Shifts in Past Self Perceptions to Preserve Well-Being After a Romantic Breakup

by

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Abstract

I examined negative shifts in past self perceptions after a romantic breakup (i.e., toward thinking one's pre-breakup self was not as happy and not as positive of a version of themselves as they thought at the time) as a means of preserving post-breakup well-being. I recruited 184 people who were in romantic relationships to complete satisfaction and self-related measures twice, four months apart (retrospectively at Time 2). Those who experienced a breakup between ratings indicated larger negative shifts in past self perceptions than those whose relationships remained intact and larger shifts were associated with greater post-breakup well-being. Secondary analyses suggested that these shifts may improve well-being in part by helping one disentangle their ex-partner from their self-concept. The results were inconclusive (due to methodological limitations) regarding whether they also do so by ameliorating emotional distress. Implications, limitations, and suggestions for future research are discussed.

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Shifts in Past Self Perceptions to Preserve Well-Being After a Romantic Breakup

Most people know from personal experience that the breakup of a romantic relationship can be an incredibly difficult time. People often go to great lengths to ameliorate the distress that breakups can cause, such as getting a drastic new haircut, starting an intense new exercise regime, spontaneously going on a long trip, or beginning a new hobby. Another way people may cope with the negative impact of a romantic breakup might be to shift the way they perceive their past self—who they were back when they were in the now-ended relationship.

For the current research, I will focus on such shifts in past self perceptions after a romantic breakup, and their effect on post-breakup well-being. There are two main reasons that shifting one's past self perceptions might preserve well-being after a romantic breakup. Firstly, breakups involve significant distress (e.g., Maciejewski, Prigerson, & Mazure, 2001). People may be motivated to reduce their distress by retrospectively derogating the now-ended relationship, a phenomenon commonly known as the “sour grapes effect” (e.g., Elster, 1982). If one can shift their past self perception toward believing that they were not particularly happy in the past relationship anyway, the loss of that relationship should no longer be as painful.

A second reason shifting one's past self perceptions may preserve well-being after a romantic breakup is that within romantic relationships people incorporate aspects of their partner into their own self (e.g., Aron & Aron, 1986, 1996). But after the relationship breaks up, most people are likely motivated to shed the aspects of their now ex-partner that they had incorporated into their selves and may even be motivated to downplay the degree to which that incorporation had ever happened. People may experience higher well-being the more successfully they can shift their past self perceptions toward reducing the perceived influence of their ex-partner on their self.

I will shortly discuss the literatures that precede the current research in these areas. Firstly, I will review findings about the experience of distress following a romantic breakup and about the “sour grapes effect,” which might occur as a self-protective response to the distress. Next, I will review findings about incorporation of aspects of romantic partners’ selves into one’s own self and the disentanglement of one’s self from one’s ex-partner after romantic breakup. Then, I will discuss research surrounding temporal self-appraisal theory, which implies that shifts in past self perceptions are not only possible but common. Finally, I will present the current research which examines whether shifts in past self perceptions do in fact occur after a romantic breakup, and if so, the impact of these shifts on post-breakup well-being.

I recruited people in romantic relationships to rate their current self perceptions, specifically in the domains of life satisfaction, relationship satisfaction, authenticity, closeness to their ideal self, and self-concept clarity. Approximately four months later, participants rated how they now perceived their past self of four months prior—the self who they were when they participated in the first session—on the same domains. In other words, participants rated their perceptions of the self who they were at the exact same point in time twice—once at that time and again four months later retrospectively. If participants are perfectly accurate, these two ratings should be identical—they are both ratings of the exact same self. As such, any discrepancy between the two ratings is an indication of a shift in one’s perception of their past self. I hypothesized that shifts in past self perceptions would occur more strongly in people who experienced a romantic breakup between ratings than in people who did not. I further hypothesized that for people who experienced a romantic breakup, larger shifts in past self perceptions would predict higher post-breakup well-being.

Distress after a romantic breakup

Romantic breakup is one of the most ubiquitous of highly distressing events that occur in people's lives (Frazier & Hurliman, 2001; Maciejewski et al., 2001; Mazure, Bruce, Maciejewski, & Jacobs, 2000). For some, the symptoms experienced after a breakup are similar to those typically experienced after the death of a loved one (Davis et al., 2003; Prigerson & Jacobs, 2001). People may even experience physical pain in the chest that mimics the feeling of a heart attack, a phenomenon known as "heartbreak syndrome" (Wittstein et al., 2005). Such intense levels of distress after romantic breakup can have lasting consequences; romantic breakups are a common trigger for the onset of mood disorders (Monroe, Rhode, Seeley, & Lewinsohn, 1999; Overbeek, Vollebergh, Engels, & Meeus, 2003), substance abuse disorders (Overbeek et al., 2003), and even suicide (Drum, Brownson, Burton Denmark, & Smith, 2009; Vajda & Steinbeck, 1999).

Breakup distress manifests both emotionally and cognitively. Emotionally, after a breakup people tend to experience depressive symptoms (Boelen & Reijntjes, 2009; Field, Diego, Pelaez, Deeds, & Delgado, 2009, 2013b; Sbarra & Emery, 2005), anxiety symptoms (Boelen & Reijntjes, 2009; Field et al., 2013b), and anger (Field et al., 2013b; Sbarra & Emery, 2005). Cognitively, after a breakup people tend to experience rumination (Field, Diego, Pelaez, Deeds, & Delgado, 2013a), lower self-esteem (Frazier & Cook, 1993), and negative beliefs about the self, the world, the future, and life (Boelen & Reijntjes, 2009).

Boelen and Reijntjes (2009) found that 26% of the distress experienced after a romantic breakup was explained by two cognitive factors: negative beliefs about the self and catastrophic interpretations of one's own reaction to the breakup (e.g., thinking one is so upset that they must be going crazy). This finding led them to conclude that cognitions are a crucial part of breakup-

related distress and are thus a key target for facilitating recovery after a breakup. This is in line with other researchers' suggestions that the emotional outcomes of a romantic breakup are in large part caused by cognitions (e.g., Brewin & Holmes, 2003; Dalgleish, 2004). To examine that notion more deeply, Brenner and Vogel (2015) developed a scale that measures cognitions about one's ex-relationship and ex-partner, the Positive and Negative Ex-Relationship Thoughts Scale (PANERT). They found that more positive and negative thoughts about one's ex was associated with more distress, depression, negative adjustment, and loss of self. Furthermore, more positive thoughts about one's ex was associated with less rediscovery of self and less positive adjustment.

In sum, the distress experienced after a romantic breakup is often quite substantial. This extent of distress cannot be sustained without significantly impairing functioning; as such, most people would be highly motivated to reduce the distress. Because cognitions play a major role in breakup distress, they are also likely a good target for ameliorating that distress.

The “sour grapes” effect

One cognitively oriented way to reduce breakup distress is to retrospectively derogate the now-ended relationship, as might occur in the phenomenon commonly known as the “sour grapes effect.” More generally, the sour grapes effect is the tendency to downplay the desirability of something one is unable to obtain, generally thought to ameliorate the cognitive dissonance of wanting something one cannot have (Elster, 1982). The effect was named after one of Aesop's Fables, *The Fox and the Grapes*:

A famished fox saw some cluster of ripe black grapes hanging from a trellised vine. She resorted to all her tricks to get at them, but wearied herself in vain, for she could not reach them. At last she turned away, hiding her disappointment and saying, “The grapes are sour, and not as ripe as I thought.”

Probably the largest illustration of the sour grapes effect was Hallerod's (2006) secondary analysis of Statistics Sweden's annual Survey of Living Conditions. The survey included a list of consumption items (e.g., television, car, summer cottage). Swedish citizens aged 18-70 selected one of the following options for each consumption item: "I have it," "I don't have it because I can't afford it," or "I don't have it because I don't want it." The survey also collected data on citizens' income. People with lower incomes chose "I don't want it" for more items than people with higher incomes. There is no reason to expect that income should truly have an influence on what types of items people want, suggesting that this difference is caused by the sour grapes effect. In other words, people with lower incomes could not afford many of the items on the list but it is more comfortable to believe that they do not want an item than to accept being unable to have an item they do want.

The sour grapes effect has also been found experimentally. Brehm, Stires, Sensenig, and Shaban (1966) had participants rank order their preference of each musical record on a presented list. Participants were told that they would be sent one of the records, randomly selected, for them to keep. Later, they were told that one of the records had been lost due to a shipping error. Afterward, participants decreased their ranking of the lost record, showing a sour grapes effect. Hammock and Brehm (1966) found the same results with children ranking candy bars. Essentially, participants thought to themselves, "That's okay, that wasn't the one I wanted anyway" to avoid feelings of disappointment about not receiving the now unavailable selection.

Most relevantly to the current research, the sour grapes effect has been found in a romantic context. Wilson and colleagues told participants they were testing new software designed to predict romantic compatibility (Wilson, Wheatley, Kurtz, Dunn, & Gilbert, 2004). Participants created a profile including a photograph of themselves and both positive and

negative information about themselves. Participants were then told that a participant with whom they had been matched was currently deciding between them and another participant based on their profiles. While they waited for the decision, participants were shown their match's profile. In reality, there was no other participant; the same profile (with either a male or female photograph) was shown to all participants and the "decision" was randomly assigned. After learning the outcome, participants rated their level of attraction to their match. Participants who were not chosen rated their match as less attractive than did participants who were chosen. As before, to ameliorate the disappointment of not being chosen by their match, people were motivated to believe that they were not interested in their match anyway.

In sum, when people are barred from having something or someone they would otherwise want, they shift their attitudes toward believing the object or person is not desirable. In the context of a romantic breakup this effect might emerge as shifts in past self perceptions that lead one to believe that while they were in the now-ended relationship they were not satisfied with their relationship or with their life in general.

Inclusion of romantic partner in the self

The second key reason why these shifts might occur is that within romantic relationships people incorporate aspects of their partner's self into their own self-concept (Aron & Aron, 1986, 1996). Aron and Aron (1986, 1996) proposed that this incorporation of partner in the self is the primary way in which people fulfill the need to self-expand. Self-expansion refers to the increase in content incorporated within the self-concept which can be the result of various activities and relationships, but especially romantic relationships. This inclusion of one's romantic partner in one's self has been robustly found using various creative research paradigms.

The inclusion of the partner in the self has been shown using implicit measures. Aron, Aron, Tudor, and Nelson (1991) used a reaction time task to examine self-other integration within romantic relationships. They had participants rate both themselves and their romantic partners on 90 traits. Then, participants performed a reaction time task in which they made me/not me decisions for each of the 90 traits. Participants responded more slowly to traits that were true of one partner but not the other than to traits that were either true of both partners or not true of both partners. This result was replicated using essentially the same procedure by Aron and Fraley (1999) and by Smith, Coats, and Walling (1999). These findings indicate that people confuse their self with their spouse's self, as they require more cognitive processing (which leads to slower reactions) to make accurate me/not me decisions about a domain in which the two selves are discrepant. This cognitive confusion between one's own self and one's spouse's self suggests significant integration of the two selves. Similarly, people's implicit preference for their partner's name was linked to their explicit self-esteem just as much as was their implicit preference for their own name (Dehart et al., 2011). As this evidence for self-partner integration was found using implicit measures, it can be concluded that the partner's aspects are deeply and genuinely experienced as part of oneself as opposed to an artifact of self-presentation (i.e., attempts to make one's relationship appear strong and intimate).

The inclusion of the partner in the self has also been shown using explicit measures. After rating themselves, their partner, and two famous people on a number of traits, participants made more errors confusing traits rated for the self and their partner than they did for the self versus either famous person (Mashek, Aron, & Boncimino, 2003). Thus, people's conceptualization of their partner's and their own self overlap. This overlap in one's sense of their own and their partner's selves was shown by Slotter and Gardner (2009) to occur quite rapidly. Two weeks

after rating how important 15 attributes were to themselves and their partner, participants came to the lab for two discussions, one with their partner and one with “another participant” who was actually a confederate. Both the partner and the confederate were instructed to talk about the personal importance of one of the domains the participant had rated as unimportant to themselves and their partner. Thus, participants believed they were discovering for the first time that something they did not think was important to their partner actually was. After the discussions, participants re-rated the personal importance of the 15 attributes. The importance of the “newly discovered” partner attribute significantly increased, which did not occur for the confederate’s attribute. In a second study, Slotter and Gardner (2009) replicated these results with the same procedure but a between-subjects design; half the participants discussed attributes with a confederate and the other half discussed attributes with their romantic partner. In other words, people incorporate aspects of their partner’s selves into their selves fairly immediately.

In sum, people rapidly integrate their romantic partners into their own self-concepts at a deep and genuine level. People struggle cognitively to separate themselves from their partners when so asked and their evaluations of their partners are associated with their own self-esteem. This extensive integration of the romantic partner into the self leaves people with a potentially hefty undertaking if the romantic relationship breaks up leading one to no longer want to be associated with their now ex-partner.

Disentanglement of ex-partner from the self

Indeed, previous research suggests that people would be motivated to disentangle their ex-partner from their self. For example, Boelen and van den Hout (2010) examined the effects of continued inclusion of the ex-partner in the self after romantic breakup. They measured inclusion of the ex-partner in the self both explicitly (with the Inclusion of Other in the Self Scale

developed by Aron, Aron, and Smollan, 1992) and implicitly (with the me/not me reaction time task used in Aron et al., 1991). Explicit but not implicit inclusion of the ex-partner in the self was associated with higher distress. In other words, thinking that one still has their ex-partner's aspects incorporated into their own self is distressing, which should lead to the motivation to remove the ex-partner's aspects from the self to ameliorate that distress. Furthermore, because distress was not associated with implicit inclusion of ex-partner in the self, the surface-level shifts in past self perceptions I am predicting in the current research should be sufficient to ameliorate the distress.

However, as people seek to determine which parts of themselves are truly their own and which parts were integrated from their now ex-partner people experience self-concept confusion. Slotter, Gardner, and Finkel (2010) explored self-concept clarity (i.e., a lack of self-concept confusion) after romantic breakup by comparing blog posts about a breakup to blog posts about a career change. The posts about a breakup involved significantly less self-concept clarity than did the posts about a career change. Similarly, Slotter and Walsh (2017) found that blog posts about a divorce involved significantly less self-concept clarity than did blog posts about a marriage. Slotter et al. (2010) further explored self-concept confusion after a romantic breakup with a longitudinal study that followed people who were in romantic relationships at initial recruitment. Every second week for six months, participants rated their self-concept clarity and current relationship status. In people who did not experience a romantic breakup during the six months, self-concept clarity increased steadily over time. In people who did experience a romantic breakup, self-concept clarity dropped dramatically immediately after the breakup and then continued to decrease gradually over time. In other words, even as people begin the process of

disentangling their ex-partner from their self, they continue to experience distress in the form of self-concept confusion.

People also perceive a loss of self as they prune aspects of their former selves away. For example, Lewandowski, Aron, Bassis, and Kunak (2006) recruited people who had experienced a breakup within the past six months. They asked participants, “How were you affected by the breakup of your relationship?” and gave them five minutes to write their answer. They coded the written responses for number of statements or questions that related to a loss of self such as, “I don’t know who I am anymore,” “I feel incomplete as a person,” “I feel lost as a person,” and “I’ve lost a big part of myself.” Participants also retrospectively rated the degree of self-expansion and inclusion of their partner in their self that they had experienced during the relationship. Loss of self after breakup was associated with greater pre-breakup inclusion of romantic partner in the self and greater pre-breakup self-expansion within the relationship (replicated by Lewandowski & Bizzoco, 2007). In other words, the more the ex-partner had been incorporated into the self during the relationship, the more one perceives a loss of self after breakup as they remove the large number of aspects of their ex-partner from their self. This is yet another way in which people continue to experience distress even as they fulfill the motivation to disentangle the ex-partner from the self.

In sum, it is distressing to continue to incorporate aspect of the ex-partner in one’s self after a romantic breakup. As such, newly single people should be motivated to minimize such incorporation. However, this process involves negative consequences of its own such as self-concept confusion and perceived loss of self. These difficulties with disentangling one’s ex-partner from their self may be eased by shifts in past self perceptions that lead one to believe that

their ex-partner's influence on who they were was minimal and that the self who they were while in that relationship was inauthentic, unclear, and far from their ideal self.

Shifts in past self perceptions

Previous findings of shifts in past self perceptions are closely linked with “temporal self-appraisal theory” (Wilson & Ross, 2001) which posits that the connection between past, present, and future selves can be strategically increased or decreased depending on the influence it will have on perceptions of the present self. Essentially, people are able to psychologically separate their past selves from their present selves then derogate their past selves in order to make their present selves appear better.

There is ample evidence that past selves can be strategically contrasted out of the present self rather than being integrated into it. For example, Gramzow and Willard (2006) asked university students to report their SAT score and their current GPA from memory. Both actual scores were retrieved from the university's registrar. People who scored higher in tendency to self-enhance more strongly exaggerated their GPA (a current goal) but there was no association between tendency to self-enhance and exaggeration of SAT score (a past goal). This implies a disconnect between the past and present self; if the past self were incorporated into the present self, people who tend to self-enhance would enhance both their past and present selves, thus exaggerating both their GPA and SAT score.

Similar results were attained in three studies in which participants wrote about a time in the past 10 years when they had lied to or emotionally harmed someone (Stanley, Henne, Iyengar, Sinnott-Armstrong, & De Brigard, 2017). In all three studies, stronger perception of having changed as a person since the event was associated with more willingness to morally condemn the harmful action. In other words, people who have successfully psychologically

separated their past self from their current self are more comfortable derogating the past self because that derogation will not negatively impact the current self-view.

Some research even suggests that perceptions of past selves are more like perceptions of entirely separate people. For example, Pronin and Ross (2006) randomly assigned participants to rate the traits of their current self, their self five years ago, their friend's current self, or their friend's self five years ago. The rating scales for each trait were bipolar (e.g., serious - carefree) with the option to instead click "variable/depends on the situation." In general, people tend to make more situational attributions about themselves and more dispositional attributions about other people. In this study, Pronin and Ross used the frequency of selecting "variable/depends on the situation" as a measure of situational attributions. Participants who rated their current self made significantly more situational attributions than did participants who rated their past self, their friend's current self, or their friend's past self. Furthermore, the past self and two friend conditions did not differ in attributions suggesting people perceive their past self more like an entirely separate person. Other research has found similar results using construal level instead of situational attributions; people tend to describe themselves in more concrete and specific terms while describing other people in more abstract and schematic terms and people describe their past selves abstractly, as if they were another person (Liberian, Trope, & Stephan, 2007). Furthermore, neuroimaging research has found that thinking about the past self and thinking about another person activates the same brain areas (Buckner & Carroll, 2007).

People's ability to psychologically disconnect past from current selves allows them to retrospectively derogate their past selves in order to perceive their present selves more positively without that derogation instead negatively impacting perceptions of the present selves. This derogation of past selves is conceptually very similar to the shifts in past self perceptions that I

am predicting occur after romantic breakup. Previous research has found this derogation (or shifts in past self perceptions) in various contexts, to which I hope to add the context of romantic breakup with the present research.

Wilson and Ross (2001) conducted three studies examining derogation of past selves. In the first study, participants rated themselves on a list of traits twice, approximately two months apart. During the second session, they also retrospectively rated their past self of two months ago. Participants' actual change, determined by comparing current ratings at Time 1 and current ratings at Time 2, showed a small decrease. But participants derogated their past selves, as determined by comparing current ratings at Time 1 and retrospective ratings at Time 2, in order to instead perceive growth over those two months. This finding was replicated with a longer gap of one year by Molouki, Bartels, and Urminsky (2016).

In their second study, Wilson and Ross (2001) had participants rate the same list of traits twice in the same session, once for their current self, and again for their past self of approximately 8 months prior. Participants in a second condition did the same but rated an acquaintance at both times instead of themselves. Participants rated themselves significantly better in the present than in the past but rated an acquaintance to be the same in the present and the past. This perception of growth over time for the self but not for an acquaintance illustrates the motivational nature of this illusion.

Lastly, Wilson and Ross (2001) recruited pairs of siblings to rate the traits of both themselves and their sibling both now and in the past (before age 12). Participants reported improvement over time for both themselves and their siblings but the degree of improvement was larger for the self. In the current ratings, participants rated themselves more positively than

they rated their siblings, but in the past ratings participants rated themselves more negatively than they rated their siblings.

People derogate their past selves not only after the simple passage of time but also after involvement in an activity that they expected to lead to improvement. Conway and Ross (1984) had participants rate their study skills before half went through an ineffective study skills improvement program and half were waitlisted. Afterward, participants again rated their current study skills and retrospectively rated their study skills before the program. Despite there being no difference at Time 2 in study skills between those who went through the program and those who did not, the people who went through the program derogated their past skills in order to perceive improvement. Similarly, Safer and Keuler (2002) examined the symptom ratings of psychotherapy patients before and after engaging in therapy. At the end of therapy, patients also retrospectively rated their pre-therapy symptom levels. Patients did not experience actual improvement but they created the perception of improvement by retrospectively rating their pre-therapy selves to be more symptomatic than they had actually been. In a second study, Safer and Keuler (2002) replicated these results using both patient and therapist ratings.

In sum, people psychologically separate their past selves from their present selves, often to the point that perceptions of the past self are more like perceptions of a completely different person. Then, people strategically derogate their past selves in order to improve perceptions of the present self. This derogation of the past self is very similar to the idea of shifts in past self perceptions which I test in the present research with the prediction that this phenomenon will occur in the context of romantic breakup.

Hypotheses

Primary

My three primary hypotheses test my main general prediction that people shift their past self perceptions after a romantic breakup and that doing so preserves post-breakup well-being.

Hypothesis 1. My first hypothesis is: People who break up will experience larger negative shifts in past self perceptions of happiness (i.e., toward believing their past self was less happy in retrospect than they believed at the time) compared to people whose relationships remain intact.

This hypothesis is directly related to my proposal that shifts in past self perceptions occur in part to minimize the distress that occurs after breakup. I have operationalized “happiness” as a combination of life satisfaction and relationship satisfaction.

Hypothesis 2. My second hypothesis is: People who break up will experience larger negative shifts in past self perceptions of self-positivity (i.e., toward believing their past self was less positive in retrospect than they believed at the time) compared to people whose relationships remain intact.

This hypothesis is directly related to my proposal that shifts in past self perceptions occur in part to disentangle oneself from the ex-partner’s self. I have operationalized “self-positivity” as a combination of authenticity, closeness to ideal self, and self-concept clarity.

Hypothesis 3. My third hypothesis is: In people who break up, larger negative shifts in past self perceptions of happiness and self-positivity (i.e., toward believing their past self was less happy and less positive in retrospect than they believed at the time) will be associated with higher well-being at Time 2.

Secondary

My two secondary hypotheses explore the possibility that shifts in past self perceptions after romantic breakup occur for the two reasons I have discussed: to minimize distress and to disentangle oneself from the ex-partner's self. These hypotheses involve two variables that serve as proxies for the motivation to minimize distress (i.e., higher distress at the time of breakup) and the motivation to disentangle oneself from the ex-partner (i.e., more negative attitude toward one's ex-partner).

Hypothesis 4. My fourth hypothesis is: In people who break up, larger negative shifts in past self perceptions of happiness and self-positivity (i.e., toward believing their past self was less happy and less positive in retrospect than they believed at the time) will be associated with higher distress at the time of breakup.

Hypothesis 5. My fifth hypothesis is: In people who break up, larger negative shifts in past self perceptions of happiness and self-positivity (i.e., toward believing their past self was less happy and less positive in retrospect than they believed at the time) will be associated with a more negative attitude toward one's ex-partner.

Method

Participants

I conducted an *a priori* power analysis using G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007) to determine the sample size I would need to detect a between-within interaction effect size of $f = 0.15$ or $d = .30$ with 80% power. The calculation resulted in a suggested total sample size of $N = 90$ assuming equal group sizes of $n = 45$ each. However, my primary hypothesis tests involve two-tailed comparisons of means between participants whose relationships broke up and participants whose relationships remained intact. Based on previous

longitudinal studies on romantic relationships, I assumed that approximately one third of my sample would break up between the two waves of data collection (e.g., Novoa, 2017). As such, I adjusted the required sample size to $N = 135$ such that the smaller group (who experienced a breakup), which needs to be approximately 33% of the total sample, would have the suggested minimum of $n = 45$. Also, due to the longitudinal nature of my study, I added a buffer of 50% to account for attrition (e.g., Daly & Nataraajan, 2015), and an additional buffer of 10% to account for any other problems that may occur, for a required sample size at of $N = 297$ at Time 1 (rounded to 300).

However, after my first sample—undergraduate students recruited via Carleton University’s SONA online subject pool—had an attrition rate of 70.6%, I began collecting two additional samples. I restarted recruitment on SONA in a later semester (using the website’s setting that disallowed participants in the first sample from participating) and recruited Canadian and American people in the community via Amazon’s MTurk website. I recruited as many participants as possible within my time and financial constraints.

SONA participants were compensated with course credit—0.25% for Time 1 and an additional 0.50% for Time 2 toward an introductory psychology course. MTurk participants were compensated with \$0.75 USD for Time 1 and an additional \$1.50 USD for Time 2. In the recruitment notice, I posted that participants must be in a romantic relationship of 2-12 months in length and I included questions at the beginning of the questionnaire to confirm eligibility. This duration of relationship was chosen as a balance between being long enough for the relationship to start being meaningful to the participant and being short enough that there was a moderate chance the relationship would break up between the two waves of the study. Participants who reported being single or being in a shorter or longer relationship than requested were screened

out. I did not exclude any data collected from participants who passed this initial screening even if their responses later in the questionnaire contradicted their statement of eligibility.

See Table 1 for information and demographics for each of the three samples. All together, I was able to recruit 540 participants at Time 1. The attrition rate was again high in both subsequent samples for a combined rate for all three samples of 65.9% and a final sample of $N = 184$. A smaller proportion than expected broke up between the two waves of data collection but the group sizes were still sufficient: $n = 48$ (breakup) and $n = 136$ (intact). Note that the degrees of freedom varied across individual hypothesis tests due to missing data, which were excluded pairwise.

Table 1
Sample Information and Demographics

	Sample 1	Sample 2	Sample 3	Combined samples
Participant type	Undergraduates	MTurk workers	Undergraduates	–
Time 1 dates	Nov–Dec 2017	Dec 2017	Sep–Dec 2018	–
Time 2 dates	Mar–Apr 2018	Apr–May 2018	Feb–Apr 2019	–
N at Time 1	146	218	176	540
N at Time 2 *	43 (29.4%)	93 (42.7%)	48 (27.3%)	184 (34.1%)
n who broke up **	16 (37.2%)	16 (17.2%)	16 (33.3%)	48 (26.1%)
% Female	76.7	45.2	80.9	61.7
% White	47.6	73.9	66.0	65.7
M age (SD)	19.1 (1.8)	34.6 (11.5)	19.0 (2.3)	27.0 (11.4)
M relationship length in months at Time 1 (SD)	6.7 (4.6)	8.3 (6.0)	6.8 (3.1)	7.6 (5.1)

Note. *Percentages are of N at Time 1. **Percentages are of n at Time 2.

Procedure

Time 1. All study materials can be found in Appendix B. Note that additional measures were included in the questionnaire for the purposes of other research projects; I will not discuss

them in text in the interest of clarity but they can be found in the appendix. Participants were recruited via SONA and MTurk with a recruitment notice for a “two-part study” entitled “Your Identity Over Time,” the purpose of which was described as an examination of “people’s thoughts about who they are and how these thoughts change or remain similar over time.” The recruitment notice clearly indicated the eligibility criteria for participation: “Participants must currently be in a romantic relationship that has lasted between 2-12 months.” Participants clicked a link to enter the survey where they were first shown the informed consent, and if they provided consent, they were next shown the eligibility questions. Three eligibility questions were posed, each only shown if the participant was not screened out due to their response on the previous one: 1) “Are you currently in a romantic relationship?”—if yes, 2) “Have you been in your current romantic relationship for longer than 2 months?”—if yes, 3) “Have you been in your current romantic relationship for longer than 12 months?”—if no, participants continued on to the study. Participants who were screened out were shown a short debriefing explaining that they were ineligible to participate including the contact information of the researchers and the presiding ethics board.

Eligible participants were next asked to provide their romantic partner’s name or initials “in order to properly set up the questions in th(e) survey.” The names were piped into the text of certain questions to improve their clarity (e.g., “How intimate do you feel to (Partner’s name)?”). Participants then rated—in randomized order—their current life satisfaction, relationship satisfaction, authenticity, closeness to ideal self, and self-concept clarity. Next, participants provided demographic information: age, gender, length of romantic relationship, and ethnicity. Finally, participants were shown a partial debriefing including a reminder that they would be re-

contacted in approximately four months to complete the remainder of the study as well as contact information of the researchers and the presiding ethics board.

Time 2. Participants were re-contacted through SONA's/MTurk's direct messaging functions with the recruitment notice for the second part of the study entitled "Your Identity Over Time (Part 2)." The recruitment notice reminded participants that they previously "participated in the first half of a two-part study called Your Identity Over Time. It is now time for the second half of the study! You DO NOT need to be currently in a romantic relationship to participate in this part of the study." The recruitment notice included a link to the online questionnaire and contact information of the researchers and the presiding ethics board. Participants were reminded up to three times, each one week apart, about the second part of the study.

Participants who entered the second wave of the study were first shown the informed consent which reminded them that they did not need to be in a romantic relationship to participate and that they could only participate if they had previously completed part one. Participants who consented were asked, "Are you still in a romantic relationship with (Partner name)?" Participants then rated their current life satisfaction and each of the following domains regarding their past self of four months ago (in randomized order): life satisfaction, relationship satisfaction (if they had indicated they were still in a relationship), authenticity, closeness to ideal self, and self-concept clarity. Afterward, participants whose relationships had broken up were asked, "Right after the breakup how sad were you that you and (Partner name) broke up?" and rated their current attitude toward their ex-partner. Participants who answered these breakup-related questions were given a positive mood induction: "We'd like you to take a moment to think about the following: Sometimes, even when bad things happen, they ultimately have

positive consequences. We would like you to list some good things that have occurred or that could occur as a result of your breakup with (Partner name). In other words, what are some positive consequences of the breakup?” with a medium-sized text box for responses. Lastly, all participants were shown the full debriefing detailing the hypotheses being explored in the current research, links where they could learn more about the relevant topics, and the contact information of the Distress Centre, the researchers, and the presiding ethics board.

Measures

Life satisfaction. To measure life satisfaction, I used the Satisfaction with Life Scale (SWLS) developed by Diener, Emmons, Larsen, and Griffin (2006). The five items were: “In most ways, my life is close to my ideal,” “The conditions of my life are excellent,” “I am satisfied with my life,” “So far, I have gotten the important things I want in life,” and “If I could live my life over, I would change almost nothing.” Responses were provided on a 7-point Likert scale with the following anchors: 1-*Strongly disagree*, 2-*Disagree*, 3-*Somewhat disagree*, 4-*Neither agree nor disagree*, 5-*Somewhat agree*, 6-*Agree*, 7-*Strongly agree*. The five items were aggregated into a mean score for use in analysis. The mean life satisfaction of the full sample at Time 1 was $M = 4.70$, 95%*CI* [4.50 – 4.90], and the internal consistency was $\alpha = .90$ (as compared to $\alpha = .87$ in the original SWLS). The mean life satisfaction of the full sample at Time 2 was $M = 4.73$, 95%*CI* [4.53 – 4.93], and the internal consistency was $\alpha = .89$.

To measure life satisfaction in retrospect at Time 2, the five items were reworded as follows: “4 months ago, in most ways, my life was close to my ideal,” “4 months ago, the conditions of my life were excellent,” “4 months ago, I was satisfied with my life,” “4 months ago, so far, I had gotten the important things I wanted in life,” and “4 months ago, if I could have lived my life over, I would have changed almost nothing.” The mean life satisfaction of the full

sample at Time 2 retrospectively was $M = 4.42$, $95\%CI [4.18 - 4.66]$, and the internal consistency was $\alpha = .92$.

Relationship satisfaction. To measure relationship satisfaction, I used an adapted version of the Perceived Relationship Quality Components Inventory (PRQC) developed by Fletcher, Simpson, and Thomas (2000). The PRQC contains one item for each of six relationship quality domains found in a factor analysis, which are relationship satisfaction, commitment, intimacy, trust, passion, and love. I piped into the wording of the items the participants' partners' names (i.e., if the original item was "How much do you love your partner?", my item was "How much do you love (Partner's name)?"). The six items I used are: "How satisfied are you with your relationship with (Partner's name)?", "How committed are you to your relationship with (Partner's name)?", "How intimate do you feel to (Partner's name)?", "How much do you trust (Partner's name)?", "How passionate is your relationship with (Partner's name)?", and "How much do you love (Partner's name)?". Responses were provided on a 7-point Likert scale with the following anchors: 1-*Not at all*, 7-*Very much*. The six items were aggregated into a mean score for use in analysis. The mean relationship satisfaction of the full sample was $M = 5.97$, $95\%CI [5.81 - 6.13]$, and the internal consistency was $\alpha = .91$ (as compared to $\alpha = .88$ in the original PRQC).

To measure relationship satisfaction in retrospect at Time 2, the six items were reworded as follows: "4 months ago, how satisfied were you with your relationship with (Partner's name)?", "4 months ago, how committed were you to your relationship with (Partner's name)?", "4 months ago, how intimate did you feel to (Partner's name)?", "4 months ago, how much did you trust (Partner's name)?", "4 months ago, how passionate was your relationship with (Partner's name)?", and "4 months ago, how much did you love (Partner's name)?" The mean

relationship satisfaction of the full sample at Time 2 retrospectively was $M = 5.44$ 95% CI [5.22 – 5.66], and the internal consistency was $\alpha = .93$.

Authenticity. To measure authenticity, I used an adapted version of the Self-Experience Questionnaire (SEQ) developed by Plasencia, Alden, and Taylor (2011). The original SEQ was worded to measure situational authenticity (e.g., “I felt genuine during the conversation,” “I felt I was putting on a façade.”). I changed to wording so as to measure more general current authenticity (e.g., “The person I am at this time in my life is genuine,” “The person I am at this time in my life is a façade.”). Each of the five items began the same way (“The person I am at this time in my life is...”), and the five items ended with “genuine,” “a façade” (reverse coded), “truly me,” “artificial” (reverse coded), and “authentic.” Responses were provided on a 7-point Likert scale with the following anchors: 1-*Strongly disagree*, 2-*Disagree*, 3-*Somewhat disagree*, 4-*Neither agree nor disagree*, 5-*Somewhat agree*, 6-*Agree*, 7-*Strongly agree*. The five items were aggregated into a mean score for use in analysis. The mean authenticity of the full sample was $M = 5.48$, 95% CI [5.32 – 5.64], and the internal consistency was $\alpha = .82$ (as compared to $\alpha = .76$ in the original SEQ).

To measure authenticity in retrospect at Time 2, the five items were reworded to each begin with, “The person I was 4 months ago was...”, and end in the same five ways as in Time 1. The mean authenticity of the full sample at Time 2 retrospectively was $M = 5.06$, 95% CI [4.86 – 5.26], and the internal consistency was $\alpha = .84$.

Closeness to ideal self. To measure closeness to ideal self, I used an adapted version of the Inclusion of Other in the Self Scale (IOS) developed by Aron, Aron, and Smollan (1992). The original IOS was worded to measure the degree of perceived overlap between oneself and

one's romantic partner. I changed to wording so as to measure the degree of perceived overlap between one's current self and one's ideal self. Participants read the instruction:

Generally, people are able to picture in their minds an ideal version of themselves. That is, people generally know what they would be like if they could be perfect in their own eyes. Take a moment to think about your own ideal version of yourself. (next button – next text appears on same page) Now, take a moment to think about who you are at this time in your life. How close are you to your ideal right now? (next button – next text appears on same page) Please use the following images to answer. The circles on the left of each pair are who you are right now, while the circles on the right of each pair are your image of the ideal version of yourself. Select the pair of circles that best represents how close you are to your ideal, or how much overlap there is between the aspects of your current self and the aspects of your ideal self.

Responses were provided on the image shown in Figure 1; each pair of circles was separately clickable. The mean closeness to ideal self of the full sample at Time 1 was $M = 4.60$, 95%*CI* [4.38 – 4.82].

To measure closeness to ideal self in retrospect at Time 2, Participants read the instruction:

Generally, people are able to picture in their minds an ideal version of themselves. That is, people generally know what they would be like if they could be perfect in their own eyes. Take a moment to think about who your ideal self was 4 months ago. (next button – next text appears on same page) Now, take a moment to think about who you were 4 months ago. How close were you to your ideal at that time? (next button – next text appears on same page) Please use the following images to answer. The circles on the left

of each pair are who you were 4 months ago, while the circles on the right of each pair are your image of who your ideal self was 4 months ago. Select the pair of circles that best represents how close you were to your ideal at that time, or how much overlap there was between the aspects of your past self and the aspects of your past ideal self.”

Responses were provided on the image shown in Figure 2; each pair of circles was separately clickable. The mean closeness to ideal self of the full sample at Time 2 retrospectively was $M = 4.10$, $95\%CI [3.83 - 4.37]$.

Figure 1
Closeness to Ideal Self Response Image—Time 1

Figure 2
Closeness to Ideal Self Response Image—Time 2 retrospectively

Self-concept clarity. To measure self-concept clarity, I used a shortened version of the Self-Concept Clarity Scale (SCC) developed by Campbell et al. (1996). The original SCC included 12 items, from which I selected the five with the highest factor loadings to reduce the burden on participants: “In general, I have a clear sense of who I am and what I am,” “On one day I might have one opinion of myself and on another day I might have a different opinion” (reverse coded), “I spend a lot of time wondering about what kind of person I really am” (reverse coded), “Sometimes I think I know other people better than I know myself” (reverse coded), and “It is often hard for me to make up my mind about things because I don’t know what I really want” (reverse coded). Responses were provided on a 7-point Likert scale with the following anchors: 1-*Strongly disagree*, 2-*Disagree*, 3-*Somewhat disagree*, 4-*Neither agree nor disagree*, 5-*Somewhat agree*, 6-*Agree*, 7-*Strongly agree*. The five items were aggregated into a mean score for use in analysis. The mean self-concept clarity of the full sample was $M = 4.28$, 95%*CI* [4.08 – 4.48], and the internal consistency was $\alpha = .82$ (as compared to $\alpha = .86$ in the original SCC).

To measure self-concept clarity in retrospect at Time 2, the five items were reworded as follows: “4 months ago, in general, I had a clear sense of who I was and what I was,” “4 months ago, on one day I might have had one opinion of myself and on another day I might have had a different opinion” (reverse coded), “4 months ago, I spent a lot of time wondering about what kind of person I really was” (reverse coded), “4 months ago, sometimes I thought I knew other people better than I knew myself” (reverse coded), and “4 months ago, it was often hard for me to make up my mind about things because I didn’t know what I really wanted” (reverse coded). The mean self-concept clarity of the full sample at Time 2 retrospectively was $M = 4.07$, 95%*CI* [3.87 – 4.27], and the internal consistency was $\alpha = .83$.

Breakup distress. To measure breakup distress, I created a single item: “Right after the breakup, how sad were you that you and (Partner’s name) broke up?” Responses were provided on a 7-point Likert scale with the following anchors: 1-*Strongly disagree*, 2-*Disagree*, 3-*Somewhat disagree*, 4-*Neither agree nor disagree*, 5-*Somewhat agree*, 6-*Agree*, 7-*Strongly agree*. The mean breakup distress of the full sample was $M = 4.63$, 95%*CI* [4.06 – 5.20].

Attitude toward ex-partner. To measure attitude toward ex-partner, I created a three-item inventory: “I respect (Partner’s name),” “I like (Partner’s name) as a person,” and “I believe (Partner’s name) is a generally decent person.” Responses were provided on a 7-point Likert scale with the following anchors: 1-*Strongly disagree*, 2-*Disagree*, 3-*Somewhat disagree*, 4-*Neither agree nor disagree*, 5-*Somewhat agree*, 6-*Agree*, 7-*Strongly agree*. The three items were aggregated into a mean score for use in analysis. The mean attitude toward ex-partner of the full sample was $M = 5.02$, 95%*CI* [4.51 – 5.53], and the internal consistency was $\alpha = .96$.

Results

Preliminary checks

Non-random attrition. To check for differences between participants who completed both time points (“completers”) and participants who only completed Time 1 (“non-completers”), I used two-tailed independent samples *t*-tests for continuous variables and chi-square tests for categorical variables. I tested for differences in age, gender, length of romantic relationship, life satisfaction, relationship satisfaction, authenticity, closeness to ideal self, and self-concept clarity at Time 1. See Table 2 for means and 95% confidence intervals of these variables.

Non-completers were significantly younger than completers, $t(489) = 5.43$, $p < .001$, $d = 0.48$; again, this is not of concern because age did not impact the hypothesized effects. Non-

completers and completers did not differ in gender, $\chi^2(1, N = 490) = 0.01, p = .918, \phi = .005$, or length of romantic relationship, $t(487) = 0.97, p = .332, d = 0.09$. Non-completers and completers also did not differ on any of the key variables at Time 1: life satisfaction, $t(494) = 0.26, p = .793, d = 0.03$; relationship satisfaction, $t(493) = 0.56, p = .576, d = 0.06$; authenticity, $t(499) = 0.03, p = .977, d = 0.00$; closeness to ideal self, $t(496) = 0.37, p = .709, d = 0.03$; self-concept clarity, $t(496) = 1.46, p = .144, d = 0.14$.

Table 2
Completers Versus Non-Completers

		Completers	Non-completers
Time 1	Age	27.03 [25.38 – 28.68]	22.55 [21.79 – 23.31]
	Length of romantic relationship (months)	7.55 [6.81 – 8.29]	7.07 [6.48 – 7.66]
	Life satisfaction	4.70 [4.50 – 4.90]	4.66 [4.52 – 4.80]
	Relationship satisfaction	5.97 [5.81 – 6.13]	5.91 [5.79 – 6.03]
	Authenticity	5.48 [5.32 – 5.64]	5.48 [5.36 – 5.60]
	Closeness to ideal self	4.60 [4.38 – 4.82]	4.65 [4.49 – 4.81]
	Self-concept clarity	4.28 [4.08 – 4.48]	4.09 [3.95 – 4.23]

Note: Mean, 95%CI [LL – UL].

Differences between samples. To check for differences between participants recruited via SONA (“SONA participants”) and participants recruited via MTurk (“MTurk participants”), I used two-tailed independent samples *t*-tests for continuous variables and chi-square tests for categorical variables. I tested for differences in age, gender, length of romantic relationship, life satisfaction, relationship satisfaction, authenticity, closeness to ideal self, and self-concept clarity at Time 1. I also tested for differences in degree of past self perception shifts in life satisfaction, relationship satisfaction, authenticity, closeness to ideal self, and self-concept clarity. Finally, I tested for differences in breakup status, life satisfaction, breakup distress, and attitude toward ex-partner at Time 2. See Table 3 for means and 95% confidence intervals of these variables (Time

2 retrospective variables are not reported individually because they are only relevant in comparison to Time 1 variables; they are inherently included in the shifts variables).

SONA participants were significantly younger than MTurk participants, $t(180) = 12.62, p < .001, d = 1.89$, and had significantly shorter relationships, $t(179) = 2.06, p = .040, d = 0.31$. Furthermore, there was a significantly higher than expected proportion of females in the SONA samples and males in the MTurk sample, $\chi^2(1, N = 183) = 22.03, p < .001, \phi = .35$. These differences are not surprising because MTurk is accessible to the entire community, whereas SONA is only accessible to university undergraduates who are in introductory psychology courses, which tend to be predominantly female.

SONA participants were significantly lower than MTurk participants on authenticity, $t(182) = 2.02, p = .045, d = 0.30$, and self-concept clarity, $t(181) = 5.42, p < .001, d = 0.81$. These differences are also not surprising as people's university years are usually associated with more self-exploration and self-related instability (Arnett, 2000, 2004). SONA participants and MTurk participants did not differ on any other key variables at Time 1: life satisfaction, $t(181) = 0.94, p = .346, d = 0.14$; relationship satisfaction, $t(181) = 1.05, p = .296, d = 0.16$; closeness to ideal self, $t(181) = 1.21, p = .228, d = 0.18$.

SONA participants and MTurk participants did not differ in the degree of any shifts in past self perceptions: life satisfaction, $t(174) = 1.32, p = .190, d = 0.20$; relationship satisfaction, $t(174) = 0.67, p = .506, d = 0.10$; authenticity, $t(175) = 1.26, p = .209, d = 0.19$; closeness to ideal self, $t(175) = 0.26, p = .793, d = 0.04$; self-concept clarity, $t(174) = 0.70, p = .483, d = 0.11$. SONA participants and MTurk participants also did not differ at Time 2 on life satisfaction, $t(176) = 0.06, p = .948, d = 0.01$, breakup distress, $t(46) = 0.15, p = .881, d = 0.05$, or attitude

toward ex-partner, $t(46) = 1.73, p = .090, d = 0.50$. However, a larger proportion of SONA participants than MTurk participants broke up, $\chi^2(1, N = 184) = 7.70, p = .006, \phi = .20$.

Table 3
SONA Participants Versus MTurk Participants

		SONA participants	MTurk participants
Time 1	Age	19.08 [18.65 – 19.51]	34.65 [32.32 – 36.98]
	Length of romantic relationship (months)	6.77 [5.97 – 7.57]	8.32 [7.10 – 9.54]
	Life satisfaction	4.60 [4.33 – 4.87]	4.79 [4.50 – 5.08]
	Relationship satisfaction	6.05 [5.81 – 6.29]	5.88 [5.66 – 6.10]
	Authenticity	5.32 [5.12 – 5.52]	5.64 [5.40 – 5.88]
	Closeness to ideal self	4.46 [4.15 – 4.77]	4.73 [4.42 – 5.04]
Shifts in past self perceptions	Self-concept clarity	3.75 [3.51 – 3.99]	4.79 [4.50 – 5.08]
	Life satisfaction	0.12 [0.00 – 0.41]	0.38 [0.13 – 0.63]
	Relationship satisfaction	0.61 [0.36 – 0.86]	0.48 [0.23 – 0.73]
	Authenticity	0.31 [0.09 – 0.53]	0.53 [0.28 – 0.78]
	Closeness to ideal self	0.55 [0.12 – 0.98]	0.48 [0.13 – 0.83]
Time 2	Self-concept clarity	0.12 [-0.10 – 0.34]	0.24 [0.00 – 0.48]
	Life satisfaction	4.73 [4.48 – 4.98]	4.74 [4.43 – 5.05]
	Breakup distress	4.59 [3.90 – 5.28]	4.69 [3.67 – 5.71]
	Attitude toward ex-partner	5.33 [4.78 – 5.88]	4.40 [3.38 – 5.42]

Note: Mean, 95%CI [LL – UL].

Differences between genders. To check for differences between male and female participants, I used two-tailed independent samples t -tests for continuous variables and chi-square tests for categorical variables. I tested for differences in age, length of romantic relationship, life satisfaction, relationship satisfaction, authenticity, closeness to ideal self, and self-concept clarity at Time 1. I also tested for differences in degree of past self perception shifts in life satisfaction, relationship satisfaction, authenticity, closeness to ideal self, and self-concept clarity. Finally, I tested for differences in breakup status, life satisfaction, breakup distress, and attitude toward ex-partner at Time 2. See Table 4 for means and 95% confidence intervals of these variables (Time 2 retrospective variables are not reported individually because they are

only relevant in comparison to Time 1 variables; they are inherently included in the shifts variables).

Females were significantly younger than males, $t(180) = 3.87, p < .001, d = 0.59$ (see Figure 3), but did not differ on length of relationship, $t(179) = 0.70, p = .482, d = 0.11$. Of the key variables at Time 1, only self-concept clarity differed between males and females, being higher in females, $t(181) = 3.36, p = .001, d = 0.51$. Males and females did not differ on any other key variables at Time 1: life satisfaction, $t(181) = 1.27, p = .207, d = 0.19$; relationship satisfaction, $t(181) = 0.54, p = .591, d = 0.08$; authenticity, $t(181) = 0.01, p = .989, d = 0.00$; closeness to ideal self, $t(181) = 0.66, p = .511, d = 0.10$.

Males and females did not differ in the degree of any shifts in past self perceptions: life satisfaction, $t(174) = 0.57, p = .571, d = 0.08$; relationship satisfaction, $t(174) = 0.86, p = .393, d = 0.13$; authenticity, $t(174) = 1.66, p = .100, d = 0.26$; closeness to ideal self, $t(175) = 1.56, p = .120, d = 0.24$; self-concept clarity, $t(174) = 0.16, p = .873, d = 0.03$. Males and females also did not differ on any key or exploratory variables at Time 2: breakup status, $\chi^2(1, N = 183) = 3.44, p = .064, \phi = .14$, life satisfaction, $t(175) = 1.20, p = .233, d = 0.19$; breakup distress, $t(46) = 1.12, p = .270, d = 0.36$; attitude toward ex-partner, $t(46) = 0.13, p = .897, d = 0.04$.

Figure 3
Age by Gender Analysis of Full Sample

Table 4
Males Versus Females

		Males	Females
Time 1	Age	31.01 [28.01 – 34.01]	24.54 [22.76 – 26.32]
	Length of romantic relationship (months)	7.21 [6.58 – 7.84]	7.76 [6.64 – 8.88]
	Life satisfaction	4.86 [4.55 – 5.17]	4.59 [4.34 – 4.84]
	Relationship satisfaction	6.03 [5.78 – 6.28]	5.94 [5.74 – 6.14]
	Authenticity	5.48 [5.21 – 5.75]	5.48 [5.30 – 5.66]
	Closeness to ideal self	4.50 [4.11 – 4.89]	4.65 [4.38 – 4.92]
	Self-concept clarity	3.92 [3.65 – 4.19]	4.53 [4.31 – 4.75]
Shifts in past self perceptions	Life satisfaction	0.19 [-0.10 – 0.48]	0.30 [0.06 – 0.54]
	Relationship satisfaction	0.44 [0.17 – 0.71]	0.60 [0.36 – 0.84]
	Authenticity	0.24 [-0.01 – 0.49]	0.54 [0.30 – 0.78]
	Closeness to ideal self	0.24 [-0.21 – 0.69]	0.69 [0.34 – 1.04]
	Self-concept clarity	0.20 [-0.07 – 0.47]	0.17 [-0.05 – 0.39]
Time 2	Life satisfaction	4.89 [4.54 – 5.24]	4.63 [4.38 – 4.88]
	Breakup distress	5.15 [4.07 – 6.23]	4.43 [3.76 – 5.10]
	Attitude toward ex-partner	5.08 [4.04 – 6.12]	5.00 [4.41 – 5.59]

Note: Mean, 95%CI [LL – UL].

Computation of composite measures

I created two composite measures to simplify interpretation of the results. The “happiness” composite, which corresponds to hypothesis 1, is a combination of life satisfaction and relationship satisfaction. The “self-positivity” composite, which corresponds to hypothesis 2, is a combination of authenticity, closeness to ideal self, and self-concept clarity. The happiness composite score for each participant was computed by calculating the average of that participant’s life satisfaction items, calculating the average of that participant’s relationship satisfaction items, and then calculating the average of those two averages. Likewise, the self-positivity composite score for each participant was computed by calculating the average of that participant’s authenticity items, calculating the average of that participant’s self-concept clarity items, and the single-item closeness to ideal self score, and then calculating the average of those three scores. This method of computing composite scores was made possible by the fact that all

five scales involved used 7-point Likert response options. Furthermore, I chose to compute the composites using the averages of each scale rather than simply averaging all the items in the two or three scales involved because each scale had a different number of items. This way, each construct was weighted equally rather than each item being weighted equally.

Occurrence of past self perception shifts

To check whether past self perception shifts occur, I used two-tailed paired-samples *t*-tests of the differences between key variable means at Time 1 and at Time 2 retrospectively. The variables for which I tested for shifts were the happiness composite, the self-positivity composite, life satisfaction, relationship satisfaction, authenticity, closeness to ideal self, and self-concept clarity. I conducted these tests separately for participants whose relationships broke up and participants whose relationships remained intact.

Breakup group. In participants whose relationships broke up, past self perception shifts occurred for both happiness, $t(45) = 3.01, p = .004, d = 0.45$, and self-positivity, $t(45) = 3.32, p = .002, d = 0.48$, such that participants rated their Time 1 selves as less happy and less positive in retrospect than they did at the time. Breaking down the past self perception shifts in happiness, shifts occurred regarding relationship satisfaction, $t(45) = 3.99, p < .001, d = 0.59$, but not life satisfaction, $t(45) = 1.38, p = .174, d = 0.20$. In other words, participants rated their Time 1 selves as less satisfied with their relationship in retrospect than they did at the time, but did not shift their perceptions of their Time 1 selves' life satisfaction in retrospect compared to at the time. Breaking down the past self perception shifts in self-positivity, shifts occurred regarding authenticity, $t(45) = 3.24, p = .002, d = 0.48$, and closeness to ideal self, $t(45) = 2.88, p = .006, d = 0.43$, but not self-concept clarity, $t(45) = 1.61, p = .114, d = 0.24$. In other words, participants rated their Time 1 selves as less authentic and as further from their ideal self in retrospect than

they did at the time, but did not shift their perceptions of their Time 1 selves' self-concept clarity in retrospect compared to at the time. See Table 5 for means and 95% confidence intervals of these variables.

Table 5

Key Variable Statistics in the Breakup Group

	Time 1	Time 2 retrospectively
Happiness composite	5.13 [4.86 – 5.40]	4.40 [3.97 – 4.83]
Life satisfaction	4.64 [4.27 – 5.01]	4.22 [3.79 – 4.65]
Relationship satisfaction	5.63 [5.32 – 5.94]	4.59 [4.08 – 5.10]
Self-positivity composite	4.54 [4.27 – 4.81]	3.88 [3.55 – 4.21]
Authenticity	5.36 [5.09 – 5.63]	4.56 [4.15 – 4.97]
Self-concept clarity	3.95 [3.58 – 4.32]	3.66 [3.35 – 3.97]
Closeness to ideal	4.31 [3.94 – 4.68]	3.41 [2.88 – 3.94]

Note: Mean, 95%CI [LL – UL].

Intact group. In participants whose relationships remained intact, past self perception shifts occurred for both happiness, $t(129) = 4.29, p < .001, d = 0.38$, and self-positivity, $t(131) = 3.84, p < .001, d = 0.34$, such that participants rated their Time 1 selves as less happy and less positive in retrospect than they did at the time. Breaking down the past self perception shifts in happiness, shifts occurred regarding both life satisfaction, $t(129) = 2.32, p = .022, d = 0.20$, and relationship satisfaction, $t(129) = 4.38, p < .001, d = 0.39$. In other words, participants rated their Time 1 selves as less satisfied with their life and less satisfied with their relationship in retrospect than they did at the time. Breaking down the past self perception shifts in self-positivity, shifts occurred regarding authenticity, $t(130) = 3.67, p < .001, d = 0.32$, and closeness to ideal self, $t(130) = 2.42, p = .020, d = 0.21$, but not self-concept clarity, $t(129) = 1.52, p = .130, d = 0.14$. In other words, participants rated their Time 1 selves as further from their ideal self in retrospect than they did at the time, but did not shift their perceptions of their Time 1 selves' authenticity or

self-concept clarity in retrospect compared to at the time. See Table 6 for means and 95% confidence intervals of these variables.

Table 6
Key Variable Statistics in the Intact Group

	Time 1	Time 2 retrospectively
Happiness composite	5.40 [5.22 – 5.58]	5.12 [4.92 – 5.32]
Life satisfaction	4.72 [4.48 – 4.96]	4.49 [4.24 – 4.74]
Relationship satisfaction	6.09 [5.91 – 6.27]	5.74 [5.54 – 5.94]
Self-positivity composite	4.89 [4.69 – 5.09]	4.59 [4.39 – 4.79]
Authenticity	5.42 [5.22 – 5.62]	5.23 [5.03 – 5.43]
Self-concept clarity	4.38 [4.14 – 4.62]	4.23 [3.99 – 4.47]
Closeness to ideal	4.70 [4.48 – 4.97]	4.33 [4.00 – 4.66]

Note: Mean, 95%*CI* [LL – UL].

Primary hypotheses

Hypothesis 1. My first hypothesis was: People who break up will experience larger negative shifts in past self perceptions of happiness (i.e., toward believing their past self was less happy in retrospect than they believed at the time) compared to people whose relationships remain intact. I conducted two-factor mixed-design ANOVAs with breakup status as the between-subjects factor, and Time 1 rating versus Time 2 retrospective rating as the within-subjects factor. I used three ANOVAs to separately test the ratings regarding life satisfaction, relationship satisfaction, and the happiness composite. A significant interaction between the two factors would indicate that the degree of shift in past self perceptions differed depending on breakup status. See Table 7 for all ANOVA coefficients. See Table 8 for means and 95% confidence intervals of these variables.

As predicted, negative shifts in past self perceptions of happiness were larger in people whose relationships broke up than in people whose relationships remained intact, as determined by the interaction effect, $F(1, 174) = 5.06, p = .026, \eta_p^2 = 0.03$. Breaking down the happiness

composite, negative shifts in past self perceptions of relationship satisfaction were larger in people whose relationships broke up than in people whose relationships remained intact, $F(1, 174) = 10.51, p = .001, \eta_p^2 = 0.06$. However, the degree of negative shifts in past self perceptions of life satisfaction did not differ between people whose relationships broke up and people whose relationships remained intact, $F(1, 174) = 0.34, p = .560, \eta_p^2 = 0.002$.

Table 7
ANOVA coefficients

	Rating time main effect	Breakup status main effect	Interaction effect
Happiness composite	$F = 30.62, p < .001, \eta_p^2 = 0.15$	$F = 9.13, p = .003, \eta_p^2 = 0.05$	$F = 5.06, p = .026, \eta_p^2 = 0.03$
Life satisfaction	$F = 6.77, p = .010, \eta_p^2 = 0.04$	$F = 0.86, p = .357, \eta_p^2 = 0.005$	$F = 0.34, p = .560, \eta_p^2 = 0.002$
Relationship satisfaction	$F = 45.40, p < .001, \eta_p^2 = 0.21$	$F = 20.70, p < .001, \eta_p^2 = 0.11$	$F = 10.51, p = .001, \eta_p^2 = 0.06$
Self-positivity composite	$F = 29.74, p < .001, \eta_p^2 = 0.14$	$F = 1.06, p = .305, \eta_p^2 = 0.006$	$F = 4.35, p = .038, \eta_p^2 = 0.02$
Authenticity	$F = 30.22, p < .001, \eta_p^2 = 0.15$	$F = 0.43, p = .511, \eta_p^2 = 0.002$	$F = 6.43, p = .012, \eta_p^2 = 0.04$
Closeness to ideal self	$F = 16.07, p < .001, \eta_p^2 = 0.08$	$F = 7.56, p = .007, \eta_p^2 = 0.04$	$F = 2.82, p = .095, \eta_p^2 = 0.02$
Self-concept clarity	$F = 5.14, p = .025, \eta_p^2 = 0.03$	$F = 4.77, p = .030, \eta_p^2 = 0.03$	$F = 0.58, p = .447, \eta_p^2 = 0.003$

Note. All F values have the following degrees of freedom: 1, 174.

Table 8
Shifts in Past Self Perceptions of Happiness by Breakup Status

		Time 1	Time 2 retrospective	Mean past self perception shift
Happiness composite	Intact	5.40 [5.22 – 5.58]	5.12 [4.92 – 5.32]	-0.28
	Breakup	5.13 [4.86 – 5.40]	4.40 [3.97 – 0.43]	-0.73
Life satisfaction	Intact	4.72 [4.48 – 4.96]	4.49 [4.24 – 4.74]	-0.23
	Breakup	4.64 [4.27 – 5.01]	4.22 [3.79 – 4.65]	-0.42
Relationship satisfaction	Intact	6.09 [5.91 – 6.27]	5.74 [5.54 – 5.94]	-0.35
	Breakup	5.63 [5.32 – 5.94]	4.59 [4.08 – 5.10]	-1.04

Note: Mean, 95%CI [LL – UL].

Hypothesis 2. My second hypothesis was: People who break up will experience larger negative shifts in past self perceptions of self-positivity (i.e., toward believing their past self was less positive in retrospect than they believed at the time) compared to people whose relationships remain intact. Again, I conducted two-factor mixed-design ANOVAs with breakup status as the between-subjects factor, and Time 1 rating versus Time 2 retrospective rating as the within-subjects factor. I used four ANOVAs to separately test the ratings regarding authenticity, closeness to ideal self, self-concept clarity, and the self-positive composite. As before, a significant interaction between the two factors would indicate that the degree of shift in past self perceptions differed depending on breakup status. See Table 7 for all ANOVA coefficients. See Table 9 for means and 95% confidence intervals of these variables.

As predicted, negative shifts in past self perceptions of self-positivity were larger in people whose relationships broke up than in people whose relationships remained intact, $F(1, 176) = 4.35, p = .038, \eta_p^2 = 0.02$. Breaking down the self-positivity composite, negative shifts in past self perceptions were larger in people whose relationships broke up than in people whose relationships remained intact regarding authenticity, $F(1, 175) = 6.43, p = .012, \eta_p^2 = 0.04$. The degree of negative shifts in past self perceptions of closeness to ideal self trended toward being larger for people whose relationships broke up than for people whose relationships remained intact, $F(1, 175) = 2.82, p = .095, \eta_p^2 = 0.02$. The degree of negative shifts in past self perceptions of self-concept clarity also did not differ between people whose relationships broke up and people whose relationships remained intact, $F(1, 174) = 0.58, p = .447, \eta_p^2 = 0.003$.

Table 9

Shifts in Past Self Perceptions of Self-Positivity by Breakup Status

		Time 1	Time 2 retrospective	Mean past self perception shift
Self-positivity composite	Intact	4.89 [4.69 – 5.09]	4.59 [4.39 – 4.79]	-0.40
	Breakup	4.54 [4.27 – 4.81]	3.88 [3.55 – 4.21]	-0.66
Authenticity	Intact	5.42 [5.22 – 5.62]	5.23 [5.03 – 5.43]	-0.19
	Breakup	5.36 [5.09 – 5.63]	4.56 [4.15 – 4.97]	-0.80
Self-concept clarity	Intact	4.38 [4.14 – 4.62]	4.23 [3.99 – 4.47]	-0.15
	Breakup	3.95 [3.58 – 4.32]	3.66 [3.35 – 3.97]	-0.29
Closeness to ideal self	Intact	4.70 [4.48 – 4.97]	4.33 [4.00 – 4.66]	-0.37
	Breakup	4.31 [3.94 – 4.68]	3.41 [2.88 – 3.94]	-0.90

Note: Mean, 95%CI [LL – UL].

Hypothesis 3. My third hypothesis was: In people who break up, larger negative shifts in past self perceptions of happiness and self-positivity (i.e., toward believing their past self was less happy and less positive in retrospect than they believed at the time) will be associated with higher well-being at Time 2. I conducted bivariate correlations between life satisfaction at Time 2 and the difference scores between Time 1 ratings and Time 2 retrospective ratings for each key variable: the happiness composite, life satisfaction, relationship satisfaction, the self-positivity composite, authenticity, closeness to ideal self, and self-concept clarity.

As predicted, higher post-breakup well-being was associated with larger negative shifts in past self perceptions of happiness, $r = .37$, $p = .011$, and self-positivity, $r = .35$, $p = .016$.

Breaking down the happiness composite, higher post-breakup well-being was associated with larger negative shifts in past self perceptions of life satisfaction, $r = .42$, $p = .004$, and trended toward being associated with larger negative shifts in past self perceptions of relationship satisfaction, $r = .25$, $p = .093$. Breaking down the self-positivity composite, higher post-breakup well-being was associated with larger negative shifts in past self perceptions of closeness to ideal

self, $r = .32$, $p = .032$, and trended toward being associated with larger negative shifts in past self perceptions of authenticity, $r = .27$, $p = .069$, and self-concept clarity, $r = .25$, $p = .089$.

Secondary hypotheses

Hypothesis 4. My fourth hypothesis was: In people who break up, larger negative shifts in past self perceptions of happiness and self-positivity (i.e., toward believing their past self was less happy and less positive in retrospect than they believed at the time) will be associated with higher distress at the time of breakup. I conducted bivariate correlations between distress at the time of breakup and the difference scores between Time 1 ratings and Time 2 retrospective ratings for each key variable: the happiness composite, life satisfaction, relationship satisfaction, the self-positivity composite, authenticity, closeness to ideal self, and self-concept clarity.

This hypothesis was not supported; in fact, the associations were in the opposite direction from what I predicted. Higher distress at the time of breakup was associated with smaller, not larger, negative shifts in past self perceptions of most key variables: the happiness composite, $r = -.46$, $p = .001$, life satisfaction, $r = -.38$, $p = .009$, relationship satisfaction, $r = -.43$, $p = .003$, the self-positivity composite, $r = -.46$, $p = .001$, self-concept clarity, $r = -.33$, $p = .026$, closeness to ideal self, $r = -.47$, $p = .001$. Distress at the time of breakup trended toward being associated with larger negative shifts in past self perceptions of authenticity, $r = -.28$, $p = .061$.

Hypothesis 5. My fifth hypothesis was: In people who break up, larger negative shifts in past self perceptions of happiness and self-positivity (i.e., toward believing their past self was less happy and less positive in retrospect than they believed at the time) will be associated with a more negative attitude toward the ex-partner. I conducted bivariate correlations between attitude toward ex-partner and the difference scores between Time 1 ratings and Time 2 retrospective

ratings for each key variable: the happiness composite, life satisfaction, relationship satisfaction, the self-positivity composite, authenticity, closeness to ideal self, and self-concept clarity.

This hypothesis was supported in all but one of the associations. More negative attitude toward the ex-partner was associated with larger negative shifts in past self perceptions of the happiness composite, $r = -.58, p < .001$, life satisfaction, $r = -.49, p = .001$, relationship satisfaction, $r = -.54, p < .001$, the self-positivity composite, $r = -.42, p = .004$, authenticity, $r = -.36, p = .015$, closeness to ideal self, $r = -.38, p = .009$. Attitude toward the ex-partner trended toward being associated with larger negative shifts in past self perceptions of self-concept clarity, $r = -.24, p = .104$.

Discussion

Romantic breakup is a common and highly distressing event that most people must overcome at some point in their lives, often multiple times. The distress that occurs after romantic breakup can be substantial, thus it is important to understand the psychological processes that help or hinder post-breakup healing. One such process, which was the focus of the present research, involves the cognitions people have about who they were while they were in the now-ended relationship. My overarching prediction was that people who experience a romantic breakup shift their perceptions of their past self toward believing it was less happy and less positive than they believed at the time. These shifts occur to ameliorate the distress associated with the breakup and to help disentangle one's self from their ex-partner's self and thus preserve post-breakup well-being.

I found that people who experienced a breakup did engage in these shifts in past self perceptions in both the happiness and self-positivity domains. In the current research, the "happiness composite" was comprised of life satisfaction and relationship satisfaction. In people

who experienced a breakup, the shifts in past self perceptions were statistically significant for relationship satisfaction and trended toward significance for life satisfaction. The shifts in past self perceptions of relationship satisfaction had a considerably larger effect size than did the shifts in past self perceptions of life satisfaction, suggesting that relationship status is the more important domain in this context. The “self-positivity composite” was comprised of authenticity, closeness to ideal self, and self-concept clarity. In people who experienced a breakup, the shifts in past self perceptions were statistically significant for authenticity and closeness to ideal self but not for self-concept clarity.

Interestingly, I found that people whose relationships remained intact also engaged in these shifts in past self perceptions in both the happiness and self-positivity domains. My prediction was that these shifts occur as a response to the negative impact of romantic breakup, so why would they also happen in people who did not experience a romantic breakup? The shifts that occurred in the group whose relationships remained intact could be explained by a different motivation: to perceive personal growth over time (e.g., Taylor & Brown, 1988). People do not generally experience notable growth over time, so to fulfill the motivation to perceive that they do, people retrospectively derogate their past selves (Conway & Ross, 1984; Haddock, 2006; McFarland & Buehler, 2012; Molouki et al., 2016; Safer & Keuler, 2002; Wilson & Ross, 2001)

Still, as predicted, negative shifts in past self perceptions were larger in people who experienced a breakup than in people whose relationships remained intact, suggesting their additional function as a mechanism to cope with the negative impact of romantic breakup. These negative shifts were larger in people who broke up in both happiness and self-positivity domains. Breaking down the happiness domain, the negative shifts were larger in people who broke up for relationship satisfaction but not for life satisfaction. In this case, the non-significant effect

regarding life satisfaction appears to be due to a genuine lack of effect ($\eta_p^2 = 0.002$). It is intuitive that this effect would be larger for relationship satisfaction than for life satisfaction; I am positing these negative shifts in past self perceptions as a breakup coping mechanism, and relationship satisfaction is obviously more relevant to romantic breakup than is life satisfaction. However, I still expected the effect to occur in both relationship satisfaction and life satisfaction given that relationship satisfaction is associated with the more general life satisfaction, $r = .33$, $p = .021$. As such, the same motivation that drives the negative shifts in past self perceptions of relationship satisfaction should also drive the negative shifts in past self perceptions of life satisfaction. Future research should seek to dig deeper into this surprising finding.

Breaking down the self-positivity domain, the negative shifts in past self perceptions were larger in people who broke up for authenticity and trended toward being larger in people who broke up for closeness to ideal self but not for self-concept clarity—yet again, the self-concept clarity domain is the odd one out. Shifts in past self perceptions of self-concept clarity did not occur for either people whose relationships broke up nor people whose relationships remained intact and there was no difference in the degree of the shift in past self perceptions of self-concept clarity between these two groups. This may indicate that the self-concept clarity measure used in this research tapped into something different about the self than did authenticity and closeness to the ideal self. It may be that feeling clear about one's self-concept is not as important for feeling positively about the self as are feeling authentic and feeling close to one's ideal self, leading to a lack of motivation to shift one's past self perceptions in that domain. These findings should be explored further in future research.

My hypothesis that larger negative shifts in past self perceptions would be associated with higher post-breakup well-being was supported. Higher post-breakup well-being was

associated with larger negative shifts in past self perceptions of both happiness and self-positivity, although in some domains the association only trended toward significance (relationship satisfaction, authenticity, and self-concept clarity).

Because I presumed that shifts in past self perceptions occur to ameliorate the distress associated with the breakup and to help disentangle one's self from their ex-partner's self, I tested the associations between shifts and attitude toward ex-partner and between shifts and distress at the time of breakup as secondary hypotheses. As predicted, a more negative attitude toward one's ex-partner was associated with larger negative shifts in past self perceptions in all domains (with the association trending toward significance for self-concept clarity). This is intuitive as people who feel more negatively toward their ex-partner should be more motivated to push their ex-partner away from their current self, in part by believing they were less happy and less positive while they were together.

It would also be intuitive for people who experienced more distress following their breakup to be more motivated to believe they were never all that happy in the relationship anyway. However, this was not what I found—in fact, I found the complete opposite result. *Less*, not more, distress at the time of breakup was associated with larger negative shifts in past self perceptions in all domains (with the association trending toward significance for authenticity). This surprising result likely occurred because post-breakup distress was measured retrospectively at Time 2. I have established that people are motivated to shift their past self perceptions after a breakup, and the degree of distress immediately after breakup may be affected by this same motivation. In other words, people likely derogate their past (post-breakup) distress for the same reason they derogate their past (pre-breakup) happiness and self-positivity, which would lead to the observed negative associations between a retrospective measure of post-breakup distress and

the shifts in past self perceptions in happiness and self-positivity. Indeed, the degree of negative shifts in past self perceptions in all domains were significantly associated with each other as well, ranging from $r = .32$ to $.66$ (ps ranging from $< .001$ to $.032$). Retrospective ratings of distress immediately after breakup may be better conceptualized as another domain of these shifts. Future research should utilize more frequent data collection waves to measure post-breakup distress more immediately after romantic breakup before participants have engaged in cognitive coping mechanisms that skew their retrospective ratings.

In sum, my overarching prediction was that people who experience a romantic breakup shift their perceptions of their past self toward believing it was less happy and less positive than they believed at the time. These shifts occur to ameliorate the distress associated with the breakup and to help disentangle one's self from their ex-partner's self and thus preserve post-breakup well-being. This prediction was generally supported by the current data, although some particular domains veered from the broader pattern of results, most of which can be explained by lack of statistical power or a weak point in my methodology. However, others (e.g., self-concept clarity) will require further research to explain.

Limitations and Future Research

Despite some limitations which I discuss in this section, the quality of the data collected for this study was adequate. Attention checks were included in the survey, however I later discovered evidence that excluding participants who fail attention checks does not improve the quality of data (Abbey & Meloy, 2017; Gummer, Roßmann, & Silber, 2018). As such, I did not exclude participants based on the attention checks in the survey. Furthermore, the sample collected in this research reached the minimum size required by the *a priori* power analysis. The power analysis required that the total sample had $N = 135$ to ensure the smaller breakup group

had $n = 45$. My final sample had a total $N = 184$ with a breakup group of $n = 48$. Lastly, the measures within this study had good internal reliability, ranging from $\alpha = .82$ to $\alpha = .96$.

The first limitation of this study is that it utilized a quasi-experimental design. Although measurements were collected before any breakups occurred to establish temporal precedence, the comparison groups (i.e., breakup group versus intact relationship group) could not be manipulated using randomization. This means that there is a chance that extraneous variables confounded the effects found in this study. As such, these effects are not definitive evidence that breakups are the cause of shifts in past self perceptions. It may be that some other construct both increases the likelihood of breakup and increases the likelihood of shifts. However, because temporal precedence was established, this study still provides stronger evidence that the relationship is causal in the predicted direction than would a correlational study. Furthermore, the ideal of an experimental design is not ethical or feasible when studying the effects of romantic breakup, so quasi-experimental designs such as in the current study are the strongest form of evidence possible.

Another limitation of this study is that I recruited only individual people in relationships, not both partners within each couple (due to practical restraints). Attridge, Berscheid, and Simpson (1995) found that breakup-related data were more accurate when both partners of the relationship were assessed. This limitation may have obscured associations caused by some participants being the satisfied party who were broken up with while other participants were the dissatisfied party who broke up with their partner. Data with both these parties from each pair would have been more enlightening. The questions posed in the present research should be re-examined with assessments of both partners in romantic relationships in future research.

Future research should also extend upon the current research by exploring similar relevant questions. One such question is: What is the direction of shifts in past self perceptions after romantic breakup? There are three directions in which this cognitive bias could be occurring: people may be positively biased during their relationship then accurate after breakup, people may be accurate during their relationship but negatively biased after breakup, or people may be positively biased during their relationship *and* negatively biased after breakup. Unfortunately, the current research was not designed to tease these directions apart—this was why in the current research I referred to the hypothesized and detected effects as “shifts in perceptions” rather than “biases”, to avoid implying one direction or the other. However, Wilson and Ross’s (2001) finding that people derogate their past self in comparison to their sibling’s past self and enhance their present self in comparison to their sibling’s present self suggests that the bias found in the present research likely stems from a combination of positive biases during the relationship *and* negative biases after breakup. To answer this question more explicitly, future research should collect ratings of the key variables from multiple sources such as self, romantic partner, close friend, and in-lab observers. The more perspectives are collected, the closer researchers can get to an objective comparison to the self-ratings so that the direction of the bias can be determined.

Future research should also collect data at more time points, both over a longer span and with shorter gaps in between. The relationships between shifts in past self perceptions, relationship status, and well-being may not be simple and linear over time. For example, there are likely dramatic fluctuations in past self perceptions and well-being immediately after breakup, and these would be interesting to track over smaller intervals. Indeed, Sbarra and Emery (2005) found in a daily diary study that changes in sadness and anger in the month after a

romantic breakup were non-linear and that there was significant intraindividual variability from day to day. More time points would also allow for more immediate ratings of post-breakup distress so they are not confounded with shifts in past self perceptions by being rated retrospectively, as discussed earlier.

Another idea for future research is to recruit both people in relationships and single people at the first wave. Then, at Time 2, participants would fall into four groups: people who remained in a relationship for the duration of data collection, people who remained single for the duration of the relationship, people who experienced a romantic breakup between waves, and people who entered into a new relationship between waves. Comparisons between various combinations of these four groups would allow for exploration of broader questions about past self perceptions, romantic relationships, and well-being.

Contributions

This research adds to the literatures on cognitions after romantic breakups, biased cognitions that preserve well-being, and inclusion of other in the self. In particular, I have identified another type of cognition that occurs after romantic breakup, to add to previous research that has focused on cognitions such as rumination (Field et al., 2013a) and negative beliefs about the self (Boelen & Reijntjes, 2009). Interestingly, previous studies in this area have tended to focus on negative cognitions, so this addition of a more positive cognition is rather novel. This study provides insight into the healing side of cognitive theories of breakup distress (Brenner & Vogel, 2015; Brewin & Holmes, 2003; Dalgeish, 2004).

With this research, I have also identified another context in which biased cognitions that preserve well-being occur. Previous research has found that biased cognitions in the form of the sour grapes effect occur regarding consumption items (Brehm et al., 1966; Hallerod, 2006;

Hammock & Brehm, 1996) and potential new dating partners (Wilson et al., 2004). Previous research has also found derogation of the past self in general (Molouki et al., 2016; Wilson & Ross, 2001), after participation in a program to learn a new skill (Conway & Ross, 1984), and after receiving psychotherapy (Safer & Keuler, 2002). The shifts in past self perceptions found in this research are conceptually similar to both the sour grapes effect and derogation of the past self, neither of which had previously been examined in the context of romantic breakup.

Furthermore, this research adds to the understanding of the long-term process of inclusion of other in the self. Specifically, it provides insight into what happens when an other who has been included in the self is no longer welcome in the self due to romantic breakup. Other parts of the process of disentangling an ex-partner from the self, such as self-concept confusion (Slotter et al., 2010; Slotter & Walsh, 2017) and perceived loss of self (Lewandowski & Bizzoco, 2007; Lewandowski et al., 2006) have previously been examined. This research adds a new part of the process: shifts in past self perceptions.

In sum, for people coping with a romantic breakup, maintaining consistent perceptions of one's own happiness and sense of self in a past relationship after it breaks up seems to actually impede the healing process. Instead, people going through a breakup would be better off focusing on the ways they were unhappy and not their best selves in their ended relationship, even if they exaggerate the negativity of these retrospective evaluations. For those helping someone else through a breakup, such as friends or therapists, it seems it would be more helpful to go along with the newly single person's shifts in past self perceptions, rather than insisting on accuracy or consistency. After romantic breakup, ignorance may indeed be bliss.

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Appendix A: Certificate of Ethics Clearance

Office of Research Ethics and Compliance
5110 Human Computer Interaction Bldg | 1125 Colonel By Drive
| Ottawa, Ontario K1S 5B6
613-520-2600 Ext: 4085
ethics@carleton.ca

CERTIFICATION OF INSTITUTIONAL ETHICS CLEARANCE

The Carleton University Research Ethics Board-B (CUREB-B) has granted ethics clearance for the research project described below and research may now proceed. CUREB-B is constituted and operates in compliance with the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (TCPS2).

Ethics Protocol Clearance ID: Project # 108062

Research Team: Johanna Peetz (Primary Investigator)
Ms. Adrienne Paynter (Co-Investigator)

Project Title: Your Identity Over Time

Funding Source (If applicable):

Effective: November 28, 2017

Expires: November 30, 2018.

Restrictions:

This certification is subject to the following conditions:

1. Clearance is granted only for the research and purposes described in the application.
2. Any modification to the approved research must be submitted to CUREB-B via a Change to Protocol Form. All changes must be cleared prior to the continuance of the research.
3. An Annual Status Report for the renewal of ethics clearance must be submitted and cleared by the renewal date listed above. Failure to submit the Annual Status Report will result in the closure of the file. If funding is associated, funds will be frozen.
4. A closure request must be sent to CUREB-B when the research is complete or terminated.
5. Should any participant suffer adversely from their participation in the project you are required to report the matter to CUREB-B.

Failure to conduct the research in accordance with the principles of the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans 2nd edition* and the *Carleton University Policies and Procedures for the Ethical Conduct of Research* may result in the suspension or termination of the research project.

Upon reasonable request, it is the policy of CUREB, for cleared protocols, to release the name of the PI, the title of the project, and the date of clearance and any renewal(s).

Please contact the Research Compliance Coordinators, at ethics@carleton.ca, if you have any questions or require a clearance certificate with a signature.

CLEARED BY:

Date: November 28, 2017

Andy Adler, PhD, Chair, CUREB-B

Bernadette Campbell, PhD, Vice-Chair, CUREB-B

Appendix B: Study Materials

Recruitment Notice for Time 1

Your Identity Over Time

Eligibility criteria:

- Participants must **currently be in a romantic relationship that has lasted between 2-12 months.**

This is a two part study. We will ask you to do the first half of the study now and if you do so, you qualify to do the second half of the study this winter term! **You'll get compensated twice,** separately, and can always change your mind, of course!

We do not need your contact information, as we will use the SONA system to re-contact you.

The purpose of this study is to examine people's thoughts about who they are, and how these thoughts change or remain similar over time. We will ask questions via an online questionnaire about who you are now (e.g., personality traits, goals, interests, values, relationships), and then we will re-contact you in mid-March to answer similar questions at that time. We will ask you to enter a unique, non-personally identifying code in order to match up your responses from the two parts of the study. We will ask you to enter the first name, or initials, or a code word to represent your current romantic partner (in order for the survey to function properly).

This first half of the online survey will take approximately 25 minutes to complete, and you will receive **.25% course credit** for participating.

The second half of the survey (in mid-March) will take approximately 45 minutes to complete, and you will receive **ANOTHER .50% course credit** for participating. We'll send you an email at that time and you can do that part through SONA again.

This research is being conducted by Adrienne Paynter (graduate student, primary investigator) and Dr. Johanna Peetz (faculty professor) from Carleton University, and has received ethics clearance by the Carleton University Research Ethics Board-B until NOVEMBER 30, 2018 (clearance #108062).

To participate, please click here: (link)

Informed Consent for Time 1

Informed Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement before you begin. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Study title: Your Identity Over Time

Eligibility criteria:

- Participants must **currently be in a romantic relationship that has lasted between 2-12 months.**

Purpose and task requirements: The purpose of this study is to examine people's thoughts about who they are, and how these thoughts change or remain similar over time. We will ask questions via an online questionnaire about who you are now (e.g., personality traits, goals, interests, values, relationships), and then we will re-contact you in mid-March to answer similar questions at that time. We will ask you to enter a unique, non-personally identifying code in order to match up your responses from the two parts of the study. We will ask you to enter the first name, or initials, or a code word to represent your current romantic partner (in order for the survey to function properly).

Duration and compensation: This online survey will take approximately 25 minutes to complete. All eligible participants will receive **.25% course credit** for participating.

Potential risk / discomfort: We do not anticipate any psychological, physical, or legal risks to participants in this research.

Confidentiality: The data collected in this study are **confidential**. Your SONA ID will be retained in the data file only until data collection is complete to ensure that you receive your course credit. Once data collection is complete and all course credit has been granted, your SONA ID will be permanently deleted from the data file. **We do not need your contact information**, as we will use the SONA system to re-contact those who participated in the first part of the study when it is time to complete the second part. We collect data through the software Qualtrics, which uses Canadian servers with multiple layers of security to protect the privacy of the data (e.g., encrypted websites and password-protected storage).

Data security: All data will be deleted from the data collection software (Qualtrics) once data collection is complete. The data files will be retained on the researchers' secure, password-protected computers indefinitely, and the anonymized data may be shared with other researchers, in academic journals, or on online platforms.

Right to withdraw: Your participation in this study is completely voluntary. At any point during the study (after you have confirmed your eligibility), you have the right to leave any response blank or withdraw from the study without forfeiting your compensation. If you would like to withdraw from the study, please click through the remaining survey pages, leaving the responses blank, until you reach the debriefing on the last page. If you would like your data to be

destroyed, please contact the researchers using the contact information below. After data collection is complete, you can no longer withdraw your data, as the data will be anonymized.

Research personnel: The following people are involved in this research project, and may be contacted at any time if you have questions or concerns: Adrienne Paynter (graduate student, primary investigator – adrienne.paynter@carleton.ca), and Dr. Johanna Peetz (faculty professor – johanna.peetz@carleton.ca – 1-613-520-2600 ext. 1542).

Ethical concerns: This study has received ethics clearance by the Carleton University Research Ethics Board-B until NOVEMBER 30, 2018 (clearance #108062). If you have any ethical concerns about this study, please contact Dr. Andy Adler, Chair of the Carleton University Research Ethics Board-B (ethics@carleton.ca – 1-613-520-2600 ext. 4085).

Please select “I agree” below to consent to participate in this study:

- ☐ I agree to participate in this study.
 - ☐ I do not wish to participate in this study. (end of survey)
-

Eligibility Check for Time 1

Before we begin, please answer the following questions.

1. Are you currently in a romantic relationship? Yes/no
2. (If yes to question #1) Have you been in your current romantic relationship for longer than 2 months? Yes/no
3. (If yes to question #1) Have you been in your current romantic relationship for longer than 12 months? Yes/no

(These three questions will be “forced response” in Qualtrics, as they are required to determine eligibility to continue on to the survey. If ineligible, participants will be redirected to the ineligibility debriefing (Appendix D), and then the end of survey. The following responses are considered ineligible:

- Question 1: responding “no”
- Question 2: responding “no”
- Question 3: responding “yes”)

Ineligibility Debriefing for Time 1

Unfortunately, based on your responses, you are not eligible to participate in this study. As stated in the recruitment page and the informed consent, the eligibility criteria for this study are:

- Participants must currently be in a romantic relationship that has lasted between 2-12 months (no shorter or longer).

Based on one or more of your responses regarding the matters above, we would not have been able to use your data. We know your time is valuable, so we don't want you to spend your time completing our study if your data will not be usable. Thank you for your interest, and have a wonderful day!

If you have any questions, please feel free to contact us:

Research personnel: The following people are involved in this research project, and may be contacted at any time if you have questions or concerns: Adrienne Paynter (graduate student, primary investigator – adrienne.paynter@carleton.ca), and Dr. Johanna Peetz (faculty professor – johanna.peetz@carleton.ca – 1-613-520-2600 ext. 1542).

Ethical concerns: This study has received ethics clearance by the Carleton University Research Ethics Board-B until NOVEMBER 30, 2018 (clearance #108062). If you have any ethical concerns about this study, please contact Dr. Andy Adler, Chair of the Carleton University Research Ethics Board-B (ethics@carleton.ca – 1-613-520-2600 ext. 4085).

Survey for Time 1

(Administrative preparation 1)**Thank you for participating!**

This study includes two parts. We ask that you complete the first half today and the second half in the winter term (we will send you an invitation message at that time). We will use a unique but unidentifiable code that you will remember when you do the second half. We will ask you to enter a unique, non-personally identifying code in order to match up your responses from the two parts of the study.

To help you create a code that you will remember and that is not personally identifying, please use the following structure. We will remind you of this structure each time.

1. Your mother's initials
2. The day of your birthday
3. The last three digits of your student ID

For example, if your mother's name is **Mary Jones**, your birthday is September **2nd**, and your student ID is 123456**789**, your personal code would be: **MJ02789**

Please enter your personal code here: (text box)

(This question will be "forced response" on Qualtrics because it is necessary to be able to use the data.)

(Administrative preparation 2)

In order to properly set up the questions in this survey, please enter your current romantic partner's first name (or initials, or a word that represents them in your mind): (text box)

(This question will be "forced response" on Qualtrics because it is necessary for the survey to function properly.)

****Next page ****

Thank you for participating in our study! First, we'd like to learn a bit more about you as a person.

(Self-concept profile – personality traits (adapted from Goldberg, 1992))

Below is a list of personality traits along with each of their opposites. For each pair of traits, please rate where you think you fall between the two ends, in terms of your own personality **right now**.

(1—Strongly disagree to 7—Strongly agree)

1. Introverted – Extraverted
2. Silent – Talkative
3. Assertive – Unassertive
4. Kind – Unkind
5. Agreeable – Disagreeable

6. Flexible – Inflexible
7. Organized – Disorganized
8. Conscientious – Negligent
9. Cautious – Rash
10. Nervous – At ease
11. Emotionally stable – Emotionally unstable
12. Insecure – Secure
13. Curious – Uncurious
14. Reflective – Unreflective
15. Analytical – Unanalytical

****Next page ****

(Self-concept profile – goals (adapted from Roberts & Robins, 2000))

Below is a list of types of goals people may or may not pursue. Please rate the degree to which pursuing each goal is **currently** important to you.

(1—Strongly disagree to 7—Strongly agree)

1. Academic/career goals (e.g., achieving success in school; achieving success in a career; achieving a high standard of living and wealth)
2. Aesthetic goals (e.g., producing good artistic work; supporting artistic activities)
3. Community goals (e.g., volunteering; helping others in need; promoting the welfare of others)
4. Hedonistic goals (e.g., having fun; having new and different experiences; having an exciting lifestyle)
5. Political goals (e.g., being influential in public affairs; becoming a community leader)
6. Relationship goals (e.g., having a good romantic relationship; having good family relationships; having children and being a good parent; having good friendships)
7. Religious goals (e.g., participating in religious activities; devoting attention to your spiritual life)

****Next page ****

(Self-concept profile – interests (adapted from Hur, McGue, & Iacono, 1996))

Below is a list of types of interests people may or may not have in life. Please rate the degree to which you are **currently** interested in these activities/topics.

(1—Strongly disagree to 7—Strongly agree)

1. Art (e.g., creating performance or fine art; listening to or looking at performance or fine art; attending live music or theatre)
2. Handicrafts (e.g., building, making, or repairing things; inventing or improving things)
3. Intellectual interests (e.g., reading fiction or non-fiction; keeping up on current events; taking classes)
4. Outdoors (e.g., hunting; fishing; hiking; camping; wildlife watching; off-roading; cycling or motorcycling)
5. Sports (e.g., playing sports; watching sports live or on TV; exercising)

6. Travel (e.g., visiting foreign places; RVing; cruises; safaris)
7. TV and video games (e.g., watching movies and/or TV shows; playing video and computer games)

****Next page ****

(Self-concept profile – values (adapted from Schwartz, 1994))

Below is a list of things people may or may not value in life. Please rate the degree to which you **currently** value these things.

(1—Strongly disagree to 7—Strongly agree)

1. Achievement (i.e., personal success through demonstrating competence according to society's standards)
2. Benevolence (i.e., preservation and enhancement of the welfare of people with whom you are in frequent personal contact)
3. Conformity (i.e., restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms)
4. Hedonism (i.e., pleasure and sensuous gratification for oneself)
5. Power (i.e., social status and prestige; control or dominance over people and resources)
6. Security (i.e., safety, harmony, and stability of society, of your relationships, and of yourself)
7. Self-direction (i.e., independent thought and action; choosing, creating, and exploring)
8. Stimulation (i.e., excitement, novelty, and challenge in life)
9. Tradition (i.e., respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide)
10. Universalism (i.e., understanding, appreciation, tolerance, and protection for the welfare of *all* people and for nature)

****Next page ****

(Influence of current romantic partner on self-concept (created by current researchers))

All the questions you have completed so far in this survey reflect various aspects of your personal identity, the things that make you who you are. Thinking about all the questions you have just answered, and thinking about who you are **at this time in your life...**

(1—Strongly disagree to 7—Strongly agree)

1. How much has (embed partner's name using "piped text" function in Qualtrics) had an influence on who you are right now?
2. How positive has (Partner)'s influence been?
3. How negative has (Partner)'s influence been?

****Next page ****

(Self-concept authenticity (adapted from Plasencia, Alden, & Taylor, 2011))

Please rate the degree to which you agree with each of the following statements.

(1—Strongly disagree to 7—Strongly agree)

1. The person I am at this time in my life is truly me.
2. The person I am at this time in my life is genuine.
3. The person I am at this time in my life is artificial.
4. The person I am at this time in my life is authentic.
5. The person I am at this time in my life is a façade.

****Next page ****

(Closeness to ideal self (created by current researchers))

Generally, people are able to picture in their minds an ideal version of themselves. That is, people generally know what they would be like if they could be perfect in their own eyes. Take a moment to think about your own ideal version of yourself.

(next button – next text appears on same page)

Now, take a moment to think about who you are at this time in your life. How close are you to your ideal right now?

(next button – next text appears on same page)

Please use the following images to answer. The circles on the left of each pair are who you are **right now**, while the circles on the right of each pair are your image of the ideal version of yourself. Select the pair of circles that best represents how close you are to your ideal, or how much overlap there is between the aspects of your current self and the aspects of your ideal self. (7 IOS circles as below, with "Ideal Self" replacing "Other")

****Next page ****

(Self-concept clarity (adapted from Campbell et al., 1996))

Please rate the degree to which you agree with each of the following statements.

(1—Strongly disagree to 7—Strongly agree)

1. In general, I have a clear sense of who I am and what I am.
2. On one day I might have one opinion of myself and on another day I might have a different opinion.
3. I spend a lot of time wondering about what kind of person I really am.
4. Sometimes I think I know other people better than I know myself.
5. It is often hard for me to make up my mind about things because I don't know what I really want.

****Next page ****

(Personal well-being (Diener, Emmons, Larsen, & Griffin, 1985))

Please rate the degree to which you agree with each of the following statements.

(1—Strongly disagree to 7—Strongly agree)

1. In most ways, my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.

4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

****Next page ****

(Relationship well-being (Fletcher, Simpson, & Thomas, 2000))

Please rate the degree to which you agree with each of the following statements.

(1—Not at all to 7—Very much)

1. How satisfied are you with your relationship with (Partner)?
2. How committed are you to your relationship with (Partner)?
3. How intimate do you feel to (Partner)?
4. How much do you trust (Partner)?
5. How passionate is your relationship with (Partner)?
6. How much do you love (Partner)?

****Next page ****

(Compatibility and similarity of self and current romantic partner (created by current researchers))

Please rate the degree to which you agree with each of the following statements.

(1—Strongly disagree to 7—Strongly agree)

1. (Partner) and I are similar.
2. (Partner) and I fit well together in terms of our personality traits.
3. (Partner) and I fit well together in terms of our life goals.
4. (Partner) and I fit well together in terms of our interests.
5. (Partner) and I fit well together in terms of our core values.
6. (Partner) and I fit well together in terms of our communication styles.
7. (Partner) and I fit well together in terms of our sexual styles.

****Next page ****

(Implicit theories of change (Dweck, Chiu, & Hong, 1995))

Please rate the degree to which you agree with each of the following statements.

(1—Strongly disagree to 7—Strongly agree)

1. The kind of person someone is is something very basic about them and it can't be changed much.
2. People can do things differently, but the important parts of who they are can't really be changed.
3. Everyone is a certain kind of person and there is not much that can be done to really change that.

****Next page ****

(Demographics)

Now we just have a few questions to help us get a general idea of who our participants are:

1. What is your age? (text box)

2. What is your gender? Male/Female/Self-identify: (text box)
3. How long have you been in your current romantic relationship? (text box for years, text box for months)
4. What is your current romantic partner's gender? Male/Female/Self-identify: (text box)
5. What is your ethnicity? (participants can select multiple)
 - a. Black/African-Canadian/African-American
 - b. East Asian
 - c. Hispanic or Latinx
 - d. Middle Eastern/Arab
 - e. Native American (e.g., First Nations, Inuit, Métis)
 - f. South Asian
 - g. White/Caucasian/European
 - h. Not listed, please specify: (text box)

****Next page ****

(Clarity check)

1. At any point in this survey, was anything unclear or confusing? Please briefly indicate below. (text box)
2. Do you have any suggestions or feedback about this survey? Please briefly indicate below. (text box)
3. If you had to guess, what would you say this study is about? Please briefly indicate below. (text box)

Partial Debriefing for Time 1

Debriefing

Thank you for doing the first part of the study!

Please allow up to 48 hours for the SONA credit to be applied to your account.

What are we trying to learn with this research?

The purpose of this study is to examine people's thoughts about who they are, and how these thoughts change or remain similar over time. We will re-contact you in mid-March to answer similar questions at that time. After completing that second half of the study, you will be given more details about the specific questions we are trying to answer with this research (which will also be posted at <https://carleton.ca/timelab/> after the study is completely finished in April 2018). You are free to decline to participate in the second half of this study if, at the time that we re-contact you, you are no longer interested in completing the study.

If you have any questions, please feel free to contact us:

Research personnel: The following people are involved in this research project, and may be contacted at any time if you have questions or concerns: Adrienne Paynter (graduate student, primary investigator – adrienne.paynter@carleton.ca), and Dr. Johanna Peetz (faculty professor – johanna.peetz@carleton.ca – 1-613-520-2600 ext. 1542).

Ethical concerns: This study has received ethics clearance by the Carleton University Research Ethics Board-B until NOVEMBER 30, 2018 (clearance #108062). If you have any ethical concerns about this study, please contact Dr. Andy Adler, Chair of the Carleton University Research Ethics Board-B (ethics@carleton.ca – 1-613-520-2600 ext. 4085).

Re-Contact Message to Participate in Time 2

**Research Study
Your Identity Over Time (Part 2)**

Hello!

We are contacting you today because in the fall term you participated in the first half of a two-part study called Your Identity Over Time. It is now time for the second half of the study!

You DO NOT need to be currently in a romantic relationship to participate in this part of the study.

This second half of the study will again be an online questionnaire that contains very similar questions to the first half that you already did. It will take approximately 45 minutes to complete, and you will receive **.50% course credit** for participating (through SONA).

Feel free to come back to this link a little later if you are not able to complete this part of the study right away. The study will be active until **April 11, 2018**.

**To participate in this part of the study, please click this link:
(link to Recruitment Notice for Time 2 (Appendix H))**

If you have any questions, please feel free to contact us:

Research personnel: The following people are involved in this research project, and may be contacted at any time if you have questions or concerns: Adrienne Paynter (graduate student, primary investigator – adrienne.paynter@carleton.ca), and Dr. Johanna Peetz (faculty professor – johanna.peetz@carleton.ca – 1-613-520-2600 ext. 1542).

Ethical concerns: This study has received ethics clearance by the Carleton University Research Ethics Board-B until NOVEMBER 30, 2018 (clearance #108062). If you have any ethical concerns about this study, please contact Dr. Andy Adler, Chair of the Carleton University Research Ethics Board-B (ethics@carleton.ca – 1-613-520-2600 ext. 4085).

Recruitment Notice for Time 2

Your Identity Over Time (Part 2)

Eligibility criteria:

- Participants **must be invited** to participate in this study. This is the second half of the study – all participants must have participated in the first half in the fall term.
- Participants **DO NOT need to be in a romantic relationship** for this part of the study.

The purpose of this study is to examine people's thoughts about who they are, and how these thoughts change or remain similar over time. We will ask questions via an online questionnaire about who you are now (e.g., personality traits, goals, interests, values, relationships), and who you were in the past. We will ask you to enter your unique, non-personally identifying code in order to match up your responses from the two parts of the study. We will ask you to enter the first name, or initials, or a code word to represent your past and/or current romantic partner (in order for the survey to function properly).

This second half of the online survey will take approximately 45 minutes to complete, and you will receive **.5% course credit** for participating.

This research is being conducted by Adrienne Paynter (graduate student, primary investigator) and Dr. Johanna Peetz (faculty professor) from Carleton University, and has received ethics clearance by the Carleton University Research Ethics Board-B until NOVEMBER 30, 2018 (clearance #108062).

To participate, please click here: (link)

Informed Consent for Time 2

Informed Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement before you begin. The informed consent must provide sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Study title: Your Identity Over Time (Part 2)

Eligibility criteria:

- Participants **must be invited** to participate in this study. This is the second half of the study – all participants must have participated in the first half in the fall term.
- Participants **DO NOT need to be in a romantic relationship** for this part of the study.

Purpose and task requirements: The purpose of this study is to examine people's thoughts about who they are, and how these thoughts change or remain similar over time. We will ask questions via an online questionnaire about who you are now (e.g., personality traits, goals, interests, values, relationships), and who you were in the past. We will ask you to enter your unique, non-personally identifying code in order to match up your responses from the two parts of the study. We will ask you to enter the first name, or initials, or a code word to represent your past and/or current romantic partner (in order for the survey to function properly).

Duration and compensation: This online survey will take approximately 45 minutes to complete. All eligible participants will receive **.50% course credit** for participating.

Potential risk / discomfort: We do not anticipate any psychological, physical, or legal risks to participants in this research.

Confidentiality: The data collected in this study are **confidential**. Your SONA ID will be retained in the data file only until data collection is complete to ensure that you receive your course credit. Once data collection is complete and all course credit has been granted, your SONA ID will be permanently deleted from the data file. We collect data through the software Qualtrics, which uses Canadian servers with multiple layers of security to protect the privacy of the data (e.g., encrypted websites and password-protected storage).

Data security: All data will be deleted from the data collection software (Qualtrics) once data collection is complete. The data files will be retained on the researchers' secure, password-protected computers indefinitely, and the anonymized data may be shared with other researchers, in academic journals, or on online platforms.

Right to withdraw: Your participation in this study is completely voluntary. At any point during the study (after you have confirmed your eligibility), you have the right to leave any response blank or withdraw from the study without forfeiting your compensation. If you would like to withdraw from the study, please click through the remaining survey pages, leaving the responses blank, until you reach the debriefing on the last page. If you would like your data to be destroyed, please contact the researchers using the contact information below. After data collection is complete, you can no longer withdraw your data, as the data will be anonymized.

Research personnel: The following people are involved in this research project, and may be contacted at any time if you have questions or concerns: Adrienne Paynter (graduate student, primary investigator – adrienne.paynter@carleton.ca), and Dr. Johanna Peetz (faculty professor – johanna.peatz@carleton.ca – 1-613-520-2600 ext. 1542).

Ethical concerns: This study has received ethics clearance by the Carleton University Research Ethics Board-B until NOVEMBER 30, 2018 (clearance #108062). If you have any ethical concerns about this study, please contact Dr. Andy Adler, Chair of the Carleton University Research Ethics Board-B (ethics@carleton.ca – 1-613-520-2600 ext. 4085).

Please select “I agree” below to consent to participate in this study:

- ☐ I agree to participate in this study.
- ☐ I do not wish to participate in this study. (end of survey)

Survey for Time 2

(The survey for Time 2 will consist of the same measures from Time 1 (except the Implicit Theories of Change scale and demographics). At Time 2, we will ask participants to respond to each item twice, once for how they feel right now, and once retrospectively for how they felt at Time 1.

Some of the scales from Time 1 are about a current romantic relationship – these will only be shown to participants at Time 2 who indicate they are in a romantic relationship at that time. The remainder of the scales below are shown at Time 2 for the first time.)

(Administrative preparation 2)

1. Please enter the first name (or initials, or a code word that represents them in your mind) of the person you were in a romantic relationship with **in (T1 month) 2017, regardless of whether or not you are still in a relationship with this person:** (text box)
2. Are you still in a romantic relationship with (T1 partner)? Yes/no
3. (If no to #2) Are you currently in a romantic relationship with someone else? Yes/no
4. (If yes to #3) Please enter the first name (or initials, or a code word that represents them in your mind) of the person you are **currently** in a romantic relationship with: (text box)

(Breakup characteristics (created by current researchers))

(This page will only be shown if the participant earlier indicated that they are no longer in a relationship with the same partner from Time 1.)

Earlier, you responded that you are no longer in a relationship with (T1 partner). The following questions are about the breakup of that relationship.

1. When you think about the breakup with (T1 partner), how long ago does it feel to you? (1—Very recent to 7—Very long ago)
2. Approximately what date did you and (T1 partner) break up? (drop down menus for month, day, and year)

(Scale for the next 4 questions: 1—Strongly disagree to 7—Strongly agree)

3. **Right after the breakup**, how happy were you that you and (T1 partner) broke up?
4. **Right after the breakup**, how sad were you that you and (T1 partner) broke up?
5. **Right now**, how happy are you that you and (T1 partner) broke up?
6. **Right now**, how sad are you that you and (T1 partner) broke up?

(Attitudes toward ex-partner (created by current researchers))

(This page will only be shown if the participant earlier indicated that they are no longer in a relationship with the same partner from Time 1.)

Thinking about your ex-partner, (T1 partner), please rate the degree to which you agree with the following statements.

(1—Strongly disagree to 7—Strongly agree)

1. I respect (T1 partner).
2. I like (T1 partner) as a person.
3. I believe (T1 partner) is a generally decent person.
4. I wish (T1 partner) well.

(Important life events (created by current researchers))

1. Have any important life events happened in your life **between (T1 month) 2017 and now?** Yes/no
2. (If yes to #1) Please list the life events below very briefly, using only a row or two to identify them. (text box)

(next page)

3. (This question will only be shown if the participant earlier indicated that they are no longer in a relationship with the same partner from Time 1, and if they indicated “yes” to question #1 above.) In the number of important life events you entered in the previous page, did you include your breakup with (T1 partner)? Yes/no

(Demographics)

1. (This question will only be shown if the participant indicated they are currently in a romantic relationship.) How long have you been in your current romantic relationship? (text box for years, text box for months)
2. (This question will only be shown if the participant indicated they are currently in a romantic relationship.) What is your current romantic partner’s gender? Male/Female/Self-identify: (text box)

(Positive mood induction (adapted from Rusting & DeHart, 2000))

(This page will only be shown if the participant broke up between the two surveys.)

Finally, we’d like you to take a moment to think about the following:

Sometimes, even when bad things happen, they ultimately have positive consequences. We would like you to list some good things that have occurred or that could occur as a result of your breakup with (T1 partner). In other words, what are some positive consequences of the breakup? (text box)

Full Debriefing for Time 2

Debriefing**What are we trying to learn in this research?**

In this study, we aim to examine what types of biases people hold about the influence of past relationships on their identity. We will examine the discrepancies between ratings about identity within a romantic relationship while the relationship is still ongoing, and these same ratings retrospectively after the relationship has broken up. We predict that the degree to which people shift their responses from before to after a breakup will have an impact on people's current personal and relational well-being. We also predict that the degree and outcomes of discrepancies between people's ratings will depend on people's current attitudes towards their ex-partners.

Why is this important?

This research will increase our understanding of the factors that lead to the development and maintenance of personal and relational well-being.

Where can I learn more?

If you are interested in learning more about what psychological science has to say about the influence of romantic relationships on one's identity, please follow this link:

<https://www.psychologytoday.com/blog/close-encounters/201412/4-ways-our-relationships-change-who-we-are>

If you are interested in learning more about what psychological science has to say about cognitive biases, please follow this link:

<https://www.verywell.com/what-is-a-cognitive-bias-2794963>

What can I do if I am feeling upset?

If you are feeling upset and want to speak with someone, please contact the Distress Centre at the link below. The Distress Centre offers phone, online chat, and email support for anyone who needs someone to talk to about anything. Their motto is "*No problem is too small to call.*"

<http://www.distresscentre.com/get-help/24-hour-support/crisis-lines/>

Carleton University also offers confidential counseling for any student. You can find counseling services in the same building as the student health clinic (Carleton Technology and Training Centre) or call them at 613-520-6674.

If you have any further questions, please feel free to contact us:

Research personnel: The following people are involved in this research project, and may be contacted at any time if you have questions or concerns: Adrienne Paynter (graduate student, primary investigator – adrienne.paynter@carleton.ca), and Dr. Johanna Peetz (faculty professor – johanna.peetz@carleton.ca – 1-613-520-2600 ext. 1542).

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