INTRODUCTION

Forced displacement entails disruption, loss, and mourning (Kinzie, 1988; Kinzie et al., 1990; Weisaeth & Eltinger, 1993), with damaging psychological aftereffects extending far beyond the precipitating traumatic event (Porter & Haslam, 2005). In their new environment, refugees often encounter loss of social support, socioeconomic hardship, a foreign language, unfamiliar customs and norms, as well as stereotyping, prejudice, and discrimination (Berry & Kalin, 1995; Eisenbruch, 1991; Ward & Leong, 2006). These challenges produce acculturative stress (Berry, 1970), which is manifested in negative mood, loneliness, anxiety, and depression. How can refugees maintain equanimity in the face of such hardship?

In this article, we examine the potential benefits of nostalgia, "a sentimental longing or wistful affection for the past" (The New Oxford Dictionary of English, 1998, p. 1266), for refugees' psychological functioning. Immigrants and refugees frequently experience nostalgia for their place of origin and the life they left behind (Keyes & Kane, 2004; Khalili, 2004; Knudsen, 2017; Ritivoi, 2002; Taylor, 2013; Volkman, 1999). This points to the substantive role of this emotion in maintaining contact with the past, coping with current stressors, and planning for the future (Sedikides, Wildschut, Routledge, Arndt, & Zhou, 2009; Zou, Wildschut, Cable, & Sedikides, 2018). Yet, from a different viewpoint, researchers have argued that nostalgia is self-defeating and maladaptive when it highlights a contrast between felicitous past circumstances and present predicaments (Iyer & Jetten, 2011). This constraint on nostalgia's palliative capacity should be particularly relevant in the context of forced displacement (Beiser, 2004). Our first objective, therefore, was to examine the role of dispositional resilience. Most established benefits of nostalgia also accrued to Syrian refugees. However, contrary to previous findings, nostalgia decreased optimism, highlighting the limits of its palliative capacity among displaced individuals. As hypothesized, the impact of nostalgia was moderated by dispositional resilience, which acted as a catalyst of the emotion's benefits and as an inhibitor of its costs.
high-resilience (compared to low-resilience) individuals are capable of harnessing positive emotional memories to self-generate positive emotions in the context of sadness- and anxiety-inducing events. The adaptive value of resilience has also been demonstrated in a variety of migrant and refugee settings (Ehrensaft & Tousignant, 2006). In a study with Chinese migrant workers, for instance, high-resilience (compared to low-resilience) individuals were more likely to recruit nostalgia to counteract loneliness (Zhou, Sedikides, Wildschut, & Gao, 2008), raising the possibility that they are particularly skilled at harvesting nostalgia's rewards (and/or absorbing its costs).

1.1 Psychological functions of nostalgia

Why might nostalgia be valuable for refugees? A growing body of evidence indicates that this emotion serves key psychological functions (Sedikides, Wildschut, Routledge, Arndt, Hepper, et al., 2015). These functions can be organized in terms of four general domains: (a) existential, (b) self-oriented, (c) social, and (d) future-directed. We summarize evidence for nostalgia’s benefits within each of these four domains next.

Relevant to the existential domain, nostalgia augments self-continuity and strengthens perceptions of life as meaningful. Self-continuity, defined as the perceived connection between one's past and present, is considered a prerequisite of identity formation (James, 1890; Vignoles, Regalia, Manzi, Golledge, & Scabini, 2006) and a precursor to psychological well-being (Lampinen, Odegard, & Leding, 2004; Sedikides et al., 2016). Nostalgia is conducive to a representation of one's personal history as a continuous narrative rather than as a sequence of disconnected events (Landau, Meier, & Keefer, 2010). Nostalgic recollections of a parent, for example, may serve as reminders of the core values that guide one through life. A string of laboratory experiments support this postulated causal effect of nostalgia on heightened self-continuity (Abakoumkin, Hepper, Wildschut, & Sedikides, in press; Sedikides, Wildschut, Routledge, & Arndt, 2015; Sedikides et al., 2016; Van Tilburg, Sedikides, Wildschut, & Vingerhoets, 2018). Meaning in life refers to the subjective perception that one's life is coherent, purposeful, and valuable or significant (King, Heintzelman, & Ward, 2016; Krause & Hayward, 2014). Nostalgia often pertains to momentous life events (Abeyta, Routledge, Roylance, Wildschut, & Sedikides, 2015; Wildschut, Sedikides, Arndt, & Routledge, 2006), including traditional ceremonies, rituals, and festivities (e.g., weddings, birthday celebrations, graduations, family reunions)—what Bernsten and Rubin (2004) referred to as cultural-life-script events. Such episodes entail personally relevant experiences which, as the subject of nostalgic reverie, may later reinforce the presence of meaning in one's life. Indeed, an array of methodologically diverse studies has revealed that nostalgia increases perceived meaning (Routledge et al., 2011; Routledge, Wildschut, Sedikides, Juhl, & Arndt, 2012; Sedikides, Cheung, et al., 2018; for reviews, see: Routledge, Sedikides, Wildschut, & Juhl, 2013; Sedikides & Wildschut, 2018).

Scholars have speculated that, through its evocation of an idealized past, nostalgia also serves a self-oriented function (Kaplan, 1987). Davis (1979), for instance, proposed that nostalgia “bestow[s] an endearing luster on past selves that may not have seemed all that lustrous at the time” (p. 41). Numerous studies have tested and supported the hypothesis that nostalgia activates positive self-attributes and raises self-esteem. Vess, Arndt, Routledge, Sedikides, and Wildschut (2012) randomly assigned participants to bring to mind either a nostalgic or positive future experience, and then asked them to categorize positive and neutral traits as either self-descriptive or non-self-descriptive. Participants who recalled a nostalgic experience (compared to those who imagined a positive future event) were faster to categorize positive (relative to neutral) traits as self-descriptive, indicating that nostalgia increased the accessibility of positive self-attributes. Wildschut et al. (2006) instructed undergraduate participants to recall either a nostalgic or ordinary autobiographical event and, following this, assessed self-esteem with the Rosenberg (1965) Self-Esteem Scale. Nostalgia increased self-esteem—a finding that has since been replicated with other populations, nostalgia induction techniques, and self-esteem assessments (Cheung et al., 2013; Hepper, Ritchie, Sedikides, & Wildschut, 2012; Stephan et al., 2015).

Turning to the social domain, meaningful past events involving close others (e.g., family members, friends, romantic partners) provide a fertile soil for nostalgia (Holak & Havlena, 1992; Madoglou, Gkinopoulos, Xanthopoulos, & Kalamaras, 2017). Studies comparing nostalgic accounts to descriptions of normal, everyday memories found that the former centered more on social relationships (Abeyta et al., 2015) and included more social words (e.g., mother, friend) and plural first-person pronouns (e.g., us, ours; Wildschut, Sedikides, & Robertson, 2018). As Hertz (1990) put it, when one experiences nostalgia, “the mind is peopled” (p. 195). In addition, recalling nostalgic experiences (compared to normal, everyday events) fosters social connectedness. For instance, after recalling a nostalgic memory, people report greater attachment security and interpersonal competence (Wildschut et al., 2006), feel more protected, supported, loved, connected to others, and empathic (Lasalaeta, Sedikides, & Vohs, 2014; Wildschut, Sedikides, Routledge, Arndt, & Cordaro, 2010; Wildschut et al., 2006; Zhou, Wildschut, Sedikides, Shi, & Feng, 2012), and more readily help others or donate to charity (Stephan et al., 2014; Zhou et al., 2012).

Whereas the caricature of nostalgia depicts a regressive and ossifying emotion, nostalgia is, in fact, fundamentally future-oriented (Sedikides & Wildschut, 2016; Sedikides, Wildschut, & Stephan, 2018). This forward-looking function of nostalgia was articulated succinctly by Davis (1977):

It (nostalgia) reassures us of past happiness and accomplishment; and, since these still remain on deposit, as it were, in the bank of our memory, it simultaneously bestows upon us a certain worth, irrespective of how present circumstances may seem to question or obscure this. And current worth, as our friendly bank loan officer assures us, is entitled to at least some claim on the future as well. (p. 420).
Consistent with Davis’s theorizing, nostalgia strengthens optimism (i.e., having positive expectancies for the future; Scheier, Carver, & Bridges, 1994) and inspiration (i.e., transcendence of the self or routine preoccupations, evocation of better possibilities and ideas, and motivation to enact these new ideas; Thrash & Elliot, 2003). Cheung et al. (2013; see also Cheung, Sedikides & Wildschut, 2016) induced nostalgia with autobiographical recall, songs, and song lyrics. Each time, nostalgia increased optimism. Stephan et al. (2015) showed that nostalgic reverie was more inspiring than recollection of ordinary or positive, non-nostalgic memories.

1.2 Limits of nostalgia

Yet, nostalgia may not be equally beneficial to all. Why might this emotion be harmful to refugees? Iyer and Jetten (2011) argued that, whereas nostalgia is a boon to individuals who perceive their past and present as being connected, it is detrimental to those—like refugees—whose life course has been disrupted. That is, nostalgia for “a life that has been left behind” (Iyer & Jetten, p. 96) should result in poorer psychological functioning. They tested this hypothesis in three studies among students entering university. In the first, correlational study, incoming students who experienced a high (compared to low) level of nostalgia for their home community (“I feel nostalgic about life back home”) perceived fewer academic obstacles when they had maintained strong ties to the groups to which they belonged before entering university (high continuity), but they identified more academic obstacles when they felt that those ties had been severed (low continuity). Thus, among students who experienced their entry into university as disruptive and unsettling, nostalgia about the life they left behind was associated with rumination about academic obstacles. In a follow-up study, the researchers orthogonally manipulated nostalgia and past–present continuity. Students who were instructed to reminisce about the things they appreciated in their life back home (compared to listing their hobbies) perceived fewer academic obstacles and were more interested in new opportunities when they read a report stating that previous student cohorts had been able to maintain links with their home communities (high continuity), but they saw more obstacles and were less interested in new opportunities when the report indicated that previous cohorts had found it difficult to sustain such links (low continuity). The third study conceptually replicated these findings with novel manipulations of nostalgia and continuity, as well as additional measures of psychological functioning. The results cumulatively suggest that nostalgia is beneficial when individuals perceive their past and present as interconnected, but that “being reminded of what is left behind may only amplify a sense of loss” (Iyer & Jetten, p. 96).

If morose university students are discombobulated by nostalgia, this does not bode well for refugees who have been forcefully displaced. Beiser and colleagues (Beiser, 1987, 1999, 2004; Beiser & Hyman, 1997) examined the relation between nostalgia and refugee well-being as part of University of Toronto’s Refugee Resettlement Project (RRP), a large-scale epidemiological study of the resettlement experiences of a community sample of Southeast Asian refugees who were resettled in Vancouver, British Columbia between 1979 and 1981. Refugees were interviewed on three separate occasions over a 10-year period. On each occasion, nostalgia was assessed by providing them with three sets of paper circles, labelled “past”, “present”, and “future”, respectively. Each set included a large, medium-sized, and small circle. Refugees indicated the importance of past, present, and future by choosing circles of different sizes (larger is more important). When they indicated that the past was more important than the future, and at least as important as the present, the pattern was coded as being indicative of nostalgia. Beiser (2004) found that, over time, the nostalgic time perspective (compared to other patterns) was associated with increased risk of developing depressive disorder. He, too, concluded that reflection on a life that has been left behind can create a painful contrast between one’s present condition and a “never-to-be-regained past” (p. 909).

Beiser’s (2004) findings resonate with Iyer and Jetten’s (2011) observations among students entering university, but suffer from two important shortcomings. First, by indexing nostalgia as the relative importance of “past” (compared to “present” and “future”), Beiser failed to distinguish between different types of past-oriented thought. Cheung, Wildschut, and Sedikides (2018) compared nostalgia with two other types of past-oriented thought—rumination and counterfactual thinking—in terms of their memory functions (Webster, 2003). They showed that these three forms of past-oriented thought are interrelated, but that nostalgia possesses a more positive functional signature than do rumination and counterfactual thinking. Second, due to the inherent limitations of correlational data, Beiser was unable to rule out the possibility that adverse psychological symptoms triggered nostalgia (rather than vice versa). A wealth of evidence indicates that nostalgia is evoked by aversive states, such as negative mood (Wildschut et al., 2006), loneliness (Wildschut, Sedikides, & Cordaro, 2011; Wildschut et al., 2010; Zhou et al., 2008), social exclusion (Seehusen et al., 2013), and meaninglessness (Routledge et al., 2011)—not the other way around (for a review, see: Sedikides, Wildschut, Routledge, Arndt, Hepper, et al., 2015).

We addressed the limitations of Beiser’s (2004) findings by isolating nostalgia from other modes of past-oriented thought, and by implementing an experimental manipulation based on vivid autobiographical recall in order to examine its causal effect on psychological functioning among Syrian refugees who resettled in Saudi Arabia. Studying this population also afforded an exceptionally strong test of the influential idea—shared by Iyer and Jetten (2011) and Beiser (2004)—that nostalgia is detrimental to individuals whose life course has been disrupted; after all, few life experiences are as disruptive and traumatic as forced displacement (Porter & Haslam, 2005). In addition, we extended previous research by examining whether, even when confronted with severe upheaval, individuals who are high in dispositional resilience can derive benefit from nostalgia (and/or not incur its costs).

According to the Office of the United Nations High Commissioner for Refugees (UNHCR), over 5.6 million people have fled Syria since 2011 and a further 6.6 million have been internally displaced, with close to 3 million currently living in hard-to-reach and besieged
areas. The largest number of Syrian refugees reside in neighboring Turkey (~3.6 million on 31 January 2019). According to Saudi government sources, approximately 260,000 Syrian refugees lived in Saudi Arabia on 1 October 2018. These refugees reside in urban areas and have access to free education and health care services (AlGhamdi, 2018).

2 | METHOD

2.1 | Participants

One hundred and ninety adult Syrian refugees (116 men, 74 women) residing in urban areas of Riyadh, Saudi Arabia volunteered to take part in the experiment. Their ages ranged from 18 to 64 years ($M = 36.30, SD = 10.80$). Refugees were displaced during the Syrian civil war (2011–present). We recruited participants via a contact person with links to the Syrian community in Riyadh and through public canvassing. The experiment was reviewed and approved by the departmental psychology ethics committee. All participants provided written informed consent. We stipulated that our sample size should afford at least 80% power to detect a medium effect size ($d = 0.50$; two-tailed $\alpha = 0.05$).\(^1\) Based on these parameters, a power analysis specified a minimum sample size of 128, which we exceeded. The design and analysis plan for the experiment were not preregistered.

2.2 | Materials and procedure

The third author, who is bilingual, translated all materials into Arabic. A senior individual within the Syrian community in Riyadh then reviewed the materials to ascertain their suitability for the intended population. Participants completed materials at their home, workplace, or in public spaces (paper-and-pencil). We experimentally induced nostalgia with the Event Reflection Task (ERT; Sedikides, Wildschut, Routledge, Arndt, Hepper, et al., 2015). After providing informed consent, participants recalled and described either a nostalgic or ordinary memory from their past. Specifically, participants in the nostalgia condition read:

Nostalgia is defined as a sentimental longing for one's past or as feeling sentimental for a fond and valued memory from one's personal past (e.g., childhood, close relationships, momentous events). Please think of a nostalgic event in your life. Specifically, try to think of a past event that makes you feel most nostalgic. Bring this nostalgic experience to mind. Immerse yourself in the nostalgic experience and think about how it makes you feel. Please write down four keywords relevant to this nostalgic event (i.e., words that describe the experience).

Participants in the control condition read:

Please think of an ordinary event in your life. Specifically, try to think of a past event that is ordinary, normal, and everyday. Bring this ordinary experience to mind. Immerse yourself in the ordinary experience and think about how it makes you feel. Please write down four keywords relevant to this ordinary event (i.e., words that describe the experience).

After listing four keywords to describe the event, participants wrote about it for a few minutes and then completed measures of current affect and psychological functions, a manipulation check, and the assessment of dispositional resilience (described below).\(^2\) Participants completed a number of additional measures, which are not the focus of this article. A debriefing concluded the experiment.

2.2.1 | Current affect

Previous ERT experiments have routinely assessed current affect and most found that nostalgia significantly increased positive affect, but did not significantly influence negative affect (for a review, see: Sedikides, Wildschut, Routledge, Arndt, Hepper, et al., 2015). A recent integrative data analysis of these studies revealed, however, that ERT-induced nostalgia significantly increased both positive affect (PA) and, to a lesser extent, negative affect (NA; Leunissen, Wildschut, Sedikides, & Routledge, 2018). In the present experiment, we also assessed participants’ current affective experience (following the ERT). We were guided in our item selection by evidence that affective experience can be conceptualized as two-dimensional space defined by two orthogonal, bipolar dimensions of experience: valence (or pleasantness) and activation (Barrett & Russell, 1999). We selected items to sample broadly from this affective space. To assess PA, participants rated the extent to which they felt “happy” ($M = 4.17, SE = 0.10$). We assessed activated PA with “excited” and “enthusiastic” ($M = 3.19, SE = 0.10, \alpha = 0.87$), and deactivated PA with “calm” and “relaxed” ($M = 4.68, SE = 0.10, \alpha = 0.72$). We assessed NA with “sad” ($M = 2.78, SE = 0.13$) and activated NA with “anxious” and “fearful” ($M = 2.48, SE = 0.10, \alpha = 0.80$). We used “bored” and “tired” to assess deactivated NA ($M = 2.43, SE = 0.10, \alpha = 0.75$). Items were preceded by the stem “Now that I have this event in mind, I feel...” and rated on a 6-point scale (1 = strongly disagree, 6 = strongly agree).

\(^1\) A meta-analysis of 47 experiments testing the main effect of nostalgic versus ordinary autobiographical recall on a range of psychological functions revealed medium to large effects (Ismaël, Cheston, Christopher, & Meyrick, 2018). Thus, our a priori effect size ($d = 0.50$) is an appropriate estimate for the nostalgia main effect. In the absence of a body of prior research, we lacked a firm basis for specifying an a priori effect size for the Nostalgia × Resilience interaction effect. Suffice it to say that our sample size also provided sufficient power to detect a medium-sized interaction effect ($d = 0.50$).

\(^2\) All measures were validated in prior research: current affect (Barrett & Russell, 1998); meaning in life (Hepper et al., 2012; Routledge et al., 2011); self-continuity (Sedikides et al., 2015; Sedikides et al., 2016); social connectedness (Hepper et al., 2012; Wildschut et al., 2006, 2010); self-esteem (Hepper et al., 2012; Wildschut et al., 2006, 2010); optimism (Cheung et al., 2013); inspiration (Stephan et al., 2015; Thrash & Elliot, 2003); nostalgia manipulation check (Sedikides, Wildschut, Routledge, Arndt, Hepper, et al., 2015; Wildschut et al., 2006, 2010); and resilience (Wagnild, 2009; Wagnild & Young, 1993). We report correlations among all study variables in Supporting Information (Table S1).
2.2.2 | Psychological functions

We used four items to assess each of the following functions: self-continuity (e.g., “there is continuity in my life”; \(M = 4.08, SE = 0.07, \alpha = 0.78\)); meaning in life (e.g., “life is meaningful”; \(M = 4.61, SE = 0.07, \alpha = 0.92\)); self-esteem (e.g., “I have many positive qualities”; \(M = 4.33, SE = 0.06, \alpha = 0.75\)); social connectedness (e.g., “connected to loved ones”; \(M = 4.23, SE = 0.06, \alpha = 0.67\)); optimism (e.g., “hopeful about my future”; \(M = 4.98, SE = 0.06, \alpha = 0.83\)); and inspiration (e.g., “filled with inspiration”; \(M = 4.57, SE = 0.06, \alpha = 0.78\)). These items were also preceded by the stem “Now that I have this event in mind, I feel ...” and rated on a 6-point scale (1 = strongly disagree, 6 = strongly agree). We report the complete set of items in Supporting Information.

2.2.3 | Manipulation check

Next, participants rated (1 = strongly disagree, 6 = strongly agree) three items assessing current nostalgia (e.g., “I feel nostalgic at the moment”; \(M = 4.90, SE = 0.07, \alpha = 0.96\)).

2.2.4 | Dispositional resilience

Finally, we assessed participants’ dispositional (or trait-level) resilience with Wagnild and Young’s (1993) 25-item Resilience Scale (RS). We included the optional item “I am resilient” to create a 26-item scale. Items were rated on a 7-point scale (1 = strongly disagree, 7 = strongly agree; \(M = 5.21, SE = 0.06, \alpha = 0.92\)).

3 | RESULTS

3.1 | Preliminary analyses

One of our key objectives was to examine whether the effects of nostalgia (compared to control) were moderated by participants’ dispositional level of resilience. Given that we assessed resilience after (rather than before) the nostalgia manipulation, it is important to examine if the manipulation influenced self-reported resilience. We did not expect the manipulation of momentary (i.e., state level) nostalgia to have a strong impact on dispositional (i.e., trait level) resilience. Indeed, it did not; participants in the nostalgia condition (\(M = 5.12, SE = 0.08\)) and control (\(M = 5.30, SE = 0.08\)) did not differ significantly on dispositional resilience, \(F(1, 188) = 2.63, p = 0.107, \eta^2 = 0.014, 90\% CI = [0.000, 0.053]\). This means that, in subsequent analyses, we could treat the nostalgia manipulation and resilience as practically orthogonal independent variables.

Before analyzing the main dependent variables, we checked if the nostalgia manipulation was successful. We entered the manipulation check as dependent variable in a moderated Analysis of Covariance (ANCOVA), with the nostalgia manipulation as categorical independent variable and resilience (mean-centered) as continuous independent variable (i.e., covariate). Results revealed a significant nostalgia main effect, \(F(1, 186) = 32.63, p < 0.001, \eta^2 = 0.149, 90\% CI = [0.077, 0.225]\). As intended, participants in the nostalgia condition (\(M = 5.24, SE = 0.09\)) reported higher levels of nostalgia than those in the control condition (\(M = 4.55, SE = 0.09\)). The nostalgia induction was effective. The main effect of resilience was also significant, \(\beta = 0.20, F(1, 186) = 8.70, p = 0.004, \eta^2 = 0.045, 90\% CI = [0.009, 0.101]\). High-resilience (compared to low-resilience) individuals reported more nostalgia following autobiographical recall, The Nostalgia × Resilience interaction was not significant, \(F(1, 186) = 1.56, p = 0.213, \eta^2 = 0.008, 90\% CI = [0.000, 0.042]\). Thus, the effectiveness of the nostalgia manipulation did not vary significantly as a function of resilience. This latter result rules out the interpretation of subsequent moderation effects in terms of differential effectiveness of the nostalgia manipulation for high- and low-resilience individuals.

3.2 | Current affect

We entered measures of current affect as dependent variables in a series of Nostalgia × Resilience moderated ANCOVAs. We present predicted means in Table 1 and inferential statistics in Table 2. Predicted means are calculated from model parameters, conditional on specific levels of the independent variables.

3.2.1 | Positive affect

For PA (“happy”), results revealed a significant nostalgia main effect only. Neither the resilience main effect nor the Nostalgia × Resilience interaction were significant. Participants in the nostalgia (compared to control) condition reported higher levels of PA, irrespective of resilience.

Analysis of activated PA (“excited”, “enthusiastic”) also resulted in a significant nostalgia main effect. Nostalgic participants (compared to controls) experienced more activated PA. This main effect was qualified, however, by a significant Nostalgia × Resilience interaction. Tests of simple effects indicated that nostalgia (compared to control) significantly increased activated PA among high-resilience individuals (+1 SD), \(F(1, 186) = 35.35, p < 0.001, \eta^2 = 0.160, 90\% CI = [0.086, 0.236]\), but not among low-resilience individuals (-1 SD), \(F(1, 186) = 2.21, p = 0.139, \eta^2 = 0.012, 90\% CI = [0.000, 0.049]\). We also probed this interaction by testing the simple resilience slopes within the nostalgia and control conditions. Resilience was not significantly associated with activated PA.

---

\(^3\)Wagnild and Young (1993) proposed that the RS comprises two subscales: Competence and Acceptance of Self and Life. Separate analyses using these subscales produced essentially identical results to the reported analyses, which used the full RS. An exploratory factor analysis of the RS revealed a single-factor structure (for scree plot, see Supporting Information). When we forced a two-factor solution, the rotated factor pattern showed little resemblance to the original two-factor solution obtained by Wagnild and Young.

\(^4\)We report 90% confidence intervals (CI) for eta squared (\(\eta^2\)), because the F test is one-sided (Steiger, 2004).
PA in the control condition, $\beta = -0.13, F(1, 186) = 1.85, p = 0.176, \eta^2 = 0.010, 90\% CI = [0.000, 0.045]$, but was positively associated with it in the nostalgia condition, $\beta = 0.29, F(1, 186) = 9.51, p = 0.002, \eta^2 = 0.049, 90\% CI = [0.010, 0.106]$. For deactivated PA ("calm", "relaxed"), still another results pattern emerged. A significant nostalgia main effect indicated that participants in the nostalgia (compared to control) condition experienced less deactivated PA. Resilience was positively associated with deactivated PA, as indicated by a significant resilience main effect. Finally, the Nostalgia × Resilience interaction was marginally significant. Tests of simple effects revealed that nostalgia (compared to control) decreased deactivated PA among high-resilience individuals, $F(1, 186) = 9.89, p = 0.002, \eta^2 = 0.050, 90\% CI = [0.011, 0.108]$, and did so even more strongly among low-resilience individuals, $F(1, 186) = 32.07, p < 0.001, \eta^2 = 0.147, 90\% CI = [0.076, 0.222]$. Looked at from a different angle, resilience was not significantly associated with deactivated PA in the control condition, $\beta = 0.04, F(1, 186) = 0.15, p = 0.697, \eta^2 = 0.001, 90\% CI = [0.000, 0.020]$, but was positively associated with it in the nostalgia condition, $\beta = 0.27, F(1, 186) = 8.36, p = 0.004, \eta^2 = 0.043, 90\% CI = [0.008, 0.098].$

### 3.2.2 | Negative affect

NA ("sad") was significantly higher in the nostalgia (than control) condition. Neither the resilience main effect nor the Nostalgia × Resilience interaction was significant. Nostalgia (compared to control) increased NA, irrespective of resilience.

Participants in the nostalgia (compared to control) condition also reported significantly more activated NA ("anxious", "fearful"). Results further revealed a marginally significant positive association between resilience and activated NA. A significant Nostalgia × Resilience interaction qualified these effects. Tests of simple effects indicated that nostalgia (compared to control) significantly increased activated NA among low-resilience individuals, $F(1, 186) = 10.02, p = 0.002, \eta^2 = 0.051, 90\% CI = [0.012, 0.109]$, and did so even more strongly among high-resilience individuals, $F(1, 186) = 40.21, p < 0.001, \eta^2 = 0.178, 90\% CI = [0.100, 0.255]$. From a different angle, resilience was not significantly associated with activated NA in the control condition, $\beta = -0.03, F(1, 186) = 0.12, p = 0.726, \eta^2 = 0.001, 90\% CI = [0.000, 0.018]$, but was positively associated with it in the nostalgia condition, $\beta = 0.26, F(1, 186) = 7.89, p = 0.006, \eta^2 = 0.033$. A similar results pattern emerged for deactivated NA. Nostalgia (compared to control) increased deactivated NA and resilience was positively associated with it. Both effects were qualified by a significant Nostalgia × Resilience interaction. Tests of simple effects revealed that nostalgia (compared to control) significantly increased deactivated NA among low-resilience individuals, $F(1, 186) = 8.14, p = 0.005, \eta^2 = 0.042, 90\% CI = [0.007, 0.097]$, and did so even more strongly among high-resilience individuals, $F(1, 186) = 40.96, p < 0.001, \eta^2 = 0.180, 90\% CI = [0.103, 0.258]$. An alternative partitioning of the interaction effect showed that resilience was

---

**TABLE 1** Predicted means and standard errors (in parentheses) for current affective experience

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Low resilience</th>
<th>High resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control condition</td>
<td>Nostalgia condition</td>
</tr>
<tr>
<td>PA</td>
<td>3.86 (0.20)</td>
<td>4.40 (0.18)</td>
</tr>
<tr>
<td>Activated PA</td>
<td>2.91 (0.19)</td>
<td>3.30 (0.17)</td>
</tr>
<tr>
<td>Deactivated PA</td>
<td>5.19 (0.18)</td>
<td>3.81 (0.16)</td>
</tr>
<tr>
<td>NA</td>
<td>1.85 (0.25)</td>
<td>3.80 (0.22)</td>
</tr>
<tr>
<td>Activated NA</td>
<td>1.94 (0.19)</td>
<td>2.74 (0.17)</td>
</tr>
<tr>
<td>Deactivated NA</td>
<td>1.86 (0.19)</td>
<td>2.59 (0.17)</td>
</tr>
</tbody>
</table>

Note: Tabled values are predicted means and standard errors (in parentheses), conditioned at 1 SD above (high resilience) and below (low resilience) the mean resilience score.

**TABLE 2** Moderated ANCOVA results for current affective experience

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Nostalgia main effect</th>
<th>Resilience main effect</th>
<th>Nostalgia × Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F$</td>
<td>$p$</td>
<td>$\eta^2$ [90% CI]</td>
</tr>
<tr>
<td>PA</td>
<td>15.74</td>
<td>&lt;0.001</td>
<td>0.078 [0.027, 0.144]</td>
</tr>
<tr>
<td>Activated PA</td>
<td>27.69</td>
<td>&lt;0.001</td>
<td>0.130 [0.062, 0.203]</td>
</tr>
<tr>
<td>Deactivated PA</td>
<td>38.89</td>
<td>&lt;0.001</td>
<td>0.173 [0.096, 0.250]</td>
</tr>
<tr>
<td>NA</td>
<td>59.94</td>
<td>&lt;0.001</td>
<td>0.244 [0.158, 0.322]</td>
</tr>
<tr>
<td>Activated NA</td>
<td>45.30</td>
<td>&lt;0.001</td>
<td>0.196 [0.116, 0.274]</td>
</tr>
<tr>
<td>Deactivated NA</td>
<td>42.91</td>
<td>&lt;0.001</td>
<td>0.188 [0.108, 0.265]</td>
</tr>
</tbody>
</table>

Note: Abbreviations: CI, confidence interval; Degrees of freedom, 1, 186; $\eta^2$, partial eta squared.
not significantly associated with deactivated NA in the control condition, $\beta = -0.00$, $F(1, 186) = 0.00$, $p = 0.969$, $\eta^2 = 0.000$, 90% CI = [0.000, 0.000], but was positively associated with it in the nostalgia condition, $\beta = 0.32$, $F(1, 186) = 12.16$, $p < 0.001$, $\eta^2 = 0.061$, 90% CI = [0.017, 0.123].

### 3.2.3 | Interim summary: Current affect

Given the intricacy of the above-reported results, we attempted to identify general patterns by entering the six measures of current affect in a mixed ANCOVA. Nostalgia and resilience were the between-subjects independent variables, as before. The six affect measures constituted a 2 (valence: positive, negative) × 3 (activation: activated, neutral, deactivated) within-subjects design. We focus our summary on three higher-order interactions, which subsume all lower-order effects. We visualized these general patterns with radar graphs in Figure 1.

The analysis revealed a significant Nostalgia × Valence × Activation interaction, $F(2, 372) = 21.74$, $p < 0.001$, $\eta^2 = 0.105$, 90% CI = [0.058, 0.153], which was driven by the relatively high level of deactivated PA (compared to other types of current affect) in the control (compared to nostalgia) condition. In Figure 1, this produces—irrespective of resilience—the kite-shaped pattern in the control condition (compared to the hexagonal pattern in the nostalgia condition). Participants who recalled an ordinary autobiographical event reported feeling relatively “calm” and “relaxed.” This result pattern is important, because it indicates that the control condition provides an adequate—even stringent—benchmark for assessing the effects of nostalgia.

The analysis also yielded a significant Nostalgia × Resilience interaction across the six affect measures, $F(1, 186) = 12.47$, $p < 0.001$, $\eta^2 = 0.063$, 90% CI = [0.018, 0.125]. In the upper panels of Figure 1, this is illustrated by the fact that the area delineated by the solid line (nostalgia condition) is noticeably larger than the area delineated by the dashed line (control condition) when resilience is high (upper right panel) but less so when resilience is low (upper left panel). Across levels of valence and activation, affective intensity was higher in the nostalgia than control condition, particularly when resilience was high (compared to low). The lower panels of Figure 1 offer a complementary perspective on this interaction effect. In particular, the area delineated by the solid line (high resilience) exceeds the area delineated by the dashed line (low resilience) in the nostalgia condition (lower right panel), but not in the control condition (lower left panel). High-resilience participants reported greater overall affective intensity than low-resilience individuals in the nostalgia condition, but not in the control condition. Simply put, nostalgia produced strong feelings and did so especially for high-resilience individuals.

The third higher-order interaction was numerically smaller than the preceding two, and we present it for the sake of completeness. The analysis resulted in a significant Nostalgia × Resilience × Activation interaction, $F(2, 372) = 4.02$, $p = 0.019$, $\eta^2 = 0.021$, 90% CI = [0.002, 0.048], which qualified the above-described Nostalgia × Resilience interaction. Inspection of the lower right panel in Figure 1 gives insight into this three-way interaction: the area delineated by the solid line (high resilience) encompasses the area delineated by the dashed line (low resilience), except at PA and NA, where the lines touch. Put otherwise, the tendency for nostalgia to produce particularly intense feelings for high-resilience individuals (see point 2) is attenuated when activation level is neutral (PA and NA), as compared to activated or deactivated.

A final question pertains to mixed affect. The above-reported analyses indicated that participants in the nostalgia (compared to control) condition scored higher on all measures of current affect, except deactivated PA. This effect of nostalgia on overall affective intensity was particularly pronounced for high-resilience individuals. Although these findings suggest that participants in the nostalgia condition experienced more mixed affect, they are based on aggregated ratings and are, therefore, inconclusive on this point. To address this issue, we first calculated overall measures of PA and NA, by collapsing across activation levels. We then indexed the degree to which participants experienced mixed affect by taking the minimum of each participant’s PA and NA scores (MIN). MIN scores are low when participants experience exclusively PA, exclusively NA, or low levels of both, but higher to the extent that participants simultaneously experience PA and NA (Larsen & McGraw, 2011; Schimmack, 2001). A Nostalgia × Resilience ANCOVA on MIN scores revealed a significant main effect of nostalgia, $F(1, 186) = 67.53$, $p < 0.001$, $\eta^2 = 0.266$, 90% CI = [0.178, 0.345]. Participants in the nostalgia condition ($M = 2.85$, $SE = 0.09$) experienced more mixed affect than those in the control condition ($M = 1.80$, $SE = 0.09$). Neither the main effect of resilience, $F(1, 186) = 0.04$, $p = 0.842$, $\eta^2 = 0.000$, 90% CI = [0.000, 0.012], nor the Nostalgia × Resilience interaction, $F(1, 186) = 0.03$, $p = 0.862$, $\eta^2 = 0.000$, 90% CI = [0.000, 0.011], was significant. These findings attest to nostalgia’s bittersweet affective signature.

### 3.3 | Psychological functions

We entered psychological functions as dependent variables in a series of Nostalgia × Resilience ANCOVAs. We present predicted means in Table 3 and inferential statistics in Table 4. Results revealed significant nostalgia main effects on all functions, except inspiration. Participants in the nostalgia (compared to control) condition reported significantly higher levels of self-continuity, meaning in life, self-esteem, and social connectedness. Contrary to previous findings (Cheung, Sedikides, & Wildschut, 2016; Cheung et al., 2013), however, nostalgia decreased optimism. These analyses also showed significant resilience main effects for all functions. Self-continuity, meaning in life, self-esteem, social connectedness, optimism, and inspiration were higher among high-resilience (than low-resilience) individuals. All main effects were qualified, however, by two higher-order interactions: the Nostalgia × Resilience ANCOVA on self-continuity revealed a significant Resilience × Activation interaction: the area delineated by the solid line (high resilience) encompasses the area delineated by the dashed line (low resilience), except at PA and NA, where the lines touch. Put otherwise, the tendency for nostalgia to produce particularly intense feelings for high-resilience individuals (see point 2) is attenuated when activation level is neutral (PA and NA), as compared to activated or deactivated.

5We obtained essentially identical results when we calculated MIN based on participants’ ratings of “happy” and “sad” (Larsen & McGraw, 2011).
by significant or marginally significant Nostalgia × Resilience interactions. We probe these interaction effects next. 6

3.3.1 | Self-continuity

Tests of simple effects revealed that nostalgia (compared to control) significantly increased self-continuity among low-resilience individuals, \( F(1, 186) = 11.22, p = 0.001, \eta^2 = 0.057, 90\% CI = [0.015, 0.118], \) and did so even more strongly among high-resilience individuals, \( F(1, 186) = 36.41, p < 0.001, \eta^2 = 0.164, 90\% CI = [0.090, 0.242] \). We also tested the simple resilience slopes within the control and nostalgia conditions. Resilience was not significantly associated with self-continuity in the control condition, \( \beta = 0.01, F(1, 186) = 0.02, p = 0.881, \eta^2 = 0.000, 90\% CI = [0.000, 0.005] \), but was positively associated with it in the nostalgia condition, \( \beta = 0.26, F(1, 186) = 7.93, p = 0.005, \eta^2 = 0.049, 90\% CI = [0.007, 0.096] \).

3.3.2 | Meaning in life

For meaning in life, the results pattern was similar. Nostalgia (compared to control) increased meaning in life among low-resilience individuals,

---

6 Conceivably, the magnitude of some resilience main effects was inflated by overlap in item content between the RS (e.g., “My life has meaning”) and psychological-functions scales (e.g., “Life is meaningful”). However, we can think of no plausible reason why this would produce Nostalgia × Resilience interaction effects. Hence, we emphasized the moderating role of resilience (rather than its main effects).
High resilience

Resilience main effect

Nostalgia × Resilience

For both high- and low-resilience individuals, although more so for resilience was not significantly associated with meaning (−1 SD above (high resilience) and below (low resilience) the mean resilience score.

We also tested the simple resilience slopes within the control and nostalgia conditions. Resilience was not significantly associated with self-esteem in the control condition, β = −0.01, F(1, 186) = 0.00, p = 0.953, η² = 0.000, and even more so among high-resilience individuals, F(1, 186) = 76.66, p = 0.001, η² = 0.292, 90% CI = [0.204, 0.372].

Examined from a different vantage point, resilience was not significantly associated with social connectedness in life, nostalgia was beneficial for both high- and low-resilience individuals, although more so for the former than the latter.

3.3.3 | Self-esteem

A subtly different pattern of results emerged for self-esteem. Participants in the nostalgia (compared to control) condition reported higher self-esteem when resilience was high (+1 SD), F(1, 186) = 23.40, p < 0.001, η² = 0.112, 90% CI = [0.050, 0.185], but not when it was low (−1 SD), F(1, 186) = 0.04, p = 0.850, η² = 0.000, 90% CI = [0.000, 0.009].

We also tested the simple resilience slopes within the control and nostalgia conditions. Resilience was not significantly associated with self-esteem in the control condition, β = 0.04, F(1, 186) = 0.16, p = 0.689, η² = 0.001, 90% CI = [0.000, 0.020], but was positively associated with it in the nostalgia condition, β = 0.48, F(1, 186) = 25.18, p < 0.001, η² = 0.119, 90% CI = [0.055, 0.193].

The combination of nostalgia and high resilience resulted in particularly high levels of self-esteem.

3.3.4 | Social connectedness

Findings for social connectedness paralleled those for self-esteem. Nostalgia (compared to control) significantly increased social connectedness among high-resilience individuals, F(1, 186) = 25.80, p < 0.001, η² = 0.122, 90% CI = [0.057, 0.196], but not among low-resilience individuals, F(1, 186) = 0.00, p = 0.994, η² = 0.000, 90% CI = [0.000, 0.000].

Examined from a different vantage point, resilience was not significantly associated with social connectedness in the control condition, β = 0.01, F(1, 186) = 0.01, p = 0.994, η² = 0.000, 90% CI = [0.000, 0.002], but was positively associated with it in the nostalgia condition, β = 0.49, F(1, 186) = 26.45, p < 0.001, η² = 0.125, 90% CI = [0.059, 0.199]. Social connectedness was highest when nostalgia was combined with high resilience.

3.3.5 | Optimism

Nevertheless, a different pattern emerged for the future-oriented functions of optimism and inspiration. Among low-resilience individuals, nostalgia (compared to control) significantly reduced optimism, F(1, 186) = 35.14, p < 0.001, η² = 0.159, 90% CI = [0.086, 0.237].

High-resilience individuals, however, did not even realize a significant detrimental effect of nostalgia on optimism, F(1, 186) = 2.50, p = 0.115, η² = 0.013, 90% CI = [0.000, 0.053]. From an alternative perspective, resilience was not significantly associated with optimism in the control condition, β = −0.01, F(1, 186) = 0.00, p = 0.953, η² = 0.000.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Low resilience</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>High resilience</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control condition</td>
<td>Nostalgia condition</td>
<td></td>
<td></td>
<td>Control condition</td>
<td>Nostalgia condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-continuity</td>
<td>3.64 (0.14)</td>
<td>4.26 (0.12)</td>
<td></td>
<td></td>
<td>3.67 (0.12)</td>
<td>4.79 (0.14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meaning in life</td>
<td>4.01 (0.13)</td>
<td>4.72 (0.11)</td>
<td></td>
<td></td>
<td>4.16 (0.11)</td>
<td>5.63 (0.13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>4.10 (0.12)</td>
<td>4.14 (0.11)</td>
<td></td>
<td></td>
<td>4.17 (0.11)</td>
<td>4.98 (0.12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social connectedness</td>
<td>4.04 (0.12)</td>
<td>4.04 (0.11)</td>
<td></td>
<td></td>
<td>4.05 (0.11)</td>
<td>4.87 (0.12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>5.30 (0.12)</td>
<td>4.38 (0.10)</td>
<td></td>
<td></td>
<td>5.29 (0.10)</td>
<td>5.04 (0.12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspiration</td>
<td>4.56 (0.13)</td>
<td>4.18 (0.11)</td>
<td></td>
<td></td>
<td>4.77 (0.11)</td>
<td>4.81 (0.13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Tabled values are predicted means and standard errors (in parentheses), conditioned at 1 SD above (high resilience) and below (low resilience) the mean resilience score.

### TABLE 4 Moderated ANCOVA results for psychological functions

| Dependent variable | Nostalgia main effect | | | | | Resilience main effect | | | | | Nostalgia × Resilience | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F | p | η² [90% CI] | | F | p | η² [90% CI] | | F | p | η² [90% CI] | | |
| Self-continuity | 42.68 | <0.001 | 0.192 [0.112, 0.270] | | 4.43 | 0.037 | 0.023 [0.001, 0.069] | | 3.59 | 0.060 | 0.019 [0.000, 0.062] | |
| Meaning in life | 84.11 | <0.001 | 0.311 [0.221, 0.388] | | 20.16 | <0.001 | 0.098 [0.040, 0.167] | | 10.36 | 0.002 | 0.053 [0.012, 0.111] | |
| Self-esteem | 12.67 | <0.001 | 0.064 [0.018, 0.126] | | 14.79 | <0.001 | 0.074 [0.024, 0.138] | | 10.77 | 0.001 | 0.055 [0.013, 0.114] | |
| Social connectedness | 12.87 | <0.001 | 0.065 [0.019, 0.127] | | 13.78 | <0.001 | 0.069 [0.021, 0.132] | | 12.92 | <0.001 | 0.065 [0.019, 0.127] | |
| Optimism | 28.28 | <0.001 | 0.132 [0.064, 0.206] | | 8.92 | 0.003 | 0.045 [0.009, 0.102] | | 9.42 | 0.003 | 0.048 [0.009, 0.105] | |
| Inspiration | 1.93 | 0.167 | 0.010 [0.000, 0.046] | | 11.95 | <0.001 | 0.060 [0.016, 0.121] | | 3.03 | 0.083 | 0.016 [0.000, 0.057] | |

Note: Abbreviations: CI, confidence interval; Degrees of freedom, 1, 186; η², partial eta squared.
90% CI = [0.000, 0.000], but was positively associated with it in the nostalgia condition, $\beta = 0.40, F(1, 186) = 18.17, p < 0.001, \eta^2 = 0.089, 90\% \text{ CI} = [0.034, 0.158]$. Optimism was lowest when nostalgia was combined with low resilience.

### 3.3.6 | Inspiration

Matching the optimism findings, nostalgia (compared to control) significantly decreased inspiration among low-resilience individuals, $F(1, 186) = 4.90, p = 0.021, \eta^2 = 0.026, 90\% \text{ CI} = [0.001, 0.074]$, but not among those high in resilience, $F(1, 186) = 0.06, p = 0.800, \eta^2 = 0.000, 90\% \text{ CI} = [0.000, 0.014]$. Alternatively, resilience was not significantly associated with optimism in the control condition, $\beta = 0.12, F(1, 186) = 1.48, p = 0.225, \eta^2 = 0.008, 90\% \text{ CI} = [0.000, 0.042]$, but was positively associated with it in the nostalgia condition, $\beta = 0.37, F(1, 186) = 13.40, p < 0.001, \eta^2 = 0.067, 90\% \text{ CI} = [0.021, 0.131]$. The combination of nostalgia and low resilience resulted in particularly low inspiration.

### 3.3.7 | Interim summary: Psychological functions

As we did for current affect, we distilled general result patterns by entering the six psychological functions in a mixed ANCOVA. Nostalgia and resilience were the between-subjects variables and the six functions constituted a within-subjects variable. We highlight the two robust higher-order interactions subsuming all lower-order effects and visualize these results in Figure 2.

The analysis revealed a significant Nostalgia × Functions interaction, $F(5, 930) = 37.28, p < 0.001, \eta^2 = 0.167, 90\% \text{ CI} = [0.129, 0.199]$, indicating that the beneficial effects of nostalgia were strongest within the existential domain (self-continuity, meaning in life), intermediate in the self-directed (self-esteem) and social (social connectedness) domains, and weakest in the future-oriented domain (optimism, inspiration). In the upper panels of Figure 2, this is illustrated—irrespective of resilience—by the diagonal offset between the solid (nostalgia condition) and dashed (control condition) hexagonal shapes.

The analysis further produced a significant Nostalgia × Resilience interaction, $F(1, 186) = 20.33, p < 0.001, \eta^2 = 0.099, 90\% \text{ CI} = [0.040, 0.169]$. In general, participants scored higher on psychological functions in the nostalgia than control condition, particularly when resilience was high (compared to low). In the upper panels of Figure 2, this is illustrated by the fact that the area delineated by the solid line (nostalgia condition) is noticeably larger than the area delineated by the dashed line (control condition) when resilience is high (upper right panel), but less so when resilience is low (upper left panel). The lower panels of Figure 2 offer a different perspective. The area delineated by the solid line (high resilience) clearly exceeds the area delineated by the dashed line (low resilience) in the nostalgia condition (lower right panel), but not in the control condition (lower left panel). Thus, high-resilience participants scored higher on all psychological functions than low-resilience individuals in the nostalgia condition, but not in the control condition. The combination of high resilience and nostalgic reverie was particularly beneficial.

### 4 | DISCUSSION

Nostalgia has been described as “a joy tinged with sadness” (Werman, 1977, p. 393), but, for the refugees in our study, it entailed more than just a tinge of despondency. Nonetheless, the refugees accrued most (but not all) documented psychological benefits of nostalgia. To be precise, those who recalled a nostalgic (compared to ordinary) event from their past reported higher levels of self-continuity, meaning in life, self-esteem, and social connectedness. The exceptions were the future-oriented states of optimism and inspiration; nostalgia decreased the former and had no effect on the latter, highlighting the limits of its functionality among displaced individuals. Whereas, on balance, these findings support the view that nostalgia is more beneficial than harmful to refugees, this conclusion is premature, because it ignores the crucial moderating role of dispositional resilience.

For low-resilience refugees, results were mixed and, in some respects, consistent with the pessimistic picture of refugee nostalgia painted by Beiser (2004). Among these vulnerable individuals, nostalgia decreased optimism and inspiration. Evidence that the combination of low resilience and nostalgia eroded future-oriented functions dovetails with Iyer and Jetten’s (2011) finding that, among students who were told that entering university would force them to leave behind their past life, nostalgia decreased interest in new experiences (e.g., “There are many new things I want to try while at university”). It is possible that a contrast between one’s present hardship and an irrevocably lost past is particularly corrosive to approach motivation or the energization of behavior by, or the direction of behavior toward, positive stimuli (objects, events, possibilities)” (Elliot, 2006, p. 111). As one of Beiser’s respondents put it: “I think about life when it was at its best. Compared to that, I have nothing now, and I probably never will” (p. 906). Yet, even low-resilience refugees derived benefit from nostalgia. Specifically, negative effects in the future-oriented domain were compensated by positive effects on the existential functions of self-continuity and meaning in life. Self-discontinuity and lack of meaning are associated with psychological maladjustment, including depression, anxiety, alienation, psychopathology, substance abuse, and suicide (Chandler, Lalonde, Sokol, & Hallett, 2003; Harlowe, Newcomb, & Bentler, 1986; Lampinen et al., 2004; Marsh, Smith, Piek, & Saunders, 2003; Padelford, 1974; Waisberg & Porter, 1994). Thus, in a purely preventative role, nostalgia could have a critical therapeutic function even for low-resilience individuals.

In contrast, high-resilience refugees enjoyed most of nostalgia’s benefits and suffered none of the costs incurred by those who lacked resilience. To be precise, high resilience amplified nostalgia’s

---

7. Given that those who are most likely to be impaired by nostalgia (i.e., low-resilience individuals experiencing trauma and adversity) are also more likely to require psychiatric care (Bonanno, 2004; Hjemdal, Friiborg, Stiles, Rosenvinge, & Martinussen, 2006; Luther, Cicchetti, & Becker, 2000; Masten & Reed, 2002), it is not surprising that the psychiatric literature has treated nostalgia as a disorder (for a review, see: Fuentenebro de Diego & Valiente Ots, 2014).
benefits in the existential, self-directed, and social domains, and buffered its deleterious effect in the future-oriented domain. We think it attests to the remarkable universality of nostalgia that resilient Syrian refugees in Riyadh responded to the nostalgia induction in a similar manner to UK undergraduates in the safety of a University of Southampton laboratory. More broadly, our findings also inform the resilience literature. Resilient individuals exposed to trauma or adversity are characterized, after an initial period of distress, by a "stable trajectory of healthy functioning across time" (Bonanno, 2005, p. 136). By capitalizing on personal and social resources, these individuals are then able to carry out effectively their personal and social responsibilities, to experience positive emotions, and to engage in creative activities (Bonanno, 2004). Our findings suggest that nostalgia is one of the resources from which resilient individuals draw their strength.

Far from being purely hedonic, however, nostalgia gave rise to intense mixed affect. It may seem paradoxical that nostalgia, despite its bittersweet affective signature, conveyed psychological benefits, in particular to high-resilience refugees. Yet, these findings resonate with prior research concerning the relation between mixed emotions and psychological well-being. In their coactivation model of healthy coping, Larsen, Hemenover, Norris, and Cacioppo (2003) argued that experiencing a mix of positive and negative emotion, or "taking the good with the bad", during times of stress is beneficial, because it enables individuals to confront challenges and find meaning in adversity. In a similar vein, the Dynamic Model of Affect proposes that one’s capacity to sustain affective complexity during times of stress is a key ingredient to long-term well-being (Davis, Zautra, & Smith, 2004; Zautra, Berkhof, & Nicolson, 2002; Zautra, Reich, Davis, Potter, & Nicolson, 2000). These ideas have garnered compelling empirical support. Coifman, Bonanno, and Rafaeli (2007), for instance, demonstrated that greater affective complexity was related to improved adjustment following bereavement. Adler and Hershfield (2012) showed that individuals who experienced a mixture of happiness and sadness during psychotherapy evinced improvements in psychological well-being over time. In our experiment, nostalgia increased mixed affect irrespective of resilience, but produced more psychological benefits for high-resilience (than low-resilience) refugees. An important implication of these findings is that the psychological strength of
resilient individuals resides partly in their capacity to tolerate and benefit from bittersweet feelings. This is a fruitful direction for future research.

4.1 Broader implications and future directions

Our findings highlight broader implications for nostalgia’s role in facilitating refugees’ successful adjustment to their host culture. Refugees face the daunting challenge of negotiating two cultures: the society of origin and the society of settlement. This process can result in any of four distinct acculturation patterns (Berry, 1974, 1994). The first pattern is integration, where one maintains one’s cultural identity and also develops relationships with members of the host culture. Another pattern is assimilation, where one develops relationships with members of the host culture and relinquishes one’s cultural identity. The third pattern is separation, where one maintains one’s cultural identity and shuns host culture members. The final pattern is marginalization, where one neither maintains one’s cultural identity nor forms relationships with host culture members. Of these four acculturation patterns, integration confers the highest levels of psychological health and sociocultural adaptation (Berry, Kim, Minde, & Mok, 1987; Berry & Sam, 1997).

Two major factors contribute to successful integration strategies: psychological health and interpersonal competence (Berry & Sam, 1997; Chen, Benet-Martinez, & Bond, 2008; LaFromboise, Coleman, & Gerton, 1993; Phinney, Cantu, & Kurtz, 1997). We propose that nostalgia can contribute to successful integration by reinforcing these factors. Relevant to psychological health, we showed that nostalgia fosters self-continuity, which is conducive to creativity, vitality, and subjective well-being (Chandler et al., 2003; Kohut, 1977; Lampinen et al., 2004). Furthermore, nostalgia provided a sense of meaning, which augments perceived quality of life, buffers stress, and enhances subjective well-being (Debats, Drost, & Hansen, 1995; King & Napa, 1998; Krause, 2007). Among high-resilience refugees, nostalgia also boosted self-esteem, which buffers anxiety, predicts lower depression and delinquency, and is associated with higher subjective well-being (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Roberts, Gottlieb, & Kassel, 1996; Sedikides & Gregg, 2003; Swann, Chang-Schneider, & McClarty, 2007). In sum, by fostering self-continuity, a sense of meaning, and self-esteem, nostalgia promotes psychological health, which, in turn, conduces to cultural integration.

Relevant to interpersonal competence, nostalgia strengthened social connectedness among high-resilience refugees. In social relationships, social connectedness and intimacy are inextricably linked with providing adequate support to others (Hazan & Shaver, 1987) For instance, nostalgic memories of family gatherings will foster a sense of mutual social support. Indeed, nostalgia boosts perceived interpersonal efficacy (Abeyta, Routledge, & Juhl, 2015; Wildschut et al., 2006, 2010), social goal strivings (Abeyta et al., 2015; Sedikides, Cheung, et al., 2018), socially oriented action tendencies (Wildschut, Bruder, Robertson, Van Tilburg, & Sedikides, 2014; Zhou et al., 2012), and prosocial behavior (Stephan et al., 2014; Zhou et al., 2012). Thus, nostalgia should increase confidence in one’s ability to initiate, maintain, and develop new relationships (Buhrmester, 1990, 1996; Buhrmester, Furman, Wittenberg, & Reis, 1988), thereby further accelerating the process of cultural integration.

It could be argued that nostalgia is an individual integration strategy for adjusting to the host culture. Such strategies seek primarily to achieve personal mobility. In contrast, collective strategies are also concerned with the maintenance of cultural heritage, and emphasize the importance of solidarity among the broader immigrant community for achieving collective goals (Lalonde & Cameron, 1993). Evidence suggests, however, that individuals are capable of harnessing collective nostalgic memories to maintain in-group loyalty and cohesion, and mobilize collective action (Cheung, Sedikides, Wildschut, Tausch, & Ayanian, 2017; Leunissen, Sedikides, Wildschut, & Cohen, 2018; Wildschut et al., 2014) This supports the feasibility of integrating the individual strategy of nostalgia with a collective orientation, enabling refugees to capitalize on both approaches. A further caveat is that, for low-resilience refugees, nostalgia’s detrimental effect on optimism and inspiration could be an obstacle to successful integration. Achieving a more complete understanding of nostalgia’s role in cultural adjustment presents a priority for future research.

Nostalgia serves key psychological functions, but how enduring are they? Do the psychological benefits of nostalgia survive beyond the confines of the experimental setting and, if so, how long do they persist? If nostalgia’s effects are lasting, it is appropriate to use the term “psychological functions” to denote “adaptiveness.” If they are ephemeral, however, it may be more prudent to refer to “uses of memory” or “reasons for remembering” (Bluck & Alea, 2011; Bluck, Alea, Habermas, & Rubin, 2005; Harris, Rasmussen, & Bernsten, 2014). We think that the benefits of nostalgia are prevalent and may persist beyond the discrete nostalgic episode, which itself may last only minutes (Verduyn, Delvaux, Van Coillie, Tuinelierx, & Van Mechelen, 2009). For example, during the nostalgic episode, one may formulate social goals (e.g., to reconnect with old friends; Sedikides, Cheung, et al., 2018; Stephan et al., 2015), setting in motion a chain of events leading to expansion of one’s social support network, with concomitant benefits for physical and psychological health (Baumeister & Leary, 1995; Cohen & Wills, 1985; Sarason, Sarason, & Gurung, 1997).

Evidence for durable nostalgia benefits is now starting to emerge. As a case in point, Van Dijke, Leunissen, Wildschut, and Sedikides (2019) administered the ERT to employees early in the morning. Several hours later, they assessed the employees’ intrinsic motivation (“I do this work because I enjoy this work very much”) and work effort (“I really exerted myself to the fullest at work”). Among employees reporting high levels of chronic injustice in their work environment (compared to those reporting low levels of chronic injustice), the brief nostalgia induction increased work effort later in the day via the mediating mechanism of heightened intrinsic motivation. Future research on nostalgia’s longitudinal effects would
do well to consider the moderating role of resilience: Does resilience increase the durability of nostalgia's benefits? Such research should also take steps to address the correlational nature of our findings for resilience by harnessing longitudinal designs (to address the reverse-causality problem) and assessing relevant control variables (to address the third-variable problem). A suitable starting point toward the latter desideratum could be Martin and Marsh’s (2006; Martin, Colmar, Davey, & Marsh, 2010) 5-C model, which identifies five correlates of resilience in academic contexts: confidence (self-efficacy), coordination (planning), control, composure (low anxiety), and commitment (persistence).

Future research would also do well to examine the generalizability of our findings. For example, would one obtain similar results among migrants who did not suffer forced displacement but chose freely to leave their home country? Cognitive dissonance theory would suggest that migrants who voluntarily leave their home country may generate internal justification for this decision by embellishing the qualities of their host country and denigrating their country of origin (Brehm, 1956; Gerard & White, 1983). One might expect, then, that voluntary (compared to forced) migrants are less nostalgic for their home country. The generalizability issue can also be informed by replicating our study among refugees in non-Arabic countries and among non-displaced individuals in Arabic countries. This would help to establish whether our findings apply to refugees in general, and could rule out the possibility that we simply captured a uniquely Arabic brand of nostalgia (irrespective of refugee status).

A final, related question is whether Syrian refugees conceived of nostalgia in the same way as individuals from different cultural backgrounds. We are confident that they did. First, bilingual speakers, an authoritative dictionary of modern Arabic (Wehr, 1979, p. 244), and the former Laudian Professor of Arabic at the University of Oxford (G. J. van Gelder, personal communication, 21 June 2017) all confirmed that "nostalgia" translates directly into the Arabic "hanin", which has the same connotations of affectionate longing.6 Second, in a cross-cultural study by Hepper et al. (2014) students in 18 countries across five continents rated the prototypicality of 35 features of nostalgia. The samples showed high levels of agreement on the rank-order of these features, pointing to cross-cultural consensus regarding conceptions of nostalgia and supporting the notion that nostalgia is a panchultural emotion. With the benefit of hindsight, it would have been useful if this cross-cultural study had included a Syrian sample. Acquiring deeper insight into the psychological significance of nostalgia (or hanin) in the Arab world could be a fruitful direction for future studies.

4.2 Coda

Nostalgia is a commonly and intensely experienced emotion among refugees. For high-resilience refugees, this emotion is an unalloyed good. They derive its psychological benefits, yet do not incur its costs. For those lacking resilience, it is a double-edged sword. Although they derive some psychological benefits, they incur significant costs in terms of reduced optimism and inspiration. Our findings advance theory on nostalgia, shed light on its relation to psychological well-being among refugees, and inform potential interventions to harness its benefits (or redress its anguish) in this at-risk population.

CONFLICT OF INTEREST

The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

ETHICAL STATEMENT

The experiment was reviewed and approved by the departmental psychology ethics committee. All participants provided written informed consent.

TRANSPARENCY STATEMENT

All data and materials are publicly available via the institutional repository of University of Southampton and can be accessed at https://doi.org/10.5258/soton/d0862.

ORCID

Tim Wildschut https://orcid.org/0000-0002-6499-5487
Constantine Sedikides https://orcid.org/0000-0002-7563-306X

REFERENCES


6The more formal translation is al hanin ilä l-awatán or nostalgia for the home country.


Marsh, A., Smith, L., Piek, J., & Sanders, B. (2003). The Purpose in Life scale: Psychometric properties for social drinkers and drinkers in...


Padelford, B. (1974). Relationship between drug involvement and pur-...