

Nostalgia for Ex-partners and Perceived Current Relationship Quality

By

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Abstract

Thinking about one's ex-romantic-partners is typically regarded as detrimental to people's current romantic relationship. However, thinking about past events and relationships in a nostalgic way is suggested to result in beneficial outcomes. In the current work, I examined whether nostalgia for an ex-partner influenced people's perception of current relationship quality and the underlying mechanism. In Study 1, I found that recalling nostalgic events about an ex-partner led people to report higher relationship quality, compared to recalling day-to-day ordinary events. In Study 2, I improved methodological limitations of Study 1, and further showed that recalling nostalgic memories about an ex-partner increased perceived current relationship quality, compared to neutral memories that either involved or not one's ex-partner. Additionally, I found that the positive effects of nostalgia for ex-partner on perceived current relationship quality was mediated by growth mindset.

Keywords: nostalgia, romantic relationship, growth mindset

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Nostalgia for ex-partners and perceived current relationship quality

Introduction

“From now on every time I pass by a Hawthorne Suites, I’ll remember you with the sweet sadness of having wanted more but grateful for the time spent together.”

“I loved how your hair was a big fluffy mess. Always. Here’s to a summer on a beach in Greece. Your name will always be a whisper in my heart.”

These are two examples of posts from the website *Dear Old Love* (<http://dearoldlove.tumblr.com/>), where people can share anonymous posts about people they loved. Thousands of notes demonstrate that people still have feelings toward their ex-partners (sometimes years after the breakup), regardless of whether they formed a new romantic relationship or not. Here, I focus on these feelings, and specifically whether different feelings, such as nostalgia for one’s ex-partner, influence individuals’ perception of their current romantic relationship.

It is a common finding in the close-relationship literature that being fixated or attached to past romantic relationships, either cognitively or behaviorally can have negative consequences (Griffith, Gillath, Zhao, & Martinez, 2017; Marshall, 2012). For example, Marshall (2012) showed that following one’s ex-partner online inhibited post-breakup adjustment and increased current distress. Likewise, Griffith and colleagues showed that being friends with one’s ex-partner could result in negative emotions, and interfere with forming new romantic relationships. Conversely, the nostalgia literature suggests that thinking about the past (past events and past relationships) in a nostalgic way is likely to result in positive outcomes. For example, Cox and colleagues found that browsing social media websites, such as *Dear Old Love* increased feelings

of nostalgia, and this nostalgic reverie promoted psychological and social health (Cox, Kersten, Routledge, Brown, & Van Enkevort, 2015).

Integrating these two lines of research depicts a mixed pattern of results regarding the impact of thinking about one's ex-partner on current relationship. In the current set of studies, I try to provide an explanation for these contradicting findings. First, I test whether nostalgia for one's ex-partner indeed benefits current relationship quality. Then I examine potential mediators of this link, specifically, the mechanism that allows nostalgia for ex-partners to potentially result in positive outcomes for current romantic relationships.

Thinking about Ex-partners: The Relationship Literature Perspective

People may still communicate- (Rodriguez et al., 2016), stay friends with- (Griffith et al., 2017), or even have emotional attachment to- their ex-partners (Spielmann, Joel, MacDonald, & Kogan, 2013) after forming a new romantic relationship. Relationship researchers often regard the social connections and positive emotional feelings towards ex-partners as a threat to one's current relationship (Rodriguez et al., 2016; Spielmann et al., 2013). Rodriguez et al. (2016) found people who continued to communicate with ex-partners were less committed to their current romantic relationships, compared to those who did not. Moreover, the more frequent people communicated, the less satisfied with and committed to the current relationship people were. Similarly, Spielmann and her colleagues (2013) using a 6-month longitudinal design, found that increased longing and emotional attachment to ex-partners over time predicted a decrease in relationship quality, although only among people who longed for recent ex-partners.

Attention to desirable relationship alternatives, or alternative potential mates, was found in different studies to result in harmful effects, such as decreased investment in and commitment to one's current relationship (Lydon, 2010). Despite the termination of their past relationships,

people may still hold unresolved romantic desire towards ex-partners (Rodriguez et al., 2016; Spielmann et al., 2013). A recent ex-partner is likely to be perceived as a desirable relationship alternative, and this perception, in turn, can lead to damaging effects on one's current relationship quality. Overall, the relationship literature paints a gloomy outcome for thinking about one's ex-partner.

Thinking about Ex-partners: The Nostalgia Literature Perspective

Nostalgia is defined as a sentimental longing or wistful affection to a past time, event, or a person (Wildschut, Sedikides, Arndt, & Routledge, 2006). Content analysis of the nostalgic memories shows that the memories are featured by events and times in which individuals were surrounded by close others (Wildschut et al., 2006). Such nostalgic memories entail a mix of bittersweet emotions, although sweet (e.g., positive or joyful) is extensively more prominent than bitter (e.g., negative or sad; Newman, Sachs, Stone, & Schwarz, 2019; Sedikides, Wildschut, Routledge, & Arndt, 2015). Feelings of nostalgia for one's ex-partner are likely to be very common, as ex-partners were important close others in the past. Despite the fact that the relationship with ex-partners ended in dissolution, the positive interactions people had with their partners (e.g., the initial crush, intimacy and passion, and highly emotionally involved moments spent together), are likely to linger in one's memory (Cox et al., 2015). Even the negative interactions people had with their partners (e.g., conflicts, betrayals) are likely to be softened in memories as time goes by (Stern, 1992). Thus, people may romanticize and feel nostalgic for their ex-partners. The implications of such nostalgia for ex-partners are unknown.

To date, the effects of nostalgia for ex-partners on current relationship have scarcely been examined in either the close relationships or the nostalgia literature. Although relationship researchers often study the impact of ex-partners on current relationships as the effects of

relationship history (e.g., Brumbaugh & Fraley, 2006), there are no studies to our knowledge that look at nostalgia within this context. Likewise, in the nostalgia literature, the focus has been mainly on individuals and their general nostalgic memories rather than nostalgia for a romantic relationship or a relationship partner (but see Mallory, Spencer, Kimmes, & Pollitt, 2018). Whereas the events or people involved in general nostalgic memories tend to pose no threat to people's current relationships, ex-partners are often considered to act as threats or potential rivals for the current partner (Cann & Bucom, 2004; Rodriguez et al., 2016; Spielmann et al., 2013). Therefore, there is a need to examine the impact of nostalgia for ex-partners on one's current relationship.

Communication with- or attachment to one's ex-partners emphasizes a present-oriented emotion; whereas nostalgia is associated with a past-oriented emotion. Nostalgia typically focuses on distant, fond, and personally meaningful memories. When being nostalgic for an ex-partner, people remember, reminisce about, and miss a time from their past (Hepper, Ritchie, Sedikides, & Wildschut, 2012). Nostalgia for an ex-partner does not mean that people are currently holding unresolved romantic desires toward the ex-partner or perceiving the ex-partner as a desirable alternative. In contrast, nostalgia represents human ability to draw strength from past memories of close others to foster social connectedness in current life (Sedikides et al., 2015; Stephan et al., 2011). In other words, nostalgia functions as a psychological resource (Abeyta, Routledge, & Juhl, 2015; Wildschut, Sedikides, Routledge, Arndt, & Cordaro, 2010).

Wildschut et al. (2006) proposed that nostalgia serves at least three functions: fostering positive affect, increasing self-regard, and improving social connectedness. Nostalgic memories promote feelings of belonging and connectedness by reassuring individuals that they are socially competent and that there are people in their lives who value them (Wildschut et al., 2010).

Indeed, several studies have shown that nostalgic memories augmented people's perceptions of social support and also increased participants' perceived capacity to provide emotional support to others (Wildschut et al., 2010; Zhou, Sedikides, Wildschut, & Gao, 2008). Nostalgic memories also motivate people to adopt and pursue social goals, be more optimistic about solving an imagined conflict with a friend, and increase proactive intentions to solve the conflict (Abeyta et al., 2015). These findings and the functions nostalgia serves, suggest that nostalgia for an ex-partner could benefit one's current relationship.

Only two studies have specifically examined nostalgia in the context of romantic relationships. Mallory et al. (2018) found that reminiscing about early parts of one's current romantic relationship could increase positive affect and relationship satisfaction. Juhl et al. (2012) examined the effects of recalling general nostalgic memories on romantic relationship satisfaction. They found general nostalgic memories interacted with attachment avoidance to influence current relationship satisfaction – nostalgia increased relationship satisfaction among individuals low on avoidance but decreased satisfaction among individuals high on avoidance. However, there was no difference in relationship satisfaction between the nostalgia and control conditions regardless of people's attachment avoidance. In both studies reviewed above, nostalgia was not necessarily related to ex-partners. Therefore, the first goal of the current study is to examine the outcomes of thinking about one's ex-partner, and specifically the effects of nostalgia for an ex-partner on perceived current relationship quality.

Although the close relationships literature predicts negative outcomes to thinking about or staying in touch (mentally/physically) with one's ex, I predict, in line with the nostalgia literature, that thinking about one's ex in a nostalgic way will have positive outcomes. One potential explanation for the discrepancy in findings between the two lines of research, and for

my prediction, is the different mindsets (Dweck, 2008) people hold when they think about their ex-romantic partners in a nostalgic way. In other words, being nostalgic for one's ex puts people in a different mindset.

According to Dweck (2008), there are two different mindsets people can hold, fixed and growth. People with a fixed mindset tend to believe they cannot change, and their future will be much like their past. In line, people in a fixed mindset are likely to maintain the belief that their ex-partner is their true love, hold unresolved desire towards the ex-partner, and potentially still have emotional attachment towards the ex-partner. In contrast, people with a growth mindset tend to believe they can change and grow. I argue that people in a growth mindset are likely to perceive past relationships, and their experience with their ex-romantic partners, as opportunities for growth in their current romantic relationship with a new partner. Numerous studies have demonstrated the negative outcomes associated with a fixed mindset and the positive outcomes associated with a growth mindset (e.g., Chen, DeWall, Poon, & Chen, 2012; Schroder et al., 2017). Thus, the second goal of current studies is to examine whether nostalgia for an ex-partner puts people in a growth mindset and through that generates positive relational outcomes. That is, the belief in self-growth could mediate the positive effects of nostalgia for an ex-partner on current relationships.

Growth Mindset as a Potential Mediator

Self-growth has been repeatedly explored as one positive outcome following breakups (e.g., Marshall, 2012; Tashiro & Frazier, 2003). Borrowing the definition from that literature, I regard growth mindset as the belief that one can grow beyond her previous level of psychological functioning due to past relationships (Tashiro & Frazier, 2003).

Nostalgia and Growth Mindset. Nostalgic memories prominently feature the self and often contain themes of self-growth (Abeyta, Routledge, & Juhl, 2015). Content analysis of people's descriptions of characteristics and features of nostalgia showed that people used words denoting self-growth (e.g., *Change, moving on, future*; Hepper et al., 2012). Even when containing elements of sadness and loss, nostalgic memories tend to follow a redemptive narrative sequence, focusing one's thoughts on positive personal outcomes such as personal growth (Wildschut et al., 2006). Not only does nostalgic memories involve growth-related contents, nostalgia can also potentially lead to self-growth. Baldwin and Landau (2014) showed that nostalgia gave rise to growth-related self-perceptions. Participants in their study viewed themselves as inclined toward novel experiences, self-expansion, and curiosity and growth-related behavioral intentions (intentions to engage in novel and self-expansive actions) after recalling general nostalgic memories.

Nostalgic memories about an ex-partner feature the old times when people were romantically involved with the ex-partner. Even when a former relationship ends up in heartbreak, nostalgia could lead people to look at the memories from that relationship through rose-colored glasses (Hepper et al., 2012). The fond nostalgic memories remind people of the positivity of romantic relationships, and more importantly, that they are competent enough to have such a positive relationship. Davis (1979) argued that nostalgia "encourage(s) an appreciative stance towards former selves; excluding unpleasant memories; reinterpreting marginal, fugitive, and eccentric facets of earlier selves in a positive light; and establishing benchmarks of one's biography". Therefore, reflecting on nostalgic memories from past relationships can assist people to appreciate their past self in the relationship with an ex-partner, direct their attention to what they have learned from past relationships, foster feelings of self-

confidence, worth, and efficacy, and lead to the belief that they can grow beyond their previous level of psychological functioning because of past relationships.

Growth Mindset in Close Relationship. The belief in self-growth, in turn, may increase people's perceived current relationship quality. Indirect evidence for this prediction comes from several sources. The significant role of growth in close relationship has been highlighted in Self-Determination Theory (SDT; Ryan & Deci, 2000). Knee and colleagues (2002) conceptualized self-determination as growth motivation in relationships. Being motivated to maintain one's relationship for more self-determination or growth reasons was associated with reporting more adaptive couple behaviors, which was in turn associated with greater couple happiness (Blais, Sabourin, Boucher, and Vallerand, 1990; Knee, Patrick, Vietor, Neighbors, & Nanayakkara, 2002). Similarly, Winterheld and Simpson (2011) who explored seeking security and growth focus (or prevention and promotion focus) in romantic relationships, found growth focused people perceived their partners as more supportive and less distancing, and displayed more creative conflict resolution behaviors. SDT also emphasizes the fulfillment of growth need in close relationships (Patrick, Knee, Canevello, & Lonsbary, 2007). Such need fulfillment could lead to positive relational outcomes. Indeed, across several studies, Patrick and colleagues (2007) showed that fulfillment of self-determination or self-growth needs predicted close relationship outcomes such as higher satisfaction, commitment, and more understanding responses to conflicts (Patrick et al., 2007).

To summarize, considering the potential association between nostalgia for ex-partner and growth mindset, and between growth mindset and higher perceived close relationship quality, in the current studies I will test whether growth mindset mediates the effects of nostalgia for an ex-partner on perceived current relationship quality.

Study 1

The main goal of Study 1 is to examine the main effects of nostalgia for an ex-partner on the perception of current romantic relationship quality. I used a between-subjects design with three conditions. I randomly assigned participants into one of the three conditions (Ex-nostalgia, Ex-ordinary, or Ordinary). In the Ex-nostalgia condition, participants were required to recall nostalgic events about one of their ex-partners. In the two control conditions, participants recalled ordinary day-to-day events that are not in any way special, either involving one's ex-partner or not. Participants were asked to reflect on- and write down- these past events according to their specific condition. Then they were asked to report on their current nostalgic feelings toward their ex-partner (manipulation check), and finally, how they felt about their current romantic relationship.

Various scholars have suggested that attachment style, specifically attachment avoidance, could moderate the effects of nostalgia on relationship satisfaction and social connectedness (Juhl et al., 2012; Wildschut et al., 2010). Nostalgia was repeatedly found to strengthen social bonds. People high on avoidance, however, tend to view others as unavailable or unresponsive, and therefore rely less on social bonds (Wildschut et al., 2010). This suggests that nostalgia might have a less positive effect on relationships of people high on avoidance. Indeed, a few studies have provided support for this claim (Abeyta, Routledge, Roylance, Wildschut, Sedikides, 2014; Juhl et al., 2012; Wildschut et al., 2010). Specifically, the beneficial effects of nostalgia were significantly stronger when attachment-related avoidance was low (compared with high). Conversely, attachment anxiety did not moderate the effects of nostalgia. Therefore, In Study 1, examined whether people's attachment avoidance interacted with nostalgia for ex-partner to influence perceived current relationship quality.

In summary, in Study 1 I tested the following predictions: 1) Ex-nostalgia condition will induce more nostalgic feelings than both Ex-ordinary and Ordinary conditions; 2) People will report higher relationship quality in the Ex-nostalgia condition as compared with both the Ex-ordinary and Ordinary conditions; 3) Attachment avoidance will interact with condition to affect relational outcomes, whereas attachment anxiety will not. Specifically, in the Ex-nostalgia condition, low avoidance (compared with high-avoidance) will be associated with reporting more nostalgia and higher relationship quality.

Method

Participants. A priori power analysis using the G*Power 3 computer program (Faul, Erdfelder, Lang, & Buchner, 2007) indicated that a total sample of 158 people would be needed to detect a medium effect size ($d = 0.6$) with 80% power using an F-test with alpha at .05. Therefore, we aimed to get more than 160 participants, and ended up recruiting a total of 166 participants. All of the participants (114 women and 52 men, age range 20-53, median = 28 years) were recruited at the crowdsourcing platform, Amazon Mechanical Turk (MTurk). They were awarded \$1.00 as compensation. All of the participants were currently involved in a heterosexual and monogamous romantic relationship (relationship length ranges from 1 month to 47 years), and their relationship was not their first romantic relationship (so they would have at least one ex-partner).

Measures and procedures. The study was completed online. Participants were told that they were involved in a “social relationship study.” After consenting, participants were randomly assigned to one of the three conditions (Ex-nostalgia ($n = 55$), Ex-ordinary ($n = 57$), or Ordinary ($n = 53$)).

In the Ex-nostalgia condition, participants were first given the definition of nostalgia “*Nostalgia is defined as a sentimental longing or wistful affection for the past,*” and then instructed to “*Bring to mind a nostalgic event about one of your ex-partners. Specifically, try to think of a past event about one of your ex-partners that makes you feel most nostalgic. Please bring this nostalgic event to mind and think it through for a few minutes before continuing on.*”

In the Ordinary condition, participants were instructed to “*Bring to mind a specific ordinary event that you personally experienced in the past*” The manipulation was modified from Wildschut et al. (2006), who found, using the original manipulation, an increase in reported nostalgia following the general nostalgia instructions as compared with the control condition. Instead of recalling any nostalgic events from the past, in the current study I focus on people’s nostalgic events involving one ex-romantic-partner. In the third condition, Ex-ordinary, participants were instructed to “*Bring to mind a specific ordinary event from your past about one of your ex-partners*” The third condition was constructed for the current study, to control for the possibility that the effects of the nostalgia for ex-partner condition were due to simply thinking about one’s ex-partner.

After the priming procedure, participants completed several measures, including the nostalgia manipulation check. Two items ($\alpha = .87$) assessed the extent to which participants felt nostalgic about their ex-partner: “*How nostalgic do you feel about your ex-partner right now?*” and “*To what extent are you longing for your ex-partner right now?*” They then completed two measures assessing perceived relationship quality, followed by an adult attachment style measure, some questions related to the ex-partner they referred to in the priming phase (participants in the Ordinary condition did not answer these questions because they were not

required to recall events about ex-partners), and finally demographic questions. At the end, participants were thanked and compensated for their time.

To better understand what people thought about as they read the instructions and responded to the prime, two trained research assistants independently coded the narratives participants wrote in the three conditions. Coding items were selected a priori, based on the content analysis of general nostalgic memories (Hepper et al., 2012; Wildschut et al., 2006), and refined following inspection of a random sample of 10 participants.

Perceived relationship quality. I used two different measures, which are commonly used in the close relationship literature, to assess perceived relationship quality. First, the Perceived Relationship Quality Components Inventory (PRQC, ($\alpha = .94$); Fletcher, Simpson, & Thomas, 2000) is a six-factor, 18-item, self-report measure tapping participants' relational satisfaction ("*How satisfied are you with your relationship*"), commitment ($\alpha = .98$, "*How committed are you to your relationship*"), intimacy ($\alpha = .93$, "*How intimate is your relationship*"), trust ($\alpha = .95$, "*How much do you trust your partner*"), passion ($\alpha = .93$, "*How passionate is your relationship*"), and love ("*How much do you love your current partner*"). Each factor is assessed using three items, and a 1 (*not at all*) to 7 (*extremely*) response scale. PRQC provides a global measure of perceived relationship quality by averaging scores from the six subscales (Fletcher et al., 2000).

The Relational Assessment Scale (RAS, ($\alpha = .86$); Hendrick, 1988) is a 7-item one-factor self-reported measure tapping participants' relationship satisfaction. Sample items include "*How well does your current partner meet your needs*," "*How much do you love your current partner*?" Participants responded to all the items using a 7-point response scale anchored at 1 (*not at all*) and 7 (*extremely*). Because both RAS and PRQC use similar items to assess relational

satisfaction and love, to avoid burdening the participants, I only included the love and satisfaction items from the RAS.

Attachment style. Attachment style was measured using the short version of the Experiences in Close Relationships measure (ECR-short; Lafontaine et al., 2015), a 16-item self-report questionnaire containing two subscales (anxiety, $\alpha = .92$, and avoidance, $\alpha = .94$). The two scale scores were slightly correlated in this study ($r = .11, p < .05$). Scores were computed by averaging items on each subscale after appropriately reverse-scoring some items.

Characteristics of one's ex-partner. Participants also responded to some questions covering basic information regarding the ex-partner/past relationship they recalled in the priming phase. These questions included the length of the past relationship, the time that passed since the breakup, the initiator of the breakup, whether they are still friends.

Results

Content analysis. Two trained research assistants independently coded the narratives participants wrote in the three conditions. Inter-rater reliability, as assessed by Cohen's kappa ranged from .80 - .87 for the coded measures. The research assistants and I resolved any remaining disagreements through discussion.

Table 1 lists the features used to code the content of nostalgic memories about an ex-partner, the frequency of narratives coded into each feature, and an example for each feature. Consistent with the content of general nostalgic memories, nostalgic memories about an ex-partner were frequently associated with positive affect (e.g., fun, happy, carefree). Participants tended to reminisce about the fun time spent with their ex-partner (e.g., traveling, watching movies, having sex). Among those experiences, trivial events such as talking on the phone, watching Netflix, or playing a game, were especially prominent. The special events (e.g.,

proposing, birthday, graduation) and new experiences (e.g., first time flying, visiting a new place) with an ex-partner were also mentioned frequently. This is in line with Shum's (1998) arguments that temporal landmarks are actively and spontaneously used by individuals as cues when performing recall tasks.

Surprisingly, narratives in the Ex-ordinary condition contained both positive and negative affect, and both ordinary and special. Although in this condition trivial events were more frequent, new experiences and special events (positive such as birthday, or negative such as divorce) also emerged nearly half of the time. Some participants even mentioned in their narratives how they loved their ex-partners and how close they felt to the ex-partner in their past relationships. In the Ordinary condition, most participants focused on trivial events (e.g., routine of going to the grocery store or getting up every morning). Affective memories (both positive and negative) were much less frequent. Paired comparisons between conditions (Table 1) showed that in the Ex-nostalgia condition, people experienced more positive affect, their narratives contained more themes of former love, closeness of past relationships, and positive self-regard than in the Ex-ordinary and the Ordinary conditions. People in the Ex-ordinary condition recalled more memories on time spent with ex-partner, mentioned more love, and at the same time recalled more negative affective memories than participants in the Ordinary condition.

Preliminary analyses. Table 2 lists the *descriptive data* for Study 1. As expected, there was a main effect of prime type on levels of felt nostalgia, $F(2, 162) = 5.77, p = .004, f = .26$. Participants in the Ex-nostalgia condition reported feeling significantly more nostalgia about the Ex-partner ($M = 2.63, SD = 1.39$) than did participants in the Ordinary condition ($M = 1.72, SD = 1.34$). However, the difference between Ex-nostalgia condition and Ex-ordinary condition ($M =$

2.22, $SD = 1.49$) was not significant. These results suggest that thinking about even an ordinary event about one's ex-partner is enough to induce nostalgic feelings about the ex-partner.

However, it did not invoke as much nostalgia as the ex-nostalgia condition, as can be seen by the lack of difference between the Ordinary and the Ex-ordinary conditions.

I next examined the features of the ex-partner/past relationship that participants recalled in the Ex-nostalgia and the Ex-ordinary conditions. Table 3 lists the range and median for the length and temporal distance of the past relationship, the proportion that participants initiated the breakup, and the proportion that participants and the ex-partner are no longer friends. In both conditions, the length of relationship and temporal distance ranged from several months to decades. Participants mostly initiated the breakup. Most participants are not currently staying friends with the ex-partner they recalled.

Primary analyses. I calculated perceived relationship quality score by averaging the items across the four subscales of the PRQC and the two similar items measuring satisfaction and love in RAS, and perceived relationship satisfaction by averaging the items in RAS after appropriately reverse-scoring some items. I found a main effect of prime type on participants' perceived current romantic relationship quality, $F(2, 162) = 3.56, p = .031, f = .22$. Participants in the Ex-nostalgia condition reported higher relationship quality ($M = 5.96, SD = .99$) than did participants in the Ordinary condition ($M = 5.28, SD = 1.60$). The difference between the Ex-nostalgia condition and the Ex-ordinary ($M = 5.55, SD = 1.34$) condition though in the predicted direction was not significant. The main effect of prime type on participants' current romantic relationship satisfaction was marginally significant, $F(2, 162) = 2.54, p = .082, f = .17$. Participants in the Ex-nostalgia condition reported marginally higher relationship satisfaction ($M = 5.65, SD = 1.16$) than did participants in the Ordinary condition ($M = 5.19, SD = 1.41$).

However, the difference between the Ex-nostalgia condition and the Ex-ordinary ($M = 5.14$, $SD = 1.37$) condition was not significant. The effects on perceived relationship quality and satisfaction did not change when I included current relationship length as a covariate, to control for large range of relationship lengths people reported.

I next examined whether attachment avoidance (or anxiety) interacted with prime type to predict current relationship quality or satisfaction. The effects of the two-way (avoidance by prime, and anxiety by prime) and the three-way (anxiety by avoidance by prime) interactions on both DVs were not significant.

Discussion

Although relationships with an ex-partner all end up with a breakup, which is often a negative event, especially when the relationship was highly emotionally involved (the more emotionally involved people are the more heartbreaking is the breakup; Merolla, Weber, Myers, & Booth-Butterfield, 2004), nostalgic memories for an ex-partner mostly featured positive affect and positive experiences. Some participants indicated that the great times they had with an ex-partner made them feel “like our love would never end,” but seldom did participants show that they were still in love with their ex-partners. Instead, some participants believed “things happened for a reason.”

The findings of study 1, are more in line with findings from the nostalgia literature (e.g., Wildschut et al., 2006), and less in line with detrimental effects of ex-partners found in the close relationships literature (Spielmann et al., 2013). In contrast to previous studies that showed nostalgia effects were stronger among people low on attachment avoidance, I did not find in Study 1 an interaction between attachment style and nostalgia.

Although partially in line with my predictions, there are a few limitations to Study 1. First, participants in the Ex-nostalgia condition did not report higher nostalgic feelings or current relationship quality than participants in the Ex-ordinary condition. One potential explanation is that any thought about an ex-partner (regardless of the specific instructions about nostalgia) will increase nostalgia for ex-partner and current relationship quality. An alternative explanation might be that the instruction in the Ex-ordinary condition did not prompt emotionally neutral memories, but rather detailed vivid memories about one's ex-partner, which could have triggered nostalgic feelings as suggested by the relatively high mean of sense of nostalgia in this condition. These nostalgic feelings, in turn, could have decreased the difference between Ex-nostalgia and Ex-ordinary conditions.

As the content analysis showed, some participants recalled new experiences and special events involving an ex-partner in the Ex-ordinary condition. Positive affect was common in this condition as well. Moreover, in some memories reported in the Ex-ordinary condition, people mentioned love and closeness they felt in their relationship with the ex-partner. This suggests that participants in the Ex-ordinary condition were, to some extent, emotional when thinking about the ex-partner. For example, one participant in the Ex-ordinary condition wrote; "It was a warm and relaxing feeling being with my partner and not having to think about work and all the things that were going on at home." Thus, the control condition of thinking about ordinary events with one's ex-partner, which was supposed to be emotionally neutral, failed to act as a control, at least for some people. To overcome this limitation, in Study 2, participants were given more concrete instructions to prompt specific memories. Instead of recalling ordinary events regarding an ex-partner, participants were asked to recall neutral events about an ex-partner that did not bring up any strong emotion.

A second limitation of Study 1 is the overall low levels of nostalgic feelings towards ex-partners regardless of the condition participants were assigned to. This is possibly because explicitly reporting positive feelings towards an ex-partner may be regarded as threatening for those who are currently engaged in a new committed monogamous relationship (Cravens, Leckie, & Whiting, 2013). But people in the Ex-nostalgia condition still reported significantly higher nostalgia than those in the Ordinary condition, which means the manipulation indeed induced nostalgic feeling towards an ex-partner. To overcome this limitation, instead of explicitly reporting nostalgic feelings towards an ex-partner, in Study 2 participants were asked to rate nostalgic feelings towards the event they wrote about.

Study 2

Study 1 suggested that recalling nostalgic memories about ex-partners increased participants' perception of relationship quality. In Study 2, I examined the underlying mechanism of the positive effects of nostalgia for an ex-partner on perceived current romantic relationship quality, while dealing with some of the limitations of Study 1. Specifically, I examined whether the growth mindset/belief in self-growth mediated the positive effects of nostalgia for ex-partner on perceived current relationship quality. Similar to study 1, I randomly assigned participants into one of the three conditions (Ex-nostalgia, Ex-neutral, or Neutral). Participants reflected about- and wrote down memories in line with the instructions they received, then they reported their growth-related self-belief (the belief that they can grow beyond their previous level of psychological functioning) and finally, they indicated their current romantic relationship quality.

Relationships research suggests that fixation to a past relationship is associated with negative outcomes (Marshall, 2012). Content analysis of the prototypical features of general

nostalgia shows that nostalgia includes some features that represent the desire to return to (or stay in) the past (Hepper et al., 2012). If nostalgia for an ex-partner also has such features it may result in emotional attachment to the ex-partner, and in turn, negative relational outcomes (Spielmann et al., 2013). In light of this reasoning, in Study 2 I tested whether recalling nostalgic memories about an ex-partner would increase people's emotional attachment towards the ex-partner.

Method

Participants. I used a between-subjects design with three conditions. Same as Study 1, a total sample of 158 people would be needed to detect a medium effect size ($d = 0.6$) with 80% power using an F-test with alpha at .05. I ended up recruiting 227 participants in total. All the participants (143 women and 82 men, aged 18-63, with a median age of 28 years) were recruited via MTurk. They were awarded \$1.00 as compensation. All the participants were involved in a heterosexual and monogamous romantic relationship (relationship length ranges from 1 month to 34.5 years), and their relationship at the time of the study, was not their first romantic relationship (so they'll have an ex-romantic-partner).

Measures and procedures. The study was completed online. After consenting, participants were randomly assigned to one of the three conditions (Ex-nostalgia, Ex-neutral, or Neutral). Unlike Study 1, participants in the Ex-neutral condition were given the instruction *“Ordinary events are those that happen from day to day and are not particularly memorable or emotional. Bring to mind a time when you were with a romantic partner that you're no longer with when such an ordinary event took place. That is, think of a routine event that involved one of your ex-partners and that does NOT bring up strong emotions for you.”* After the priming task, participants completed a manipulation check. Also, unlike Study 1, participants did not

explicitly rate their nostalgic feelings towards their ex-partners, but instead they reported their nostalgic feelings towards the event they described. Next, participants completed a scale measuring their growth-related self-belief and the same scales used in Study 1 measuring perceived relationship quality. After that, participants completed a scale measuring their emotional attachment towards ex-partners. Finally, as in Study 1, participants answered questions regarding the ex-partner they recalled and some demographic questions.

Relationship quality. In Study 2, I used the short version of the Perceived Relationship Quality Components Inventory (PRQC, ($\alpha = .89$); Fletcher, Simpson, & Thomas, 2000) and the Relational Assessment Scale (RAS, ($\alpha = .85$); Hendrick, 1988) to measure relationship quality. Unlike Study 1, in Study 2, I used an item to represent each subscale of the PRQC, including the love and satisfaction scales.

Belief in self-growth. Belief in self-growth was assessed using the 21-item Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996). The original instructions ask respondents to indicate the degree of change they can experience as a result of the crisis/trauma. For this study, the instructions were modified to have respondents indicate the degree of self-change they believe they can experience because of the events they recalled on a 7-point scale (1 = *I did not experience this change at all*, 7 = *I extremely experienced this change*). The original scale was composed of six subscales including Relating to others ($\alpha = .91$, e.g., “*I more clearly see that I can count on people in times of trouble*”), New possibilities ($\alpha = .89$, e.g., “*New opportunities are available which wouldn't have been otherwise*”), Personal strength ($\alpha = .89$, e.g., “*I know better that I can handle difficulties*”), Appreciation of life ($\alpha = .89$, e.g., “*I have a greater appreciation for the value of my own life*”), and Spiritual change ($\alpha = .88$, e.g., “*I can better*

appreciate each day”). In the current study, I dropped the subscale of spiritual change, which is usually irrelevant to romantic relationships. In the current sample, the alpha coefficient was .94.

Emotional attachment to ex-partners. I measured people’s emotional attachment towards their ex-partners using Wegner and Gold’s (1995) Old-Flames Scale. The scale taps into people’s feelings of continued fond thinking about an ex-partner (e.g., “*I still think about him/her a lot*”) as well as more intense longing for an ex (e.g., “*Losing him/her was the worst thing that ever happened to me*”) on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The alpha coefficient was .92.

Results

Preliminary analyses. Table 4 lists the *descriptive data* in Study 2. As expected, there was a main effect of prime type on levels of felt nostalgia, $F(2, 224) = 26.97, p < .001, f = 0.48$. Participants in the Ex-nostalgia condition reported feeling significantly more nostalgia about the ex-partner ($M = 4.97, SD = 1.49$) than did participants in the Neutral condition ($M = 3.91, SD = 1.78$) and participants in the Ex-neutral condition ($M = 3.01, SD = 1.76$). This finding indicates that the priming manipulation was successful in inducing nostalgic feelings. Moreover, neutral memories about an ex-partner did not induce nostalgic feelings.

Similar to Study 1, I also examined the features of the ex-partner/past relationship that participants recalled in the Ex-nostalgia and Ex-neutral conditions. Table 5 lists the range and median for length and temporal distance of the past relationship, the proportion that participants initiated the breakup, and the proportion that participants and the ex-partner are no longer friends. In both conditions, the length of the relationship and temporal distance ranged from several months to decades. Participants mostly initiated the breakup. Most participants were not currently staying friends with the ex-partner they recalled.

Primary analyses. I computed perceived relationship quality score by averaging items on the PRQC short version and relationship satisfaction by averaging items from RAS after appropriately reverse-scoring some items. I found a main effect of prime type on participants' current romantic relationship quality, $F(2, 220) = 4.167, p = .017, f = .21$. Participants in the Ex-nostalgia condition reported higher relationship quality ($M = 6.09, SD = .95$) than did participants in the Neutral condition ($M = 5.59, SD = 1.31$) and participants in the Ex-neutral condition ($M = 5.62, SD = 1.28$). The main effect of prime type on participants' current romantic relationship satisfaction was not significant, $F(2, 220) = 2.03, p = .13, f = .15$. Again, the effects on perceived relationship quality and satisfaction did not change after I included current relationship length as a covariate.

Next, I examined whether nostalgia for an ex-partner increased emotional attachment towards ex-partner. I found prime type did not influence emotional attachment towards an ex-partner, $F(2, 220) = 2.20, p = .11, f = .16$. Although emotional attachment towards ex-partner was negatively associated with perceived relationship quality ($b = -.29, p < .001$). The results did not change when I entered relationship satisfaction as the dependent variable.

Mediation by belief in self-growth. Participants in the Ex-nostalgia condition ($M = 4.77, SD = 1.19$) reported higher belief in self-growth than participants in the Ex-neutral ($M = 3.94, SD = 1.31$) and Neutral conditions ($M = 3.98, SD = 1.39$), $F(2, 221) = 8.89, p < .001$. This indicates that belief in self-growth qualifies as a potential mediator of the nostalgia for ex-partner effect on perceived current relationship quality. Using the PROCESS macro for SPSS (5,000 bootstrapped resamples; Model 4; Hayes, 2013), I created two dummy variables (x_1 : 0 = Ex-nostalgia and 1 = Ex-neutral; x_2 : 0 = Ex-nostalgia and 1 = Neutral). I regressed current relationship quality on both x_1 and x_2 and entered belief in self-growth as the proposed mediator. As seen in figure 1, the

analysis confirmed that the indirect effect of nostalgia on current relationship quality via belief in self-growth was significant, x_1 : *indirect effect* = $-.107$, $SE = .056$, 95% confidence interval (CI) $[-.230, -.011]$; x_2 : *indirect effect* = $-.102$, $SE = .053$, 95% CI $[-.220, -.011]$. The direct effect was marginally significant, x_1 : $B = -.362$, $SE = .198$, 95% CI $[-.752, .028]$; x_2 : $B = -.395$, $SE = .198$, 95% CI $[-.785, -.004]$.

Discussion

In Study 2, I replicated the positive effects of nostalgia for ex-partner on perceived current relationship quality. Improving on Study 1, in Study 2, I modified the control conditions, specifically the priming I used to induce neutral memories about ex-partner by asking participants to think about events that “do not bring up strong emotions for you.” Doing so allowed me to show that nostalgia for ex-partner increased current relationship quality not only compared to the Neutral condition, but also compared to the Ex-neutral condition. I also showed in Study 2 that reflecting on nostalgic memories about one’s ex-partner increased growth mindset and ensuing the perception of higher relationship quality. These results are consistent with the postulated mediating role of growth mindset. Nostalgia increased growth mindset, and this, in turn, increased perceived relationship quality, suggesting that growth mindset was at least partially responsible for nostalgia’s capacity to increase the perception of current relationship quality. Finally, I showed that reflecting on nostalgic memories about ex-partner did not increase emotional attachment towards ex-partners. This partially explains why nostalgia for ex-partners did not hurt current relationship as well.

General discussion

In two studies, I examined the influence of nostalgia for one’s ex-partner on people’s perception of their current relationship quality and the mediating role of growth mindset in these

links. Participants in the studies were asked to recall nostalgic memories about one ex-partner (or a control topic) and then rate their current relationship quality.

Consistent with the typical features of general nostalgia (Hepper et al., 2012; Wildschut et al., 2010), the content analysis in Study 1 showed that nostalgic memories about one's ex-partner featured positive affect, social bond, and positive self-regard. Negative affect (e.g., sadness about the breakup and loss, missing the past) also emerged, but rarely was the focus of the narratives. In complement to the content analysis done by Wildschut et al. (2010) of general nostalgic memories, Study 1 further showed that both temporal landmarks, such as first experiences and special events, and trivial events were frequently mentioned in the nostalgia for one's ex-partner condition. Nostalgic memories about one's ex-partner also featured the romantic love participants once felt towards their ex-partners, and the intimacy in the relationship with the ex.

After analyzing the quantitative data from Study 1, I examined the effects of the primes on perceived current relationship quality. As expected, I found that recalling nostalgic memories about an ex-partner resulted in higher reported current relationship quality as compared with recalling personal ordinary events. I did not find in Study 1 the differences in nostalgic feelings or relationship quality between the Ex-nostalgia condition and the Ex-ordinary condition. These findings suggest that ordinary memories were not different from nostalgic memories about ex-partner as both invoked nostalgia and both resulted in higher current relationship quality. The content analysis of the different conditions in Study 1 revealed that ordinary or trivial memories about one's ex-partner can also trigger nostalgic feelings. Thus, in Study 2, I refined the instructions to reduce the chances that participants would retrieve nostalgic memories, by asking them to retrieve neutral memories about an ex-partner that did not evoke strong emotions. This

change indeed led to participants not recalling nostalgic memories in the control conditions, and in turn, I found that only the nostalgic memories about one's ex-partner resulted in the perception of higher current relationship quality, as compared with both neutral memories involving one's ex, and neutral memories not involving the ex. Study 2 further showed that the positive effects of nostalgia for an ex-partner on current relationship were mediated by a growth mindset.

At first glance, my findings may seem contradictory to the detrimental role ex-partners play in current relationships that was repeatedly found in the close relationships literature. However, most studies in the relationships literature focus on a *present-oriented* emotion towards one's ex-partner. Continued contact with an ex-partner in present time was found to hurt people's current romantic relationship (Cravens & Whiting, 2014; Rodriguez et al., 2016). For example, people tend to view their partner friending an ex-partner on Facebook as inappropriate and even as infidelity (Cravens et al., 2013; Cravens & Whiting, 2014). Unresolved desires or continued emotional attachment towards ex-partners are also maladaptive because they prevent people from moving on and investing in their current relationships (Spielmann et al., 2013). In summary, relationship research suggests that being currently fixated on past romantic relationships, either cognitively or behaviorally, can have negative consequences for current relationships. Nostalgic memories, however, are different.

Although nostalgia is a *past-oriented* emotion that sometimes contains the desire to return to the past (Hepper et al., 2012), when people are nostalgic, they are actually reflecting and interpreting past experiences in a way that allow them to move forward (Wildschut et al., 2006). Nostalgic memories about an ex-partner highlight the intimacy, excitement, love, and all the rose-colored aspects in past relationships. However, the content analysis in Study 1 showed that participants seldom indicated that the love persisted into the present. In other words, nostalgia

does not mean being attached to- or fixed on- the past. Study 2 demonstrated that recalling nostalgic memories about an ex-partner not only did not increase people's continued emotional attachment to their ex-partners, but actually put people in a growth mindset. Potentially, as people are recalling nostalgic memories, they realized the breakup was inevitable and the past relationship was over. More importantly, rather than keeping people fixated to their past relationships, nostalgia leads people to use the past to find meaning, putting people in a mindset that enhances positive self-growth and well-being (Routledge et al., 2011).

Indeed, in study 2, I found that growth mindset mediated the positive effects of nostalgia for an ex-partner on perceived current relationship quality. Maintaining a sense of connection with past relationships can be difficult because breakups might mean putting the relationship behind you and discarding some or all of the self-views linked to that relationship (Slotter et al., 2010). Some research shows that relationship dissolution leads to reduced self-concept clarity and self-discontinuity (Sedikides et al., 2015; Slotter, Gardner, Finkel, 2010). Nostalgia can counteract this discontinuity (Sedikides et al., 2015) and help people connect their past and present by fostering a growth mindset. For example, nostalgic memories such as "*I get a warm feeling in my heart for a man that so long ago saw my worth and loved me enough*" may remind people of their self-worth and value, leading them to see themselves as competent enough to handle novel experiences in the present (in line with the New possibilities subscale in Growth Inventory). Nostalgic memories such as "cuddling and watching Netflix together until falling asleep in each other's arms" may also serve as a reminder of the intimacy in past relationships, leading people to believe they can have a greater sense of closeness with others in the present (in line with the Relating to others subscale in Growth Inventory). Nostalgia serves as a bridge that connects the present to the past, helps people to appreciate the former self, directs their attention

to what they can learn from past relationships, fosters a growth mindset while diminishing a fixed mindset (Davis, 1979).

When people perceive themselves being able to better relate to others, having greater personal strength, open to new possibilities and able to better appreciate life, they are also likely to perceive their current relationship as being of a higher quality. As indicated by self-determination theory, the fulfillment of needs of relatedness, competency, and autonomy predicted higher relationship satisfaction and commitment (Patrick et al., 2007). In addition, if people are open to new possibilities, they are also more inclined to engage in new activities with their current partner, which was thought to increase relationship satisfaction because shared new experiences could eliminate boredom and increase closeness in relationships (Aron, Norman, Aron, McKenna, & Heyman, 2000).

Limitations and future directions

There are a few limitations to the current studies. I only found a marginal effect of nostalgia for ex-partners on RAS in Study 1 and no effect in Study 2. RAS was thought to assess relationship satisfaction using seven items tapping different relationship aspects (e.g., love, problems, expectations, need). Potentially, some aspects such as “*How many problems are there in your current relationship*” included in RAS were not affected by nostalgia. Instead of making people perceive their relationship as having fewer problems, perhaps nostalgia increased people’s feelings of self-efficacy, and the belief that they can better resolve their problems (Abeyta et al., 2015). Another aspect measured in the RAS is the extent to which current relationship meets one’s needs. However, nostalgia benefits people by drawing strength from memories. Thus, people may feel that their needs are being met by reflecting on their past instead of from their current relationship. Future studies are needed to examine the effects of nostalgia for ex-partners

on current relationships using different measures to assess perceived relationship quality and satisfaction.

Another limitation of the current studies is that they did not include a control group of general nostalgic memories. Because of that, I do not know if general nostalgic memories would also positively influence current relationship quality, or do nostalgic memories about one's ex-partner have a unique positive effect on relationship quality. I did not include a general nostalgia condition here because a previous study found general nostalgic memories did not increase relationship satisfaction as compared with a control condition (although general nostalgia did lead participants low on attachment avoidance to perceive higher relationship satisfaction than participants high on attachment avoidance; Juhl et al., 2012). However, that is the only study examining the link between general nostalgia and romantic relationship, and it did not compare the general nostalgia to nostalgia for an ex-partner. Future studies will have to further examine the differences between general and domain-specific (ex-partners) nostalgia as well as nostalgia for the current relationship as compared with nostalgia for the previous one.

Another direction future studies may explore is the role of growth versus fixed mindsets in thinking about ex-partners. I suggest that thinking about an ex-partner in a nostalgic way promotes a growth mindset and the ensuing beneficial effects. Conversely, thinking about an ex-partner with a fixed mindset may increase the attachment towards the ex-partner and in turn lead to detrimental effects on the current relationship, similar to the ones I reviewed within the relationship literature. Future studies are needed to examine the second half of my proposition. For example, would priming a fixed mindset while thinking about an ex-partner lead people to perceive lower current relationship quality, compared to priming neutral or growth mindset?

Future studies could also test whether the positive effects of nostalgia will be eliminated when people are primed with a fixed mindset.

Another direction that future studies may explore is the experience of nostalgia for an ex-partner in ecological valid context. In my studies, I induced nostalgia by asking participants to recall nostalgic memories about an ex-partner in the lab, which led to higher reported relationship quality. Recently, Newman and colleagues (2019) measured nostalgia in ecologically valid contexts. Their correlational and daily diary studies showed that the experience of nostalgia was associated with both positive outcomes (e.g., thinking of the present in hedonic ways, higher empathy) and negative outcomes (e.g., lower well-being). They highlighted the fact that nostalgia was a mixed emotion. Nostalgia may be predominantly beneficial when nostalgic memories are generated on request in the lab because people deliberately pursue nostalgia and engage themselves in extremely positive moments. However, when people experience nostalgia involuntarily in day-to-day life, nostalgia might be more about mundane moments, less intense, and potentially containing more negative affect (Newman et al., 2019). Although in Study 2, I did not find that recalling nostalgic memories increased people's emotional attachment towards an ex-partner or had any negative relational outcomes, perhaps when people are frequently and repeatedly having nostalgic memories for an ex-partner during their daily life, it leads them to experience negative outcomes such as the ones found by Newman and colleagues. Future studies are needed to further explore nostalgia in ecological valid contexts.

Conclusions

Intuitively, thinking or remembering one's ex-partner is predicted to hurt one's current relationship. The current studies, however, showed that nostalgia for an ex-partner actually

resulted in the perception of higher relationship quality. This effect was mediated by a growth mindset, suggesting that nostalgia helps people to connect with their past relationships/relationship partners while having a positive belief—how can I grow from it. This growth mindset, in turn, can benefit their current relationship.

References

- Abeyta, A. A., Routledge, C., & Juhl, J. (2015). Looking back to move forward: Nostalgia as a psychological resource for promoting relationship goals and overcoming relationship challenges. *Journal of Personality and Social Psychology, 109*, 1029-1044.
- Abeyta, A. A., Routledge, C., Roylance, C., Wildschut, T., & Sedikides, C. (2015). Attachment-related avoidance and the social and agentic content of nostalgic memories. *Journal of Social and Personal Relationships, 32*, 406-413.
- Aron, A., Norman, C. C., Aron, E. N., McKenna, C., & Heyman, R. E. (2000). Couples' shared participation in novel and arousing activities and experienced relationship quality. *Journal of Personality and Social Psychology, 78*, 273-284.
- Baldwin, M., & Landau, M. J. (2014). Exploring nostalgia's influence on psychological growth. *Self and Identity, 13*, 162-177.
- Blais, M. R., Sabourin, S., Boucher, C., & Vallerand, R. J. (1990). Toward a motivational model of couple happiness. *Journal of Personality and Social Psychology, 59*, 1021-1031.
- Brumbaugh, C. C., & Fraley, R. C. (2006). Transference and attachment: How do attachment patterns get carried forward from one relationship to the next? *Personality and Social Psychology Bulletin, 32*, 552-560.
- Cann, A., & Baucom, T. R. (2004). Former partners and new rivals as threats to a relationship: Infidelity type, gender, and commitment as factors related to distress and forgiveness. *Personal Relationships, 11*, 305-318.
- Chen, Z., DeWall, C. N., Poon, K. T., & Chen, E. W. (2012). When destiny hurts: Implicit theories of relationships moderate aggressive responses to ostracism. *Journal of Experimental Social Psychology, 48*, 1029-1036.

- Cox, C. R., Kersten, M., Routledge, C., Brown, E. M., & Van Enkevort, E. A. (2015). When past meets present: The relationship between website-induced nostalgia and well-being. *Journal of Applied Social Psychology, 45*, 282-299.
- Cravens, J. D., Leckie, K. R., & Whiting, J. B. (2013). Facebook infidelity: When poking becomes problematic. *Contemporary Family Therapy, 35*, 74-90.
- Cravens, J. D., & Whiting, J. B. (2016). Fooling around on Facebook: The perceptions of infidelity behavior on social networking sites. *Journal of Couple & Relationship Therapy, 15*, 213-231.
- Davis, F. (1979). *Yearning for yesterday: A sociology of nostalgia*. New York, NY: Free Press.
- Dweck, C. S. (2008). *Mindset: The New Psychology of Success*. New York, NY: Random House.
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.
- Fletcher, G. J., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin, 26*, 340-354.
- Griffith, R. L., Gillath, O., Zhao, X., & Martinez, R. (2017). Staying friends with ex-romantic partners: Predictors, reasons, and outcomes. *Personal Relationships, 24*, 550-584.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New York, NY: Guilford Press.
- Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family, 50*, 93-98.

- Hepper, E. G., Ritchie, T. D., Sedikides, C., & Wildschut, T. (2012). Odyssey's end: Lay conceptions of nostalgia reflect its original homeric meaning. *Emotion, 12*, 102-119.
- Juhl, J., Sand, E. C., & Routledge, C. (2012). The effects of nostalgia and avoidant attachment on relationship satisfaction and romantic motives. *Journal of Social and Personal Relationships, 29*, 661-670.
- Knee, C. R., Patrick, H., Vietor, N. A., Nanayakkara, A., & Neighbors, C. (2002). Self-determination as growth motivation in romantic relationships. *Personality and Social Psychology Bulletin, 28*, 609-619.
- Lafontaine, M. F., Brassard, A., Lussier, Y., Valois, P., Shaver, P. R., & Johnson, S. M. (2015). Selecting the best items for a short-form of the Experiences in Close Relationships questionnaire. *European Journal of Psychological Assessment, 32*, 140-154.
- Lydon, J. E. (2010). How to forego forbidden fruit: The regulation of attractive alternatives as a commitment mechanism. *Social and Personality Psychology Compass, 4*, 635-644.
- Mallory, A. B., Spencer, C. M., Kimmes, J. G., & Pollitt, A. M. (2018). Remembering the Good Times: The Influence of Relationship Nostalgia on Relationship Satisfaction Across Time. *Journal of Marital and Family Therapy, 44*, 561-574.
- Marshall, T. C. (2012). Facebook surveillance of former romantic partners: Associations with postbreakup recovery and personal growth. *Cyberpsychology, Behavior, and Social Networking, 15*, 521-526.
- Merolla, A. J., Weber, K. D., Myers, S. A., & Booth-Butterfield, M. (2004). The impact of past dating relationship solidarity on commitment, satisfaction, and investment in current relationships. *Communication Quarterly, 52*, 251-264.

- Newman, D. B., Sachs, M. E., Stone, A. A., & Schwarz, N. (2019). Nostalgia and well-being in daily life: An ecological validity perspective. *Journal of Personality and Social Psychology*. Advance online publication. <http://dx.doi.org/10.1037/pspp0000236>
- Patrick, H., Knee, C. R., Canevello, A., & Lonsbary, C. (2007). The role of need fulfillment in relationship functioning and well-being: A self-determination theory perspective. *Journal of Personality and Social Psychology*, *92*, 434-457.
- Routledge, C., Arndt, J., Sedikides, C., Wildschut, T., Hart, C. M., Juhl, J., & Schlotz, W. (2011). The past makes the present meaningful: Nostalgia as an existential resource. *Journal of Personality and Social Psychology*, *101*, 638-652.
- Rodriguez, L. M., Wickham, R. E., Øverup, C. S., & Amspoker, A. B. (2016). Past and present, day by day: Communication with former romantic partners, relationship-contingent self-esteem, and current relationship outcomes. *Journal of Research in Personality*, *65*, 62-67.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68-78.
- Schroder, H. S., Yalch, M. M., Dawood, S., Callahan, C. P., Donnellan, M. B., & Moser, J. S. (2017). Growth mindset of anxiety buffers the link between stressful life events and psychological distress and coping strategies. *Personality and Individual Differences*, *110*, 23-26.
- Sedikides, C., Wildschut, T., Routledge, C., & Arndt, J. (2015). Nostalgia counteracts self-discontinuity and restores self-continuity. *European Journal of Social Psychology*, *45*, 52-61.

- Slotter, E. B., Gardner, W. L., & Finkel, E. J. (2010). Who am I without you? The influence of romantic breakup on the self-concept. *Personality and Social Psychology Bulletin, 36*, 147-160.
- Spielmann, S. S., Joel, S., MacDonald, G., & Kogan, A. (2013). Ex appeal: Current relationship quality and emotional attachment to ex-partners. *Social Psychological and Personality Science, 4*, 175-180.
- Stephan, E., Wildschut, T., Sedikides, C., Zhou, X., He, W., Routledge, C., ... & Vingerhoets, A. J. (2014). The mnemonic mover: Nostalgia regulates avoidance and approach motivation. *Emotion, 14*, 545-561.
- Stern, B. B. (1992). Nostalgia in advertising text: Romancing the past. *Advances in Consumer Research, 19*, 388-389.
- Tashiro, T. Y., & Frazier, P. (2003). "I'll never be in a relationship like that again": Personal growth following romantic relationship breakups. *Personal Relationships, 10*, 113-128.
- Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress, 9*, 455-471.
- Wegner, D. M., & Gold, D. B. (1995). Fanning old flames: Emotional and cognitive effects of suppressing thoughts of a past relationship. *Journal of Personality and Social Psychology, 68*, 782-792.
- 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.

Winterheld, H. A., & Simpson, J. A. (2011). Seeking security or growth: A regulatory focus perspective on motivations in romantic relationships. *Journal of Personality and Social Psychology, 101*, 935-954.

Zhou, X., Sedikides, C., Wildschut, T., & Gao, D. G. (2008). Counteracting loneliness: On the restorative function of nostalgia. *Psychological Science, 19*, 1023-1029.

Table 1.

Coding Features, Frequency of Narratives Coded into Features, and Feature Examples

| Category | Frequency | | | Example |
|---------------------|-------------------|-------------------|-------------------|---|
| | Ex-nostalgia | Ex-ordinary | Ordinary | |
| Positive affect | 0.84 _a | 0.30 _b | 0.26 _b | “I remember this because I was just so happy in that moment.” |
| Negative affect | 0.29 | 0.48 _b | 0.20 _a | “It was sad to have to hug him for the last time before he loaded a bus to head out to the airport.” |
| Time spent together | 0.96 _a | 0.82 _a | 0.24 _b | “We woke up together and made love, then we took a shower together. We spent a lot of time laughing.” |
| New experience | 0.21 _a | 0.16 | 0.06 _b | “It was the first time that either of us has visited all of the locations and it is something I will never forget.” |
| Trivial events | 0.57 _a | 0.67 | 0.77 _b | “We would get immersed in a television series and spend the weekend enjoying the show, having a little too much to drink, and being close to each other.” |

| | | | | |
|-------------------------------|-------------------|-------------------|-------------------|--|
| Special events | 0.24 _a | 0.32 _a | 0.15 _a | “My ex-boyfriend proposed to me at the top of mount Fuji.” |
| Sexual contents | 0.12 _a | 0.04 | 0 _b | “We'd have phone sex multiple times each night. It was so weird that she made me orgasm even when she wasn't there.” |
| Former love | 0.41 _a | 0.21 _b | 0.02 _c | “I felt great, like our love would never end. We were truly going through our ‘honeymoon phase’ of the relationship.” |
| Closeness of the relationship | 0.43 _a | 0.13 _b | 0 _b | “It felt so nice to be in a big crowd of people but in a sense feeling alone and in the moment with him.” |
| Positive self-regard | 0.25 _a | 0.05 _b | 0 _b | “I get a warm feeling in my heart for a man that so long ago saw my worth and loved me enough then to want to make a lifelong commitment.” |

Note. Within rows, proportions with different subscripts differ significantly ($p < .05$).

Table 2.

Descriptive data for nostalgic feeling, PRQC score, and RAS score – Study 1

| Condition | Nostalgic feeling | | PRQC | | RAS | |
|--------------|-------------------|------|------|------|------|------|
| | M | SD | M | SD | M | SD |
| Ex-nostalgia | 2.63 | 1.39 | 5.96 | .99 | 5.65 | 1.16 |
| Ex-ordinary | 2.22 | 1.49 | 5.55 | 1.34 | 5.14 | 1.37 |
| Ordinary | 1.72 | 1.34 | 5.28 | 1.60 | 5.19 | 1.41 |

Table 3.

Features of the ex-partner/past relationship that participants recalled – Study 1

| | Ex-nostalgia | | Ex-ordinary | |
|------------------------------------|--------------|--------|-------------|--------|
| | Range | Median | Range | Median |
| Length of relationship (in months) | (2, 300) | 12 | (2, 396) | 14 |
| Temporal distance (in months) | (1, 600) | 48 | (3, 700) | 64 |
| Participants initiated breakup | 65% | | 59% | |
| No longer friends | 71% | | 73% | |

Table 4.

Descriptive data for nostalgic feeling, PRQC score, RAS score, and Emotional attachment – Study 2

| Condition | Nostalgic feeling | | PRQC | | RAS | | Emotional Attachment | |
|--------------|-------------------|------|------|------|------|------|----------------------|------|
| | M | SD | M | SD | M | SD | M | SD |
| Ex-nostalgia | 4.94 | 1.49 | 6.09 | .95 | 5.59 | 1.06 | 2.59 | 1.63 |
| Ex-ordinary | 3.01 | 1.76 | 5.62 | 1.28 | 5.22 | 1.23 | 2.12 | 1.34 |
| Ordinary | 3.91 | 1.78 | 5.59 | 1.31 | 5.30 | 1.26 | 2.27 | 1.43 |

Table 5.

Features of the ex-partner/past relationship that participants recalled – Study 2

| | Ex-nostalgia | | Ex-ordinary | |
|------------------------------------|--------------|--------|-------------|--------|
| | Range | Median | Range | Median |
| Length of relationship (in months) | (1, 144) | 16 | (2, 180) | 24 |
| Temporal distance (in months) | (3, 430) | 34 | (2, 350) | 36 |
| Participants Initiated breakup | 53% | | 54% | |
| No longer friends | 72% | | 67% | |

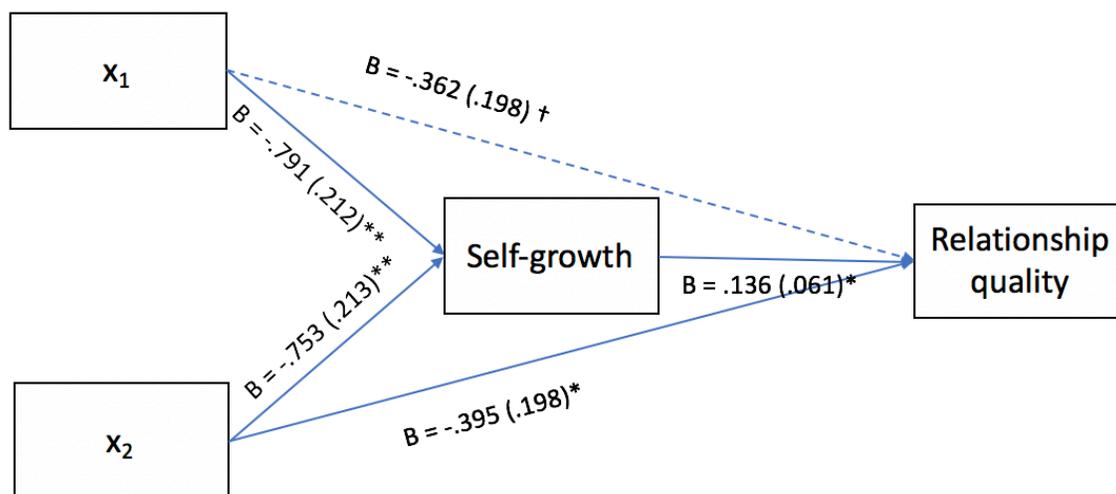


Figure 1. Model of the indirect effect of nostalgia on current relationship quality through self-growth. Dummy variable x_1 contrast Ex-nostalgia and Ex-neutral condition (0 = Ex-nostalgia and 1 = Ex-neutral); x_2 contrast Ex-nostalgia and Neutral condition (0 = Ex-nostalgia and 1 = Neutral). All coefficients represent unstandardized regression coefficients. Dashed lines highlight nonsignificant relationships, and solid lines highlight significant relationships. $\dagger p < .09$. * $p < .05$. ** $p < .001$.

Appendix A – Materials for Studies 1 and 2

Manipulation – Study 1

1. Ex-nostalgia condition

Nostalgia is defined as a sentimental longing for things, persons, or situations of the past. Bring to mind **a nostalgic event about one of your ex-partners**. Specifically, try to think of a past event about one of your ex-partners that makes you feel most nostalgic. Please bring this event to mind and think it through for a few minutes before continuing on. Remember what it was like and how you felt at the time.

2. Ex-ordinary

Bring to mind **a specific ordinary event from your past about one of your ex-partners**. Please bring this event to mind and think it through for a few minutes before continuing on. Remember what it was like and how you felt at the time.

3. Ordinary

Bring to mind **a specific ordinary event that you personally experienced** in the past. Please bring this event to mind and think it through for a few minutes before continuing on. Remember what it was like and how you felt at the time.

Manipulation – Study 2

1. Ex-nostalgia Condition:

Nostalgia is defined as a sentimental longing for things, persons, or situations of the past. Bring to mind a **nostalgic time when you were with a romantic partner that you're no longer with**. That is, think of a **past event that involved one of your ex-partners and that makes you feel nostalgic**.

Think about this nostalgic event for a few minutes before continuing. Remember what it was like and how it feels to experience nostalgia for that event now. In the space below, write the nostalgic event with details.

2. Ex-neutral Condition:

Ordinary events are those that happen from day to day and are not particularly memorable or emotional. Bring to mind **an ordinary time when you were with a romantic partner that you're no longer with**. That is, **think of a routine event that involved one of your ex-partners and that does NOT bring up strong emotions for you**. Think about this event for a few minutes before continuing. Remember what it was like. In the space below, write the ordinary event with details.

3. Neutral Condition:

Ordinary events are those that happen from day to day and are not particularly memorable or emotional. Bring to mind **an ordinary time when you were in a place or a situation that you are no longer in**. That is, **think of a past event that involved a former place and does NOT bring up strong emotions for you**.

Think about this event for a few minutes before continuing. Remember what it was like. In the space below, write the ordinary event with details.

Measures – Study 1 and Study 2

Manipulation check – Study 1

All items measured on a 1 (not at all) to 7 (extremely) Likert scale.

1. How nostalgic are you feeling about your ex-partners right now?
2. To what extent are you longing for your ex-partners right now?

Manipulation check – Study 2

All items measured on a 1 (strongly disagree) to 7 (strongly agree) Likert scale.

1. This event makes me feel nostalgic.
2. This event makes me feel a longing for my past.

Perceived Relationship Quality Components Inventory (PRQC) – Study 1

All items measured on a 1 (not at all) to 7 (extremely) Likert scale.

Commitment

1. How committed are you to your relationship?
2. How dedicated are you to your relationship?
3. How devoted are you to your relationship?

Intimacy

4. How intimate is your relationship?
5. How close is your relationship?
6. How connected are you to your partner?

Trust

7. How much do you trust your partner?
8. How much can you count on your partner?
9. How dependable is your partner?

Passion

10. How passionate is your relationship?
11. How lustful is your relationship?
12. How sexually intense is your relationship?

Short version of Perceived Relationship Quality Components Inventory (PRQC) short version – Study 2

All items measured on a 1 (not at all) to 7 (extremely) Likert scale.

1. How satisfied are you with your current relationship?
2. How committed are you to your current relationship?
3. How intimate is your current relationship?
4. How much do you trust your current partner?

5. How passionate is your current relationship?
6. How much do you love your current partner?

Relationship Assessment Scale – Study 1 and Study 2

All items measured on a 1 (not at all) to 7 (extremely) Likert scale

1. How well does your current partner meet your needs?
2. In general, how satisfied are you with your current relationship?
3. How good is your current relationship compared to most?
4. How often do you wish you hadn't gotten into your current relationship?
5. To what extent has your current relationship met your original expectations?
6. How much do you love your current partner?
7. How many problems are there in your current relationship?

Attachment style – Study 1

All items measured on a 1 (strongly disagree) to 7 (strongly agree) Likert scale,

1. I get uncomfortable when other people want to be very close to me.
2. I worry about being abandoned.
3. I tell people with whom I feel close just about everything.
4. I need a lot of reassurance that I am loved by people with whom I feel close.
5. I don't feel comfortable opening up to other people.
6. I worry a lot about my relationships.
7. I usually discuss my problems and concerns with people with whom I feel close.
8. I find that other people don't want to get as close as I would like.
9. I try to avoid getting too close to other people.
10. I worry that other people won't care about me as much as I care about them.
11. I don't mind asking other people for comfort, advice, or help.
12. I get frustrated when other people are not around as much as I would like.
13. I prefer not to be too close to other people.
14. I worry a fair amount about losing people with whom I feel close.
15. It helps to turn to other people in times of need.
16. I resent it when people with whom I feel close spend time away from me.

Growth mindset scale – Study 2

All items measured on a 1 (strongly disagree) to 7 (strongly agree) Likert scale,

Factor I: Relating to Others

1. Because of this event, I more clearly see that I can count on people in times of trouble.
2. Because of this event, I have a greater sense of closeness with others.
3. Because of this event, I am more willing to express my emotions.
4. Because of this event, I have more compassion for others.
5. Because of this event, I put more effort into my relationships.
6. Because of this event, I learn a great deal about how wonderful people are.
7. Because of this event, I better accept needing others.

Factor II: New Possibilities

8. Because of this event, I develop new interests.
9. Because of this event, I establish a new path for my life.
10. Because of this event, I am able to do better things with my life.
11. Because of this event, new opportunities are available which wouldn't have been otherwise.
12. Because of this event, I am more likely to try to change things which need changing.

Factor III: Personal Strength

13. Because of this event, I have a greater feeling of self-reliance.
14. Because of this event, I know better that I can handle difficulties.
15. Because of this event, I am better able to accept the way things work out.
16. Because of this event, I discover that I'm stronger than I thought I was.

Factor IV: Appreciation of Life

17. Because of this event, I change my priorities about what is important in life.
18. Because of this event, I have a greater appreciation for the value of my own life.
19. Because of this event, I can better appreciate each day.

Emotional attachment scale – Study 2

All items measured on a 1 (strongly disagree) to 7 (strongly agree) Likert scale,

1. I still think about her a lot.
2. The thought of her still pops into my head for no reason at all.
3. If she could come back into my life, I would immediately leave my other relationships.
4. I have to try at times not to think of her.
5. Sometimes I still get sort of an aching feeling in my heart when I think about her.
6. I am still in love with her.
7. I continue to have vivid daydreams about her.
8. Losing her was the worst thing that ever happened to me.