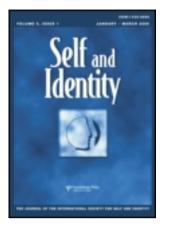
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# Self and Identity

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# Nostalgia as a Resource for the Self

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# Nostalgia as a Resource for the Self

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This research tested whether nostalgia serves as a positive resource for the self. In Experiment 1, nostalgia was induced and the accessibility of positive self-attributes was assessed. Participants who thought about a nostalgic experience, relative to those who thought about a positive future experience, evidenced heightened accessibility of positive self-attributes. In Experiment 2, participants received negative or positive performance feedback and then thought about a nostalgic or ordinary past experience. Subsequently, they were given the opportunity to make internal attributions for their performance. Participants displayed a typical pattern of self-serving attributions if they were not given the opportunity to engage in nostalgia. Nostalgic engagement, however, attenuated this effect. Nostalgia indeed functions as a positive resource for the self.

Keywords: Feedback; Nostalgia; Self; Self-concept accessibility; Self-serving bias.

When Rick Blaine (Humphrey Bogart) tells Ilsa Lund (Ingrid Bergman) that they will "always have Paris" in the movie *Casablanca*, he showcases the human capacity to revisit psychologically momentous events in the past. If the movie were to have followed these characters into the future, it is likely that both would have experienced periods of sentimental longing for the time they spent in the shadow of the Eiffel Tower. The purpose of the present research was to explore further the positive psychological benefits that the experience of sentimentality for the past, or

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*nostalgia*, confers to the self. Recent perspectives on nostalgia suggest that one key benefit of nostalgia is its bolstering effect on self-esteem (Wildschut, Sedikides, Arndt, & Routledge, 2006). The present work builds from this finding to identify two additional self-relevant functions served by nostalgic reverie. We examine whether nostalgia increases the cognitive accessibility of positive self-attributes (Experiment 1) and reduces self-serving attributions in response to performance feedback (Experiment 2).

Early conceptualizations of nostalgia viewed the emotion primarily as a form of psychological dysfunction (Hofer, 1688/1934) and linked it to negative states such as depression (McCann, 1941) and homesickness (Davis, 1979). This is perhaps not surprising, given that many of the "symptoms" thought to be associated with bouts of nostalgia were negative (e.g., anxiety, sadness). However, evidence that individuals associate affectively warm concepts (e.g., warm, childhood) more frequently with nostalgia than with homesickness (Davis, 1979) paved the way for a conceptualization of nostalgia as a primarily positive experience colored with some bittersweet elements (Sedikides, Wildschut, Arndt, & Routledge, 2006; Sedikides, Wildschut, & Baden, 2004). A content analysis of nostalgic narratives provided direct support for such a conceptualization by showing that nostalgia carries a predominantly positive affective signature (Wildschut et al., 2006). Moreover, this content analysis revealed that nostalgic narratives feature the self as an active and central player, critically hinting at a distinction between nostalgic reverie and other time-oriented psychological states (e.g., remembering). Thus, the contemporary view of nostalgia is that it is a self-relevant emotion colored with positive affective qualities and potential self-relevant benefits (Sedikides, Wildschut, Arndt, & Routledge, 2008).

Recent work has built from this contemporary conceptualization to elucidate dynamic functions of nostalgia. Initial research found negative affect and loneliness to be specific catalysts of nostalgic reverie (Wildschut et al., 2006), inspiring subsequent forays into the possibility that nostalgia functions to restore positive moods and feelings of social connectedness. Consistent with this possibility, experimental inductions of nostalgia increase positive affect and feelings of affiliation (Wildschut et al., 2006; Wildschut, Sedikides, Routledge, Arndt, & Cordaro, 2010). Research has also shown that nostalgia confers more direct benefits to the self by amplifying explicit self-esteem (Wildschut et al., 2006) and buffering individuals from the negative impact of existential threats on perceptions of meaning in life, deathrelated anxiety, and associated defenses (Juhl, Routledge, Arndt, Sedikides, & Wildschut, 2010; Routledge, Arndt, Sedikides, & Wildschut, 2008). This research has notably contrasted the effects of nostalgia with relevant control topics, including: autobiographical memories for ordinary events (e.g., Routledge et al., 2008) and memories for positive past events (Hepper, Ritchie, Sedikides, & Wildschut, 2010). These contrasts suggest that nostalgia can be distinguished from simply reflecting on any positive memory or event. Moreover, similar effects using dispositional measures of nostalgia, as well as other naturalistic nostalgia inducements (e.g., music), have been observed and can not be accounted for by variations in mood or self-esteem (Barrett et al., 2010; Wildschut et al., 2010). The extant research thus supports the validity of the nostalgia construct and highlights its self-relevant functions (e.g., bolstering self-esteem).

Drawing from this previous work, the aim of the present investigation was to elucidate further the self-relevant benefits of even relatively brief inducements to

engage in nostalgic reverie. Experiment 1 moved beyond explicit evaluations of the self (Wildschut et al., 2006, 2010) to assess whether nostalgia also increases the accessibility of positive self-attributes. Although research has yet to clarify the effects of nostalgia on the cognitive activation of self-characteristics, some findings indicate that nostalgic reflection evokes memories of the self playing an active role in what are generally positive, or at least redemptive, events (Wildschut et al., 2006). Hence, reflecting on nostalgic events may activate associations with positive features of the self and consequently increase the cognitive accessibility of positive self-characteristics. Experiment 2, in turn, considered another unexplored function of nostalgia by examining whether nostalgia mitigates self-serving attributions (Campbell & Sedikides, 1999; Mezulis, Abramson, Hyde, & Hankin, 2004). One of the unique characteristics of nostalgia is the breadth of benefits that it confers on the self. In particular, nostalgia strengthens social bonds and counteracts loneliness (Wildschut et al., 2010; Zhou, Sedikides, Wildschut, & Gao, 2008), increases self-esteem (Wildschut et al., 2006), and buffers the negative existential consequences of reflecting on personal mortality (Routledge et al., 2008). Together, these benefits implicate nostalgia as a potential mechanism through which individuals buttress the self against a variety of threats (e.g., social exclusion). Nostalgia may therefore function similarly to other self-affirmation resources (Kumashiro & Sedikides, 2005; Steele, 1988) in mitigating defensive responses to self-esteem threats. Experiment 2 assessed this possibility in an effort to broaden the scope of nostalgia's self-protective functions.

## **Experiment** 1

Experiment 1 examined the effects of nostalgia on the accessibility of positive selfattributes. Participants considered either a nostalgic event or a positive event in their future, and subsequently categorized positive and neutral personality traits as self-descriptive or not. We used categorization speed as an index of concept accessibility (Bargh & Chartrand, 2000). Past research has contrasted the effects of nostalgia with reflections on ordinary events and past autobiographical events, as in experiments showing that reflections on nostalgic events engender greater explicit self-esteem than do reflections on ordinary past events (Wildschut et al., 2006). This research has also often used state nostalgia manipulation checks and confirmed that the treatment does in fact increase in-the-moment nostalgia (Wildschut et al., 2006, 2010; Zhou et al., 2008). However, research has yet to assess whether nostalgic reflection has unique effects relative to the consideration of a positive event in the future. We remedied this deficiency in Experiment 1. Moreover, we measured positive and negative affect immediately after the nostalgia induction to assess whether any observed effects were driven by general affective consequences of nostalgic reverie. This is a crucial addition to the experimental procedure, given previous findings that nostalgic reflection improves mood (Wildschut et al., 2006).

We hypothesized that nostalgic engagement would increase the accessibility of positive self-attributes relative to the consideration of a future positive event. Reflecting on a nostalgic event and considering a future positive event may engender comparable degrees of positivity, but nostalgic reverie has the potential to bring online specific memories where the self is a central player in a positive chain of events (Wildschut et al., 2006). We expected the activation of these cognitive structures to bring online positive features of the self, thus increasing the speed at which nostalgic participants categorized positive self-attributes.

## Method

#### Participants and Procedure

Thirty (15 female)<sup>1</sup> psychology students (age: M = 18.8, SD = 1.19) participated in a study on "personality and categorization speed" for course credit. They completed all materials on computers.

#### Materials

*Event reflection.* Participants were randomly assigned to either the nostalgic event reflection or future positive event reflection (control) task. Participants in the nostalgia condition were instructed to "bring to mind a nostalgic event in your life. Specifically, try to think of a past event that makes you feel most nostalgic." Participants in the control condition were given parallel instructions about a positive event in their future. All participants were then asked to generate four keywords associated with the corresponding event and to take a few moments to think about the event and how it makes them feel. These instructions remained on the screen for 30 seconds. Previous research using this manipulation attests to its validity, as the manipulation has consistently been shown to elicit the desired differences in state nostalgia (Routledge et al., 2008; Wildschut et al., 2006, 2010; Zhou et al., 2008).

Affect. Next, participants completed the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS asks participants to indicate the extent to which they currently feel a variety of emotions (e.g., "excited," "scared") on a 1 (very slightly or not at all) to 5 (extremely) scale. Both positive  $(M = 3.15, SD = 0.85, \alpha = .87)$  and negative affect  $(M = 1.60, SD = 0.47, \alpha = .73)$  are assessed.

*Me*/*Not Me task.* Finally, participants completed a Me/Not Me task (Markus, 1977) used in recent self-concept accessibility research (Schlegel, Hicks, Arndt, & King, 2009). Participants were presented with a series of personality traits and instructed to press the "Z" key (labeled Me) if the trait was descriptive of them or the "/" key (labeled Not Me) if the trait was not descriptive. Each trait was presented randomly in the center of the screen and remained there until categorization. After categorization, a blank screen appeared for 1 second, followed by the next trait. The response latency from stimuli onset to categorization was recorded with shorter latencies indicative of greater concept accessibility (Bargh & Chartrand, 2000). Following six practice trials, participants categorized 13 positive and 20 neutral traits. We included a disproportionate number of neutral traits so that an adequate number would be selected to allow for a computation of mean response latencies. We selected positive traits from the positive evaluative items that Greenwald and Farnham (2000) used to develop an Implicit Association Test of self-esteem. We selected neutral traits from those rated in the middle range of Anderson's (1968) likeability ratings of 555 personality traits (M = 254.14, ranking range = 189-334).

#### **Primary Analyses**

"Me" categorization. A repeated-measures analysis of variance (ANOVA) on the number of words categorized as "me" revealed no difference between positive (M = 11.13, SD = 2.08) and neutral (M = 10.07, SD = 3.44) words, F(1, 29) = 2.00,  $p = .16, \eta_p^2 = .07$ . Despite the disproportionate number of neutral traits, participants still manifested a directional tendency to endorse more strongly positive traits, as would be expected from past research (Sedikides & Gregg, 2003, 2008). Also, participants did not differ in the number of positive words,  $(M_{nostalgia} = 10.80, SD = 2.48 \text{ vs. } M_{future} = 11.47, SD = 1.60); t(28) = 0.87, p = .39, d = 0.32, and neutral$  $words, <math>(M_{nostalgia} = 9.73, SD = 3.03 \text{ vs. } M_{future} = 10.40, SD = 3.88); t(28) = 0.52, p = .61, d = 0.19$ , that they categorized as "me."

Self-attribute accessibility. We log-transformed response latencies (RTs; in milliseconds) for traits categorized as "me," and replaced values more than 3 SDs above and below the mean RT with those cut-off values. We used the resulting transformed values to create mean positive self-attributes (M = 3.00, SD = 0.09) and mean neutral self-attributes (M = 3.05, SD = 0.09) RTs. We then calculated a positive self-attribute accessibility index (PSA) that controlled for individual differences in categorization speed as the standardized residual of a regression with neutral self-attribute RTs predicting positive self-attribute RTs (Robinson, 2007). These residuals contained only the variance in categorization speed associated with positive self-attributes. Lower residual values indicate quicker response latencies and hence greater positive self-attribute accessibility (Schlegel et al., 2009).

We proceeded to subject PSA scores to a *t*-test comparing the two conditions. Participants in the nostalgia condition evidenced faster RTs to positive self-attributes (M = -0.40, SD = 0.61) than participants in the future positive event condition (M = 0.20, SD = 0.97), t(27) = 4.05, p = .05, d = 0.74.<sup>2</sup>

#### Ancillary Analyses

A set of analyses focused on affect indicated that participants in the control condition reported more positive affect, (M = 3.45, SD = 0.83 vs. M = 2.85, SD = 0.79); t(28) = 2.05, p < .05, d = 0.74, and marginally more negative affect, (M = 1.76, SD = 0.54 vs. M = 1.43, SD = 0.33); t(28) = 2.00, p < .06, d = 0.73, than participants in the nostalgia condition. However, controlling for positive and negative affect did not attenuate the primary results described above,  $F(1, 25) = 4.10, p = .05, \eta_p^2 = .14$ . Furthermore, we conducted analyses controlling for the number of attributes categorized as "me." The primary results remained unaltered, F(1, 25) = 4.98,  $p < .05, \eta_p^2 = .17$ .

#### Discussion

Experiment 1 showed that nostalgic reverie amplifies the accessibility of positive selfattributes. Participants who reflected on a nostalgic (vs. future positive) event were faster to categorize positive self-attributes, and controlling for individual differences in categorization speed and affect could not account for this effect. Moreover, the nostalgic and future positive event conditions did not differ in the overall number of traits categorized as "me," helping to rule out an alternative explanation for the observed effects. One might argue that the latency differences emerged due to participants in the positive event condition categorizing more marginally descriptive traits as "me." Such categorization tendencies would consequently take longer to make, leading to larger response latencies. The data rule out this possibility. Thus, the results support a previously unrecognized function of nostalgia: the cognitive activation of positive self-attributes. These results are particularly evocative, given that they were obtained with a relatively brief inducement of nostalgic engagement and without specific direction for participants to reflect on positive memories involving the self.

## **Experiment 2**

The results of Experiment 1 contribute to the growing literature documenting the utility of nostalgia for the self. Nostalgia serves a diverse array of functions, ranging from its buffering effects on loneliness (Sedikides, Wildschut, Routledge, Arndt, & Zhou, 2009; Zhou et al., 2008) to its enhancing effects on explicit self-esteem (Sedikides et al., 2009; Wildschut et al., 2006). The breadth of these functions suggests that nostalgic reverie serves to affirm the self, protecting it from threat. Indeed, research inspired by self-affirmation theory (Steele, 1988) has shown how affirmations of the self can reduce the defensiveness that typically occurs in response to self-relevant threats (Sherman & Cohen, 2006). Might nostalgic reverie operate in a similar fashion to affirm the self and thus foster self-security in the face of threat?

If nostalgic engagement affirms the self, then it should function as a protective resource that mitigates the potentially self-defeating consequences of self-esteem threats (Alicke & Sedikides, 2009; Green, Sedikides, & Gregg, 2008). One well documented response to self-esteem threat is an attributional pattern where individuals take more credit for their successes and less credit for their failures (Campbell & Sedikides, 1999; Sedikides, Campbell, Reeder, & Elliot, 2002). Such judgments have a range of consequences, many of which bode poorly for self-improvement (Sedikides, 2009; Sedikides & Strube, 1997). However, typical self-affirmation exercises that ask participants to affirm their core values reduce these defensive responses (Sherman & Cohen, 2006). Given its affirming effect on social bonds and self-worth, we expected nostalgia to operate similarly.

Participants in Experiment 2 thus received either positive or negative feedback regarding their performance on a purported test of analytic reasoning (The Remote Associates Test or RAT; Mednick, 1962) and subsequently completed the reflection task(s) used in Experiment 1. Afterwards, they indicated the extent to which their test performance was due to their ability. Based on the foregoing analysis, we hypothesized that participants in the nostalgia condition would attribute failure more to their ability, and would attribute success less to their ability, than control participants.

#### Method

#### **Participants and Procedure**

Fifty-six (29 female) psychology students (M = 18.5, SD = 0.91) participated for course credit in a study ostensibly interested in the "relationship between personality and analytical reasoning." We excluded three participants from analyses due to their suspicions about the legitimacy of the RAT.

#### Materials

*Feedback manipulation.* The experimenter distributed the RAT, and further described it as an analytic reasoning test that accurately predicts professional and academic success. The RAT presents participants with sets of three words that are linked together in some way by a fourth word. The objective is to identify correctly the linking fourth word for each set. Following previous research (McFarlin & Blascovich, 1984), participants were randomly assigned to a difficult (negative feedback) or easy version of the RAT (positive feedback). Participants were allotted 3 minutes to solve 10 RAT items and were then given a scoring key. The scoring key provided the correct answers to each RAT item and indicated how one's score compared to other students' scores: 0–4 were labeled "*below average for university students*," 5–6 were labeled "*average*," and 7–10 were labeled "*above-average*." Thus, participants in the difficult RAT condition received negative performance feedback and participants in the relatively easy condition received neutral to positive performance feedback.

*Affect.* Following the RAT, participants completed the PANAS (Watson et al., 1988) described in Experiment 1 (positive affect,  $\alpha = .90$ ; negative affect,  $\alpha = .88$ ).

*Event reflection.* Participants next completed the event reflection task manipulation. The task was identical to that of Experiment 1, except we used a different control topic: an ordinary event that occurred during the last week. As noted earlier, this topic has been used in previous research, which has shown that this manipulation yields the predicted differences on measures of state nostalgia (Routledge et al., 2008; Wildschut et al., 2006, 2010; Zhou et al., 2008).

*Performance attribution.* Finally, participants responded to the question: "To what extent was your performance on the Remote Associates Test caused by your ability?"  $(1 = not \ at \ all; \ 7 = totally)$ . Higher scores reflect a stronger internal attribution for one's performance.

#### Results

#### Manipulation Checks

Participants in the difficult RAT condition (M = 1.36, SD = 1.66) solved fewer problems than those in the easy RAT condition (M = 6.43, SD = 1.83), t(51) = 10.51,p < .001, d = 2.90. These means corresponded to the feedback provided in the RAT interpretation key (e.g., scores 0–4 were "below average"). Moreover, a *t*-test comparing the feedback conditions revealed that, as expected, "failure" participants (M = 1.80, SD = 0.84) reported more negative affect than "success" participants (M = 1.44, SD = 0.35), t(51) = 2.07, p = .04, d = 0.56. No differences emerged for positive affect, but the pattern was consistent with expectations:  $M_{failure} = 2.82,$ SD = 1.07 versus  $M_{success} = 3.09, SD = 0.75, t(51) = 1.02, p = .31, d = 0.29$ . We conclude that the manipulations were effective.

#### Primary Analyses

We subjected performance attributions to a 2 (Event Reflection: nostalgia, ordinary) × 2 (Feedback: failure, success) ANOVA. There was no main effect of Event Reflection condition, F(1, 49) = 1.41, p = .24,  $\eta_p^2 = .03$ , but the Feedback

main effect was significant, F(1, 49) = 61.22, p < .001,  $\eta_p^2 = .56$ . Participants in the failure condition (M = 3.29, SD = 1.56) attributed their performance to their ability less than participants in the success condition (M = 5.64, SD = 0.78). More importantly, the Event Reflection × Feedback interaction was also significant, F(1, 49) = 12.65, p = .001,  $\eta_p^2 = .21$ .

There was a pronounced difference in performance attributions among success and failure participants who reflected on an ordinary past event, F(1, 49) = 69.18, p < .001,  $\eta_p^2 = .59$ . However, within the nostalgia condition, the self-serving attribution pattern, while still significant, was attenuated, F(1, 49) = 8.56, p = .01,  $\eta_p^2 = .15$ . Indeed, as seen in Table 1, within the failure condition, participants in the nostalgic event condition attributed their performance more to their ability than ordinary event participants, F(1, 49) = 10.57, p = .002,  $\eta_p^2 = .18$ . In contrast, within the success condition, nostalgia participants attributed their performance to their ability marginally less than participants in the ordinary event condition, F(1, 52) = 3.00, p < .09,  $\eta_p^2 = .06$ .

#### Discussion

Experiment 2 elucidates an additional way that nostalgia functions as a self resource. Consistent with previous research (Campbell & Sedikides, 1999; Mezulis et al., 2004), participants in the failure condition attributed their performance less to their ability than those in the success condition. However, participants in the failure condition who engaged in nostalgic reflection attributed their performance more to their ability than those who considered an ordinary event and nostalgia attenuated self-serving attributions. These results confirm the guiding hypotheses and indicate that nostalgic reverie serves as a self-affirming resource that mitigates the deleterious consequences of self-esteem threat.

## **General Discussion**

Two experiments illustrated how nostalgia serves as a resource for the self. In Experiment 1, nostalgic reverie led to faster categorizations of positive self-attributes than did contemplating a future positive event. This finding indicates that nostalgia, in addition to elevating explicit self-esteem (Wildschut et al., 2006), amplifies the accessibility of positive self-attributes. In Experiment 2, thinking about a nostalgic, compared to an ordinary, event reduced self-serving attributions in response to performance feedback. The use of two different control conditions across the experiments and the affect measures in Experiment 1 suggest that these results are not due simply to thinking about general past events, future positive events, or

TABLE 1	Attributions of RAT	Performance to	Ability as a	Function of	RAT and
Event Refle	ection in Study 2				

Feedback	Nostalgic event	Ordinary event
Success	$5.29_{a} (0.61)$	6.00 <sub>a</sub> (0.78)
Failure	$4.00_{b} (1.55)$	2.57 <sub>c</sub> (1.28)

*Note*: Standard deviations are in parentheses. Means with different subscripts differ from one another at p < .01.

mood. Taken together, the findings contribute to an emerging literature focused on understanding the self-relevant functions of nostalgia. Whereas previous research has explored how nostalgia affects social bonds (Zhou et al., 2008), meaning in life (Routledge et al., 2008), and explicit self-esteem (Wildschut et al., 2006), the present investigation shows that the benefits of nostalgic reflection extend to implicit selfpositivity and responses to self-esteem threats.

The latter findings suggest that reflecting on nostalgic events counteracts the motivation to self-enhance through other potentially damaging behaviors. For example, following self-relevant threats, individuals may derogate those who are different (Fein & Spencer, 1997), may self-handicap (Berglas & Jones, 1978), and may even display higher levels of aggression (Baumeister, Smart, & Boden, 1996). As evidenced by Experiment 2, nostalgic reflection protects the self from the types of ego-relevant threats that may provoke destructive responses. Although there might be affective consequences of not defending the self from evaluative threat, Experiment 2 suggests that nostalgia may confer self-affirming benefits that serve to buttress self-integrity and value in the face of negative events.

Future research could further explore the merits of this analysis by examining the effects of nostalgia on other defensive responses to threats (e.g., social comparison processes, openness to threatening information) and by further explicating the dynamics that underlie this process. For example, recent work has demonstrated that nostalgic reverie elicits a more abstract cognitive mindset (Stephan, Wildschut, Sedikides, & Robertson, 2010), a mindset also engendered by typical self-affirmation exercises (Wakslak & Trope, 2009) and associated with less defensive orientations to self-relevant threats (Freitas, Salovey, & Liberman, 2001). It is possible that this shift in cognitive abstraction may account for the self-buttressing effects of nostalgia. The present research provides a foundation for empirical efforts to assess the merits of this analysis and to harvest the wide range of positive benefits associated with nostalgia.

The current research also contributes to the understanding of how temporal thought can be used to maintain positive self-views. For instance, individuals show a temporal distance bias in their recollection of past success and failure: they construe negative past events farther away from one's current self and construe positive events as relatively recent (Ross & Wilson, 2002). In addition, individuals will take steps to protect special memories from corruption and decay (Zauberman, Ratner, & Kyu Kim, 2009). The self-enhancing benefits of nostalgia are consistent with this literature and point to a new line of research. Nostalgia may not only influence self-esteem, but self-esteem considerations may also help to structure the content and temporal priority of the events upon which one reflects nostalgically. For example, individuals who derive self-worth mostly from relationships (as opposed to personal achievements) may be particularly likely to become nostalgic about past interpersonal events (cf. Wildschut et al., 2010). Such possibilities highlight the integrative potential of nostalgia research with other central theories of self-esteem (e.g., contingencies of self-worth; Crocker & Wolfe, 2001).

Taken together, the present findings provide further insight into the self-relevant function of nostalgia. They suggest that reflecting on nostalgic aspects of the past bolsters the positivity of self-conceptions and prepares individuals to respond less defensively to the challenges and threats of the present. Thus, the ability to wax nostalgic about that romantic time in Paris may have served as an ever-present self-resource for *Casablanca*'s unforgettable lead duo, Rick and Ilsa.

### Notes

- 1. Given that no effects involving gender were observed in either experiment, such effects will not be discussed further.
- 2. An outlier (z-residual = 3.0) was excluded from these analyses.

## References

- Alicke, M., & Sedikides, C. (2009). Self-enhancement and self-protection: What they are and what they do. *European Review of Social Psychology*, 20, 1–48.
- Anderson, N. H. (1968). Likeableness ratings of 555 personality-trait words. Journal of Personality and Social Psychology, 9, 272–279.
- Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 253–285). New York, NY: Cambridge University Press.
- Barrett, F. S., Grimm, K. J., Robins, R. W., Wildschut, T., Sedikides, C., & Janata, P. (2010). Music-evoked nostalgia: Affect, memory, and personality. *Emotion*, 10, 390–403.
- Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review*, 103, 5–33.
- Berglas, S., & Jones, E. (1978). Drug choice as a self-handicapping strategy in response to noncontingent success. *Journal of Personality and Social Psychology*, 36, 405–417.
- Campbell, K. W., & Sedikides, C. (1999). Self-threat magnifies the self-serving bias: A metaanalytic integration. *Review of General Psychology*, 3, 23–43.
- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. Psychological Review, 108, 593–623.
- Davis, F. (1979). Yearning for yesterday: A sociology of nostalgia. New York, NY: Free Press.
- Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, 82, 527–542.
- Freitas, A. L., Salovey, P., & Liberman, N. (2001). Abstract and concrete self-evaluative goals. Journal of Personality and Social Psychology, 80, 410–424.
- Green, J. D., Sedikides, C., & Gregg, A. P. (2008). Forgotten but not gone: The recall and recognition of self-threatening memories. *Journal of Experimental Social Psychology*, 44, 547–561.
- Greenwald, A. G., & Farnham, S. D. (2000). Using the Implicit Association Test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology*, 79, 1022–1038.
- Hepper, E. G., Ritchie, T. D., Sedikides, C., & Wildschut, T. (2010). Odyssey's end: Lay conceptions of nostalgia reflect its original meaning. Manuscript submitted for publication.
- Hofer, J. (1934). Medical dissertation on nostalgia (C. K. Anspach, Trans.). Bulletin of the History of Medicine. 2, 376–391. (Original work published 1688).
- Juhl, J., Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2010). Fighting the future with the past: Nostalgia buffers existential threat. *Journal of Research in Personality*, 44, 309–314.
- Kumashiro, M., & Sedikides, C. (2005). Taking on board liability-focused feedback: Close positive relationships as a self-bolstering resource. *Psychological Science*, 16, 732–739.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63–78.
- McCann, W. H. (1941). Nostalgia: A review of the literature. *Psychological Bulletin*, 38, 165–182.
- McFarlin, D. B., & Blascovich, J. (1984). On the remote associates test (RAT) as an alternative to illusory performance feedback: A methodological note. *Basic and Applied Social Psychology*, 5, 223–229.

- Mednick, S. A. (1962). The associative basis of the creative process. *Psychological Review*, 69, 220–232.
- Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal positive bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychological Bulletin*, 130, 711–747.
- Robinson, M. D. (2007). Lives lived in milliseconds: Using cognitive methods in personality research. In R. W. Robins, R. C. Fraley, & R. Krueger (Eds.), *Handbook of research methods in personality psychology* (pp. 345–359). New York, NY: Guilford Press.
- Ross, M., & Wilson, A. E. (2002). It feels like yesterday: Self-esteem, valence of personal past experiences, and judgments of subjective distance. *Journal of Personality and Social Psychology*, 82, 792–803.
- Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2008). A blast from the past: The terror management function of nostalgia. *Journal of Experimental Social Psychology*, 44, 132–140.
- Schlegel, R. J., Hicks, J. A., Arndt, J., & King, L. A. (2009). Thine own self: True self-concept accessibility and meaning in life. *Journal of Personality and Social Psychology*, 96, 473–490.
- Sedikides, C. (2009). On self-protection and self-enhancement regulation: The role of selfimprovement and social norms. In J. P. Forgas, R. F. Baumeister, & D. Tice (Eds.), *The psychology of self-regulation: Cognitive, affective, and motivational processes* (pp. 73–92). New York, NY: Psychology Press.
- Sedikides, C., Campbell, W. K., Reeder, G., & Elliot, A. J. (2002). The self in relationships: Whether, how, and when close others put the self "in its place". *European Review of Social Psychology*, 12, 237–265.
- Sedikides, C., & Gregg, A. P. (2003). Portraits of the self. In M. A. Hogg & J. Cooper (Eds.), Sage handbook of social psychology (pp. 110–138). London, UK: Sage.
- Sedikides, C., & Gregg, A. P. (2008). Self-enhancement: Food for thought. Perspectives on Psychological Science, 3, 102–116.
- Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. Advances in Experimental Social Psychology, 29, 209–269.
- Sedikides, C., Wildschut, T., Arndt, J., & Routledge, C. D. (2006). Affect and the self. In J. P. Forgas (Ed.), *Affect in social thinking and behavior: Frontiers in social psychology* (pp. 197–215). New York, NY: Psychology Press.
- Sedikides, C., Wildschut, T., Arndt, J., & Routledge, C. (2008). Nostalgia: Past, present, and future. Current Directions in Psychological Science, 17, 304–307.
- Sedikides, C., Wildschut, T., & Baden, D. (2004). Nostalgia: Conceptual issues and existential functions. In J. Greenberg, S. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 200–214). New York, NY: Guilford Press.
- Sedikides, C., Wildschut, T., Routledge, C. R. Arndt, J., & Zhou, X. (2009). Buffering acculturative stress and facilitating cultural adaptation: Nostalgias as a psychological resource. In R. S. Wyer Jr., C.-Y. Chiu, & Y.-Y. Hong (Eds.), Understanding culture: Theory, research, and application (pp. 361–378). New York, NY: Psychology Press.
- Sherman, D. K., & Cohen, G. L. (2006). The psychology of self-defense: Self-affirmation theory. Advances in Experimental Social Psychology, 38, 183–242.
- Steele, C. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). New York, NY: Academic Press.
- Stephan, E., Wildschut, T., Sedikides, C., & Robertson, S. (2010). Nostalgia and psychological distance. Unpublished manuscript, University of Southampton, UK.
- Wakslak, C. J., & Trope, Y. (2009). Cognitive consequences of affirming the self: The relationship between self-affirmation and object construal. *Journal of Experimental Social Psychology*, 45, 927–932.

- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 55, 1063–1070.
- Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: Content, triggers, functions. Journal of Personality and Social Psychology, 91, 975–993.
- Wildschut, T., Sedikides, C., Routledge, C., Arndt, J., & Cordaro, F. (2010). Nostalgia as a repository of social connectedness: The role of attachment-related avoidance. *Journal of Personality and Social Psychology*, 98, 573–586.
- Zauberman, G., Ratner, R. K., & Kyu Kim, B. (2009). Memories as assets: Strategic memory protection in choice over time. *Journal of Consumer Research*, 35, 715–728.
- Zhou, X., Sedikides, C., Wildschut, T., & Gao, D.-G. (2008). Counteracting loneliness: On the restorative function of nostalgia. *Psychological Science*, 19, 1023–1029.