Ryff, 1989), which reflects a heightened sense of aliveness and energy for living. We wondered whether individuals with deficits (as opposed to surfeits) in meaning would be particularly likely to benefit from nostalgia. We started by assessing individual differences in meaning in life using the Purpose in Life scale (McGregor & Little, 1998). Next, we manipulated nostalgia with the Event Reflection Task. Finally, we measured subjective vitality with the 7-item State Vitality scale (Ryan & Frederick, 1997; e.g., "At this moment, I feel alive and vital," "I am looking forward to each new day"). Nostalgia bestowed no subjective vitality benefits to individuals with meaning surfeits (consistent with mutual redundancy of nostalgia and high meaning). However, nostalgia augmented subjective vitality among individuals with meaning deficits.

Stress

Persons with chronic meaning deficits are also vulnerable to stress under taxing conditions (Park, 2010; Park & Folkman, 1997). We wondered whether dispositional nostalgia qualifies as a resource for stress reduction. We (Routledge et al., 2011, Study 6) began by assessing individual differences in meaning in life with a single item ("My life has meaning"), although we included additional items, as fillers, to conceal the purpose of the experiment. Afterward, we manipulated nostalgia with the Event Reflection Task. Subsequently, we induced stress with the Trier Social Stress Test (Kirschbaum, Pirke, & Hellhammer, 1993). This is a laboratory protocol consisting of public speaking task (i.e., convincing a selection panel of one's suitability for a vacant position) and a mental arithmetic task (i.e., subtracting serially, and as fast and accurately as possible, the number 17 from 2,023). The protocol produces reliably subjective psychological stress responses (Schlotz et al., 2008). Immediately following this protocol, we assessed stress with a 3-item measure ("I feel . . .": "jittery," "fearful," "ashamed"). Nostalgia had no stress reduction benefits for individuals with meaning surfeits. However, nostalgia alleviated stress among individuals with meaning deficits. Nostalgia afforded those individuals the fortitude to maintain equanimity in a stressful environment.

Boredom

Boredom is characterized by dissatisfaction, negative affect, and anxiety (Van Tilburg & Igou, 2012). In addition, boredom entails purposelessness or lack of meaningful engagement (Van Tilburg & Igou, 2012). As such, the state of boredom is likely to instigate a quest for meaning (Steger et al., 2008), a quest that nostalgia may satisfy. Stated otherwise, nostalgia will reinstitute meaning loss that derives from boredom.

We (Van Tilburg, Igou, & Sedikides, 2013) tested these ideas in samples of Irish undergraduates and community members. Our first task was to ascertain that boredom leads to the spontaneous evocation of nostalgia. We manipulated boredom in two ways. First, we instructed participants to copy either 10 references (high boredom condition) or two references (low boredom condition) about concrete mixtures (Study 1). Second, we instructed participants to trace a line through either nine large spirals (high boredom condition) or three large spirals (low boredom condition; Studies

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

2–3). In all cases, participants in the high (vs. low) boredom condition reported greater nostalgia, as assessed by a 3-item scale (e.g., "Right now, I am feeling quite nostalgic"; Wildschut et al., 2006).

Boredom incites nostalgia, but does nostalgia in turn regulate meaning? We (Van Tilburg et al., 2013, Study 4) manipulated boredom (with the reference-copying task) and assessed meaning by asking participants if they felt doing something: "meaningful," "purposeful," "of significance," "valuable," and "that makes sense" (Van Tilburg & Igou, 2013). We proceeded to assess nostalgia in a subtle manner. After instructing participants to retrieve a memory, we supplied them with five items that exemplified the content of nostalgic narratives (Wildschut et al., 2006, Studies 1–2) and invited them to indicate their agreement with each. The items were: "This memory revolves around a momentous event (e.g., graduation ceremony, birth of a child)," "This memory revolves around interactions with valued others," "This memory is about something that happened to me," "This memory involves the redemption or mitigation of a loss or disappointment," and "The content of this memory is rich." The results were revealing. Boredom intensified search for meaning and also increased nostalgia. Crucially, search for meaning mediated the effect of boredom on nostalgia: Bored participants became nostalgic when searching for meaning. We (Van Tilburg et al., Study 5) replicated these findings in the case of dispositional boredom ("How often do you experience boredom?" and "How prone are you to feeling bored?"), dispositional search for meaning (Search for Meaning subscale of the Meaning in Life Questionnaire; Steger et al., 2006), and state nostalgia (state version of the Southampton Nostalgia Scale). Boredom was positively associated with search for meaning and nostalgia, and search for meaning predicted higher nostalgia.

In the final test of the meaning-regulation property of nostalgia, we (Van Tilburg et al., 2013, Study 6) manipulated boredom (with the reference-copying task) and then measured meaning reestablishment via nostalgia. Participants brought to mind an event from their past, wrote down four keywords, and stated the degree to which their recollections were nostalgic. Next, participants indicated how nostalgic they felt and whether their recollections imparted them with meaningfulness ("a sense of meaning," "a sense of purpose," "the impression that things make sense," "a sense of value," "a sense of significance."). Finally, they reported meaning in life (Presence of Meaning subscale of the Meaning in Life Questionnaire; Steger et al., 2006). We measured meaning in life, because our objective was to find out whether meaning was reinstituted. Boredom evoked nostalgia, as bored (vs. control) participants regarded their memories more nostalgic and felt more nostalgic. In turn, higher nostalgia strengthened meaningfulness, which led to meaning reinstitution (i.e., presence of meaning).

Concluding Remarks

We reviewed empirical evidence that nostalgia helps people find meaning in their lives. It does so primarily by fostering social connectedness, and secondarily by fostering self-continuity via social connectedness. Nostalgia-induced meaning in life facilitates the pursuit of one's important goals, and in particular of one's most important but not least important goal. Nostalgia has remarkable buffering qualities: It shields against meaning threat and also against mortality-induced threat to meaning in life, to collective identity, to death-thought accessibility, and to death anxiety. Finally, nostalgia offers psychological benefits to persons characterized by meaning deficits: It increases vitality, reduces stress, and regulates meaning-seeking in boredom.

What sort of meaning does nostalgia help people find? We argued and showed that nostalgia bolsters presence of meaning, that is, the sense that one's life is significant, purposeful, and coherent. We also demonstrated that an infusion of nostalgia terminates the search for meaning. Future research will need to address more precisely the changes in meaning that nostalgia might precipitate. For example, are these changes limited to an overall judgment of presence of meaning or do they involve the attainment of a deep and profound enlightenment of one's changing roles in developmental context, one's relevance to society, or indeed one's place in the universe? Also, do these changes apply equivalently to all three facets of meaning in life (i.e., significance, purposefulness, coherence; King et al., 2016) or to one of them (or a subset of them) more than the others (Martela & Steger, 2016)?

We have illustrated that nostalgia serves as a wellspring of meaning, but these effects were arguably of short duration. Might nostalgia provide enduring answers to life meaninglessness or existential dilemmas? We speculate that it might. As we discussed, dispositional nostalgia covaries naturally with meaning in life (Batcho et al., 2008; Leunissen et al., 2016, Study 1; Routledge et al., 2011, Preliminary Investigation, Study 1). More to the point, the infusion of nostalgia is not a one-off affair. For example, nostalgia can be reinstated through interventions. In such an intervention, Kersten, Cox, and Van Enkevort (2016, Study 3) manipulated nostalgia three times over the course of two weeks with the Event Reflection Task in a sample of U.S. undergraduates, and assessed a behavioral outcome, namely, physical activity. Nostalgic participants exhibited more intense physical activity than controls. Nostalgia can also be reinstated via self-regulation, especially in the face of adverse life circumstances. In those cases, people may find meaning in nostalgic reflection. In turn, nostalgic reflection may have long-term implications for psychological health (Baldwin, Biernat, & Landau, 2015; Hepper, Wildschut, Sedikides, Robertson, & Routledge, 2017; Routledge, Wildschut, Sedikides, & Juhl, 2013). By affording meaningfulness, nostalgia may form the basis for feeling healthy and being confident in one's physical abilities (Abeyta & Routledge, 2016), having more positive attitudes toward one's health (Kersten et al., 2016), feeling more optimistic about one's health (Abeyta & Routledge, 2016; Kersten et al., 2016), eating healthily (McCabe, Vail, Arndt, & Goldenberg, 2013), engaging more consistently in physical activity (Kersten et al., 2016), and perhaps having reduced mortality risk (Hill & Turiano, 2014).

Although nostalgia aids life meaningfulness, we do not wish to advocate that nostalgia be the default option to restoring one's meaning in life. Here, a distinction by Gardner, Pickett, and Knowles (2005) is relevant. These authors differentiated between direct and indirect compensatory strategies. Direct strategies refer to addressing heads-on a psychological predicament. For example, if one feels lonely, one will seek out new relationships or repair existing ones, and, if one lacks meaning, one will pursue activities (intellectual, physical, or relational) that will likely elevate meaning. Indirect strategies refer to addressing psychological predicaments via cognitive representations. For example, the person who

is lonely will bring to mind close relationships in an effort to alleviate this discomforting state, and the person who lacks meaning will nostalgize in an attempt to replenish meaning. Thus, although nostalgia may not constitute a panacea, it does have the potential to fill in an immediate meaning gap in one's life when direct strategies are unavailable or costly.

And yet, one can be proactive in creating memories that will compose the fodder for nostalgia, and thus meaning. People report engaging in anticipatory nostalgia (Batcho & Shikh, 2016; Cheung et al., 2017), especially for positive and personally relevant life experiences (Cheung et al., 2017). Anticipatory nostalgia is associated with savoring (Cheung et al., 2017), which is directly linked to the formation of nostalgic memories (Biskas et al., 2017). Further, anticipatory nostalgia (about one's university) ahead of a life transition (i.e., graduation) predicts nostalgia about one's university life as well as self-esteem and social connectedness months later. Parenthetically, this is another example of nostalgia's potential to have long-term psychological consequences.

In conclusion, humans are prone to seeking and maintaining meaningfulness (Becker, 1971). They do so, in part, via nostalgizing. By enriching people's lives with meaning, nostalgia contributes to motivated goal pursuit, psychological equanimity, and psychological or even physical health.

References

Abeyta, A. A., & Routledge, C. (2016). Fountain of youth: The impact of nostalgia on youthfulness and implications for health. *Self and Identity, 15,* 356–369. http://dx.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,* 1029–1044. http://dx.doi.org/10.1037/pspi0000036

Abeyta, A., Routledge, C., Roylance, C., Wildschut, R. T., & Sedikides, C. (2015). Attachment-related avoidance and the social and agentic content of nostalgic memories. *Journal of Social and Personal Relationships, 32,* 406–413. http://dx.doi.org/10.1177/0265407514533770

Argote, L., Insko, C. A., Yovetich, N., & Romero, A. A. (1995). Group learning curves: The effects of turnover and task complexity on group performance. *Journal of Applied Social Psychology, 25,* 512–529. http://dx.doi.org/10.1111/j.1559-1816.1995.tb01765.x

Arndt, J., Cook, A., & Routledge, C. (2004). The blueprint of terror management: Understanding the cognitive architecture of psychological defense against the awareness of death. In J. Greenberg, S. L. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 35–53). New York, NY: Guilford Press.

Arndt, J., Landau, M. J., Vail, K. E., & Vess, M. (2013). An edifice for enduring personal value: A terror management perspective on the human quest for multilevel meaning. In K. D. Markman, T. Proulx, & M. J. Lindberg (Eds.), *The psychology of meaning* (pp. 49–69). New York, NY: APA books. http://dx.doi.org/10.1037/14040-003

Baldwin, M., Biernat, M., & Landau, M. J. (2015). Remembering the real me: Nostalgia offers a window to the intrinsic self. *Journal of Personality and Social Psychology, 108,* 128–147. http://dx.doi.org/10.1037/a0038033

Baldwin, M., & Landau, M. J. (2014). Exploring nostalgia's influence on psychological growth. *Self and Identity, 13,* 162–177. http://dx.doi.org/10.1080/15298868.2013.772320

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,* 390–403. http://dx.doi.org/10.1037/a0019006

Barrick, M. R., Mount, M. K., & Li, N. (2013). The theory of purposeful work behavior: The role of personality, higher-order goals, and job characteristics. *The Academy of Management Review, 38,* 132–153. http://dx.doi.org/10.5465/amr.2010.0479

Batcho, K. I. (1995). Nostalgia: A psychological perspective. *Perceptual and Motor Skills, 80,* 131–143. http://dx.doi.org/10.2466/pms.1995.80.1.131

Batcho, K. I. (2007). Nostalgia and the emotional tone and content of song lyrics. *The American Journal of Psychology, 120,* 361–381.

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

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

Batcho, K. I., DaRin, M. L., Nave, A. M., & Yaworsky, R. R. (2008). Nostalgia and identity in song lyrics. *Psychology of Aesthetics, Creativity, and the Arts, 2,* 236–244. http://dx.doi.org/10.1037/1931-3896.2.4.236

Batcho, K. I., & Shikh, S. (2016). Anticipatory nostalgia: Missing the present before it's gone. *Personality and Individual Differences, 98,* 75–84. http://dx.doi.org/10.1016/j.paid.2016.03.088

Baumeister, R. F. (1991). *Meanings of life*. New York, NY: Guilford Press.

Baumeister, R. F., Vohs, K. D., Aaker, J., & Garbinsky, E. N. (2013). Some key differences between a happy life and a meaningful life. *The Journal of Positive Psychology, 8,* 505–516. http://dx.doi.org/10.1080/17439760.2013.830764

Becker, E. (1971). *The birth and death of meaning*. New York, NY: Free Press.

Bellow, S. (1970). *Mr. Sammler's planet*. New York, NY: Viking Press.

Berntsen, D., & Rubin, D. C. (2004). Cultural life scripts structure recall from autobiographical memory. *Memory & Cognition, 32,* 427–442. http://dx.doi.org/10.3758/BF03195836

Biskas, M., Cheung, W.-Y., Juhl, J., Sedikides, C., Wildschut, T., & Hepper, E. G. (2017). *The prologue of nostalgia: Savoring provides the foundation for nostalgic memories, whereas nostalgia points optimistically towards the future*. Manuscript submitted for publication.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin, 56,* 81–105. http://dx.doi.org/10.1037/h0046016

Cheung, W.-Y., Hepper, E. G., Wildschut, T., Sedikides, C., Reid, C. A., & Green, J. D. (2017). *Anticipatory nostalgia: Looking forward to looking back*. Unpublished manuscript, University of Winchester.

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. http://dx.doi.org/10.1016/j.paid.2015.11.028

Cheung, W.-Y., Sedikides, C., & Wildschut, T. (2017). Nostalgia proneness and reduced prejudice. *Personality and Individual Differences, 109,* 89–97. http://dx.doi.org/10.1016/j.paid.2016.12.045

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,* 1484–1496. http://dx.doi.org/10.1177/0146167213499187

Cutrona, C. E., & Russell, D. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 1, pp. 37–67). Greenwich, CT: JAI Press.

Davis, F. (1979). *Yearning for yesterday: A sociology of nostalgia*. New York, NY: The Free Press.

Emmons, R. A. (2003). Personal goals, life meaning, and virtue: Wellsprings of a positive life. In C. L. M. Keyes & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived. Washington,* DC:

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

American Psychological Association. http://dx.doi.org/10.1037/10594-005

Feldman, D. B. (2013). The meaning of hope and vice versa: Goal-directed thinking and the construction of a meaningful life. In J. A. Hicks & C. Routledge (Eds.), *The experience of meaning in life: Perspectives from the psychological sciences* (pp. 141–150). New York, NY: Springer. http://dx.doi.org/10.1007/978-94-007-6527-6_11

Frankl, V. (2006). *Man's search for meaning*. Boston, MA: Beacon Press. (Original work published 1959)

Gabriel, Y. (1993). Organizational nostalgia: Reflections on 'The Golden Age'. In S. Fineman (Ed.), *Emotion in organizations* (pp. 118–141). London, UK: Sage.

Gardner, W. L., Pickett, C. L., & Knowles, M. L. (2005). Social snacking and shielding: Using social symbols, selves, and surrogates in the service of belongingness needs. In K. D. Williams, J. P. Forgas, & W. von Hippel (Eds.), *The social outcast: Ostracism, social exclusion, rejection, and bullying* (pp. 227–241). New York, NY: Psychology Press.

Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S., & Lyon, D. (1990). Evidence for terror management theory II: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview. *Journal of Personality and Social Psychology, 58,* 308–318. http://dx.doi.org/10.1037/0022-3514.58.2.308

Greenberg, J., Pyszczynski, T., Solomon, S., Simon, L., & Breus, M. (1994). Role of consciousness and accessibility of death-related thoughts in mortality salience effects. *Journal of Personality and Social Psychology, 67,* 627–637. http://dx.doi.org/10.1037/0022-3514.67.4.627

Havlena, W. J., & Holak, S. L. (1991). A time-allocation analysis of nostalgia-evoking events. In Chabat, J. C., & Venkatesan, M. V. (Eds.), *Proceedings of the VIIth John-Labatt marketing research seminar, time and Consumer behavior*. Université du Québec à Montréal, Montreal, Canada.

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,* 102–119. http://dx.doi.org/10.1037/a0025167

Hepper, E. G., Wildschut, T., Sedikides, C., Ritchie, T. D., Yung, Y.-F., Hansen, N., . . . Zhou, X. (2014). Pancultural nostalgia: Prototypical conceptions across cultures. *Emotion, 14,* 733–747. http://dx.doi.org/10.1037/a0036790

Hepper, E. G., Wildschut, T., Sedikides, C., Robertson, S., & Routledge, C. (2017). *The time capsule: Nostalgia shields wellbeing from limited time horizons*. Manuscript submitted for publication.

Hertz, D. G. (1990). Trauma and nostalgia: New aspects on the coping of aging Holocaust survivors. *Israel Journal of Psychiatry and Related Sciences, 27,* 189–198.

Hicks, J. A., & King, L. A. (2008). Religious commitment and positive mood as information about meaning in life. *Journal of Research in Personality, 42,* 43–57. http://dx.doi.org/10.1016/j.jrp.2007.04.003

Hicks, J. A., & Routledge, C. (Eds.). (2013). *The experience of meaning in life: Perspectives from the psychological sciences*. New York, NY: Springer. http://dx.doi.org/10.1007/978-94-007-6527-6

Hill, P. L., & Turiano, N. A. (2014). Purpose in life as a predictor of mortality across adulthood. *Psychological Science, 25,* 1482–1486. http://dx.doi.org/10.1177/0956797614531799

Hofer, J. (1934). Medical dissertation on nostalgia. (C. K. Anspach, Trans.). *Bulletin of the History of Medicine, 2,* 376–391. (Original work published 1688)

Holak, S. L., & Havlena, W. J. (1992). Nostalgia: An exploratory study of themes and emotions in the nostalgic experience. *Advances in Consumer Research Association for Consumer Research (U.S.), 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. http://dx.doi.org/10.1016/S0148-2963(97)00119-7

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,* 309–314. http://dx.doi.org/10.1016/j.jrp.2010.02.006

Kersten, M., Cox, C. R., & Van Enkevort, E. A. (2016). An exercise in nostalgia: Nostalgia promotes health optimism and physical activity. *Psychology & Health, 31,* 1166–1181. http://dx.doi.org/10.1080/08870446.2016.1185524

King, L. A., Heintzelman, S. J., & Ward, S. J. (2016). Beyond the search for meaning: A contemporary science of the experience of meaning in life. *Current Directions in Psychological Science, 25,* 211–216. http://dx.doi.org/10.1177/0963721416656354

King, L. A., & Hicks, J. A. (2014). Positive affect and meaning in life: The intersection of hedonism and Eudaimonia. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd ed., pp. 125–142). New York, NY: Routledge.

King, L. A., Hicks, J. A., Krull, J. L., & Del Gaiso, A. K. (2006). Positive affect and the experience of meaning in life. *Journal of Personality and Social Psychology, 90,* 179–196. http://dx.doi.org/10.1037/0022-3514.90.1.179

Kirschbaum, C., Pirke, K.-M., & Hellhammer, D. H. (1993). The 'Trier Social Stress Test'—a tool for investigating psychobiological stress responses in a laboratory setting. *Neuropsychobiology, 28,* 76–81. http://dx.doi.org/10.1159/000119004

Klinger, E. (1977). *Meaning and void: Inner experience and the incentives in people's lives*. Minneapolis, MN: University of Minnesota Press.

Krackhardt, D., & Porter, L. W. (1985). When friends leave: A structural analysis of the relationship between turnover and stayers' attitudes. *Administrative Science Quarterly, 30,* 242–261. http://dx.doi.org/10.2307/2393107

Krause, N., & Hayward, R. D. (2014). Assessing stability and change in a second-order confirmatory factor model of meaning in life. *Journal of Happiness Studies, 15,* 237–253. http://dx.doi.org/10.1007/s10902-013-9418-y

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress, 19,* 192–207. http://dx.doi.org/10.1080/02678370500297720

Kunzendorf, R. G., & Maguire, D. (1995). *Depression: The reality of "no meaning" versus the delusion of negative meaning*. Unpublished manuscript, University of Massachusetts.

Lambert, N. M., Stillman, T. F., Baumeister, R. F., Fincham, F. D., Hicks, J. A., & Graham, S. M. (2010). Family as a salient source of meaning in young adulthood. *The Journal of Positive Psychology, 5,* 367–376. http://dx.doi.org/10.1080/17439760.2010.516616

Lambert, N. M., Stillman, T. F., Hicks, J. A., Kamble, S., Baumeister, R. F., & Fincham, F. D. (2013). To belong is to matter: Sense of belonging enhances meaning in life. *Personality and Social Psychology Bulletin, 39,* 1418–1427. http://dx.doi.org/10.1177/0146167213499186

Lasaleta, J. D., Sedikides, C., & Vohs, K. D. (2014). Nostalgia weakens the desire for money. *Journal of Consumer Research, 41,* 713–729. http://dx.doi.org/10.1086/677227

Lester, D. (1990). The Collett-Lester fear of death scale: The original version and a revision. *Death Studies, 14,* 451–468. http://dx.doi.org/10.1080/07481189008252385

Leunissen, J. M., Sedikides, C., Wildschut, T., & Cohen, T. R. (2016). Organizational nostalgia increases work meaning and mitigates the negative effects of burnout on turnover intentions. *Journal of Occupational Health Psychology*. Advance online publication. http://dx.doi.org/10.1037/ocp0000059

Markman, K., Proulx, T., & Lindberg, M. (Eds.). (2013). *The psychology of meaning*. Washington, DC: American Psychological Association. http://dx.doi.org/10.1037/14040-000

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology, 11,* 531–545. http://dx.doi.org/10.1080/17439760.2015.1137623

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. http://dx.doi.org/10.1177/0146167201274008

McCabe, S., Vail, K. E., Arndt, J., & Goldenberg, J. (2013). Multilayered meanings in health decision making: A terror management health model analysis. In J. A. Hicks & C. Routledge (Eds.), *The experience of meaning in life* (pp. 349–362). New York, NY: Springer. http://dx.doi.org/10.1007/978-94-007-6527-6_26

McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology, 74,* 494–512. http://dx.doi.org/10.1037/0022-3514.74.2.494

Milyavskaya, M., Ianakieva, I., Foxen-Craft, E., Colantuoni, A., & Koestner, R. (2012). Inspired to get there: The effects of trait and goal inspiration on goal progress. *Personality and Individual Differences, 52,* 56–60. http://dx.doi.org/10.1016/j.paid.2011.08.031

Morewedge, C. K. (2013). It was a most unusual time: How memory bias engenders nostalgic preferences. *Journal of Behavioral Decision Making, 26,* 319–326. http://dx.doi.org/10.1002/bdm.1767

Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin, 136,* 257–301. http://dx.doi.org/10.1037/a0018301

Park, C. L., & Folkman, S. (1997). Meaning in the context of stress and coping. *Review of General Psychology, 1,* 115–144. http://dx.doi.org/10.1037/1089-2680.1.2.115

Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). *Linguistic Inquiry and Word Count: LIWC2001* [Computer software and manual]. Mahwah, NJ: Erlbaum.

Proulx, T., Heine, S. J., & Vohs, K. D. (2010). When is the unfamiliar the uncanny? Meaning affirmation after exposure to absurdist literature, humor, and art. *Personality and Social Psychology Bulletin, 36,* 817–829. http://dx.doi.org/10.1177/0146167210369896

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

Rosch, E. (1975). Cognitive representations of semantic categories. *Journal of Experimental Psychology: General, 104,* 192–233. http://dx.doi.org/10.1037/0096-3445.104.3.192

Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory: I. The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology, 57,* 681–690. http://dx.doi.org/10.1037/0022-3514.57.4.681

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,* 132–140. http://dx.doi.org/10.1016/j.jesp.2006.11.001

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

Routledge, C., Juhl, J., Abeyta, A., & Roylance, C. (2014). Using the past to promote a peaceful future: Nostalgia mitigates existential threat induced nationalistic and religious self-sacrifice. *Social Psychology, 45,* 339–346. http://dx.doi.org/10.1027/1864-9335/a000172

Routledge, C., Sedikides, C., Wildschut, T., & Juhl, J. (2013). Finding meaning in the past: Nostalgia as an existential resource. In K. Markman, T. Proulx, & M. Lindberg (Eds.), *The psychology of meaning* (pp. 297–316). Washington, DC: American Psychological Association. http://dx.doi.org/10.1037/14040-015

Routledge, C., Wildschut, T., Sedikides, C., & Juhl, J. (2013). Nostalgia as a resource for psychological health and well-being. *Social and Personality Psychology Compass, 7,* 808–818. http://dx.doi.org/10.1111/spc3.12070

Routledge, C., Wildschut, T., Sedikides, C., Juhl, J., & Arndt, J. (2012). The power of the past: Nostalgia as a meaning-making resource. *Memory, 20,* 452–460. http://dx.doi.org/10.1080/09658211.2012.677452

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52,* 141–166. http://dx.doi.org/10.1146/annurev.psych.52.1.141

Ryan, R. M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality, 65,* 529–565. http://dx.doi.org/10.1111/j.1467-6494.1997.tb00326.x

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57,* 1069–1081. http://dx.doi.org/10.1037/0022-3514.57.6.1069

Sartre, J.-P. (2001). *Being and nothingness: An essay in phenomenological ontology*. New York, NY: Citadel Press. (Original work published 1959)

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25,* 293–315. http://dx.doi.org/10.1002/job.248

Schaufeli, W. B., & Buunk, B. P. (2003). Burnout: An overview of 25 years of research and theorizing. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *The handbook of work and health psychology* (pp. 383–428). Lexington, MA: Lexington Books.

Schaufeli, W. B., & Greenglass, E. R. (2001). Introduction to special issue on burnout and health. *Psychology & Health, 16,* 501–510. http://dx.doi.org/10.1080/08870440108405523

Schlotz, W., Kumsta, R., Layes, I., Entringer, S., Jones, A., & Wüst, S. (2008). Covariance between psychological and endocrine responses to pharmacological challenge and psychosocial stress: A question of timing. *Psychosomatic Medicine, 70,* 787–796. http://dx.doi.org/10.1097/PSY.0b013e3181810658

Sedikides, C., Cheung, W. Y., Wildschut, T., Hepper, E. G., Baldursson, E., & Pedersen, B. (2017). Nostalgia motivates pursuit of important goals by increasing meaning in life. *European Journal of Social Psychology*. Advance online publication. http://dx.doi.org/10.1002/ejsp.2318

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. 125–136). Hoboken, NJ: Wiley. http://dx.doi.org/10.1002/9781118468197.ch9

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

Sedikides, C., Wildschut, T., Arndt, J., & Routledge, C. (2008). Nostalgia: Past, present, and future. *Current Directions in Psychological Science, 17,* 304–307. http://dx.doi.org/10.1111/j.1467-8721.2008.00595.x

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, NY: Guilford Press.

Sedikides, C., Wildschut, T., Cheung, W.-Y., Routledge, C., Hepper, E. G., Arndt, J., . . . Vingerhoets, A. J. J. M. (2016). Nostalgia fosters self-continuity: Uncovering the mechanism (social connectedness) and con-

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

sequence (eudaimonic well-being). *Emotion, 16,* 524–539. http://dx.doi.org/10.1037/emo0000136

Sedikides, C., Wildschut, T., Gaertner, L., Routledge, C., & Arndt, J. (2008). Nostalgia as enabler of self-continuity. In F. Sani (Ed.), *Self-continuity: Individual and collective perspectives* (pp. 227–239). New York, NY: Psychology Press.

Sedikides, C., Wildschut, T., Routledge, C., & Arndt, J. (2015). Nostalgia counteracts self-discontinuity and restores self-continuity. *European Journal of Social Psychology, 45,* 52–61. http://dx.doi.org/10.1002/ejsp.2073

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. http://dx.doi.org/10.1016/bs.aesp.2014.10.001

Sedikides, C., Wildschut, T., Routledge, C., Arndt, J., & Zhou, X. (2009). Buffering acculturative stress and facilitating cultural adaptation: Nostalgias as a psychological resource. In R. S. Wyer, Jr., C.-y. Chiu, & Y.-y. Hong (Eds.), *Understanding culture: Theory, research, and application* (pp. 361–378). New York, NY: Psychology Press.

Stavrova, O., & Luhmann, M. (2016). Social connectedness as a source and consequence of meaning in life. *The Journal of Positive Psychology, 11,* 470–479. http://dx.doi.org/10.1080/17439760.2015.1117127

Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology, 69,* 673–686. http://dx.doi.org/10.1037/0021-9010.69.4.673

Steger, M. F. (2014). Experiencing meaning in life: Optimal functioning at the nexus of well-being, psychopathology, and spirituality. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd ed., pp. 165–184). New York, NY: Routledge.

Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring meaningful work: The Work and Meaning Inventory (WAMI). *Journal of Career Assessment, 20,* 322–337. http://dx.doi.org/10.1177/1069072711436160

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology, 53,* 80–93. http://dx.doi.org/10.1037/0022-0167.53.1.80

Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning. *Journal of Personality, 76,* 199–228. http://dx.doi.org/10.1111/j.1467-6494.2007.00484.x

Stephan, E., Sedikides, C., & Wildschut, T. (2012). Mental travel into the past: Differentiating recollections of nostalgic, ordinary, and positive events. *European Journal of Social Psychology, 42,* 290–298. http://dx.doi.org/10.1002/ejsp.1865

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,* 1395–1410. http://dx.doi.org/10.1177/0146167215596985

Stephan, E., Wildschut, T., Sedikides, C., Zhou, X., He, W., Routledge, C., . . . Vingerhoets, A. J. J. M. (2014). The mnemonic mover: Nostalgia regulates avoidance and approach motivation. *Emotion, 14,* 545–561. http://dx.doi.org/10.1037/a0035673

Stillman, T. F., Baumeister, R. F., Lambert, N. M., Crescioni, A. W., Dewall, C. N., & Fincham, F. D. (2009). Alone and without purpose: Life loses meaning following social exclusion. *Journal of Experimental Social Psychology, 45,* 686–694. http://dx.doi.org/10.1016/j.jesp.2009.03.007

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology, 46,* 259–293. http://dx.doi.org/10.1111/j.1744-6570.1993.tb00874.x

Ton, Z., & Huckman, R. S. (2008). Managing the impact of employee turnover on performance: The role of process conformance. *Organization Science, 19,* 56–68. http://dx.doi.org/10.1287/orsc.1070.0294

Turner, R. N., Wildschut, T., & Sedikides, C. (2012). Dropping the weight stigma: Nostalgia improves attitudes toward persons who are overweight. *Journal of Experimental Social Psychology, 48,* 130–137. http://dx.doi.org/10.1016/j.jesp.2011.09.007

Turner, R. N., Wildschut, T., Sedikides, C., & Gheorghiu, M. (2013). Combating the mental health stigma with nostalgia. *European Journal of Social Psychology, 43,* 413–422. http://dx.doi.org/10.1002/ejsp.1952

Twenge, J. M., Catanese, K. R., & Baumeister, R. F. (2003). Social exclusion and the deconstructed state: Time perception, meaninglessness, lethargy, lack of emotion, and self-awareness. *Journal of Personality and Social Psychology, 85,* 409–423. http://dx.doi.org/10.1037/0022-3514.85.3.409

Van Dick, R., Christ, O., Stellmacher, J., Wagner, U., Ahlswede, O., Grubba, C., . . . Tissington, P. A. (2004). Should I stay or should I go? Explaining turnover intentions with organizational identification and job satisfaction. *British Journal of Management, 15,* 351–360. http://dx.doi.org/10.1111/j.1467-8551.2004.00424.x

van Dijke, M., Wildschut, T., Leunissen, J., & Sedikides, C. (2015). Nostalgia buffers the negative impact of low procedural injustice on cooperation. *Organizational Behavior and Human Decision Processes, 127,* 15–29. http://dx.doi.org/10.1016/j.obhdp.2014.11.005

van Tilburg, W. A. P., & Igou, E. R. (2012). On boredom: Lack of challenge and meaning as distinct boredom experiences. *Motivation and Emotion, 36,* 181–194. http://dx.doi.org/10.1007/s11031-011-9234-9

van Tilburg, W. A. P., & Igou, E. R. (2013). On the meaningfulness of behavior: An expectancy *x* value approach. *Motivation and Emotion, 37,* 373–388. http://dx.doi.org/10.1007/s11031-012-9316-3

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

van Tilburg, W. A. P., Sedikides, C., & Wildschut, T. (2017). *How does nostalgia infuse life with meaning? From social connectedness to self-continuity*. Unpublished manuscript, King's College, London.

Vess, M., Arndt, J., Routledge, C., Sedikides, C., & Wildschut, T. (2012). Nostalgia as a resource for the self. *Self and Identity, 11,* 273–284. http://dx.doi.org/10.1080/15298868.2010.521452

Ward, S. J., & King, L. A. (2016). Poor but happy? Income, happiness, and experienced and expected meaning in life. *Social Psychological and Personality Science, 7,* 463–470. http://dx.doi.org/10.1177/1948550615627865

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). New York, NY: Springer. http://dx.doi.org/10.1007/978-1-4419-6953-8_5

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

Wildschut, T., Sedikides, C., & Robertson, S. (2017 Manuscript under review). *Sociality and intergenerational transfer of older adults' nostalgia*. Southampton, UK: University of Southampton.

Wildschut, T., Sedikides, C., Routledge, C., Arndt, J., & Cordaro, F. (2010). Nostalgia as a repository of social connectedness: The role of attachment-related avoidance. *Journal of Personality and Social Psychology, 98,* 573–586. http://dx.doi.org/10.1037/a0017597

Williams, K. D., Cheung, C. K. T., & Choi, W. (2000). Cyberostracism: Effects of being ignored over the Internet. *Journal of Personality and Social Psychology, 79,* 748–762. http://dx.doi.org/10.1037/0022-3514.79.5.748

Wilson, J. L. (2005). *Nostalgia: Sanctuary of meaning*. Cranbury, NJ: Associated University Presses.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Zaragoza, S. A. (2013). Cultural life script theory and the reminiscence bump: A reanalysis of seven studies across cultures. *Nordic Psychology, 65,* 103–119. http://dx.doi.org/10.1080/19012276.2013.807667

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

Zhou, X., Wildschut, T., Sedikides, C., Chen, X., & Vingerhoets, A. J. J. M. (2012). Heartwarming memories: Nostalgia maintains physiological comfort. *Emotion, 12,* 678–684. http://dx.doi.org/10.1037/a0027236

Zhou, X., Wildschut, T., Sedikides, C., Shi, K., & Feng, C. (2012). Nostalgia: The gift that keeps on giving. *Journal of Consumer Research, 39,* 39–50. http://dx.doi.org/10.1086/662199

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. http://dx.doi.org/10.1037/0022-3514.77.6.1271

Received December 19, 2016
Revision received April 5, 2017
Accepted April 11, 2017 ■

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.