**Nostalgia in Response to Group-Based Exclusion: The Role
of Attachment-Related Avoidance**

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The Role of Attachment-Related Avoidance

Georgios Abakoumkin

University of Thessaly

Tim Wildschut and Constantine Sedikides

University of Southampton

Maria Bakarou

University of Thessaly

Georgios Abakoumkin, Laboratory of Psychology, Department of Early Childhood Education, University of Thessaly; Tim Wildschut and Constantine Sedikides, School of Psychology, University of Southampton; Maria Bakarou, Laboratory of Psychology, Department of Early Childhood Education, University of Thessaly.

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Correspondence concerning this article should be addressed to Georgios Abakoumkin, Laboratory of Psychology, Department of Early Childhood Education, University of Thessaly, Argonafton & Filellinon, GR-382 21 Volos, Greece. Email: gabak@uth.gr

Abstract

We proposed that nostalgia, by virtue of its sociality, can be an indirect strategy to counteract relational deficiencies stemming from group-based exclusion. We instructed Greek participants to recall an event in which they experienced exclusion on the basis of their nationality versus a control event. We anticipated that participants would react to group-based exclusion with increased nostalgia. Specifically, because low attachment-related avoidance facilitates proximity-seeking in response to distress, we hypothesised that group-based exclusion would increase nostalgia (a form of proximity-seeking) more strongly when avoidance is low. Results supported this moderation hypothesis. In turn, increased nostalgia in response to group-based exclusion predicted stronger ingroup identification. For low-avoidants, then, group-based exclusion fortified ingroup identification via increased nostalgia (moderated mediation).

Keywords: nostalgia, group-based exclusion, attachment-related avoidance, attachment-related anxiety, ingroup identification

Nostalgia (“a sentimental longing for the past;” *The New Oxford Dictionary of English*, 1998, p. 1266) has historically been considered a maladaptive emotion (for review, see: Sedikides, Wildschut, & Baden, 2004; Sedikides, Wildschut, Routledge, Arndt, & Zhou, 2009). . In recent years, however, this view has been revised in light of empirical evidence (Batcho, 2013; Sedikides, Wildschut, Arndt, & Routledge, 2008; Sedikides et al., 2015). Laypersons see nostalgia as a predominantly positive, social, and past-oriented emotion (Hepper, Ritchie, Sedikides, & Wildschut, 2012). Nostalgia entails remembering an event from one’s past—typically a fond, meaningful memory (e.g., childhood, close relationship). One often reflects on the memory through rose-tinted glasses, misses that time or person, and may even long to return to the past. Consequently, one feels sentimental, most often happy but with a tinge of longing. Nostalgia is experienced frequently (approximately three times a week; Wildschut, Sedikides, Arndt, & Routledge, 2006) and across cultures (18 countries that span five continents; Hepper et al., 2014).

More importantly, nostalgia is a social emotion (Holak & Havlena, 1992; Sedikides et al., 2015). It represents the human ability to draw strength from memories of close others. In particular, nostalgia promotes perceptions of friendship and social support, engenders subjective interpersonal competence, and prompts prosocial behaviour (e.g., stronger intentions to volunteer and donate to charity, higher charitable donations, increased helping; Stephan et al., 2014; Wildschut et al., 2006; Zhou, Wildschut, Sedikides, Shi, & Feng, 2012).

Nostalgia in Response to Relational Deficiencies

Individuals have a fundamental need to belong (Baumeister & Leary, 1995; Tajfel & Turner, 1986). They form social bonds with ease (Festinger, Schachter, & Back, 1950) and resist vehemently their dissolution (Vaughan, 1986). They often rely on social bonds for intimacy and protection when threatened, and those with strong social bonds experience better psychological and physical well-being (Cohen & Wills, 1985; Sarason, Sarason, & Gurung, 1997). When individuals experience relational deficiencies, they activate compensatory mechanisms (Williams, Forgas, & von Hippel, 2005). Gardner, Pickett, and Knowles (2005) distinguished between direct and indirect compensatory mechanisms or

1 strategies. Direct strategies are used when suitable interaction partners are available, and
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5 serve to form or repair relationships with them. Indirect strategies are used when suitable
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8 interaction partners are unavailable, and rely on mental representations of social bonds as a
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10 source of social connectedness.

11 We propose that nostalgia, by virtue of its sociality, can be an indirect strategy to
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13 counteract relational deficiencies. Evidence supports this idea. In a correlational
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15 investigation, Zhou, Sedikides, Wildschut, and Gao (2008, Study 1) assessed individual
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17 differences in loneliness, nostalgia, and social support. Lonely participants perceived little
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19 social support, but they were also prone to nostalgia. In turn, nostalgia augmented their
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21 perceptions of social support, thereby countering the negative impact of loneliness. In an
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23 experimental investigation, Zhou et al. (Study 2) proceeded with a causal ordering of the
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25 variables of interest. They manipulated loneliness and measured nostalgia and social support.
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27 Lonely (vs. non-lonely) participants reported lower levels of social support but felt more
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29 nostalgic. Nostalgia, in turn, predicted stronger social support. Thus, whereas the direct effect
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31 of loneliness was to undermine perceptions of social support, the indirect effect of loneliness
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33 was to augment perceptions of social support via nostalgia. Nostalgia counteracted the
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35 negative effect of loneliness on social support.

36 **Attachment and Regulation of Relational Deficiencies**

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38 More recently, Wildschut, Sedikides, Routledge, Arndt, and Cordaro (2010) reported
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40 that the link between relational deficiencies and nostalgia is shaped by attachment-related
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42 avoidance (henceforth, avoidance). According to attachment theory (Bartholomew &
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44 Horowitz, 1991; Bowlby, 1982; Mikulincer & Shaver, 2003), avoidance influences the extent
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46 to which individuals rely on relationships to cope with psychological distress. Low (vs. high)
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48 avoidants perceive others as available or responsive and depend on them for distress
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50 regulation (Mikulincer & Shaver, 2008) or social support (Collins & Feeney, 2000).
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52 Accordingly, Wildschut et al. tested the idea that low (vs. high) avoidants more readily
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54 harness nostalgia, given its sociality, in the face of relational deficiencies. In a preliminary
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56 investigation, participants wrote about situations in which they became nostalgic. Low (vs.
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58 high) avoidants stated more frequently that they became nostalgic when they were feeling
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lonely. Next, Wildschut et al. (Study 2) assessed individual differences in avoidance, loneliness, and nostalgia. Low (but not high) avoidants evinced an association between perceived lack of social support and nostalgia frequency. Low avoidants relied on nostalgia to counter deficiencies in their relational network. Wildschut et al. (Study 3) conceptually replicated these findings in a social exclusion experiment. The researchers provided participants with bogus personality feedback suggesting that they would not (future loneliness) or that they would (future belonging) have lasting friendships or marriages (Twenge, Baumeister, Tice, & Stucke, 2001). Social exclusion (i.e., future loneliness) compared to social inclusion (i.e., future belonging) increased nostalgia among low-avoidants but not among high-avoidants. Low avoidants were better able to utilise nostalgia when confronted with social exclusion. Wildschut et al. found no evidence for a role of attachment-related anxiety (henceforth, anxiety).

Overview

Although prior work has illuminated the link between relational deficiencies and nostalgia, it has also focused exclusively on individual-level belongingness threats. The work has identified how personal loneliness or social exclusion can trigger nostalgia, but it has not examined if nostalgia is recruited when individuals experience social exclusion on the basis of their group membership (e.g., gender, race, nationality). In their review, Betts and Hinsz (2013) concluded that, compared to relational deficiencies at the individual level, “group marginalization is a distinct phenomenon with unique processes and unique outcomes, and therefore is worthy of independent analysis” (p. 356). Accordingly, the key objective of the present research was to examine the impact of such group-based exclusion on nostalgia.

The context for investigating this question was the global financial crisis. Within Europe, this crisis has taken a particularly high toll on Greece. Financial analysts have pointed to corruption (e.g., tax evasion; Artavanis, Morse, & Tsoutsoura, 2012) as one of the reasons for the country’s socio-economic woes. In the year we conducted this experiment, Greece ranked 94th in the Corruption Perception Index—the lowest rank within the European Union (Transparency International, 2012). A survey published the same year indicated that 98% of Greek respondents considered corruption a major problem in their country

(Eurobarometer, 2012). All the while, Greece has faced the spectre of exit from the Eurozone monetary union (“Grexit”) and struggled under austere economic guidelines imposed by the “troika” (European Commission, European Central Bank, International Monetary Fund). In all, we assumed that group-based exclusion would be a salient concern for many Greek nationals.

Based on evidence that individuals recruit nostalgia in response to relational deficiencies (Zhou et al., 2008; see also Seehusen et al., 2013), we expected that Greek participants who recalled an instance of group-based exclusion would experience increased nostalgia. Specifically, because low avoidants regulate relational deficiencies more effectively by recruiting nostalgia (Wildschut et al., 2010), we hypothesised that group-based exclusion would increase nostalgia more strongly when avoidance is low (vs. high).

A second goal of this research was to examine if nostalgia fortifies ingroup identification (henceforth, identification) following group-based exclusion. When group-based exclusion is perceived as unalterable, it undermines identification and prompts individual-level responses, such as individual mobility (Jetten, Iyer, Branscombe, & Zhang, 2013; Sedikides, Gaertner, Luke, O’Mara, & Gebauer, 2013; Tajfel & Turner, 1986). In the case of Greece, there has been a dramatic shift from positive net migration (i.e., more people entering than leaving the country) before the start of the financial crisis in 2007 to negative net migration since then (Eurostat, 2014)—a stark example of individual mobility. Nostalgia, however, may counteract the process of disidentification. Reflecting on nostalgic experiences strengthens social bonds (Sedikides et al., in press; Stephan et al., 2014; Van Dijke, Wildschut, Leunissen, & Sedikides, 2015; Wildschut et al., 2006, 2010; Wildschut, Bruder, Robertson, Van Tilburg, & Sedikides, 2014; Zhou et al., 2012). Accordingly, nostalgizing should strengthen identification among Greek nationals. To examine this possibility, we tested the indirect effect of group-based exclusion on identification via nostalgia, conditional upon avoidance. We hypothesised that, for low (but not high) avoidants, group-based exclusion would increase nostalgia, which, in turn, would predict increased identification.

Method

Participants and Design

We relied on a sample of convenience from a University of Thessaly department consisting almost exclusively of female students. One hundred nine students, all Greek citizens, participated in the experiment. We randomly assigned them to the group-based-exclusion and control conditions. Fourteen participants (13 in the group-based-exclusion condition, 1 in the control condition) were unable to follow the instruction to recall an autobiographical experience pertaining to their Greek nationality (e.g., “I did not have such an experience”) and were excluded on this basis. We excluded a further eight participants due to missing data. Excluded participants did not differ from included participants on key variables (nostalgia, identification). The final sample comprised 87 students (84 women, 3 men; $M_{age} = 20.24$, $SD_{age} = 2.22$).

Procedure and Materials

Participants were seated individually and viewed the materials on a computer screen. To manipulate group-based exclusion, we instructed participants to recall an event in which they experienced exclusion on the basis of their Greek nationality (group-based-exclusion condition) or an event that was ordinary (control condition; Aydin, Fischer, & Frey, 2010; Wildschut et al., 2006). Instructions in the group-based-exclusion condition read:

Think of a life event where you experienced exclusion as Greek. That is, an event where you felt that other people rejected and excluded you on the basis of your nationality. This could be a direct experience or simply something that you experienced as citizen of Greece and its relationship with other countries.

Instructions in the control condition read:

Think of an ordinary (i.e., common) life event that had to do with the fact that you are Greek. That is, an event that is completely common, like indicating your nationality in an application to a public service. This could be a direct experience or simply something that you experienced as citizen of Greece and its relationship with other countries.

Then all participants described the experience and how it made them feel. Administration of measures followed. All measures had a 7-point response format (1 = *strongly disagree*, 7 = *strongly agree*, if not indicated otherwise). We averaged items from each measure to create a

respective index. We provide a detailed description of the measures, including item wording, means, standard deviations, and internal consistencies, in the Appendix. We display descriptive statistics by exclusion condition in Table 1.

Manipulation check: Felt exclusion. To assess felt exclusion, we adapted the measure developed by Aydin et al. (2010), which served as manipulation check.

Nostalgia. We assessed nostalgia with a modified version of Batcho's (1995) Nostalgia Inventory (NI). Participants read a definition of nostalgia ("sentimental longing for the past") and then indicated how nostalgic they felt about 20 aspects of their life (1 = *not at all nostalgic*, 7 = *very nostalgic*). We included three items that were specific to Greek culture (items 18, 19, and 20 in the Appendix) in replacement of three NI items ("my childhood toys," "my school," and "TV shows, movies").

Identification. There is some disagreement in the literature about how to best assess identification (e.g., Leach et al., 2008). Therefore, we opted for a broad coverage of the construct-of-interest. We used three scales to assess identification with the national ingroup: (1) the 4-item Identity subscale of Luhtanen and Crocker's (1992) Collective Self-Esteem Scale; (2) Leach et al.'s (2008) 3-item Centrality scale; and (3) the 4-item Identification measure developed by Doosje, Ellemers, and Spears (1995). These three instruments were highly correlated ($r_{s[87]} > .58$, $ps < .001$). We therefore standardised each measure (z scores) and averaged them to create a composite index of identification ($\alpha = .86$). Separate analyses for each individual measure yielded the same pattern of results.

Attachment dimensions. To assess avoidance and anxiety, we administered the Experiences in Close Relationships Questionnaire – Revised (ECR-R; Fraley, Waller, & Brennan, 2000; see also Tsagarakis, Kafetsios, & Stalikas, 2007, for a similar Greek version).

Our objective was to treat avoidance (and anxiety) as a continuous independent variable in conjunction with the experimental manipulation of group-based exclusion, creating a Group-Based Exclusion $\times$ Avoidance design. It is therefore desirable that group-based exclusion did not influence trait-level avoidance (or anxiety). To examine this, we tested and ascertained that social exclusion did not significantly affect either avoidance, $F(1, 85) < 1$, or anxiety, $F(1, 85) < 1$ (see Table 1 for relevant means and standard deviations). As

intended, the group-based exclusion manipulation was orthogonal to trait-level avoidance (and anxiety).

Results

We used moderated Analysis of Covariance (ANCOVA). We contrast coded the group-based exclusion manipulation (-1 = control, 1 = group-based exclusion) and mean-centred avoidance, treating it as a continuous independent variable (i.e., covariate).

Manipulation Check: Felt Exclusion

A Group-Based Exclusion × Avoidance ANCOVA revealed a significant main effect of group-based exclusion on felt exclusion, $F(1, 83) = 46.68, p < .001, \eta^2 = .36$. As intended, participants in the group-based-exclusion condition felt more excluded than those in the control condition (Table 1). Results further produced a marginal positive association between avoidance and felt exclusion, $B = .27, SE = .14, F(1, 83) = 3.83, p = .054, \eta^2 = .04$. The Group-Based Exclusion × Avoidance interaction was not significant, indicating that the effectiveness of the group-based exclusion manipulation was not qualified by avoidance, $F(1, 83) < 1$.

Nostalgia

To test our main hypothesis, we entered nostalgia as dependent variable in a Group-Based Exclusion × Avoidance ANCOVA. The analysis revealed a significant negative association between avoidance and nostalgia, $B = -.26, SE = .12, F(1, 83) = 4.57, p = .035, \eta^2 = .05$. This association was qualified by the hypothesised Group-Based Exclusion × Avoidance interaction, $F(1, 83) = 5.57, p = .021, \eta^2 = .06$ (Figure 1). Because avoidance is a continuous variable, we probed this interaction using the Johnson and Neyman (1936) technique (Hayes, 2013). This technique identifies for each observed value of the moderator (avoidance) whether the independent variable (group-based exclusion) significantly influences the dependent variable (nostalgia). This technique, then, reveals the regions of the avoidance continuum where the effect of group-based exclusion on nostalgia is statistically significant ($p < .05$) and where it is not. For avoidance scores below the observed value of 1.60, group-based exclusion significantly increased nostalgia. Unexpectedly, for avoidance scores above the observed value of 4.70, group-based exclusion significantly decreased nostalgia. Stated otherwise, excluded participants

turned to nostalgia when they were low in avoidance and rejected nostalgia when they were high in avoidance. From a different angle, simple slope tests revealed that, in the group-based-exclusion condition, there was a significant negative association between avoidance and nostalgia, $B = -.54$, $SE = .19$, $F(1, 83) = 8.23$, $p = .005$, $\eta^2 = .09$. In the control condition, avoidance was not significantly associated with nostalgia, $B = .03$, $SE = .15$, $F(1, 83) < 1$.

In a supplementary analysis, we included anxiety and the Group-Based Exclusion $\times$ Anxiety interaction as additional independent variables. This analysis did not reveal additional significant effects. Importantly, the focal Group-Based Exclusion $\times$ Avoidance interaction remained significant when we controlled for anxiety, $F(1, 81) = 5.72$, $p = .019$, $\eta^2 = .07$.

Ingroup Identification

A Group-Based Exclusion $\times$ Avoidance ANCOVA yielded a significant negative association between avoidance and identification only, $B = -.28$, $SE = .10$, $F(1, 83) = 8.69$, $p = .004$, $\eta^2 = .10$. Neither the group-based exclusion main effect, $F(1, 83) < 1$ (Table 1), nor the Group-Based Exclusion $\times$ Avoidance interaction, $F(1, 83) < 1$, were significant. A supplementary analysis, in which we included anxiety and the Group-Based Exclusion $\times$ Anxiety interaction as additional independent variables, produced identical results.

Moderated Mediation Analyses

The analysis of identification indicated that neither the group-based exclusion main effect nor the Group-Based Exclusion $\times$ Avoidance interaction was significant. However, current approaches to mediational analyses do not regard a significant total effect as a *sine qua non* for testing indirect effects (Hayes, 2013). Accordingly, we investigated whether group-based exclusion increases identification via increased nostalgia, and whether it does so in particular when avoidance is low (vs. high).

The analysis of nostalgia revealed that group-based exclusion increased nostalgia when avoidance was low (and reduced nostalgia when avoidance was high). Furthermore, there was a significant positive correlation between nostalgia and identification, $r(87) = .30$, $p = .005$. This association was not qualified by avoidance; Avoidance $\times$ Nostalgia, $F(1, 83) < 1$. For low-avoidance individuals group-based exclusion may increase identification via

increased nostalgia. For high-avoidance individuals, however, group-based exclusion may decrease identification via decreased nostalgia.

To test these conditional indirect effects, we specified an intervening-variable model (Figure 2) in which the effect of group-based exclusion (independent variable) on nostalgia (mediator) is qualified by avoidance (moderator). Here, neither the effect of group-based exclusion on identification (dependent variable), nor the association between nostalgia and identification is qualified by avoidance. We used the PROCESS macro to test the model (Model 7; 5,000 resamples; Hayes, 2013). PROCESS calculates bootstrap confidence intervals (CIs) for the indirect effect (denoted as *ab*) of group-based exclusion on identification via nostalgia, conditional upon avoidance (low vs. high). We selected the conditional values of avoidance (low vs. high) based on the Johnson and Neyman (1936) regions-of-significance analysis reported above. For low avoidance, we selected the conditional value of 1.60, which demarcates the point on the avoidance continuum below which group-based exclusion significantly increased nostalgia. For high avoidance, we selected the conditional value of 4.70, which demarcates the point on the avoidance continuum above which group-based exclusion significantly decreased nostalgia.

When avoidance was low (1.60), the indirect effect of group-based exclusion on identification via nostalgia was significant. Group-based exclusion (vs. control) increased identification via increased nostalgia, $ab = .088$, $SE = .051$, 95% CI: .011, .217. When avoidance was high (4.70), the indirect effect of group-based exclusion on identification via nostalgia was also significant. Group-based exclusion (vs. control) decreased identification via reduced nostalgia, $ab = -.121$, $SE = .074$, 95% CI: -.322, -.014.

Discussion

Nostalgia in Response to Group-Based Exclusion

Individual and group-based exclusion are unique phenomena worthy of independent analysis (Betts & Hinsz, 2013). Extending previous work on the link between individual exclusion and nostalgia (Wildschut et al., 2010; Zhou et al., 2008), we charted the effect of group-based exclusion on nostalgia. Group-based exclusion increased nostalgia when avoidance was low but not when avoidance was high. This finding substantiates the ideas that

(1) individuals recruit nostalgia to redress relational deficiencies stemming from group-based exclusion and (2) low avoidants are more apt to redress such relational deficiencies by drawing upon nostalgia. Also, avoidance was negatively associated with nostalgia in the group-based exclusion condition but not in the control condition. Assuming that the attachment-behavioural system is more strongly activated in the group-based exclusion condition (i.e., when relational deficiencies are high), this finding supports the idea that attachment-related individual differences are manifested most clearly when the attachment-behavioural system is active (Mikulincer & Shaver, 2003, 2008).

When avoidance was high, group-based exclusion reduced nostalgia. Although we did not anticipate this finding, it is nonetheless consistent with attachment theory. Individuals who have not attained a sense of attachment security rely on secondary strategies of distress regulation (as opposed to proximity-seeking). These strategies fall into two categories: deactivation and hyperactivation (Mikulincer & Shaver, 2003, 2008). Individuals who are high (vs. low) in avoidance rely on deactivating strategies. When distressed, they eschew closeness and emphasise self-reliance. Individuals who are high (vs. low) in anxiety use hyperactivating strategies. They compulsively seek closeness when distressed and ruminate about threats to their relationships. The finding that, for high avoidants, group-based exclusion reduced nostalgia is consistent with the ideas that (1) nostalgia is an indirect strategy for acquiring closeness and (2) avoidant individuals shun closeness when confronted with distressing group-based exclusion. The findings for high avoidants, then, may reflect their reliance on deactivating strategies.

Nostalgia and Ingroup Identification

Our second goal was to examine if nostalgia increases identification following group-based exclusion. Reflecting on nostalgic experiences strengthens social bonds (Sedikides et al., in press; Stephan et al., 2014; Van Dijke et al., 2015; Wildschut et al., 2006, 2010, 2014; Zhou et al., 2012). On this basis, we hypothesised that those participants who experienced strong nostalgia would identify more strongly with the national ingroup. Consistent with this hypothesis, nostalgia was positively correlated with identification. This finding set the stage for testing the indirect effect of group-based exclusion on identification via nostalgia,

conditional upon avoidance. For low avoidants, group-based exclusion (vs. control) strengthened identification via increased nostalgia. Conversely, for high avoidants, group-based exclusion (vs. control) weakened identification via reduced nostalgia. Low avoidants react to the distress of group-based exclusion with appropriate proximity-seeking in the form of nostalgia, resulting in closer ties to the ingroup. High avoidants, however, react with deactivating strategies. They shun the closeness afforded by nostalgia, thereby distancing themselves further from the ingroup.

The Role of Anxiety

Anxiety did not qualify the effect of group-based exclusion on nostalgia. This null finding is compatible with prior evidence that anxiety does not qualify the effect of individual exclusion on nostalgia (Wildschut et al., 2010). More generally, research concerning the relation between anxiety and support seeking is inconclusive. Whereas some studies have found a negative association between anxiety and support seeking (Florian, Mikulincer, & Bucholtz, 1995), other studies have found a positive association between anxiety and support seeking (Ognibene & Collins, 1998), and still other studies have found no association (Collins & Feeney, 2000; Larose, Boivin, & Doyle, 2001; Simpson, Rholes, & Nelligan, 1992). One complication is that support-seeking strategies—including nostalgia—may reflect appropriate proximity-seeking characteristic of secure attachment (low anxiety and low avoidance) but also reliance on hyperactivating strategies (e.g., clinging) characteristic of high anxiety (Feeney, 2006). Whether nostalgia reflects confidence (low anxiety) or hypervigilance (high anxiety) regarding the availability of others may depend on contextual factors whose identification presents a challenge for future research.

Limitations and Future Directions

The present work has limitations that future research would do well to address. First, the finding that group-based exclusion reduced nostalgia among high avoidants, although consistent with attachment theory, was not anticipated. Therefore, this finding is in need of replication. This could take the form of a replicate-and-extend approach, in which one would examine the reproducibility of our current findings and in addition compare the effects of group-based exclusion directly with the effects of individual-level exclusion. Stated

otherwise, one would replicate our study with an additional individual-level exclusion condition. Second, the evidence we provided for a link between nostalgia and identification is correlational. A more rigorous test of the present moderated mediation model could manipulate the putative mediator (i.e., nostalgia) to test its causal impact on the outcome (i.e., identification). Finally, we proposed that nostalgia increases identification by virtue of its capacity to strengthen social bonds. Future research could test this mediational chain (nostalgia $\Rightarrow$ social bonding $\Rightarrow$ identification).

Conclusion

Nostalgia, by virtue of its sociality, serves as an indirect strategy to regulate relational deficiencies stemming from group-based exclusion. For low avoidants, who rely on social bonds to regulate distress, group-based exclusion increased nostalgia. Nostalgia, in turn, increased identification. These findings conceptually replicated previous evidence concerning the link between individual exclusion and nostalgia, and the role of avoidance therein. The present research thereby demonstrates the ubiquitous influence of attachment-related individual differences across widespread domains of psychological functioning and takes an important step toward identifying nostalgia as a general, adaptive response to belongingness threats at both the individual and collective level.

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Table 1

Means and Standard Deviations of Measures by Exclusion Condition

Measure	Exclusion condition			
	Group-based exclusion		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Manipulation check (Felt exclusion)	3.90	1.28	2.07	1.21
Nostalgia	4.48	1.13	4.43	1.09
Ingroup identification	0.08	0.79	-0.05	0.94
Attachment-related avoidance	2.81	0.97	2.78	1.00
Attachment-related anxiety	3.48	1.07	3.53	1.13

Appendix

Measures: Items, Means, Standard Deviations, and Internal Consistencies of Respective Scales

Measure (Name; Authors; Items)	<i>M</i>	<i>SD</i>	α
<i>Manipulation check: Felt exclusion</i> (Aydin, Fischer, & Frey, 2010)	2.81	1.53	.83
In the event that I just described,			
1. ... being Greek made me feel alone.			
2. ... people around me treated me in an unloving way.			
3. ... I felt that people surrounding me didn't like me.			
<i>Nostalgia</i> (Batcho, 1995)	4.45	1.10	.89
Please indicate how nostalgic you feel about each of the			
persons, situations, or events that you will see on the next			
screens. Answer what you feel <u>at this moment</u> .			
1. my family			
2. vacations I went on			
3. places			
4. music			
5. someone I loved			
6. my friends			
7. things I did			
8. the way people were			
9. my heroes/heroines			
10. feelings I had			
11. having someone to depend on			
12. not having to worry			
13. the way society was			
14. my pets			
15. not knowing sad or evil things			

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16. my family house			
17. my church/religion			
18. dinner with celebration			
19. the Greek Easter			
20. traditional Greek customs			
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Identification with the national ingroup; (1) Identity subscale	3.97	1.36	.68
(Collective Self-Esteem; Luhtanen & Crocker, 1992)			
1. Overall, being Greek has very little to do with how I feel about myself. ^a			
2. Being Greek is an important reflection of who I am.			
3. Being Greek is unimportant to my sense of what kind of a person I am. ^a			
4. In general, being Greek is an important part of my self-image.			
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Identification with the national ingroup; (2) Centrality subscale (In-Group Identification; Leach et al., 2008)	4.29	1.47	.79
1. I often think about the fact that I am Greek.			
2. The fact that I am Greek is an important part of my identity.			
3. Being Greek is an important part of how I see myself.			
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Identification with the national ingroup; (3) Group Identification	5.28	1.18	.88
(Doosje, Ellemers, & Spears, 1995)			
1. I identify with the Greeks.			
2. I see myself as a Greek.			
3. I am glad to be Greek.			
4. I feel strong ties with the Greeks.			
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Attachment-related avoidance and Attachment-related anxiety			
(Experiences in Close Relationships Questionnaire – Revised; ECR-R; Fraley, Waller, & Brennan, 2000)			

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Attachment-related avoidance 2.79 0.98 .91

1. I tell my partner just about everything.^a
2. I find it relatively easy to get close to my partner.^a
3. I find it difficult to allow myself to depend on romantic partners.
4. I am nervous when partners get too close to me.
5. I usually discuss my problems and concerns with my partner.^a
6. I feel comfortable sharing my private thought and feelings with my partner.^a
7. I don't feel comfortable opening up to romantic partners.
8. I prefer not to show a partner how I feel deep down.
9. I get uncomfortable when a romantic partner wants to be very close.
10. I find it easy to depend on romantic partners.^a
11. My partner really understands me and my needs.^a
12. It helps to turn to my romantic partner in times of need.^a
13. I feel comfortable depending on romantic partners.^a
14. I am very comfortable being close to romantic partners.^a
15. I prefer not to be close to romantic partners.
16. It's not difficult for me to get close to my partner.^a
17. I talk things over with my partner.^a
18. It's easy for me to be affectionate with my partner.^a

Attachment-related anxiety 3.51 1.10 .90

1. I often worry that my partner doesn't really love me.
2. I often worry that my partner will not want to stay

- with me.
3. I find that my partner(s) don't want to get as close as I would like.
4. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
5. I do not often worry about being abandoned.^a
6. I worry that romantic partners won't care about me as much as I care about them.
7. My partner only seems to notice me when I'm angry.
8. My desire to be very close sometimes scares people away.
9. It makes me mad that I don't get the affection and support I need from my partner.
10. I often wish that my partner's feeling for me were as strong as my feelings for him or her.
11. Sometimes romantic partners change their feelings about me for no apparent reason.
12. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
13. I'm afraid I will lose my partner's love.
14. I rarely worry about my partner leaving me.^a
15. My romantic partner makes me doubt myself.
16. When my partner is out of sight, I worry that he or she might become interested in someone else.
17. I worry a lot about my relationships.
18. I worry that I won't measure up to other people.

Note. Measures were administered in Greek. ^a Item was reverse-coded for the analyses.

Figure 1. Nostalgia as a function of group-based exclusion and attachment-related avoidance.

Plotted values are predicted means conditioned at low and high avoidance values. We selected the conditional values of avoidance based on a Johnson and Neyman (1936) regions-of-significance analysis. For low avoidance, we selected the conditional value of 1.60, which demarcates the point on the avoidance continuum below which group-based exclusion (vs. control) significantly increased nostalgia. For high avoidance, we selected the conditional value of 4.70, which demarcates the point on the avoidance continuum above which group-based exclusion (vs. control) significantly decreased nostalgia. Error bars represent standard errors.

Figure 2. Schematic representation of the intervening variable model tested in this experiment. Edwards and Lambert (2007) labelled this a first stage moderation model and Hayes (2013) described it as Model 7.