

Lost Without You:
The Effects of Relationship Dissolution on the Self

by

Danay C. Novoa

A thesis submitted to the Faculty of Graduate and Postdoctoral Affairs in
partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

Psychology

Carleton University
Ottawa, Canada

©2017
Danay C. Novoa

Abstract

Following a breakup, people often indicate that they have lost part of themselves. The process of coping with such a loss involves rebuilding a sense of self without the former partner. The present research examines the effect of breakup on two aspects of identity, as well as the potential factors that may contribute to perceived change in identity. In Study 1, the Self-Assurance and Concern for Others (SACO) scale was developed to assess two aspects of identity thought to be susceptible to change following breakup. The scale correlated with established identity-related constructs in the expected direction demonstrating some validity. In Study 2, participants who experienced a breakup ($N = 100$), reported a decline in self-assurance, but not in concern for others. In Study 3, participants in relationships ($N = 330$) were assessed longitudinally. Results suggested that people who broke-up use self-enhancing techniques by derogating their pre-breakup self in an effort to cope with the threat inherent in the breakup. Whereas participants in Study 3 perceived changes in both self-assurance and concern for others, there was no significant group level pre- to post-breakup change in these aspects. However, when participants experienced genuine change following the breakup, they reported a decline in mood. In general, searching for meaning, and perceiving the breakup as central to one's identity predicted perceived negative change in the self but not genuine change. The present research advances the literature on the perception of change in aspects of identity following breakups and advances method for assessing such change.

Acknowledgements

Since my first year of university, I have dreamt about successfully completing a PhD. I will look back on the completion of my dissertation as one of my biggest triumphs in life. I would not have successfully conquered this challenge without the help and support of the many individuals in my life.

First and foremost, I would like to thank my advisor Dr. Chris Davis. Without your guidance, support and time this dissertation would not have been possible. Throughout the years you have not only provided me with invaluable feedback but you also have helped me in many other ways. You have helped me tremendously with my professional development and confidence as a researcher. Furthermore, when life has challenged me, you continued to be understanding and offer any support. No words can express just how thankful I am for all that you have done for me. Thank you so much.

I would also like to thank my committee members, Dr. John Zelenski, and Dr. Johanna Peetz for your valuable feedback through the years. I am very thankful to have such wonderful committee members.

To my dear friend and best lab mate anyone could ask for, Christine Frank. You were my thesis partner in crime. You were there to support me not only during the stress of graduate school but also when life challenged me. Thanks for reminding me that I'm scrappy and to keep my eyes on the prize. Thanks for believing in me when it was challenging for me to believe in myself... Oh and thank you for letting me run 11 participants for your M. A. thesis.

To the lovely people in the Psychology Department, June Callender, Etelle Bourassa, Joanne Sonley, and Joanna Pozzulo thank you for helping me navigate the

administrative side of the program as well as being an ear when I needed to talk. I appreciate all that you have done for me.

To my family, your support, encouragement, and love have been so helpful in maintaining a positive attitude throughout these years. I love you all very much. To my mom, thank you for your support over the years and for tolerating my bad moods when school was stressing me out. Also, thank you for taking the time to visit me and help me at home when I needed it most. I love you.

To my friends, your support, encouragement, and love have helped through the challenges I faced. Knowing that I could count on you in times of stress has meant the world to me. I appreciate and love you all very much. To Lisa, Jess, and Travis thank you for reminding me of the world outside of academia and thesis writing. To Steph, Chantal, Johanna B., and Carina thank you for your continued support and faith in me. To my lab mate Darcie, thank you for keeping me company working late in the lab, your support and for cheering me on in the final stretch.

To my physiotherapist, Kristin and my massage therapist, Laura – thank you for taking care of my aches and pains from endless hours spent working on my thesis. Thanks for cheering me on as I approached the finish line.

Last, but certainly not least, thank you to God. Without my spiritual faith, I don't think I could have persevered.

Table of Contents

Lost Without You: The Effects of Relationship Dissolution on the Self	1
Relationships and Identity.....	3
Including the Other in the Self.....	5
Aspects of Identity in Inclusion of the Other in the Self	7
Identity Change in Relationships.....	9
The Course of Relationship Dissolution.....	11
Relationship Dissolution and Identity.....	12
The Present Research.....	19
Study 1a: Scale Development and Validation	22
Method	25
Participants.....	25
Measures and Procedure.....	25
Results and Discussion	27
Factor Analysis.....	27
Convergent and discriminant validity.....	29
Study 1b: Scale Validation.....	30
Method	31
Participants.....	31
Measures and Procedure.....	32
Results and Discussion	34
Self-assurance.....	34
Concern for others.....	35
Study 2: Factors Predicting Perceived Identity Change Post-Breakup (Cross-sectional) 36	
Hypotheses.....	37
Method	38
Participants.....	38
Measures.....	39
Procedure	43
Results and Discussion	44
Relation of self-assurance and concern for others with identity change measures... 44	
Do people perceive a change in aspects of identity after relationship dissolution?.. 46	
Is change in aspects of identity after relationship dissolution related to well-being?	47
After relationship dissolution do people search for meaning?.....	47

Is relationship dissolution central to one's identity?.....	48
Does the extent to which one searches for or finds meaning from the breakup, and perceives breakup as central to identity predict perceived changes in identity?	49
Do relationship dissolution characteristics predict identity change?	49
Study 3: The Effect of Breakup on Perceived and Genuine Identity Change (Longitudinal)	51
Hypotheses	52
Method	54
Participants.....	54
Measures.	55
Procedure.	58
Statistical analysis.....	60
Preliminary Analyses	68
HLM Analyses	71
General Discussion	83
Implications.....	90
Limitations and Future Directions	96
Conclusion	101
References.....	103
Tables.....	120
Figures.....	145
Appendices.....	154
Appendix B (SACO Questionnaire)	157
Appendix C: Study 1a Questionnaire	158
Appendix D: Study 1b Questionnaire.....	163
Appendix E: Study 2 Questionnaire	170
Appendix F: Study 3 Questionnaire.....	182
Appendix G: Additional Tables	196
Appendix H: Additional Figures.....	200

List of Table

Table 1. Correlation among Factors in Principal Factor Analysis (Study 1a)	120
Table 2. Results of Principal Axis Factor Exploratory Factor Analysis – 3 factor structure (Study 1a).....	121
Table 3. Results of Principal Axis Factor Exploratory Factor Analysis – 2 factor structure (Study 1a).....	122
Table 4. Convergent and Discriminate Validity of SACO Scale (Study 1a and 1b).....	123
Table 5. Means and Standard Deviations of Well-being, Identity and Meaning-Making and Centrality (Study 2).....	124
Table 6. Intercorrelations among Changes in Identity Measures (Study 2).....	125
Table 7. Relation of Identity Change and Well-being (Study 2).....	126
Table 8. Relation of Meaning Making and Centrality with Identity Change (Study 2)..	127
Table 9. Summary of Regression Analyses for Variables Predicting Identity Change (Study 2).....	128
Table 10. Summary of Regression Analyses for Variables Predicting Identity Change (Study 2).....	129
Table 11. Means and Standard Deviations of Mood, Identity and Meaning-Making and Centrality (Study 3).....	130
Table 12. List of Level 1 and Level 2 variables in Study 3.....	131
Table 13a. Correlations among Identity Measures across Entire Sample at Time 1 (Study 3).....	132
Table 13b. Correlations among Identity Measures across Entire Sample at Time 2 (Study 3).....	133

Table 13c. Correlations among Identity Measures across Entire Sample at Time 3 (Study 3).....	134
Table 13d. Correlations among Identity Measures across Entire Sample at Time 4 (Study 3).....	135
Table 14. Correlations of Rediscovery and Loss of Self with Other Identity Measures Breakup Sample Only Session Immediately Following Breakup (Study 3).....	136
Table 15. Summary of Intraclass Correlations (ICC) for Outcome Variables (Study 3).....	137
Table 16. Multilevel Models Predicting Current Concern for Others, Self-Assurance, and Self-Concept Clarity From Immediate and Residual Effects of Breakup: Within- Person Effects (Study 3).....	138
Table 17. Multilevel Models Predicting Retrospective Concern for Others, and Self- Assurance From Immediate and Residual Effects of Breakup: Within-Person Effects (Study 3).....	139
Table 18. Multilevel Models Predicting Pleasant Affect, Unpleasant Affect, and Depressive Symptoms From Immediate and Residual Effects of Breakup: Within-Person Effects (Study 3).....	140
Table 19. Multilevel Models Predicting Pleasant and Unpleasant Affect, and Depressive Symptoms From Identity Change Scores (absolute) and Effects of Breakup: Between-Person and Within-Person Effects (Study 3).....	141
Table 20. Correlations of Meaning Making, and Centrality with Change in Identity Scores (Genuine Change) (Study 3).....	142

Table 21. Correlations of Meaning Making, and Centrality with Change in Perceived Identity Scores and Rediscovery and Loss of Self Scores (Study 3).....143

Table 22. Summary of Regression Analyses for Factors Predicting Identity Change (Study 3).....144

List of Figures

Figure 1. Scree plot of varimax rotation principal axis factor analysis (Study 1a).....	145
Figure 2a. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-assurance and pleasant affect (Study 3).....	146
Figure 2b. The effect of relationship status (intact vs. breakup) on the relation between on absolute change in self-assurance and unpleasant affect (Study 3).....	147
Figure 2c. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-assurance and depressive symptoms (Study 3).....	148
Figure 3a. The effect of relationship status (intact vs. breakup) on the relation between absolute change in concern for others and pleasant affect (Study 3).....	149
Figure 3b. The effect of relationship status (intact vs. breakup) on the relation between absolute change in concern for others and unpleasant affect (Study 3).....	150
Figure 3c. The effect of relationship status (intact vs. breakup) on the relation between absolute change in concern for others and depressive symptoms (Study 3).....	151
Figure 4a. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-concept clarity and unpleasant affect (Study 3).....	152
Figure 4b. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-concept clarity and depressive symptoms (Study 3)...	153

List of Appendices

Appendix A. List of Items for AIQ-IV and Rosenberg Self-Esteem.....	154
Appendix B. SACO Questionnaire.....	157
Appendix C. Study 1a Questionnaire.....	158
Appendix D. Study 1b Questionnaire.....	163
Appendix E. Study 2 Questionnaire.....	170
Appendix F. Study 3 Questionnaire.....	182
Appendix G. Additional Tables.....	196
Appendix H: Additional Figures.....	200

Lost Without You:

The Effects of Relationship Dissolution on the Self

“Our company had a big night, a very, very big night, but it wasn’t complete...wasn’t nearly close to being in the same vicinity as complete, because I couldn’t share it with you. I missed my wife... I love you, you complete me...”
Jerry Maguire (Brooks, 1996)

The feeling of being incomplete unless one’s partner is near is shared among many in romantic relationships. When people enter relationships they not only feel elation from the budding romance, in many cases, they also feel that their sense of self is expanding to include the partner. This process of integrating aspects of another person into one’s own sense of self is referred to as ‘including the other in the self’ (Aron & Nardone, 2012).

When a relationship first develops, the individuals in the relationship tend to share personal resources with each other and perceive one another’s resources as though these resources were their own (i.e., what’s mine is yours and what’s yours is mine). Over time, these newly acquired resources are joined by newly acquired perspectives and identities that people can integrate to such a great degree that many people in relationships often refer to the partner and the self collectively (Agnew, Van Lange, Rusbult, & Langston, 1998). This phenomenon, known as the inclusion of the other in the self, is a component of the self-expansion model proposed by Aron and colleagues (Aron & Aron, 1986, Aron, Aron, & Norman, 2001, Aron, Ketay, Reila, & Aron, 2008; Aron, Lewandowski, Mashek, & Aron, 2013).

According to the self-expansion model, people are motivated by the desire to expand the self in order to enhance their potential for goal attainment or personal development. One means of self-expansion is through relationships; in relationships,

people have a tendency to adopt one another's identities (Aron, et al., 2008). To the extent that a romantic relationship is close, it is likely to render opportunities for self-expansion (e.g., Agnew et al., 1998). By integrating aspects of one's partner's identity into one's own, romantic relationships facilitate self-expansion. This integration can be so intense that people in relationships may find it challenging to discern their own characteristics from those of their partner (Slotter & Gardner, 2009). To the extent that one integrates aspects of one's partner into one's identity, one's own identity becomes dependent on one's partner.

Although romantic relationships can and often do lead to self-expansion, over time many relationships may come to feel stale because, at least in part, the rate of expansion seems to slow or stop. Despite the integration of one's identity with one's partner's identity, one may decide to terminate the relationship because the relationship no longer meets one's self-expansion needs. Ending such a relationship should result in a perceived contraction of self because the person who once completed one's identity is no longer there. Not only does one lose the companionship and the resources to which one was accustomed, but one of the ways in which one defines oneself is gone as well. It is as though a piece of oneself is now missing. Indeed after relationship dissolution, people tend to report feeling they have lost part of the self (e.g., Lewandowski, Aron, Bassis, & Kunak, 2006; Mason, Law, Bryan, Portley, & Sbarra, 2012).

However, not all report feelings of loss after relationship dissolution. There are some who report change for the better as a result of the dissolution (e.g., Lewandowski & Bizzoco, 2007; Tashiro & Frazier, 2003). Similar to other forms of adversity, these individuals are reporting that the relationship dissolution has not been a complete loss but

has made them see things they may not have seen without such circumstances. Some people report that as a result of the relationship dissolution they have increased confidence and remembered the value in their other relationships (e.g., Tashiro & Frazier, 2003). Given the discrepancy in the research, the goal of the present research is to further understand the consequences of relationship dissolution on one's identity as well as the factors that contribute to perceived change in identity (for better or worse) post-relationship dissolution.

Before discussing the effects of relationship dissolution on identity, I will first discuss how relationships affect one's identity, summarizing the research focusing particularly on how people integrate others into their identity. I will then review research on the stability of one's sense of identity (or lack thereof) once a relationship ends.

Relationships and Identity

From the moment we are born until the moment we die, we are surrounded by loved ones. Close others play an important role in our personal development. In particular, our identities are developed, tested, and revised in the context of interpersonal relationships (Baumeister, 1998). For instance, there is evidence that close others can facilitate or hinder one's likelihood of attaining one's ideal self (Drigotas, Rusbult, Wieselquist & Whitton, 1999; Rusbult, Finkel, & Kumashiro, 2009). In one study assessing people's attempts at changing the self, participants wrote about a time they were successful (or unsuccessful) at making changes to the self. Of those who reported successful changes to the self, a substantial minority (16%) of participants indicated that these changes were facilitated by another's wishes; of those who reported failed attempts at changes, none were facilitated by another (Heatherton & Nichols, 1994). Moreover,

relationship partners have the ability to influence whether people achieve an ideal self (e.g., Drigotas, 2002; Drigotas, et al., 1999; Rusbult, Kumashiro, Kubacka, & Finkel, 2009; Slotter & Gardner, 2011). For example, in a set of studies conducted by Drigotas et al. (1999), dating and married individuals were asked to assess the role of romantic partners in attaining their ideal self. Specifically, they examined the relation of partner's perception and affirmation with target's ideal self as well as the target's movement towards his or her ideal self. Across four studies (of which three were longitudinal), the researchers consistently found that when partner's perception of the target matched the target's ideal self, the partner was affirming of the target's behaviour and this was associated with a greater likelihood of the target achieving his or her ideal self. However, if the partner's perception did not match the target's ideal self then participants reported that they were less likely to attain (or come close to attaining) his or her ideal self. These studies suggest that close others have the capacity to facilitate change in the self.

In addition to influencing how one develops, close others also play a role in how one defines oneself. For many years, researchers have seen identity as something that distinguishes one person from another. However, how one defines oneself is not limited to what makes one distinct from others but also includes one's relationships with one's close others (Baumeister, 1998). Indeed, people identify themselves in part through their connection with others (e.g., Gaertner et al., 2012; Linville, 1985).

The way we define ourselves can go beyond our connection with others. It can also grow to include the other as part of us. There is evidence that close others (particularly romantic partners) can be integrated into one's identity to the point that someone feels as though the self and the partner are one individual (e.g., Slotter &

Gardner, 2009). For instance, Agnew et al. (1998) assessed the degree to which undergraduate students expressed cognitive interdependence with a romantic partner or a best friend. Cognitive interdependence is the extent to which people in relationships refer to themselves collectively (e.g., we, us, our, etc.). Participants were randomly assigned to complete a questionnaire about a romantic partner or a best friend. They found that people reflecting on their romantic partners tended to perceive their relationship partner and the self collectively, whereas this was not apparent in those who reflected on their best friends. This study suggests that the line between one's identity and one's partner's identity can become blurred as suggested by the self-expansion model (Aron et al., 1986, 1996, 2001, 2008).

Including the Other in the Self

Aron and colleagues (2004; 2008; 2013) argue that one of the ways in which people self-expand is through relationships and they do so by including aspects of the other in the self. However, once integrated, there is a reluctance to disintegrate, as any loss is experienced as a threat.

Aron and colleagues (2004) argued by adopting others aspects of identity, one is expanding one's identity. Aron and colleagues (2008) argued that one's identity is defined as "features that distinguish a person from the other people and objects – primarily characteristics, memories and other features that locate the person in social and physical space" (p. 217). There is evidence that people can integrate one another's characteristics into their identity, so much so that it is difficult to discern to whom the characteristics belong (e.g. Agnew et al., 1998; Gardner & Slotter, 2009). For instance, in a study examining whether married individuals could distinguish between characteristics

of the self and their spouse, Aron and colleagues (1991) assessed participants' ability to distinguish between their own characteristics and those of their partner with reaction time on an implicit association task (IAT). Participants were presented with a set of characteristics where they indicated whether the characteristics were either true of the self or not. The characteristics with which participants were presented were either true for both the partner and the self or false for one and true for the other. Prior to the IAT task, participants were presented with a list of characteristics and rated the extent to which the trait reflected their identity and their partner's identity. The researchers surmised that if the participants responded quickly it would indicate that they were less confused about who reflected the trait. They found that when the characteristics were true for both partner and spouse, participants had faster reaction times. However, when the characteristic was true for one but false for the other, participants' reaction times were slower, suggesting that these individuals may have integrated aspects of their partner into the self making it difficult to discern whether the trait belongs to the self or that of their partner. Using a different paradigm, Mashek, Aron, and Boncimino (2003) tested whether people include the other in the self. As in the IAT paradigm, participants rated traits for the self and for the others (romantic partner and two non-close others). However, after participants rated traits for the self and others, they were presented with the traits they rated (as well as distractor traits) and asked whether they had seen the trait in the list of adjectives. If participants recalled the trait then they were to indicate which target the trait reflected. Researchers calculated the proportion of recall errors between each of the pairings (i.e., self and partner, self and other, partner and other). Results indicated that participants had more difficulty discerning between traits for the self and partner than any

other pairing. These studies suggest that people can adopt characteristics of close others into their own identity to extent that there is confusion to where the self ends and the close other begins.

To assess the degree to which people have included another into their identity, Aron and colleagues created the inclusion of the other in the self scale which measures the degree of interconnectedness between the self and the partner (Aron, Aron, & Smollan, 1992). The scale is a single item measure of a diagram of seven pairs of circles overlapping to varying degrees. Each circle represents the self and the partner. The first set of circles do not overlap and the following sets increase overlap gradually until the majority of the circles overlap each other indicating greater inclusion of the other in the self.

Aspects of Identity in Inclusion of the Other in the Self

Although there is evidence to support the idea that people include aspects of a close other's identity into their own identity, more knowledge regarding what aspects of identity are involved is needed. When they introduced their model, Aron and Aron (1986) referred to the self broadly. Following in the steps of James (1890/1950), Aron and Aron argued that the self could be viewed as two parts, the "I" and the "Me." The "I" self represents the reflexive self, wherein the individual is aware of his or her self and experiences. In other words, the "I" self is the one who experiences each moment. The "Me" self represents the cognitive structures that organize the self (otherwise known as the self-concept). The self-concept is a collection of one's personal beliefs regarding personality, abilities, physical appearance, values, goals, roles, etc; the integration of all of these aspects is meant to address the question "who or what am I?" (Campbell,

Assanand, & Di Paula, 2000). Aron and Aron (1986) argue that self-expansion occurs in both selves, however the changes within the “Me” self are experienced as on-going as it continually seeks expansion and the changes within the “I” are perceived as complete (i.e., the person feels as though the self is expanded, even though the “me” continues to self-expand).

In later years, Aron et al. (2008) defined identity as “features that distinguish a person from the other people and objects – primarily characteristics, memories and other features that locate the person in social and physical space” (Aron et al., 2008, p. 217), referring to what many label personal identity (e.g., Brewer & Gardner, 1996). However, they still have yet to indicate which aspects of identity are involved in self-expansion. Personal identity is a complex construct encompassing many parts. For instance, McAdams (1996, 2001, 2008) argued that identity is the integration of two components of the self into a life story or narrative. The first component is one’s personality traits or characteristics (e.g., extraversion, friendliness, dominance, etc.) which refer to the broad and global descriptions of a person. The second component is personal concerns which encompass aspects such as personal goals, motivations, virtues, coping strategies and defense mechanisms. These characteristics can vary based on time, place or social role (McAdams, 1996, 2001; McAdams et al., 2004; McAdams & Pals, 2006). Then one’s identity is the integration of one’s disposition and personal concerns into a life story or narrative. It is at this level that one gets a deeper description of how one understands oneself and one’s position in the world (McAdams et al., 2004; McAdams & Pals, 2006). It seems that Aron and colleagues are only focusing on personal identity as a whole, making it difficult to understand which identity domains are involved in self-expansion.

Restricting the focus to the changes in personal identity may be limiting (Chen, Boucher, & Krause, 2011). As indicated earlier, people also define themselves in relation to close others (e.g., Andersen & Chen, 2002; Baumeister, 1998; Brewer & Gardner, 1996; Cheek, 1989; Gaertner et al., 2012). For instance, the tripartite model of identity (Brewer & Gardner, 1996) maintains that there are three fundamental identities: personal identity, relational identity, and collective identity. Collective identity is concerned with group membership, whereas relational identity remains focused on dyadic relationships. Personal identity embodies all which makes one unique and distinct from others such as one's traits and characteristics. Given that inclusion of the other in the self pertains to close others and that people define themselves in terms of their relationships, it seems counterintuitive to only focus on the expansion of personal identity.

Identity Change in Relationships

As Aron and colleagues argue that people in relationships self-expand by the inclusion of their partner into their own identity, it indicates that people experience a change in identity in relationships. Researchers who have examined the stability of identity over time argue that identity is both stable and malleable (Oyserman, Elmore, & Smith, 2012). Some researchers (e.g., Gecas, 1982; McAdams, 2001; Oyserman et al., 2012) argue identity only changes when necessary (i.e., only when circumstances in life called for change as any unnecessary changes are prohibited from occurring as a form of protection; Markus & Kunda, 1986). There is evidence that people report changes in their identity, especially after life transitions (e.g., Cassidy & Trew, 2004). For instance, people report changes in identity as a result of romantic relationships (e.g., Slotter & Lucas, 2012). Aron, Paris, and Aron (1995) examined whether falling in love would

result in a change in one's self-concept in a sample of undergraduate students. Students were assessed biweekly over ten weeks. At each wave, students responded to the question "who are you today?" and indicated whether they had fallen in love. For those who reported falling in love over the ten weeks, they demonstrated a significantly greater change in their self-concept compared to those who reported that they did not fall in love in the duration of the study. This suggests that romantic relationships are life events significant enough to provoke changes in the self.

Given that relationships are a means by which identity changes, then it is reasonable to assume that the loss of a romantic relationship would be grounds for changes in one's identity as well. As mentioned earlier, Aron and Aron (1986) argued that once someone integrated aspects of another's identity into the self, there is a great reluctance in losing those integrated aspects as it poses a threat to the self. They do, however, allude to the possibility that once something is integrated, loss is possible. If a loss occurs, then de-expansion occurs wherein a set of integrated aspects are removed from one's identity.

Unfortunately, relationship breakup is a common stressful experience for students (e.g., Park, Cohen, & Murch, 1996). One Canadian study indicated a substantial number (42%) of romantic relationships end in students' first year of university (e.g., Lydon, Pierce, & O'Regan, 1997). As not all relationships last, especially among young adults, it is possible that the loss of a relationship can result in a loss of self. Indeed, in addition to the pain associated with relationships ending, people also report that relationship dissolution impacts their sense of self (e.g., Tashiro & Frazier, 2003; Slotter, Gardner, & Finkel, 2010).

The Course of Relationship Dissolution

To date, most of the research on relationship dissolution has focused on the emotional consequences (e.g., Boelen & Reijnjes, 2009; Frazier & Cook, 1993; Lewandowski, 2009; Sbarra & Emery, 2005). There is evidence that the emotional consequences that people experience post relationship dissolution are akin to the consequences experienced in other stressful events. For instance, Chung et al. (2002) examined the post-traumatic stress symptoms in a sample of students after experiencing romantic relationship dissolution. They found that a substantial portion of students (43%) reported scores exceeding the cut-off values on the general health questionnaire meant to screen for psychological distress.

Although the ending of a romantic relationship may result in poorer well-being, not all remain in great despair (e.g., Sbarra & Emery, 2005). The emotional consequences of negative events can fade over time (e.g., fading affect bias; Walker, Skowronski, Gibbons, Vogl, & Thompson, 2003). According to the relationship dissolution literature, in the immediate aftermath of the relationship dissolution, people experience intense negative emotions (e.g., Sbarra & Emery, 2005). However, as time passes the intensity of emotions decreases. Specifically, Eastwick, Finkel, Krisnamurti, and Loewenstein (2008) recruited participants who recently experienced relationship dissolution and assessed distress over a ten week period. They found that over a 10-week period distress associated with the breakup decreased gradually. Moreover, Sbarra and Emery (2005) examined the trajectory of emotions after relationship dissolution for 28 days and compared them to those who remained in relationships (only assessed for 7 days). Participants' relationships were terminated on average two weeks before the study.

The researchers focused on four main emotions: love, sadness, anger and relief (relief was not available in dating sample due to a clerical error). Each of the emotions declined over time with relief and anger showing the most fluctuation. Love declined steadily over time whereas sadness was initially high and gradually decreased over time. After 28 days, people who experienced a breakup reported less love and more anger than those who remained in relationships (assessed over 7 days). However, there were no differences in levels of sadness after 28 days. These studies suggest that even though relationship dissolution is painful, emotions and levels of distress do decline with the passing of time, even as early as 6 weeks after the experience. Although there is evidence of the course of relationship dissolution on well-being, the consequences of relationship dissolution on one's identity over time is less clear.

Relationship Dissolution and Identity.

"If you leave me now, you'll take away the biggest part of me..." - Chicago (Cetera, 1976)

As the song lyric above illustrates, relationship dissolution can impact more than one's well-being. As suggested by the self-expansion model, people integrate aspects of their partner's identity into their own identity. When the relationship ends, there is evidence that those aspects of one's identity attributable to the other are lost (e.g., Lewandowski et al., 2006); however, only recently have researchers begun examining the consequences of relationship dissolution on the self (e.g., Boelen & van de Hout, 2010; Lewandowski & Bizzoco, 2007; Lewandowski et al., 2006; Mason, et al., 2012; Slotter et al., 2010).

To the extent one's sense of self is dependent on the other, one is apt to perceive greater loss in the self when that relationship ends (e.g., Boelen & van den Hout, 2010). For instance, in a sample of undergraduate students, Lewandowski et al. (2006) examined whether the extent to which one's past relationship was self-expanding in students who recently experienced relationship dissolution (or imagined dissolution in Study 3) predicted the extent to which their self-concept contracted after the relationship ended. In their first two studies, they assessed this relation among those who had experienced a recent breakup (within 6 months). The contraction of the self-concept was assessed through participant open-ended responses of how the breakup affected them (Study 1) and as a single item assessing the extent to which participants predict they would feel a sense of loss in the self (Study 2). In the first study, they found that participants who reported that their relationship facilitated greater self-expansion also reported greater sense of loss in the self after the relationship ended. The results were replicated in their second study, even after controlling for relationship closeness. In the third study, on a sample of undergraduate students in relationships, the researchers manipulated two aspects of the relationship. First, they manipulated the extent to which participants perceived their relationship as self-expansive (high vs. low). Second, researchers manipulated the degree of closeness participants felt to their partner (high vs. low). Self-concept was assessed through coding participants' open-ended responses to the question, "Who are you today?" Then participants were asked to imagine that the relationship ended. Consistent with the first two studies, Lewandowski et al. (2006) found that the greater the self-expansion, the greater the perceived loss when imagining the end of the relationship.

Although people can report feeling as though they have lost a part of themselves, people can also report personal gain or growth as a result of the relationship dissolution. For example, Tashiro and Frazier (2003) assessed positive and negative changes participants reported after relationship dissolution. They found that in addition to negative changes, participants also reported positive changes in the self such as increased personal strength, confidence as well as increased concern for others. Lewandowski and Bizzoco (2007) also found that people reported positive changes following relationships dissolution. However, they found that the extent to which an individual's past relationship was self-expanding predicted the extent to which that individual perceived changes in the self. The more self-expanding the past relationship, the more participants were likely to perceive loss of self (less likely to perceive rediscovery of self). These results suggest that the extent to which one perceived one's past relationship as self-expanding (i.e., promotes growth) can be detrimental once the relationship dissolves. However, if the relationship does not promote personal growth then the dissolution of the relationship does not seem to threaten one's self-concept. Although these studies provide insight into the effect of relationship dissolution on identity, these studies assessed identity change retrospectively (or hypothetically) at one point in time, leaving the prolonged effects of relationship dissolution on perceived identity change unclear. Additionally, it is not clear whether the changes reported post-breakup are perceived or genuine changes in the self.¹ Assessing breakups longitudinally may shed light on the prolonged effects of breakup and whether the changes reported are genuine.

¹ In the present research, "perceived change" in identity reflects participants' retrospective evaluation of their change in identity since the breakup wherein the participants rate whether their identity has changed from pre-breakup to post-breakup. "Genuine change" reflects the change in identity status from pre-breakup to post-breakup wherein participants provide current ratings of their identity status pre-breakup

More recently, some researchers have begun assessing changes in the self-concept after relationship dissolution longitudinally. For instance, Slotter and colleagues (2010) recruited participants in romantic relationships and assessed self-concept clarity change bi-weekly over six months. For any participants who terminated their relationship over the six months, their self-concept clarity change was assessed at time of break-up as well as over the rest of the six months (out of 69 students, 26 ended their relationships). For those who remained in relationships, their self-concept clarity increased over time. However, those who experienced a relationship breakup experienced a decline in self-concept clarity. In addition, the researchers found that the decline in self-concept clarity largely accounted for the effect of the breakup on wellbeing.

In another longitudinal study, participants who experienced a recent breakup were assessed over an 8-week period to examine self-concept change post-relationship dissolution. Each week, participants reported their well-being, the degree to which they still possessed romantic feelings for their past partner and the extent to which they felt they have lost part of the self (poor self-concept recovery; Mason et al., 2012). Researchers found that when participants reported greater romantic feelings for their past partner in any given week, they also reported poorer self-concept recovery (i.e., greater loss of self) that week. They also found that self-concept recovery was associated positively with psychological well-being in the same week as well as the following week. These studies suggest that a breakup does result in a change in identity.

and identity status post-breakup (Study 3). By assessing current status on relevant identity domains, it allows for a non-evaluative (or genuine) assessment of change. I understand that genuine change may not be an ideal term. However, the term genuine is consistent with terms used by previous researchers (e.g., Frazier et al., 2009; McFarland & Alvaro, 2000; Tedeschi & Calhoun, 2004; Wortman, 2004).

As relatively few studies have examined the effects of relationship dissolution on identity, it is difficult to know the extent to which the perceived change in identity reflects genuine change. Fortunately, we can look to other areas of research for insight into the relation between relationship dissolution and identity change. For instance, bereavement can be considered akin to the dissolution of a romantic relationship as a loved one is no longer in one's life. Both bereavement and relationship dissolution represent an experience of loss. Research on psychosocial adaptation to loss and trauma suggests that adversity often leads to the perception of both positive and negative changes in the self (e.g., Boelen, Keijsers, & van den Hout, 2012; Davis, 2008; Gillies & Neimeyer, 2006; McFarland & Alvaro, 2000; Park, Zlateva, & Blank, 2009; Wilson & Ross, 2001). Researchers have found that loss of a loved one often leads to perceived changes in one's identity (e.g., Boelen et al., 2012; Montpetit, Bergeman, & Bisconti, 2010; Neimeyer, Baldwin, & Gillies, 2006). For instance, Neimeyer et al., (2006) examined the relation between the grief of losing a loved one and perceived identity change. They assessed identity change by asking participants to report the degree to which the death of their loved one has facilitated a difference in the self. Indeed, there was evidence that bereaved individuals reported a change in the self following the death of a loved one and these changes were associated with greater grief. However, when they assessed for positive changes alone, greater positive differences in the self were associated with less grief. Whether people experience the loss of a loved one through death or relationship dissolution, they share a perception of change in identity as a result of the loss.

Even though people report changing for the better after a negative experience (see Helgeson, Reynolds, & Tomich, 2006 for a review), it is not clear whether the changes reported reflect genuine transformations in identity. There is debate in the literature as to whether the positive self-changes people report after adversity are veridical. Although some researchers argue that the positive changes that people report following adversity should be accepted at face value (e.g., Tedeschi & Calhoun, 2004), there is evidence that people tend to be biased when assessing their own personal growth (e.g., Frazier et al., 2009; McFarland & Alvaro, 2000; Wilson & Ross, 2001). Some social psychologists have suggested that the positive self-changes people report following adversity are merely cognitive illusions to self-enhance (Robins & Beer, 2001; Taylor & Brown, 1988). People appear to be especially motivated to self-enhance when their sense of self is threatened (e.g., Kross & Ayduk, 2011). For instance, McFarland and Alvaro (2000) have found that when people are reminded of a negative experience, they tend to derogate their past (pre-adversity) self and inflate their current self to enhance the perception of personal growth.

Given the concern that the identity changes people report are biased, it is interesting that most of the research on identity change has relied on people's own estimation of change using scales that ask people to retrospect on the extent to which they have changed as a result of their adversity (e.g., Park et al., 1996). As Tennen and Affleck (2009) have argued, the task of assessing change accurately is difficult. They note that to assess change, one needs to: 1) think back to who one was before the adversity to assess one's standing on a particular dimension (e.g., how confident I was); 2) assess one's current standing on the dimension; 3) calculate the difference; and 4)

attribute that change to the adversity (as opposed to other factors like maturation). Instead of engaging in this process for each dimension of interest, Tennen and Affleck (2009) speculate that when asked about personal growth, people offer a global impression of their change. Furthermore, Jayawickreme and Blackie (2014) argue that rather than relying on retrospective assessments of change following adversity, researchers need to utilize prospective designs where baseline and change in current standing can be assessed. Additionally, when assessing change following adversity, many researchers fail to include a comparison group without the adversity. Researchers should include a control group that allows for the comparison of change as it occurs naturally with the change that occurs following the adversity. If these researchers (e.g., Jayawickreme & Blackie, 2014; Tennen & Affleck, 2009) are correct, then the focus of research should be on the potential discrepancy between perceived and genuine change as well as the factors that contribute to the perception of change in identity.

Research on bereavement and identity has examined the possible factors that may contribute to perceived identity changes (e.g., Boelen, 2012; Gillies & Neimeyer, 2006; Park, 2010). Some researchers have examined the role of meaning-making in identity change after the loss of a loved one (e.g., Neimeyer et al., 2006; Young & Caplan, 2010). Gillies and Neimeyer (2006) argue that people perceive identity change as a result of finding meaning or purpose in their experience. In support of this argument, previous research has found that after loss of a loved one, people who reported finding meaning in the experience reported greater personal growth. Specifically, Davis, Nolen-Hoeksema, and Larson (1998) examined the relation between finding meaning in loss of a loved one from a terminal illness and found that those who reported finding meaning in the loss also

reported personal growth. Additionally, how one remembers an experience can contribute to one's sense of identity change (e.g., Berntsen & Rubin, 2006; Bluck, 2003; Wilson & Ross, 2003). Berntsen and Rubin (2006; 2007), for example, argued that negative events, such as loss of a loved one, can affect one's identity when these events become a central component of identity. Previous research has shown that when loss events are more central, they tend to be perceived as more distressing (e.g. Boals, 2010; Boelen, 2009). However, research has also indicated that when people rate their loss events as more central, they are more likely to report personal growth (Schuetter & Boals, 2011). Given that bereavement can be considered akin to the loss of a relationship, it is a reasonable assumption that both meaning making and centrality of the event may be contributing factors to the relation of relationship dissolution and identity change, bringing us to the present research.

The Present Research

Given that relatively little research has examined the effects of relationship dissolution on identity, more could be understood about the consequences of relationship dissolution on identity. Thus far, research has suggested that people perceive a change in the self, however it is not clear whether the changes perceived reflect genuine change and what factors may contribute to perceived change in identity. Thus, the goal of the present research is threefold: to examine a) the perceived changes to identity after relationship dissolution; b) the extent to which these perceived changes reflect change in identity status (or non-evaluative change) from pre- to post-breakup (what I refer to as genuine change), and to what extent the change is a retrospective evaluation of change from pre-

to post-breakup (which I refer to as perceived change); and c) the factors that contribute to perceived changes in identity.

To assess identity change after relationship dissolution, a scale was developed and validated (Studies 1a and b). Given that identity is a broad and elusive concept, I narrowed down the concept to two aspects of identity, self-assurance and concern for others meant to reflect an aspect of personal and relational identity, respectively. Previous research has found that following adversity personal and relational aspects of identity are likely to change. For instance, following relationship dissolution, people tend to report changes in self-confidence and in how they relate to close others (e.g., Tashiro & Frazier, 2003). To assess self-assurance and concern for others, I asked participants to rate the extent to which the relevant items defined who they are ('not at all like me' to 'definitely like me'). Although, research suggest that there are three main types of identity (personal, relational, collective; Brewer & Gardner, 1996), given the present research is concerned with romantic relationships, the focus will remain on aspects of relational identity and personal identity, and not that which pertains to group membership.

In a subsequent study (Study 2), participants who recently experienced a relationship break-up (within the last 6 months) were recruited to examine whether they perceived changes in these aspects of identity after the relationship ended. In this study, I tested whether certain factors (e.g., the extent to which one searched for and found meaning as well as the extent to which the breakup was perceived as central to identity) predicted perceived changes in these two aspects of identity after relationship dissolution.

As Study 2 assessed the changes in the two aspects of identity after relationship dissolution at one time point, Study 3 assessed change in the two aspects of identity

following relationship dissolution prospectively. In Study 3, people who were in a relationship were recruited and assessed over two months to examine the immediate and residuals effects of breakup on change in the two aspects of identity. The goal of Study 3 was to assess change in current status in aspects of identity from pre- to post-breakup as well as perceived change in the same aspects of identity. Change in self-assurance (as an aspect of personal identity) and concern for others (as an aspect of relational identity) after relationship dissolution were assessed in two ways: retrospectively and comparing pre-breakup status to post-breakup status on these aspects of identity. Participants provided a pre-breakup rating of their current self-assurance and concern for others (Time 1). Then, participants were assessed again on their current identity status post-breakup in these domains (e.g., Time 2). It is at this point (e.g., Time 2), after participants provide ratings for their current identity, that they provided retrospective ratings of a past self (i.e., pre-breakup self) in the same domains. The retrospective ratings of self-assurance and concern for others post-breakup reflect their perceived change. Genuine change, or change in status in these aspects of identity from pre to post-breakup, was assessed as the difference between current ratings on the two aspects of identity (self-assurance and concern for others) pre-breakup (i.e., Time 1) and post-breakup (e.g., Time 2).² The comparison of perceived change and genuine change in these aspects of identity will provide an indication of any discrepancy of change or bias of change.

² As mentioned earlier, I recognize that some may take issue with the term ‘genuine’ to reflect the difference between initial status and post-breakup status as both are self-reports and thus subject to bias. To my knowledge, there is no better word to describe this difference in a way that distinguishes it from the retrospective assessment of change, which I refer to as ‘perceived change’.

Study 1a: Scale Development and Validation

As the goal of the present research is to examine the effects of relationship dissolution on one's identity, it was important to narrow the concept of identity into smaller testable identity domains. Thus, the purpose of Study 1 was to develop and validate my newly created aspects of identity measure. Drawing from a variety of existing questionnaires that assess different aspects of identity, and generating new items to capture aspects of identity believed to change after relationship loss, my goal with Study 1 was to demonstrate that the new identity scale had good psychometric properties, and that it possessed convergent and discriminant validity.

The aim of the aspects of identity scale is to assess change in an aspect of personal and relational identity. As mentioned earlier, personal identity is reflective of how one is distinct from others and focuses solely on interests specific to the self; relational identity is reflective of the close others in one's life and focused on the benefit of them (Brewer & Gardner, 1996). The goal of the present study was to create a self-report measure to assess an aspect of personal and an aspect of relational identity likely to change following the breakup of a romantic relationship. In addition to assessing current ratings of these aspects of personal and relational identity, the scale also assesses participants' retrospective ratings on these aspects of who they were prior to the end of the relationship. Together, the current and retrospective ratings should shed light into the potential discrepancy or bias that occurs when relying solely on the participants' own assessment of change.

Elements of personal and relational identity were selected based on previous research on close relationships, identity, and adversity (e.g., Cheek, Smith, & Tropp,

2002; Park et al., 1996; Rosenberg, 1965; Tashiro & Frazier, 2003). The identity literature served to identify domains of identity. The close relationship and adversity literatures provided indications of the areas within which people tend to report changes in identity. In the identity literature, Cheek et al. (2002) identified four domains of identity: personal, relational, collective and social. Similarly, Brewer and Gardner (1996) argued for three fundamental domains of identity, which they referred to as personal, relational and collective. Given that the present research is concerned with relationship dissolution, I only focused on the personal and relational identity domains. Within the adversity literature, reports of (positive) identity change tend to be personal or relational. In this literature, researchers have commonly used two scales to assess positive changes in the self and relationships after adversity (Posttraumatic Growth Inventory (PTGI), Tedeschi & Calhoun, 1996; Stress-Related Growth Scale (SRGS), Park et al., 1996). Both the PTGI and SRGS scales assess positive changes in the personal identity (e.g., I discovered that I'm stronger than I thought I was'; Tedeschi & Calhoun, 1996, p. 460) and relational identity (e.g., 'A prior relationship with another person became more meaningful'; Park et al, 1996, p. 76). These scales were used as guides in scale development. Furthermore, the research in the relationship literature, specifically research concerned with the effects of relationship dissolution on identity, has provided some evidence of reported changes in the self and in one's relationship dynamics. Specifically, Tashiro and Frazier (2003) qualitatively examined students' perception of change in the self after relationship dissolution and found that participants primarily reported changes in their self-confidence, followed by changes in how one interacts with close others. Using the positive change items from benefit finding scales following adversity (e.g., Park et al.,

1996; Tedeschi & Calhoun, 1996), participants' open-ended responses following breakup (e.g., Tashiro and Frazier, 2003) as well as items from other measures of identity (e.g., Cheek et al., 2002; Rosenberg 1965), a list of items was created and factor analysed.

In addition to factor analysing the scale to establish its structure, it was important to demonstrate that the emergent factors possess good convergent and discriminant validity. I was anticipating that personal and relational factors would emerge from the factor analysis and that scores on the personal identity factor would be strongly positively related to self-concept clarity. The personal identity factor should correlate positively with self-concept clarity as both constructs measure an aspect of identity. One's self-concept represents the cognitive structure meant to address the question "who or what am I?" Self-concept clarity reflects one's confidence with one's answer to that question (Campbell et al., 1996). The personal identity factor is meant to assess an aspect of the self that is distinct or unique from others which is relevant to our cognitive structure of the self. In addition, it was expected that scores on the personal identity factor would be positively related to the degree to which one has a biased positive perception of oneself, a component of desirable responding (self-deception; Paulhus, 1998). The personal identity factor should relate positively with self-deception as self-deception is a trait that reflects favourable bias to the self. Personal identity focuses on aspects that make an individual unique. However, the personal identity factor should not be related to how favourably people present themselves to others (impression management; Paulhus, 1998) as personal identity is not concerned with others or how one is viewed by others. Others' perception of the self is more reflective of the relational self. Thus, it was expected that the relational identity factor would be positively related to impression management. Moreover, the

relational identity factor should not relate strongly to either self-concept clarity or self-deception as neither of these constructs focus on our relation with others but rather the description we have of ourselves.

Method

Participants. One thousand four hundred and six undergraduate students completed mass testing online (2011) in exchange for course credit. As part of mass-testing, they completed the aspects of identity measure, the self-concept clarity scale and the balanced inventory of desirable responding. Of the 1406 participants, nine were excluded from the study either because they did not complete the aspects of identity scale or provided unreliable data (e.g., repeated same value throughout questionnaire). Thus, the data of 1397 participants (416 men, 977 women, 4 gender unknown) ages 17 to 53 ($M = 19.96$, $SD = 4.11$) were included in the factor analysis.

Measures and Procedure. Participants completed a battery of online questionnaires for mass testing. As part of mass testing, participants completed the aspects of identity scale, balanced inventory of desirable responding and the self-concept clarity scale. The questionnaire order was counterbalanced (see Appendix C for questionnaires).

Aspects of Identity Scale. Based on the research discussed above, a preliminary set of 34 items was created to assess changes in aspects of identity particular in the domains personal and relational identity. These preliminary items were created drawing upon themes in identity, relationships, and adversity literatures. The 34 items consisted of a hybrid of Cheek et al.'s (2002) Aspect of Identity Questionnaire (AIQ-IV), and Rosenberg's (1965) Self-Esteem scale items (see Appendix A for list of items) as well as

newly created items developed from McFarland and Alvaro's (2000) list of personal attributes, the Posttraumatic Growth inventory (Tedeschi & Calhoun, 1996), the Stress-Related Growth scale (Park et al., 1996), and open-ended responses of personal changes after relationship dissolution (Tashiro & Frazier, 2003).

Participants indicated the extent to which the items were descriptive of their identity on a scale of 1 (not at all like me) to 5 (definitely like me). Aspects of personal and relational identity were assessed with items such as, "At times I wonder about my worth as a person" and "I am pessimistic about my future" (aspect of personal identity), and "Being a good friend to those I care about is really important to me," and "I connect well with others" (aspect of relational identity). Once the 34 items were factor analysed, two factors emerged which are discussed below.

Desirable responding. As part of mass testing, participants completed the balanced Inventory of Desirable Responding - Version 7 (BIDR-7; Paulhus, 1998) to assess the extent to which participants have a tendency to respond in socially desirable ways. The BIDR-7 consists of 40 items assessing two forms of socially desirability responding, self-deception (20 items - positively biased perception of the self) and impression management (20 items - related to presenting a favourable impression of the self to others). Participants indicated the degree to which items like "I never regret my decisions," (self-deception) and "I never swear," (impression management) were true of them on a Likert scale of 1 (not true) to 7 (very true). Reversed coded items were recoded. Only the extreme responses, 6 and 7, were summed to create a score for self-deception and impression management. The scale has demonstrated acceptable internal consistency in previous research (e.g., self-deception, $\alpha = .72$; impression management, α

= .73; Davis, Thake, & Vilhena, 2010) and in the present study (self-deception, $\alpha = .69$; impression management, $\alpha = .79$).

Self-concept clarity. The degree to which participants feel confident with their identity was assessed with the self-concept clarity scale (Campbell et al., 1996). The measure consisted of 12 items in which participants reported their responses on a Likert scale of 1 (strongly disagree) to 5 (strongly agree). The scale consisted of items such as “My beliefs about myself seem to change very frequently,” (reverse scored) and “In general, I have a clear sense of who I am and what I am.” Any reverse-keyed items were recoded and then a self-concept mean was created. High scores indicate self-concept clarity. The scale has demonstrated excellent internal consistency in previous research (e.g., $\alpha = .90$; Boelen et al., 2012) as well as the current study ($\alpha = .89$).

Results and Discussion

Factor Analysis. An exploratory principle axis factor analysis was conducted on the 34-item aspects of identity scale. Fabrigar et al. (1999) recommend the use of principal axis factor analysis as it is robust against problems of normality. Furthermore, principal axis factor analysis is the extraction most commonly used when conducting exploratory factor analyses (Worthington & Wittaker, 2006).

As it was not clear whether the factors would be correlated, I initially used an oblique rotation (oblimin). The scree plot and eigenvalues greater than one heuristics suggested that the data could be adequately represented with four factors. Parallel analysis, however, suggested that three factors might yield a more reliable fit. Given that previous research argues that eigenvalues can be overestimated by retaining too many factors, especially in large samples (e.g., Fabrigar et al., 1999; Velicer & Jackson, 1990;

Zwick & Velicer, 1982) and parallel analysis is a more accurate assessment of retention than other approaches (Zwick & Velicer, 1986), I retained the three-factor model. As the three factors were correlated weakly with one another (see Table 1), I elected to rotate the factors using the varimax rotation method. The first factor had a post extraction eigenvalue of 6.72, explaining 19.77% of the variance in the latent factor structure. The second factor had a post extraction eigenvalue of 2.29 where it explained 6.73% of the variance in the latent factor structure. Finally, the third factor's post extraction eigenvalue of 1.49 explained 4.39% of the variance in the latent factor structure.

Next, the factor loadings of each item were examined and loadings were considered to load on a factor if three criteria were met: the magnitude of the primary loading needed to be .40 or higher, the item did not load substantially ($> .30$) on a second factor, and the items with primary loadings on a given factor needed to yield an adequate index of internal consistency (Cronbach's alpha). The first factor contained 9 items such as "My relationships are important to me", "I invest a great deal of time in my relationships with others", and "I have a great deal of compassion or empathy for people". The second factor contained 8 items such as "I really know who I am", "I have difficulty dealing with my fears and anxieties" (reverse scored), and "On a whole I am satisfied with who I am". The third factor contained only two items, "I am resilient; nothing can knock me down" and "I am highly motivated and ambitious to get what I want out of life" (see Table 2). Given that the third factor contained only two items, I reran factor analysis testing a two-factor model. I then eliminated items that (a) loaded approximately equally on two factors, or (b) loaded weakly on all factors ($< .40$). This left 17 items. Principal axis factor analysis of these 17 items yielded two orthogonal

factors, with the same 9 items loading on the first factor and another 8 items loading on the second factor (see Table 3). The first factor had an eigenvalue of 4.73, accounting 23.67% of the variance in the latent factor structure; the second factor had an eigenvalue of 2.13, accounting for 10.62% of the variance in the latent factor structure. Based on the items which remained, the first factor, which assessed an aspect of relational identity, was labelled “concern for others” or the extent to which one is invested in their close relationships. The second factor, which assessed an aspect of personal identity, was labelled “self-assurance” or the extent to which one perceives oneself as confident. The scale collectively was entitled the “Self-Assurance and Concern for Others scale” (SACO).

Once the factors were established, two reliability analyses were conducted and results revealed that both factors demonstrated good internal consistency (“concern for others”, $\alpha = .83$; “self-assurance”, $\alpha = .80$). The relation between self-assurance and concern for others was assessed and found a positive relation, $r(1395) = .32, p < .01$.

Convergent and discriminant validity. Both self-assurance and concern for others were assessed for convergent and discriminant validity. As expected, self-assurance (an aspect of personal identity) was strongly related to self-concept clarity where those who indicated they were a confident person also reported having a clear sense of their identity (see Table 4). Also as predicted, the more participants identified themselves as self-assured the more likely they were to indicate a tendency to score higher on self-deceptive enhancement (suggesting that those scoring high on self-assuredness have a more positive view of themselves). Moreover, although self-assurance was significantly positively related to impression management, this relation was not as

strong as the relation of self-assurance with self-deception and self-concept clarity (which exceeded .40).

As expected, scores on the concern for others factor were positively associated with impression management (see Table 4). Contrary to expectations, concern for others was also significantly positively associated with self-concept clarity and self-deception. Although, concern for others was related to all three variables (self-concept clarity, self-deception and impression management) the magnitude of the correlations was not strong. The hypothesized relation between concern for others and impression management was the strongest. Also, the relations of concern for others with self-concept clarity and self-deception were the weakest relations. Together these results may provide preliminary evidence of the factor's discriminant validity. Given the evidence of convergent and discriminant validity was not as strong as anticipated, an additional scale validation study is necessary.

Study 1b: Scale Validation

The results of Study 1a suggested a two-factor structure of aspects of identity. The two factors that emerged were self-assurance (an aspect of personal identity) and concern for others (an aspect of relational identity). The self-assurance factor demonstrated both convergent and discriminant validity. However, there was only preliminary evidence of concern for others factor demonstrating discriminant validity, thus it was important to conduct another study to assess convergent and discriminant validity of both constructs. In this study, I assessed the degree to which self-assurance and concern for others correlated with agentic and communal values, narcissism, optimism, and the need to belong. As self-assurance assesses the extent to which one is confident with oneself and

one's abilities, it was expected that it would be positively related to agentic values (i.e., values associated with self gain), optimism (i.e., expects positive outcomes), and narcissism (i.e., the degree to which has excessive self love). Agentic values should correlate positively with self-assurance as agentic values are self-oriented and focused on success and wealth. Optimism should correlate positively with self-assurance as an aspect of self-assurance is hope for the future working out. Finally, self-assurance should correlate positively with narcissism as both reflect confidence in the self. Self-assurance should not be related to communal values (i.e., values associated with getting along with others) or need to belong (i.e., one's need to be accepted by others). Self-assurance is focused on one's confidence and abilities rather than how one associates with others or one's need to affiliate with others. On the other hand, as concern for others assesses the extent to which one is invested in their relationships, it was hypothesized that it would be positively related to communal values and need to belong, but not to agentic values, narcissism, or optimism. Concern for others should positively correlate with communal values and need to belong as these constructs assess the importance of the connection and investment one has with one's close others. Concern for others should not be related to constructs that are self-oriented or self-obsessed as with agentic values and narcissism. Moreover, given concern for others assesses one's connection with others, it should not relate to a construct concerned with the perception of one's future as positive (i.e., optimism).

Method

Participants. One hundred and forty-six undergraduate students were recruited to participate in a study on identity and values. The data of twelve participants (8%) were

excluded because they indicated either dishonest responding or failed the validity checks (see below). Of the remaining 134 participants, 70% were women (95 women, 39 men) and the mean age was 19.46 ($SD = 3.16$; range: 17 to 45).

Measures and Procedure. Participants were recruited through a psychology subject pool (SONA) to participate in a study on identity and values. After participants consented to the study, they completed a battery of questionnaires to validate the SACO scale. Participants completed questionnaire in the order below. Lastly, participants indicated whether they responded to the questionnaire honestly and accurately. They were then debriefed (see Appendix D for questionnaire).

Self-assurance and concern for others. To assess the degree to which one identifies as self-assured and as one who is concerned about their close others, participants completed the 17-item SACO scale (see Study 1a for detail on this measure). In the current study, each subscale demonstrated good internal consistency (self-assurance, $\alpha = .83$; concern for others, $\alpha = .81$). Self-assurance and concern for others were positively but modestly correlated $r(132) = .30, p < .01$.

Agentic and communal values. The degree to which participants' motives were focused on the self (i.e., to get ahead) and/or others (i.e., to get along) was assessed with the agentic and communal value scale (Trapnell & Paulhus, 2012). The scale is comprised of 24 items (12 items for each subscale) wherein participants reported the extent to which items such as "wealth" (agentic) and "compassion" (communal) were important to them. Participants reported the degree of importance on a scale of 1 (not important to me) to 9 (highly important to me). Two separate means (agentic and communal) were created. Previous research has validated the scale (Trapnell & Paulhus,

2012). In the current study, the scale demonstrated good internal consistency (agentic, $\alpha = .85$; communal, $\alpha = .83$). Higher scores indicated higher agentic or communal values.

Narcissism. To assess narcissism, participants completed the 16-item narcissism personality inventory (NPI-16; Ames, Rose, Anderson, & 2005). For each item, participants read two statements and indicated which of the statements best describes them. Each pair of the statements had one statement that corresponded with what a person with a narcissistic personality would answer (e.g., “I like to be the centre of attention”) and another statement that did not reflect the response of a Narcissistic individual (e.g., “I prefer to blend in with the crowd”). Statements which are reflective of Narcissism were coded as a value of 1 whereas non-Narcissistic statements were coded as a 0. Then items were summed into a Narcissism score with higher scores indicating greater Narcissism. Previous research (e.g., $\alpha = .74$; Konrath, Bushman, & Grove, 2009) as well as the current study ($\alpha = .74$) demonstrated good internal consistency .

Need to belong (Leary, Kelly, Cottrell, Schreindorfer, 2012). Participants’ need to belong was assessed with the need to belong scale. Participants responded to 10 items such as “I want other people to accept me,” and “I seldom worry about whether other people care about me” (reverse scored) on a scale of 1 (strongly disagree) to 5 (strongly agree). Reversed scored items were recoded so that higher scores indicated greater need to belong. An earlier version of the 10 items scale demonstrated good internal consistency in previous research ($\alpha = .84$; Carvallo & Pelham, 2006). In the current study, the scale demonstrated good internal consistency ($\alpha = .79$).

Optimism (Scheier, Carver, & Bridges, 1994). Participants’ degree of optimism was assessed with the Revised Life Orientation Test (LOT-R scale). The scale is

comprised of 10 items where six items were scored and four items were filler items. Participants answered items such as, “In uncertain times, I usually expect the best,” and “I rarely count on good things happening to me,” on a scale of 1 (strongly disagree) to 5 (strongly agree). In both previous research (e.g., $\alpha = .85$; Hatchett & Park, 2004) and the current study ($\alpha = .85$), the scale demonstrated good internal consistency.

Results and Discussion

Data cleaning. As the study was conducted online it was important to ensure that while completing the questionnaire participants were paying attention and responding honestly. Throughout the questionnaire, I included validity checks (i.e., attention checks) wherein participants were asked to leave a question blank and proceed to the next question. If participants responded to more than one of these questions, then the data of those participants were excluded from the study. Additionally, at the end of the study participants were asked if they were honest and accurate when answering questions in the study. Any participants who indicated they were dishonest, their data were excluded from the study. The data of twelve participants (8%) were excluded as a result of failing validity checks. Data were checked for normality and outliers. No outliers emerged.

Self-assurance. I predicted that self-assurance would be positively related to agentic values, narcissism, and optimism. As shown in Table 4, those who indicated that they were self-assured also reported a tendency to be concerned with getting ahead (i.e., high agentic values), reported greater narcissistic tendencies and were more likely to be optimistic. Additionally, as predicted, self-assurance was not related to communal values. Unexpectedly, self-assurance was related to the need to belong but relation was in a

negative direction indicating that the more one sees oneself as self-assured, the less one feels the need to be accepted by others.

Concern for others. I hypothesized that concern for others would be positively related to communal values and need to belong and unrelated to agentic values, narcissism, and optimism. As expected, those who identified as someone who is invested in their relationships (i.e., high in concern for others) also reported high communal values and a need to be accepted by others (marginally; see Table 4). Additionally, as expected, concern for others was not related to agentic values or narcissism. It was, however, related to optimism, although self-assurance had a stronger relationship with optimism. Although hypotheses were only partially supported, there is evidence that both subscales demonstrate acceptable convergent and discriminant validity.

Study 2: Factors Predicting Perceived Identity Change Post-Breakup
(Cross-sectional)

As the effects of relationship dissolution on identity have only recently been investigated, it was important to examine whether people report changes in the self after such an experience. Thus, the purpose of this study was to assess whether people report a change in identity across a variety of identity measures. In the present study, along with self-assurance and concern for others, the extent to which one feels one has lost and rediscovered oneself since the relationship dissolution, and self-concept clarity were included as additional assessments of identity. Changes in identity can be assessed by examining valence change (i.e., whether someone has changed positively or negatively) or absolute change (i.e., the extent of change regardless of direction). Adversity researchers (e.g., Tedeschi & Calhoun, 2004) have mainly focused on valence change in the self, specifically growth in the self following adversity. However, there is evidence that following a breakup, individuals report both positive and negative changes in the self (e.g., Tashiro & Frazier, 2003; Lewandowski & Bizzoco, 2007). Because focusing only on the valence of change might disguise the extent of change, I will also examine absolute change.

In addition to the changes people perceive in identity, I was also interested in examining the factors that contribute to the perception of change. As it is evident in the bereavement literature that meaning-making (the extent to which one searches for or finds meaning following the loss) and centrality (the extent to which one perceives the loss as central to one's identity) can contribute to whether people perceive change in the self after experiencing loss, I wanted to examine whether these factors would contribute

to changes perceived in the self after relationship dissolution. However, before assessing the effect of these factors, it was important to confirm that after a breakup people report trying to make meaning of the experience and that the experience can be a central part of their identity. Thus, the secondary purpose of the study was to provide evidence that people do engage in meaning making after a breakup and do consider the breakup to be an event central to their identity.

Finally, there is evidence that breakup characteristics such as who initiated the termination of the relationship (e.g., Fagundes, 2011) predict post-breakup adjustment. Thus, I also assessed the extent to which the hypothesized factors (i.e., meaning-making and centrality) predicted perceived identity change while controlling for relationship and breakup characteristics. I expected that relationship and breakup characteristics would account for some of the variance in perceived changes in identity.

Hypotheses.

1. Consistent with previous research, I hypothesized that following a breakup participants would perceive changes in aspects of identity (positive or negative changes).
2. Also, consistent with previous research, I hypothesized that perceived changes in aspects of identity will be related to one's well-being. Specifically, positive changes in aspects of identity will be associated with better well-being and negative changes will be associated with poorer well-being.
3. Contributing to the literature, I hypothesized that certain factors would contribute to whether one perceived changes in identity.

- a. Meaning making will predict perceived changes in identity such that more frequent searching for meaning would be negatively associated with positive changes in the self and that finding meaning would be positively associated with positive changes in the self.
 - b. How central the breakup is to one's identity will be associated with perceived changes in identity. Specifically, those who perceive the relationship dissolution to be central to their identity will be more likely to perceive changes in identity. Given the debate in the literature regarding centrality, it is not clear whether centrality will predict positive or negative changes in the self. According to Berntsen & Rubin (2006; 2007), negative events (i.e., breakups) considered central to identity should result in negative changes in the self. Other researchers (e.g., Brewin & Holmes, 2003) would argue that integrating the negative event (i.e., breakup) into one's identity should result in positive changes in the self.
4. Last, I expected that after controlling for relationship and breakup characteristics, meaning making and centrality will still predict perceived change in identity.

Method

Participants. One hundred and fifteen undergraduate students who recently experienced a relationship break-up were recruited to participate in a study entitled “getting over a broken heart” in exchange for course credit. All participants were required to be single at the time of the study and have experienced a break-up within the last 6

months. After excluding the data of 15 participants (13%) from the study (see below), the data of 100 students (41 men, 58 women, 1 gender unreported) ages 17 to 24 ($M = 19.05$, $SD = 1.62$) were analysed. The mean length of time since the relationship ended was 2.59 months ($SD = 1.77$). Students' relationships lasted on average 15.57 months ($SD = 13.98$).

Measures (see Appendix E for questionnaire).

Presented below are the constructs assessed in the present study. The means and standard deviations for each measure are presented in Table 5.

Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). To assess the degree to which participants are satisfied with their life, I used the satisfaction with life scale. Participants responded to items like “In most ways, my life is close to my ideal,” and “The conditions of my life are excellent,” on a Likert scale of 1 (strongly disagree) to 7 (strongly agree). A life satisfaction mean was computed where higher scores reflect higher satisfaction with life. The satisfaction with life scale has been used in relationship dissolution research and demonstrated excellent internal consistency (e.g., $\alpha = .89$; Rhoades et al., 2011). In the current study satisfaction with life scale was also internally consistent ($\alpha = .85$).

State self-esteem (Heatherton & Polivy, 1991). Participants' self-esteem was assessed using state self-esteem that measured three domains of self-esteem: performance, social, and appearance. The performance subscale assessed the extent to which one feels competent or confident in one's performance (e.g., “I feel confident about my abilities”). The social subscale refers to one's concern with their behaviour in the social world (e.g., “I feel self-conscious” – reverse coded). The appearance subscale

reflects the extent to which one is concern with others' evaluation of one's appearance (e.g., "I am pleased with my appearance right now"). The scale has been validated in previous research (Heatherton & Polivy, 1991). In the current study, the scale demonstrated good internal consistency (performance, $\alpha = .83$; social, $\alpha = .81$, appearance $\alpha = .86$).

Change in self-assurance and concern for others (SACO; see Appendix B).

Changes in self-assurance and concern for others after relationship dissolution were assessed with the SACO scale that I created and validated (see Studies 1a and b for scale validation). Perceived change in aspects of identity post-relationship dissolution, specifically self-assurance and concern for others, was assessed through retrospective ratings of change. At the time of the study, participants first completed their current ratings for self-assurance and concern for others followed by retrospective ratings for self-assurance and concern for others. When participants provided their current ratings of self-assurance and concern for others, they were asked to reflect on the extent to which they define themselves as self-assured and concerned for others at the present time. The retrospective ratings asked participants to rate their pre-breakup self-assurance and concern for others. The scale itself consisted of 17 items assessing the degree to which one defines oneself as having high/low self-assurance (8 items) and high/low concern for close others (9 items). Participants responded to questions such as "I am pessimistic about my future," (self-assurance) and "I understand the true thoughts and feelings of my close friend(s) or romantic partner," (concerned for others) on a Likert scale of 1 (not at all like me) to 5 (definitely like me). The relevant items within the self-assurance subscale were reversed scored before the items for each subscale were averaged. Higher

scores indicate greater self-assurance or greater concern for relationships. In the current study, each subscale demonstrated good internal consistency (self-assurance today, $\alpha = .83$, self-assurance past, $\alpha = .79$; concern for others today, $\alpha = .83$, concern for others past $\alpha = .83$).

Self-concept clarity. The degree to which participants feel confident in their sense of self was assessed with the self-concept clarity scale (Campbell et al., 1996; see Study 1a for measure detail). The scale has been commonly used in relationship dissolution studies, demonstrating excellent internal consistency in previous research (e.g., $\alpha = .90$; Slotter et al., 2010) as well as the current study ($\alpha = .89$).

Relationship dissolution characteristics. Participants were asked to respond to a series of questions related to their romantic break-up. Participants answered questions like who initiated the ending of the relationship, followed by affect related questions such as, “how surprised were you,” and “to what extent do you regret the break-up?” (see Appendix E for complete list of characteristics).

Loss of Self (Lewandowski & Bizzoco, 2007). To assess the degree to which participants reported a loss of self as a result of the relationship dissolution, participants completed the loss of self scale. Participants responded to six items such as, “I feel as though I am missing a part of me,” and “I feel incomplete,” on a scale of 1 (not at all) to 7 (a great deal). A loss of self mean was computed where higher means indicate greater loss of self. The scale has been used with an undergraduate sample who recently experienced a breakup and demonstrated excellent internal consistency ($\alpha = .90$, Lewandowski & Bizzoco, 2007) as well as in the current study ($\alpha = .93$).

Rediscovery of Self (Lewandowski & Bizzoco, 2007). To examine the extent to which participants reported rediscovering their identity post-relationship dissolution, participants completed the rediscovery of self scale. The scale consisted of six items such as, “I have regained my identity,” and “I have become reacquainted with the person I was before the relationship.” Participants rated the degree to which they rediscovered the self on a Likert scale of 1 (not at all) to 7 (a great deal). A rediscovery of the self mean was created where higher values indicated greater rediscovery of self. The scale has been used with a sample of undergraduates who recently experienced a breakup and has demonstrated excellent internal consistency ($\alpha = .91$, Lewandowski & Bizzoco, 2007) as well as in the current study ($\alpha = .88$).

Meaning making. The degree to which one searched for or found meaning after relationship dissolution was assessed with single item ratings (Davis & Morgan, 2008). Previous research has assessed meaning after loss of a loved one in a similar fashion (e.g., Davis et al., 1998; Davis, Wortman, Lehman, & Silver, 2000). Participants first indicated the degree to which they searched for meaning since the breakup and within the two weeks prior to the study. Then, participants reported whether they questioned why the breakup had happened to them. Participants responded to questions above on a Likert scale of 1 (no, never) to 5 (Yes, all the time). Additionally, participants reported the degree of importance in finding meaning in the break-up on a scale of 1 (not at all) to 5 (very important). Then, participants reported the extent to which they were able to find meaning on a scale of 1 (no, not at all) to 5 (yes, a great deal). If participants indicated that they were able to find meaning (or not find meaning) they were asked to elaborate on

how they found meaning (or why they feel they were unable to find meaning) through open-ended responses.

Extent to which breakup was central to one's identity. The degree to which the relationship dissolution was central to the participants' identity was assessed with a modified version of the centrality of event scale (Berntsen & Rubin, 2006). The scale was modified by specifying relationship dissolution instead of general events. The scale consisted of seven items with a Likert scale ranging from 1 (totally disagree) to 7 (totally agree). Sample items included "I feel that this break-up has become part of my identity" and "This break-up has permanently changed my life." All items were averaged to create an event centrality mean. The scale has been used in samples with bereaved individuals and has demonstrated good internal consistency in previous research (e.g., $\alpha = .85$; Boelen, 2012) as well as the current study ($\alpha = .76$). Higher values on the scale indicate greater centrality of relationship dissolution.

Procedure. Students in the Psychology subject pool who have recently experienced the breakup of a romantic relationship and were currently single were recruited to participate in an online survey about getting over a broken heart. After participants consented to the study, they completed a battery of questionnaires. Participants first reported their level of life satisfaction and self-esteem followed by the SACO scale, and self-concept clarity. Participants then were asked to answer questions regarding their relationship break-up, how the relationship has changed them and whether they made sense of the experience. Afterward, participants completed the centrality of the event scale. To counter any negative affect from discussing their break-up, participants

completed a mood booster. Participants then indicated whether they responded to the questionnaire honestly and accurately. Lastly, participants were debriefed.

Results and Discussion

Data cleaning. As in the previous study (Study 1b), participants completed validity checks and indicated whether they were honest throughout the study. The data of any participants who indicated they did not respond honestly or accurately or failed more than one validity check were removed from the study. Thirteen participants failed validity checks so their data were removed. Data were checked for normality and outliers. Two age outliers were found. Two bivariate correlations were conducted with and without age outliers and no significant differences were found, however because relationships may be conceptually different for participants greater than 30 years of age, the data for the two older participants (ages 32 and 40) were removed. The remaining cases were checked for missing data. Since there was less than 5% of missing data, it was considered to be missing completely at random and no imputation procedures or removal of cases were conducted. Participants with missing data were included in the analyses when they had sufficient data.

Relation of self-assurance and concern for others with identity change measures

As found in my previous studies (Studies 1a and b), when participants reported greater self-assurance they were also likely to report greater concern for others, $r(98) = .40, p < .01$. In addition to assessing the relation among identity measures, a series of bivariate correlations were conducted. As shown in Table 6, current self-assurance was positively related to rediscovery of the self ($r(98) = .20, p < .05$), and negatively related

to loss of self ($r(98) = -.70, p < .01$). Current concern for others was negatively related to loss of self ($r = -.34, p < .05$) but was not related significantly to rediscovery of self, ($r(98) = -.05, p = .63$). Loss of self and rediscovery of self were weakly related, $r(98) = -.20, p < .05$. Those who reported a loss of self following the breakup were less likely to report a rediscovery of the self. Lastly, self-concept clarity was associated with each identity measure with the exception of rediscovery of self. Those who reported high self-concept clarity also were likely to report more self-assurance (both current and retrospective), more concern for others (current and retrospective; retrospective marginal), and less likely to perceive loss of the self following relationship dissolution.

I also examined the relations of perceived change in self-assurance and concern for others with loss and rediscovery of self. Perceived change in identity was calculated by subtracting current self-assurance and concern for others ratings from retrospective ratings of self-assurance and concern for others. Positive values reflect perceiving greater self-assurance and concern for others pre-breakup (i.e., perceiving a decline in self-assurance or concern for others from pre- to post-breakup). Those who perceived a decline in self-assurance also reported greater loss of self ($r(98) = .60, p < .001$) and lower rediscovery of self ($r(98) = -.32, p < .001$). Similarly, those who perceived a decline in concern for others reported greater loss of self ($r(98) = .43, p < .001$). However, perceived change in concern for others was not associated with rediscovery of self ($r(98) = -.09, p = .37$).

Do people perceive a change in aspects of identity after relationship dissolution?

I hypothesized that after relationship dissolution, participants would perceive a change in identity in the domains of self-assurance and concern for others. To assess whether participants perceived change in identity, two paired t-tests were conducted, one comparing retrospective and current ratings of self-assurance and the other comparing retrospective and current ratings of concern for others. As predicted, participants reported a significant change over time in self-assurance such that there was a decrease in self-assurance after relationship dissolution from T1 (retrospective rating; $M = 3.73$, $SD = .75$) to T2 (current rating; $M = 3.50$, $SD = .85$), $t(99) = 2.66$, $p = .01$, $d = .27$. However, contrary to the hypothesis, participants did not report any significant change in concern for others from T1 (retrospective rating; $M = 3.94$, $SD = .73$) to T2 (current rating; $M = 3.92$, $SD = .73$), $t(99) = .46$, $p = .65$, $d = .05$.

To examine whether participants experienced change regardless of directionality, two one-sample t-tests were conducted to assess whether the degree of absolute change perceived in self-assurance and concern for others following breakup was significant. Absolute change in self-assurance and concern for others were calculated by subtracting the retrospective rating from the current rating. As predicted, participants perceived a significant degree of absolute change in self-assurance after relationship dissolution ($\Delta M = .74$, $SD = .63$; $t(99) = 11.80$, $p < .001$, $d = 1.17$). Contrary to the degree of directional change in concern for others, when assessing absolute change, the degree of change participants reported was significant ($\Delta M = .57$, $SD = .48$; $t(99) = 11.76$, $p < .001$, $d = 1.19$). It appears that following relationship dissolution people perceive a change in the

extent to which they are self-assured and concerned for others. However, when assessing the directionality of change, participants only reported significant change in self-assurance. It is possible that changes in concern for others are perceived but the changes may be conflicting where some people perceive positive changes and others perceive negative changes. Assessing change in aspects of identity prospectively may shed light into the changes experienced and perceived.

Is change in aspects of identity after relationship dissolution related to well-being?

In previous research changes in identity predicted well-being (e.g., Slotter et al., 2010), thus I hypothesized that perceived changes in aspects of identity would predict perceived well-being. As shown in Table 7, current self-assurance (controlling for retrospective self-assurance) was consistently related to higher well-being. Additionally, current concern for others (controlling for retrospective concern for others) was also related consistently with better well-being. Furthermore, perceived loss of the self was consistently associated with reports of poorer well-being whereas rediscovery of the self was not related to any measures of well-being. Lastly, consistent with previous research, self-concept clarity was positively related to well-being. Results suggest that how one feels presently about aspects of one's identity may be linked to one's reported well-being after one's relationship has ended.

After relationship dissolution do people search for meaning?

In the present research, I predicted that meaning-making would account for some of the variance in perceived change in aspects of identity. However, prior to assessing that it was important to confirm that those who experience relationship dissolution search

for and find meaning in the experience. To assess the degree to which participants searched for and found meaning after relationship dissolution, a frequency analysis was conducted. As expected, the majority of participants (86%) reported searching for meaning since their relationship ended. Of those who reported searching, 55% of participants reported searching for meaning in the two weeks prior to completing the study. Additionally, 69% of participants reported asking the question “why me?” after their break-up. Finally, 87% of participants reported being able to make sense of their break-up and the majority (84%) of participants indicated that finding meaning in their breakup was important to them. Indeed people do search for meaning after relationship dissolution and find meaning as well providing support to investigate meaning making after relationship dissolution further.

Is relationship dissolution central to one’s identity?

I predicted that the extent to which one perceived one’s breakup as central to one’s identity would predict identity change after relationship dissolution. However, prior to assessing the extent to which breakup centrality predicted identity change, it was important to confirm that people perceive relationship dissolution as central to their identity. To assess the degree to which participants perceived the experience as central to their identity, a frequency analysis was conducted. In general, participants rated the break-up as not particularly central to their life ($M = 3.26$, $SD = 1.61$). Only 29% of participants had a mean of 4 or greater on a scale of 1-7, indicating that some participants consider relationship dissolution to be an event that is central to their identity.

Does the extent to which one searches for or finds meaning from the breakup, and perceives breakup as central to identity predict perceived changes in identity?

I predicted that the degree to which one searches for or finds meaning, and how central the event is to their identity would predict change in identity. To assess the relation of meaning-making, and centrality with change in aspects of identity, a series of bivariate correlations was conducted. As shown in Table 8, as hypothesized, searching for meaning was negatively related to self-assurance ($r(98) = -.36, p < .01$) and rediscovery of self ($r(98) = -.37, p < .01$), and was positively related to loss of self ($r(98) = .59, p < .01$). On the other hand, contrary to expectations, finding meaning was not related to any of the identity measures. Furthermore, centrality was related to lower self-assurance ($r(98) = -.39, p < .01$), and lower self-concept clarity ($r(98) = -.30, p < .01$), and greater loss of self ($r(98) = -.66, p < .01$).

To assess the extent to which meaning-making and centrality predicted perceived change in identity when controlling for the other predictors, a series of multiple regressions were conducted with meaning-making and centrality entered as predictors of each of the identity measures. As shown in Table 9, searching for meaning was still predictive of a negative change in identity and finding meaning did not predict identity change. The extent to which one perceived one's breakup as central to one's identity was also predictive of a negative change in identity.

Do relationship dissolution characteristics predict identity change?

A series of multiple regressions was conducted to assess whether relationship dissolution characteristics (e.g., whether the participant initiated the breakup, the past

relationship was a long distance relationship, and the participant was over their past partner) contribute to aspects of identity over and above retrospective ratings (see Table 10). Both self-assurance and concern for others retrospective ratings significantly positively predicted current ratings. Regarding self-assurance, searching for meaning (marginally), whether the past relationship was local or long distance, the extent one is over one's partner, the amount of regret associated with break-up, and the extent to which their past partner was included in their identity all negatively predicted current self-assurance ratings beyond that of retrospective ratings of self-assurance and other factors. On the other hand, regarding concern for others, the extent one is over one's past partner (positively, marginal), and the extent the break-up was regretted (negatively) all contributed over and above retrospective ratings for concern for others and other factors.

Upon examining perceived loss in the self, results indicated that centrality (marginal), search for meaning, and regret all uniquely predicted greater loss of self. Furthermore, regarding rediscovery of the self, search for meaning (negatively, marginal), and the extent break-up was expected (negatively), local relationships (marginal), and the degree to which one was over their past partner (positively, marginal) all uniquely predicted rediscovery of the self. Lastly, regarding self-concept clarity, finding meaning (positively), the extent to which the break-up was expected (negatively), and to the extent the break-up facilitated a change in the self (negatively) all predicted greater self-concept clarity. However, the overall model predicting self-concept clarity was not significant, $R^2 = .26$, $F(17,68) = 1.41$, $p = .16$. Across all measures of identity, regret and searching for meaning consistently predicted perceived identity change.³

³ A series of stepwise regressions was conducted to assess whether initiator status (i.e., who ended the relationship) interacted with the extent to which one searched for or found meaning or the extent to which

Study 3: The Effect of Breakup on Perceived and Genuine Identity Change (Longitudinal)

Study 2 demonstrated that participants perceived a decrease in the extent to which they perceived themselves as self-assured following relationship dissolution. However, the directional change in concern for others was not significant. When examining the degree to which participants reported change regardless of direction, participants reported a significant degree of absolute change in self-assurance and concern for others. Absolute change in concern for others was to a lesser degree than self-assurance. Additionally, consistent with the bereavement literature (Gillies & Neimeyer, 2006), almost all participants (86%) indicated that after their relationship dissolved they attempted to make meaning of the experience, even among those for whom the break-up was not regarded as central to their identity. Furthermore, the extent to which an individual searched for meaning and perceived breakup as central to their identity was associated with negative changes in the self. Unexpectedly, finding meaning was not associated with perceived change in aspects of identity.

As participants in Study 2 were only assessed at one point in time, it is difficult to know the effects of breakup on pre- to post-breakup. Thus, one goal of the present study was to assess identity change longitudinally from pre- to post-relationship dissolution. Furthermore, given that the previous study relied on participants' self-reported retrospective assessment of change – which likely suffers from bias in recall (Frazier et

one perceived the breakup as central to one's identity on each of the aspects of identity measures (i.e., self-assurance, concern for others, self-concept clarity, and loss and rediscovery of self). Each factor (i.e., search, find and centrality) was entered in the first step and the interactions (i.e., search by initiator, find by initiator, centrality by initiator) were only entered into the model if they contributed significantly to the model. When predicting self-assurance or concern for others, models control for retrospective ratings of these aspects. Results indicated that initiator status did not moderate the relation between any of the factors and any of the identity measures.

al., 2009) – a goal of the present study was to assess change as it happened (i.e., genuine change). Given the potential discrepancy between perceived and genuine change, another purpose of the study was to compare the retrospective assessment of change in identity to change as it occurs. Specifically, in this study participants provided a retrospective assessment of change as well as current ratings in self-assurance and concern for others before the break-up and at points in time following the break-up. Finally, I assessed the extent to which identity change in these aspects is predicted by the extent to which one searches for or finds meaning in the breakup (i.e., meaning making) and how central one's breakup is to one's identity (i.e., event centrality).

With the goal of assessing change in aspects of identity following breakup, in Study 3, I recruited participants in romantic relationships to establish baseline (i.e., pre-breakup) measures of mood, aspects of identity (i.e., self-assurance, concern for others, and self-concept clarity), relationship satisfaction, and relationship characteristics (e.g., length). Working on the assumption that some of these relationships will end over the next two months (Helgeson, 1994; Lydon et al., 1997), I assessed these participants biweekly over the next 8 weeks on these same indicators, as well as asking about their relationship status. For participants who indicated that their relationship ended at one of these assessment times, I asked a series of questions about the breakup.

Hypotheses.

1. I hypothesized that compared to participants who remain in relationships, those who experience a breakup during the study would:
 - a. Report a greater negative change in identity status after the break-up (i.e., there would be a negative change in current ratings in concern for

- others, self-assurance and self-concept clarity from pre-break-up to post break-up).
- b. Report retrospectively greater change in aspects of identity (i.e., participants would retrospectively evaluate their pre-breakup self-assurance and concern for others more negatively).
2. I hypothesized that compared to participants who remain in their relationship, those who experience a breakup would report a greater change in mood. Specifically, there would be a decrease in pleasant affect and an increase in unpleasant affect and symptoms of depression following the breakup.
 3. In regards to mood and identity change (absolute change), I hypothesized that participants who experience relationship dissolution and report greater absolute change in aspects of identity would report greater unpleasant (and less pleasant) mood compared to those who remain in their relationship and those who breakup but report little or no identity absolute change.
 4. With regard to factors that may contribute to identity change after relationship dissolution, I hypothesized that the extent to which one searches for or finds meaning in the breakup (meaning-making), and how central the breakup is to one's identity (centrality) would predict the extent of change in aspects of identity one reports.
 - a. Meaning-making would predict perceived changes in aspects of identity such that the more one reports finding meaning in the breakup, the more likely one would be to report greater rediscovery of self (and less likely to report loss of self). Moreover, the more one reports

searching for meaning following the breakup, the more likely one would be to report loss of self (and the less likely one would be to report rediscovery of self).

b. The extent to which one's breakup is central to one's identity would be associated with changes in identity. Specifically, those who perceive the relationship dissolution to be central to their identity would be more likely to report negative changes in aspects of identity.

5. Lastly, I hypothesized that when controlling for both factors, meaning-making, and centrality would uniquely predict changes in aspects of identity.

Method

Participants. Five hundred and three undergraduate students in a romantic relationship were recruited to participate in a longitudinal study of relationships and identity. Participants were assessed biweekly over a two-month period (total of 4 sessions). At Time 1, all participants were required to be in a romantic relationship to be eligible for the study. In the following sessions, it was not necessary for participants to be in a relationship. I anticipated that about 30% of participants would experience relationship dissolution. This estimate was based on research that indicates relationship dissolution is common among students, particularly those in their first year of university (e.g., Helgeson, 1994; Lydon et al., 1997). Based on the evidence that undergraduate students are likely to experience relationship dissolution, especially in their first year, I expected that a sample of 500 would be large enough to have an adequate sample of individuals who experience a breakup (~150). However, only 7.5% ($n = 38$) of participants reported experiencing relationship dissolution during the study period. Of the

38 participants who reported experiencing relationship dissolution, the data of five (13%) individuals were removed as these individuals reported a breakup date outside of the study period (e.g., participant completed study from September to November however, indicated breakup occurred in June).

After the removal of the data of 34% of the respondents for reasons described below, the data of 330 undergraduate students ages 17-33 years ($M = 19.23$ years, $SD = 2.23$ years) were analysed. Seventy-seven percent of the participants indicated that their ethnic background was Caucasian/European, and 90% indicated that they were women (296 women, 34 men). Of the 330 participants, 33 (10%; 30 women, 3 men) reported a breakup within the study period. The majority of these participants experienced a breakup between Sessions 1 and 2 (54%; $n = 18$) whereas another 21% ($n = 7$) broke up between Sessions 2 and 3, and another 24% ($n = 8$) broke up between Sessions 3 and 4. At the first session of the study, on average participants had been in a relationship for 19.72 months ($SD = 16.00$ months). For those who reported a breakup, the first post-break-up session occurred on average 7.36 days ($SD = 5.85$ days) after the breakup. Participants were compensated with partial course credit and those who completed all four sessions were entered into a draw to win \$50.

Measures (see Appendix F for questionnaires).

Presented below are the constructs assessed in the present study. The means and standard deviations for each measure are presented in Table 11.

Mood. To assess participants' mood biweekly, participants completed an adapted version of the PANAS (Adapted from Watson, Clark, & Tellegen, 1988) consisting of 15 pleasant and 15 unpleasant emotions. The adapted version is meant to assess emotions

associated with relationship dissolution (e.g., fearful, sad, hateful regretful; see Lewandowski & Bizzoco, 2007; Sbarra & Emery, 2005) and emotions located opposite of these emotions on the emotion circumplex (e.g., calm, glad, loving, relieved; see Russell, 1980). Participants rated on a scale of 1 (very slightly or not at all) to 5 (extremely) the extent that they feel each of the emotions listed in the past week. In the current study, both pleasant and unpleasant affect items demonstrated excellent internal consistency (range $\alpha = .89$ to $.93$, $\alpha = .87$ to $.92$, respectively).

Depressive Symptoms. The extent to which participants experienced depressive symptoms was assessed with the Center for Epidemiologic Studies Depression Scales (CESD; Radloff, 1977). Participants completed 20 items indicating the extent they experienced symptoms of depression in the past week on a scale of 0 (rarely or none of the time – less than 1 day) to 3 (most or all the time – 5 to 7 days). Sample items included “I felt depressed,” “My sleep was restless,” and “I was bothered by things that usually don’t bother me.” The CESD has been validated previously in a breakup sample (e.g., Field, Diego, Pelaez, Deeds, & Delgado, 2009) where it was moderately related to breakup distress ($r = .39$). In the current study, CESD has demonstrated reasonable internal consistency at each time (range $\alpha = .68$ to $.79$).

Change in self-assurance and concern for others. Change in self-assurance and concern for others after relationship dissolution was assessed with the SACO scale (see Study 1a and Study 2 for more detail of measure). Participants rated both current and retrospective self-assurance and concern for others at each biweekly session (aside from the first week when they only rated their current self-assurance and concern for others). Retrospective ratings reflected participants’ perception of who they were at Time 1. In

the current study, both concern for others and self-assurance demonstrated good internal consistency at each time (concern for others today range, $\alpha = .81$ to $.88$, concern for others retrospective range $\alpha = .83$ to $.87$; self-assurance today range, $\alpha = .81$ to $.85$, self-assurance retrospective range, $\alpha = .82$ to $.85$).

Self-concept clarity. To assess one's confidence with one's sense of self, participants completed the self-concept clarity scale (see Study 1a for more detail of measure). In the current study, self-concept clarity demonstrated excellent internal consistency at each time (range $\alpha = .88$ to $.91$).

Relationship satisfaction. Relationship satisfaction was assessed with the investment model scale using the relationship satisfaction subscale (Rusbult, Martz, & Agnew, 1998). Only participants in relationships reported relationship satisfaction. The scale consists of facet items and global items. The facet items (see Appendix F) are meant to prepare the participant to answer the global items. Only the global items are used to calculate the mean (as per Rusbult et al., 1998). For the global items, participants indicated the extent to which they feel satisfied in their relationship by rating 5 statements such as "I feel satisfied with our relationship" and "My relationship is close to ideal" on a scale of 0 (do not agree at all) to 8 (Agree completely). The original measure has been validated in a sample of undergraduate students (e.g., Agnew et al., 1998) demonstrating a moderate relation with how connected one feels to one's partner ($r = .43$). In the current study, relationship satisfaction items were found to be internally consistent (satisfaction range, $\alpha = .93$ to $.95$).

Loss of self. The Loss of Self scale assesses the degree to which participants perceive negative changes in the self after relationship dissolution (see Study 2 for more

detail on this measure). Participants completed the scale each session following relationship dissolution. In the current study, loss of self items demonstrated excellent internal consistency (range $\alpha = .87$ to $.94$).

Rediscovery of self. The Rediscovery of Self scale assesses the degree to which participants perceive positive changes in the self after relationship dissolution (see Study 2 for more detail on this measure). Participants completed the scale each session following relationship dissolution. In the current study, rediscovery of self items demonstrated excellent internal consistency (range $\alpha = .86$ to $.93$).

Meaning-making. Participants reported the extent to which they searched for and found meaning in their relationship dissolution (see Study 2 for more detail on this measure). Participants reported meaning at each session following relationship dissolution.

Extent to which breakup is central to identity. Participants reported the extent to which they consider the breakup to be central to their identity by completing the Centrality of Event Scale (see Study 2 for more detail on this measure). Participants completed this scale at each session following relationship dissolution. In the current study, centrality demonstrated excellent internal consistency (range $\alpha = .93$ to $.96$).

Relationship dissolution characteristics. Participants were asked questions about their breakup in the first session after the relationship ended. They responded to questions such as who initiated the breakup, and rated the extent to which the break-up affected them, and the extent to which the breakup was expected.

Procedure. Participants in romantic relationships were recruited to participate in an online longitudinal study on identity and relationships. Participants were recruited in

early Fall and Winter term and assessed biweekly for 4 sessions. Participants were recruited for the first half of the terms to allow for all biweekly sessions to be assessed without breaks (e.g., winter break).

Session 1. Once participants consented to the study, they were directed to a battery of questionnaires. First, they indicated their relationship status along with the initials of their current partner. Next, they completed demographic questions (age and gender) and reported their current mood. Participants then completed measures of aspects of identity, self-concept clarity, relationship satisfaction, and relationship characteristics (e.g., length).

Intact Relationships. Following the first session (i.e., Sessions 2, 3 and 4), those who remained in their relationship completed questionnaires pertaining to their relationship. As in the first session, participants indicated their relationship status along with the initials of their current partner to confirm that they are still in the same relationship. Then, they completed measures of mood, aspects of identity, self-concept clarity, and relationship satisfaction.

Relationship dissolution. Individuals who indicated at Session 2, 3 or 4 that they had terminated their relationship first completed mood, aspects of identity, self-concept clarity and questionnaires. Then, they completed questions regarding their breakup. After the breakup questions, these participants completed measures of loss/rediscovery of self, meaning making, and centrality.

To counter any negative emotions attributable to discussing their breakup, those who reported a relationship break-up completed a mood boosting activity before leaving

the session. Additionally, all participants indicated whether they responded to the questionnaire honestly and accurately. Finally, participants were debriefed.

Statistical analysis

To assess mood and change in aspects of identity, and the extent to which the change in aspects of identity pre- to post-breakup account for fluctuations in mood following relationship dissolution (i.e., Hypotheses 1-3), I used Hierarchical Linear Modeling (HLM) with time (level 1) nested within persons (level 2). A list of level 1 and level 2 variables is provided in Table 12. The benefit of HLM is that it is able to assess the effects of level 1 and 2 independent variables on the dependent variable simultaneously (Raudenbush & Bryk, 2002). HLM analyses were conducted using software HLM7 student version.

To test the first two hypotheses (i.e., change in aspects of identity and mood as a function of breakup), a series of Random Coefficient Regression models were constructed. A Random Coefficient Regression model consists only of level 1 (within-person) independent variables. In this case, level 1 represents variables assessed at four biweekly sessions (i.e., measures within person). With HLM, a level 1 equation is created for each person using his or her 4 assessments. For example, at each session participants rated their self-assurance (or pleasant affect) and indicated whether they were still in a relationship. Given that I am interested in how aspects of identity (and mood) change for those who experience a breakup compared to those who remain in relationships, I modelled each of the aspects of identity measures (e.g., self-assurance) or mood measures (e.g., pleasant affect) as the level 1 dependent variable, and time, and the immediate and

residual (or prolonged) effects of breakup as level 1 independent variables. Thus, each person's level 1 equation, in this case, would appear as below:

Level 1 equation:

$$\gamma_{it} = \beta_{0i} + \beta_{1i}time_{it} + \beta_{2i}immediate\ effect_{it} + \beta_{3i}residual\ effect_{it} + e_{it}$$

where γ_{it} is each participant's self-assurance score (or pleasant affect score) at time_{*t*} (i.e., each session), β_{1i} is the effect of time (centered) on self-assurance (or pleasant affect), β_{2i} is the immediate effect of breakup (uncentered) on self-assurance (or pleasant affect), β_{3i} is the residual effect of breakup (uncentered) on self-assurance (or pleasant affect), and e_{it} is the random error associated with the effect of time, and immediate and residual effect of breakup on self-assurance (or pleasant affect).

The immediate and residual effects of breakup variables are dummy variables that capture the effect on the dependent variable of breaking up within the past two weeks ('immediate') and the effect on the dependent variable of breaking up more than two weeks ago ('residual' or 'prolonged' effect of breakup). At each session, a dummy-coded variable indicated whether the breakup happened immediately prior to this assessment (1 = broke up just prior to this assessment; 0 = did not). To assess the lingering effect of the breakup, a second dummy-coded variable was added to indicate that a participant had experienced a breakup prior to an earlier assessment (coded 1, otherwise 0; i.e., if breakup occurred just prior to session 2, then sessions 3 and 4 were both coded as 1 for residual variable).

For each parameter at level 1, a corresponding equation is created at level 2 (i.e., between person level). Thus, using the example above, level 2 equations would appear as below:

Level 2 equation:

$$B_{0i} = \tilde{\gamma}_{00} + u_{0i}$$

$$B_{1i} = \tilde{\gamma}_{10}$$

$$B_{2i} = \tilde{\gamma}_{20}$$

$$B_{3i} = \tilde{\gamma}_{30}$$

Where B_{0i} represents the intercept for each person, and B_{1i} represents each person's slope for the effect of time (B_{1i}), and the immediate and residual effects of breakup (B_{2i}, B_{3i}) on self-assurance (or pleasant affect). Then, each level 2 equation consists of either an average intercept ($\tilde{\gamma}_{00}$) or average slope ($\tilde{\gamma}_{10}, \tilde{\gamma}_{20}, \tilde{\gamma}_{30}$). Typically, the average intercept ($\tilde{\gamma}_{00}$) represents the overall mean of the dependent variable (in this example, self-assurance or pleasant affect) as long as each predictor at level 1 is person-mean centered and each predictor at level 2 is grand mean centered. However, as B_{2i} and B_{3i} are uncentered, the average intercept ($\tilde{\gamma}_{00}$) represents the mean of the dependent variable (e.g., self-assurance or pleasant affect) for those who remain in relationships (i.e., immediate and residual = 0). The average slope(s) ($\tilde{\gamma}_{10}, \tilde{\gamma}_{20}, \tilde{\gamma}_{30}$) represents the overall slopes for time ($\tilde{\gamma}_{10}$) and for the immediate and residual effects of breakup ($\tilde{\gamma}_{20}, \tilde{\gamma}_{30}$) and u_{0i} represents random error for the intercept.

To compare the effects of change in aspects of identity on mood for those who broke up with the effect of change for those who remained in relationships (i.e., Hypothesis 3), a series of Intercepts and Slopes as Outcomes models were constructed.

An Intercepts and Slopes as Outcome model consists of independent variables at both level 1 and level 2. In this model, indicators of mood (pleasant and unpleasant affect, and depressive symptoms) at time t were predicted by *change* from baseline (i.e., Time 1) to time t on each of the aspects of identity measures (self-assurance, concern for others, and self-concept clarity). Given the ambiguity of change in concern for others in Study 2, I will focus on results for absolute change in aspects of identity to reduce the potential risk of change in opposing direction cancelling each other (results for valence change in aspects of identity can be found in Appendix G). At level 2, breakup (between persons) was modelled as level 2 predictor and age and term were entered as level 2 covariates.⁴ Before testing the full model, a preliminary model (Random Coefficient Regression model) with only level 1 predictors to test whether the slope of level 1 predictors (e.g., change for each aspect of identity variable) varies without level 2 predictors (breakup, term, and age; models presented below).

Full model (Intercepts and Slopes as Outcomes):

Level 1 equation:

$$\gamma_{it} = \beta_{0i} + \beta_{1i}time_{it} + \beta_{2i}identity\ change_{it} + e_{it}$$

Level 2 equation:

$$B_{0i} = \tilde{\gamma}_{00} + \tilde{\gamma}_{01}breakup_i + \tilde{\gamma}_{02}age_i + \tilde{\gamma}_{03}term_i + u_{0i}$$

$$B_{1i} = \tilde{\gamma}_{10} + \tilde{\gamma}_{11}breakup_i + \tilde{\gamma}_{12}age_i + \tilde{\gamma}_{13}term_i$$

$$B_{2i} = \tilde{\gamma}_{20} + \tilde{\gamma}_{21}breakup_i + \tilde{\gamma}_{22}age_i + \tilde{\gamma}_{23}term_i$$

⁴ I did not include Gender as a level 2 covariate because the breakup sample consisted of only three men.

Preliminary model (Random Coefficient Regression):

Level 1 equation:

$$\gamma_{it} = \beta_{0i} + \beta_{1i}time_{it} + \beta_{2i}identity\ change_{it} + e_{it}$$

Level 2 equation:

$$B_{0i} = \tilde{\gamma}_{00} + u_{0i}$$

$$B_{1i} = \tilde{\gamma}_{10}$$

$$B_{2i} = \tilde{\gamma}_{20}$$

For both the full and preliminary models, at level 1, γ_{it} is each participant's mood score at time_{*t*} (i.e., each session), β_{1i} is the effect of time (centered) on mood variable (e.g., pleasant affect), β_{2i} is the change score for each identity measure (e.g., change in self-assurance) and e_{it} is the random error associated with the effect of time, and aspects of identity change score on mood (e.g., pleasant affect). At level 2, B_{0i} represents the intercept for each person, and B_{1i} represents each person's slope for the effect of time (B_{1i}), and the aspects of identity change score (B_{2i}) on mood. Each level 2 equation consists of either an average intercept ($\tilde{\gamma}_{00}$) or average slope ($\tilde{\gamma}_{10}$, $\tilde{\gamma}_{20}$). In this case, as all predictors are centered (level 1 is person-mean centered; level 2 is grand mean centered), the average intercept ($\tilde{\gamma}_{00}$) represents the overall mean of the dependent variable (e.g., pleasant affect). The average slope(s) ($\tilde{\gamma}_{10}$, $\tilde{\gamma}_{20}$) represents the overall slopes for time ($\tilde{\gamma}_{10}$) and aspects of identity change score ($\tilde{\gamma}_{20}$), and u_{0i} represents random error for the intercept. Also, each level 2 equation models between person predictors (only full model), such as relationship status (breakup vs. relationship intact – dummy coded then centered), age (centered), and term of study (a variable indicating whether completion of

study was during Fall or Winter term dummy coded and centered) where $\tilde{\gamma}_{01}$ (breakup) and $\tilde{\gamma}_{02}$ (age) and $\tilde{\gamma}_{03}$ (Fall/Winter) represent the independent effects of break-up, age, or term on mood.

Prior to testing each model, I assessed the relative stability of all aspects of identity (concern for others, self-assurance, and self-concept clarity) and mood (pleasant and unpleasant affect, and depressive symptoms) outcome variables. To assess the stability of the outcome variables, I modelled a series of intercepts only models (also known as one-way ANOVA with Random Effects models) with the outcome variable (e.g., self-assurance) for each model as the only variable included in the model (testing intraclass correlation or ICC). ICCs assess the extent to which the total variance associated with the target outcome variable is due to between person differences versus within person change. Within person variance indicates the extent to which the variance in scores on the outcome fluctuate over time; between persons variance indicates the extent to which variance in scores on the outcome are stable over time. ICCs are calculated using within person and between persons variance with formula below:

$$\text{ICC} = \frac{\text{Between variance}}{\text{Between variance} + \text{Within Variance}}$$

ICC values range between 0 and 1 where values closer to 0 indicate greater level 1 variance or within-person change (i.e., the scores of the target outcome variable vary over time); values closer to 1 indicate greater level 2 variance or between persons differences (i.e., the scores of the target outcome variable are stable over time).

Results and Discussion

Data cleaning. As in previous studies (Study 1b and Study 2), at each time point, participants completed validity checks and indicated whether they completed each session accurately and honestly. Any participants who did not respond accurately or honestly or who failed more than one validity check (instructed to leave a response blank) consistently across sessions were removed from the study. Data from 32 participants (6%), of the 503 participants recruited, were removed because the participants failed more than one validity check and/or indicated they were dishonest when completed each study session. For those who failed validity checks or did not complete questionnaire honestly and accurately for a specific session, only the data from that session were removed.

Data were also checked for age outliers and eight age outliers (1.6%) were found. The data of individuals who were older than 35 years of age were removed as relationships for older individuals may differ conceptually from those of younger individuals. In addition, I removed from the data 17 married individuals (3.4%) on the assumption that these relationships also differ significantly from non-marital romantic relationships.

Finally, as the study was longitudinal it was necessary that participants completed at least two of the four assessments. Data for 111 participants were removed because they completed only one assessment (see below for analyses assessing whether there were differences between those who remained in the study and those who dropped out).

I examined the data for outliers (both univariate and multivariate) and normality. When data were screened for outliers, univariate outliers were found for concern for

others (Time 1 and Time 2). Because of the sample size for the study, particularly for breakup sample, these outlier scores were adjusted so they were no longer extreme outliers. No multivariate outliers were found.

In addition to typical tests of assumptions, within HLM it is also important to assess data for outlying intercepts or slopes. Outlying intercepts and slopes can be assessed by examining a level 2 residual file created by HLM program when requested. The program will produce a data file with values representing slopes and intercept which should be converted to z-scores to examine for values greater than ± 3.29 . There were two individuals with outlying intercepts on concern for others but as the outliers were fairly minor (<3.6) and the sample is small these outliers were not removed from data.

Attrition. As with many longitudinal studies, not all participants completed every session. As mentioned above, the data from 111 participants were removed because they only completed one session. At Time 2, 67% of the Time 1 sample⁵ was retained ($n = 295$). At Time 3, 57% of the Time 1 sample was retained ($n = 251$). Finally at Time 4, 55% of the Time 1 sample was retained ($n = 243$). A series of t-tests was conducted to compare those participants who completed only one session to those who completed at least two sessions on the main DVs and relationship satisfaction at Time 1. Compared to those who remained in the study beyond the first session, participants who only completed one session reported more unpleasant affect, $t(153.29) = -2.15, p = .03; M = 1.96, SD = 0.61$ and $M = 2.14, SD = 0.78$, respectively; more depressive symptoms, $t(437) = -2.17, p = .03, M = 15.07, SD = 9.31$ and $M = 17.44, SD = 11.41$, respectively; and less relationship satisfaction, $t(152.42) = 2.57, p = .01, M = 6.67, SD = 1.45$ and $M =$

⁵ Time 1 sample consisted of 441 participants after removal of data of participants who were age outliers, married, or who failed validity checks in all sessions.

6.20, $SD = 1.66$, respectively. Participants who remained in the study were marginally more self-assured than participants who left the study after the first session, $t(437) = 1.88$, $p = .06$, $M = 3.66$, $SD = 0.75$ and $M = 3.50$, $SD = 0.82$, respectively. No significant differences were found in pleasant affect, concern for others, or self-concept clarity, $t < 1.6$, $p > .13$.

Missing data are inevitable in longitudinal research. For HLM analyses, missing data at level one are acceptable as long as participants have completed at least two time points. At level 1, HLM is capable of estimating reliable parameters for missing data when there are at least two time points. At level 2, however, missing data are problematic as HLM will delete an entire case for any data missing at this level. To handle missing data at level 2, when creating each model (Multivariate Data Matrix (MDM) file), I only included variables for the target analysis rather than including all variables in the model. For example, when assessing self-assurance change, I include in the model time, self-assurance, breakup variables (e.g., immediate and residual effects), age, and term. When testing other aspects of identity measures, I removed self-assurance and added the other aspects of identity measure (e.g., concern for others). This approach limited the impact of level 2 missing variables.

Preliminary Analyses

Prior to assessing the main hypotheses of the study, I conducted preliminary analyses to assess the relations among the aspects of identity measures. Given that several analyses were conducted, there is an increased risk of a type I error (i.e., finding a false positive). However, because I am interested in the patterns that emerge rather than individual effects, individual effects were not given much weight.

Relations among identity measures. To assess the relation among aspects of identity measures included in the study, I conducted a series of bivariate correlations assessing the relations among self-assurance, concern for others, loss of self, rediscovery of self and self-concept clarity. With the exception of loss of self and rediscovery of self (which were assessed post-breakup), these constructs were assessed at each of the four times. Consistent with my previous studies (Studies 1a, b, and Study 2), at each time participants who reported greater concern for others also reported greater self-assurance, $r \geq .33, p < .001$ (see Tables 13a-13d). Furthermore, those who reported greater current concern for others were also more likely to report greater self-concept clarity consistently across all time points, $r \geq .35, p < .001$.

As loss and rediscovery of self were only assessed among those who experienced a breakup, the relation of loss and rediscovery of self with the other identity measures could only be assessed with the smaller sample. However, as the sample size for those who experienced a breakup at each session was so small (T2 $n = 18$; T3 $n = 7$; T4 $n = 8$), the results of the analyses at each time point would not be informative. Thus, the data from the session immediately following the breakup were combined to create a cross-sectional dataset ($n = 32$).⁶ As shown in Table 14, neither rediscovery of self nor loss of self were consistently related to the other aspects of identity measures. However, both rediscovery of self and loss of self were related to current self-assurance ($r(28) = .33, p = .07$ (marginally); $r(28) = -.55, p = .001$, respectively). Those who reported they were more self-assured in the present were less likely to report feeling a sense of loss and more likely to report rediscovering their self (marginally) following breakup.

⁶ One participant failed validity checks on the session immediately following their breakup thus, their data for that session were not included in these analyses.

Using the cross-sectional dataset, I also examined the relation of perceived and genuine change in self-assurance and concern for others with loss and rediscovery of self. Perceived change in self-assurance and concern for others was calculated by subtracting current ratings from retrospective ratings. Positive values reflect a perceived decline in self-assurance or concern for others. Genuine change was calculated by subtracting Time 1 self-assurance or concern for others current ratings from post-breakup current ratings of self-assurance or concern for others. Positive values indicate an increase in self-assurance or concern for others pre- to post-breakup. Perceived change in self-assurance was negatively associated with genuine change in self-assurance ($r(29) = -.62, p < .001$). Similarly, perceived change in concern for others was negatively associated with genuine change in concern for others ($r(29) = -.51, p < .001$). Participants who perceived a decline in self-assurance or concern for others following the breakup were more likely to experience a decline in self-assurance or concerns for others pre- to post-breakup. Furthermore, participants who perceived a decline in self-assurance were less likely to report rediscovery of self ($r(28) = -.56, p < .001$) and more likely to report a loss of self ($r(28) = .63, p < .001$). When participants perceived a decline in concern for others, they were more likely to report a loss of self ($r(28) = .42, p = .02$). There was no relation between perceived change in concern for others and rediscovery of self ($r(28) = -.01, p = .98$). When assessing the relation of genuine change in self-assurance or concern for others with loss and rediscovery of self, only genuine change in self-assurance was associated with rediscovery of self ($r(28) = .38, p = .04$). Participants who experienced a decline in self-assurance pre- to post-breakup were less likely to report a rediscovery of self.

HLM Analyses

Before testing hypotheses, I assessed the stability of each outcome variable by calculating the intraclass correlation (i.e., ICCs) for each outcome variable. As shown in Table 15, the ICCs for mood ranged from .52 to .56 (52% to 56% between person variance) and the ICCs for identity ranged from .70 to .85 (70% to 85% between person variance) as such, mood tended to fluctuate more over time relative to identity.

Hypothesis 1a: Effect of breakup on identity change. I expected that participants who experienced a breakup during the study period would demonstrate greater change in current ratings in concern for others, self-assurance and self-concept clarity compared to those who remained in relationships. While controlling for time (i.e., each session), dummy variables representing the immediate and residual effects of breakup were entered into a model to predict each of the aspects of identity measures (i.e., concern for others, self-assurance, and self-concept clarity). Contrary to expectation, neither immediate nor residual effects of breakup were found for current concern for others, current self-assurance or self-concept clarity (see Table 16). When participants experienced a breakup, they did not tend to experience changes in concern for others, self-assurance, or self-concept clarity relative to their pre-break-up self or relative to those who did not experience a relationship breakup.⁷

Hypothesis 1b: Effect of breakup on retrospective identity change. I hypothesized that compared to participants who remained in a relationship, those who experienced a breakup would retrospectively report a greater change in concern for others and self-assurance. That is, when participants who experienced a breakup recalled their

⁷ For Hypotheses 1 and 2, a secondary set of models were tested with age and term as covariates and results did not differ. I was unable to include gender as a covariate as there were only three male participants who experienced a breakup.

pre-breakup self-assurance and concern for others, they would be more likely to underestimate (or overestimate) the extent to which their pre-breakup self was self-assured or concerned for others. An underestimation (or overestimation) of who they were prior to the breakup may indicate a perception of threat to the self. Prior to testing the model in HLM, I wanted to validate that an underestimation (or overestimation) of the pre-breakup self (i.e., the discrepancy between Time 1 current rating and post-breakup retrospective rating of pre-breakup) reflected a perception of threat. To test this, I conducted a series of correlations between bias in change in self-assurance and concern for others with loss and rediscovery of self. The bias in change was calculated by subtracting post-breakup retrospective ratings of self-assurance or concern for others from Time 1 current ratings of self-assurance or concern for others. A positive difference score indicates an underestimation of pre-breakup self; a negative difference score indicates an overestimation of pre-breakup self. Correlation analyses indicate that when participants overestimated the extent to which their pre-breakup self was self-assured or concerned for others, they were more likely to perceive loss of the self following the breakup, $r(28) = -.63, p < .001$, $r(28) = -.45, p = .01$, respectively. In addition, when participants overestimated their pre-breakup self-assurance, they also were less likely to report rediscovery of the self following the breakup, $r(28) = .37, p = .01$.

Consistent with this hypothesis, when examining retrospective ratings for concerns for others and self-assurance, significant effects of breakup (immediate and residual effects) were found (see Table 17). Immediately following breakup, participants tended to underestimate how self-assured they were at Time 1 ($b = -.32, SE = .10, t = -3.05, p = .002$) and continued to underestimate their Time 1 self-assuredness in following

sessions ($b = -.41$, $SE = .13$, $t = -3.10$, $p = .002$). Additionally, immediately following breakup, participants tended to underestimate (marginally) how concerned for others they were at Time 1 ($b = -.16$, $SE = .09$, $t = -1.80$, $p = .07$). Unlike self-assurance, participants did not continue to underestimate their baseline concern for others after the immediate post-break-up period. Although those who broke-up did not significantly underestimate their concern for others retrospectively, the coefficient direction for the residual effect is consistent with retrospective self-assurance ($b = -.17$, $SE = .11$, $t = -1.47$, $p = .14$).

Results suggest that shortly after experiencing a breakup, participants derogated (underestimated) their pre-breakup self-assurance and (to a lesser extent) concern for others, perhaps in an effort to maintain self-worth. These results seem to suggest that the experience of breakup poses a threat to the self (specifically in the self-assurance domain) and to counter such effects people appear to negatively evaluate who they were before their breakup.⁸ These findings are consistent with Wilson and Ross's (2001) argument that people derogate their past selves to make their present self seem favourable (see also McFarland & Alvaro, 2000).

Hypothesis 2: Effect of breakup on mood. In addition to examining how aspects of identity changed as a result of relationship dissolution, I was interested in examining the changes in mood following a breakup. I hypothesized that compared to those who remained in their relationship, those who experienced a breakup would report a decrease in pleasant affect and an increase in unpleasant affect and depressive symptoms following the break-up. To assess the effects of breakup on mood, each mood variable (i.e., pleasant and unpleasant affect and depressive symptoms) was modelled as the outcome variable

⁸ Independent sample t-tests were conducted to assess whether there were initial differences in concern for others and self-assurance at Time 1 between those who experienced a breakup during study period and those who remained in relationships. No initial differences were found, $t_s < .33$, $p_s > .73$.

and dummy variables representing the immediate and residual effects breakup were entered as level 1 predictors while controlling for time (i.e., sessions). As shown in Table 18, consistent with hypothesis, results revealed a consistent immediate effect of breakup on mood but no residual effect of breakup. Shortly after breakup, participants reported a drop in pleasant affect ($b = -.38, SE = .11, t = -3.56, p < .001$), and an increase in unpleasant affect and depressive symptoms ($b = .36, SE = .10, t = 3.63, p < .001$; $b = 5.71, SE = 1.49, t = 3.83, p < .001$, respectively). The results suggest that a breakup may have an immediate effect on one's mood but within two weeks time, these effects dampen. These results are similar to the emotional sequelae following breakups found in other samples (e.g., Sbarra & Emery, 2005).

Hypothesis 3: Effect of identity change on mood. I hypothesized that participants who experienced a breakup and report greater change in aspects of identity (i.e., change in current concern for others, current self-assurance, and self-concept clarity) would report more unpleasant (and less pleasant) mood compared to those who remain in a relationship and those who breakup but report little change in identity. To assess the effect of identity change on mood for those who experience a breakup and those who remain in their relationship, I constructed a series of hierarchical linear models where aspects of identity change scores (i.e., change from Time 1 in concern for others, self-assurance and self-concept clarity) were used to predict mood (pleasant affect, unpleasant affect and depressive symptoms) at Time 2, 3 and 4.

When examining the relation between changes in aspects of identity and mood across all participants, results indicated main effects of aspects of identity change on mood (see Table 19). Specifically, when participants reported greater change in concern

for others and self-assurance, they also reported lower pleasant affect ($b = -.23, SE = .10, t = -2.30, p = .02$; $b = -.31, SE = .10, t = -3.22, p = .001$, respectively), greater unpleasant affect ($b = .27, SE = .09, t = 3.01, p = .003$; $b = .45, SE = .09, t = 5.34, p < .001$, respectively), and more depressive symptoms ($b = 3.54, SE = 1.36, t = 2.60, p = .01$; $b = 6.29, SE = 1.29, t = 4.90, p < .001$, respectively). When participants reported greater change in their sense of self (i.e., self-concept clarity), they reported fewer depressive symptoms ($b = -2.72, SE = 1.38, t = -1.97, p = .05$). Change in self-concept clarity did not predict pleasant or unpleasant affect ($b = .07, SE = .10, t = .66, p = .51$; $b = -.07, SE = .09, t = -.77, p = .44$, respectively).

In addition to the main effects of aspects of identity change on mood, I also observed the hypothesized moderation of aspects of identity change on mood by relationship status. I expected participants who experienced a breakup and reported greater change in aspects of identity (i.e., change in concern for others, self-assurance, and self-concept clarity) would report more unpleasant (less pleasant) mood, compared to those who remain in a relationship and those who breakup but report little change in identity. Consistent with predictions, changes in aspects of identity (Δ concern for others, Δ self-assurance, and Δ self-concept clarity) significantly interacted with relationship status (intact/broken-up) to predict mood (pleasant and unpleasant affect, and depression; see Table 19).⁹ For instance, relationship status (i.e., whether a participant experienced a breakup) significantly moderated the relation between change in self-assurance and pleasant affect ($b = -1.18, SE = .28, t = 4.29, p < .001$; see Figure 2a). For those who remained in relationships, any changes in self-assurance experienced did not predict pleasant affect. In other words, for those who remained in relationships, no differences in

⁹ Age and term were included in the model as covariates.

pleasant affect were found whether one reported little or greater change in self-assurance. On the other hand, for those who experienced a breakup, there was a negative association between changes in self-assurance and pleasant affect where when one reported greater change in self-assurance (compared to when one reported little change in self-assurance) one also reported lower pleasant affect. Similar patterns emerged where relationship status interacted with changes in self-assurance to predict unpleasant affect and depression (see Table 19, and Figures 2b and 2c, respectively).

These effects were replicated when examining the effect of relationship status on the relation between changes in concern for others and pleasant affect (see Figure 3a), unpleasant affect (see Figure 3b), and depressive symptoms (see Figure 3c). When participants who remained in relationships reported any changes in concern for others, no differences were found in pleasant affect, unpleasant affect, or depressive symptoms whether participants reported little or greater change in concern for others. On the contrary, for those who experienced a breakup, when they reported greater change in concern for others (compared to when they reported little change in concern for others), they also reported lower pleasant affect, greater unpleasant affect, and more depressive symptoms.

Additionally, similar patterns emerge for the effect of relationship status on the relation between self-concept clarity change and mood (see Table 19). For those who remained in relationships, change in self-concept clarity was not associated with unpleasant affect or depressive symptoms (see Figures 4a and 4b, respectively). On the other hand, for those who experienced a breakup, when one reported greater change in self-concept clarity (compared to one who reported little change), one also reported lower

unpleasant affect and fewer depressive symptoms. However, there was no significant interaction between relationship status and self-concept clarity change on pleasant affect.¹⁰

Results suggest that changes in self-assurance, concern for others and self-concept clarity are not problematic among those who experience change while in relationships. However, changes in self-assurance, concern for others and self-concept clarity for those who experienced relationship dissolution were problematic as they were associated with negative mood. It is possible the changes in these identity domains while in relationships reflect the natural progression of personal change (e.g., personal growth) as argued by self-expansion model (e.g., Aron et al., 1992) whereas the changes in these identity domains among those who experience relationship dissolution seem to reflect the threat associated with the termination of the relationship.

Factors contributing to perceived identity change (Hypotheses 4 and 5).

I was interested in how factors such as whether one searches for and finds meaning with one's breakup (i.e., meaning-making), and the extent to which one's breakup is central to one's identity (i.e., centrality), predicted change in aspects of identity. To assess the role of factors that may contribute to change in aspects of identity following breakup, a series of multiple regressions was conducted where change in aspects of identity (i.e., change in self-assurance, concern for others, and self-concept

¹⁰ Upon comparing the absolute identity change scores and valence change (i.e., negative, positive change) by groups (i.e., relationship intact vs. broken up), changes reported by participants who remained in relationships tended to fluctuate around zero indicating that there was a balance of positive and negative changes in aspects of identity reported. On the other hand, aspect of identity changes reported by those who experienced a breakup tended to be negative. Furthermore, when examining the interactions between the valence change in aspects of identity measures and relationship status, significant interactions emerged. Although the interactions between valence change in aspects of identity and relationship status revealed similar effects, the interactions were not as consistently significant as with absolute change (please see Table 23 and Figures 5, 6a, 6b, 7a and 7b in Appendix G and H).

clarity from before the breakup to just after breakup) was predicted from the extent to which participants reported searching for and finding meaning in their breakup, and how central to their identity they rated the break-up. Prior to conducting these analyses, I examined the distributions of the predictor variables.

After relationship dissolution do people search for and find meaning? As in Study 2, I expected that after a breakup, most people would report searching for and finding meaning. I assessed the degree to which (if any) participants searched for or found meaning after a breakup through a frequency analysis. The majority of participants (78%) reported searching for meaning after their breakup to some degree. In addition, 64% of participants reported asking “why me?” after the breakup. When participants were asked whether they were able to find meaning from the breakup, almost all participants (93%) reported finding meaning. It is evident that many participants searched for and found meaning. It is possible that nearly all the participants were able to find some degree of meaning because relationship dissolution is an event where one or both people involved are able to discuss the end of the relationship. In the present study, 69% of the participants ($n = 20$) who experienced a breakup initiated the breakup.

Is relationship dissolution central to one’s identity? Similar to Study 2, I expected that a substantial minority of those who experienced a breakup would perceive the breakup as central to their identity. Thirty-five percent of participants scored 4 or greater on a scale of 1-7, indicating that a third of the sample considered their breakup at least fairly central to their identity. However, the majority of the breakup sample did not consider the breakup highly central to their identity given the mean of centrality ($M = 3.07$, $SD = 1.77$) is below the midpoint of the scale.

Does the extent to which one searches for and finds meaning, and perceives breakup as central to identity predict change in identity? Similar to Study 2, I examined the extent to which one searches for and finds meaning in the breakup, and one perceives one's breakup as central to identity predicts identity change (Hypotheses 4 & 5). I hypothesized that the extent to which one searches for and finds meaning (i.e., meaning making), and the extent to which one perceives one's breakup as central to one's identity (i.e., centrality) would be associated with a change in aspects of identity. Change in concern for others, self-assurance and self-concept clarity indicates the extent to which one experienced change (absolute change) from before breakup to just after breakup. Current ratings for concern for others and self-assurance (controlling for retrospective ratings) as well as rediscovery and loss of self, reflect participants' retrospective evaluation of change in the self since the breakup.

As shown in Table 20, the extent to which one searches for and finds meaning and the extent to which one's breakup is central to one's identity did not consistently predict absolute change in aspects of identity pre to post-breakup. Only finding meaning predicted change in self-concept clarity, $r(29) = .43, p = .02$, where participants who reported finding meaning in their breakup were more likely to report more change in their self-concept clarity since their breakup.

When controlling for each factor through multiple regressions, the extent to which one searches for and finds meaning and the extent to which one perceives the breakup as central to one's identity did not consistently predict absolute change in identity (see Table 22, specifically columns 1 to 3). Only finding meaning predicted change in self-concept

clarity where participants who reported finding meaning also reported more change in self-concept clarity.¹¹

On the other hand, the extent to which one searches for and finds meaning, and one's breakup is central to identity predicts the extent to which one perceives change in the self following breakup (see Table 21). Searching for meaning was positively related to loss of self, $r(29) = .64, p < .001$, and negatively related to self-assurance and rediscovery of self, $r(28) = -.36, p = .05$; $r(29) = -.44, p = .01$, respectively. Participants who reported searching for meaning were more likely to report lower current self-assurance and greater loss of self, and less likely to report rediscovery of self. Finding meaning was positively related (marginally) to rediscovery of self, $r(30) = .32, p = .08$. When participants reported finding meaning, they also were more likely to report rediscovering the self following breakup. Furthermore, centrality positively predicted both rediscovery of self, $r(29) = .46, p = .02$, and loss of self (marginal; $r(29) = .34, p = .06$). When participants perceived their breakup as central to their identity they also were more likely to report experiencing a loss of self (marginally) and a rediscovery of self since breakup.

Consistent with correlation results, when controlling for both factors in a regression, the extent to which one searched for and found meaning, and one perceived breakup as central to identity consistently predicted both loss and rediscovery of self following breakup (see Table 22, specifically columns 4 and 5). Additionally, when controlling for retrospective ratings of concern for others and self-assurance (via partial correlations), searching for meaning negatively predicted current post-breakup self-

¹¹ When testing the relation between the factors and valence change in concern for others, self-assurance and self-concept clarity (via correlations and regressions), searching for and finding meaning, and centrality did not predict valence change in these aspects of identity (see Appendix G, Tables 24 and 25).

assurance but did not predict current post-breakup concern for others (see Table 21).

Participants who reported searching for meaning after breakup were more likely to report greater loss of self, lower post-breakup self-assurance and less likely to report rediscovery of self. Finding meaning was uniquely associated with greater rediscovery of self, however did not significantly predict loss of self, current post-breakup concern for others or current post-breakup self-assurance. Participants who reported finding meaning were more likely to report greater rediscovery of the self. Furthermore, centrality uniquely predicted both rediscovery and loss of self in the positive direction. Participants who perceived the breakup as more central to their identity, they were also more likely to report greater loss of self (marginally) and greater rediscovery of self. It appears that people are not motivated to engage in meaning-making or integrate the breakup as part of their identity unless they retrospectively evaluate that changes have occurred in the self as a result of the breakup.¹²

Taken together, results indicate that following relationship dissolution, participants (as a group) do not experience significant genuine change in aspects of identity (i.e., self-assurance, concern for others, and self-concept clarity). Interestingly, participants do perceive change in aspects of identity after the breakup. For instance, when participants are asked to evaluate who they were at the beginning of the study, soon

¹² Additional analyses (non-parametric: Spearman's rho correlations and independent samples Mann-Whitney U tests) were conducted to assess whether breakups characteristics predicted genuine change in aspects of identity and perceived change in the self. Given the small breakup sample and the number of breakup characteristics, meaning making and centrality were not included in the model. Breakup characteristics were not predictive of genuine change. On the other hand, breakup characteristics consistently predicted greater loss of self (see Table 26, Appendix G). When participants reported the breakup as less expected, more upsetting and more intense, they were more likely to report greater loss of self. Additionally, when participants reported, not being over the breakup, missing their past partner, and thinking about their partner more often they were more likely to perceive greater loss of self. There were no significant differences in initiator status (initiator vs. non-initiator) or proximity of past relationship (local vs. long distance relationship) in any of the aspects of identity measures.

after the breakup (i.e., a week), participants underestimated the extent to which they were self-assured and concerned for others at Time 1. These effects did not emerge for those who remained in relationships. However, when participants do experience greater change in self-assurance, concern for others and self-concept clarity, they were more likely to report negative mood. This is consistent with research by Slotter and colleagues (2010) where changes in self-concept clarity predicted emotional distress.

When assessing which factors (i.e., the extent to which participants searched for and found meaning, and perceived their breakup as central to their identity) predicted change in aspects of identity, only self-assurance (current controlling for retrospective), and loss and rediscovery of the self were associated with these factors. Participants who reported lower current self-assurance were more likely to search for meaning following the breakup. Furthermore, when participants reported greater loss of the self, they were more likely to report that they searched for meaning and perceived the breakup as central to their identity. When participants reported greater rediscovery of the self, they were less likely to report searching for meaning and more likely to report finding meaning as well as perceiving the breakup as central to their identity. It seems that when participants perceived change in the self as a result of the breakup, the perception of change may have been threatening. The potential threat may have motivated individuals to make sense of the experience as well as integrate the event into their identity to alleviate the threat.

General Discussion

The loss of a romantic relationship can have profound consequences on well-being. Following the loss, many report not only feeling distressed but also report perceiving a loss in the self (Boelen & van de Hout, 2010; Eastwick et al., 2008; Field et al., 2009; Frazier & Cook, 1993; Mason et al., 2012; Sbarra & Emery, 2005). Recently, researchers have focused their attention on the consequences of relationship dissolution for the self (e.g., Lewandowski & Bizzoco, 2007; Lewandowski et al., 2006; Slotter, Emery, & Luchies, 2014). However, relatively few studies have examined breakups prospectively and little is known about how one's identity changes as one transitions into singlehood. Moreover, it is not clear the extent to which reported changes in identity from pre- to post-breakup are genuine, and what factors may contribute to the perception of change. The main purpose of the present research was to examine the perceived change in two aspects of identity (i.e., self-assurance and concern for others) after relationship dissolution, and to assess the extent to which those retrospectively estimated changes (i.e., perceived change) corresponded with the changes experienced pre- to post-breakup (i.e., genuine change). Second, I examined factors that may contribute to reported change in the two aforementioned aspects of identity. In both studies, perceived change in aspects of identity was assessed using participants' retrospective ratings of their pre-breakup self-assurance and concern for others. Genuine change (measured in Study 3) was assessed using participants' change in status on each aspect of identity measure (e.g., self-assurance) from pre- to post-breakup.

In Studies 2 and 3, I examined the effect of breakup on self-assurance and concern for others. As predicted, both studies found that participants perceived change in

self-assurance and concern for others following relationship dissolution, yet participants in both studies reported less change in concern for others following breakup than change in self-assurance. Specifically, a week after the breakup (Study 3) when participants retrospectively evaluated their pre-breakup self, they derogated the extent to which their pre-breakup self was self-assured and concerned for others. A few months after the breakup (Study 2), participants perceived a decline in self-assurance. Although participants reported statistically significant change in concern for others, the direction of change was less clear. Interestingly, when assessing changes pre- to post-breakup (i.e., genuine change), contrary to predictions, I found no statistically significant group-level change in concern for others, self-assurance, or self-concept clarity from pre-breakup to post-breakup. The null group-level change in self-concept clarity following a breakup is not consistent with research by Slotter and colleagues (2010) who found that participants reported a significant decline in self-concept clarity following the breakup.

Whereas participants in Study 2 retrospectively reported a decline in self-assurance, participants in Study 3 derogated (i.e., underestimated) the extent to which they were self-assured when asked to recall their pre-breakup level of self-assurance. I speculate that this may suggest a timeline for coping with relationship dissolution. Specifically, it seems that soon after the relationship dissolution (i.e., a week), people appear to react defensively to the threat inherent in the breakup by self-enhancing. That is, they perceive positive changes in the self even when no such changes have occurred. The more recent the breakup, the more individuals seem inclined to protect the current self by perceiving their pre-breakup self as lower on self-assurance and concern for

others. After some time has passed (i.e., a few months) and the threat has lessened, individuals may be more willing to explore how they have changed.

When assessing changes in the self following dissolution, individuals may be more inclined to see changes inwardly (i.e., change in self-assurance) before evaluating changes outwardly (i.e., change in concern for others). As the loss of a relationship is a form of rejection, it is likely that individuals may focus on the changes associated with their confidence and self-worth (i.e., inwardly) prior to the changes associated with how they relate to their close others (i.e., outwardly). Perceiving changes inwardly prior to outwardly may explain why the present research found evidence that perceived changes in self-assurance were more pervasive than perceived changes in concern for others. These findings add to the literature by exploring the perceived and genuine changes in two aspects of identity, specifically self-assurance and concern for others. To date, the literature has focused on changes in emotional well-being (e.g., Sbarra & Emery, 2005) and self-concept clarity (e.g., Slotter et al., 2010) following a relationship breakup. Although the present studies suggest that changes in concern for others may not be as pervasive as changes in self-assurance, the studies provide some initial insight into the potential perceived relational changes following relationship dissolution. It may be that changes in identity take some time to process, especially when the changes occur in aspects of identity that include our external world.

Because previous research (e.g., Slotter et al., 2010) found evidence that negative changes in self-concept clarity (i.e., a reduced sense of self) accounted for the distress individuals reported following a breakup, I assessed whether changes in aspects of identity predicted indicators of well-being. Study 2 provided preliminary evidence of this

relation wherein current self-assurance and current concern for others (while controlling for retrospective ratings) were positively associated with better well-being. In addition, when participants reported greater self-concept clarity and greater rediscovery of self, they also reported better well-being. Not surprisingly, when participants reported perceiving a greater loss of self following a breakup, they reported poorer well-being. These findings are consistent with Mason and colleagues (2012) who found perceived loss in the self predicted poorer well-being. In Study 3 prior to assessing the relation between changes in aspects of identity and mood, I examined the effects of breakup on mood. Consistent with predictions, there was evidence that participants reported experiencing a decrease in pleasant affect and an increase in unpleasant affect and depressive symptoms immediately following the breakup. Similar to previous research (e.g., Sbarra & Emery, 2005), these negative effects on mood began to fade two to four weeks after the breakup.

Upon examining the relation between changes in aspects of identity and mood, I found that when participants reported change in any of the aspects of their identity (absolute change), it was associated with negative changes in mood. Furthermore, as hypothesized, I found the relation between the degree to which an individual changes in self-assurance, concern for others or self-concept clarity and mood was moderated by relationship status (intact versus broken-up). Specifically, among those who remained in relationships, the extent of change in any of the aspects of identity did not predict mood. On the other hand, among those who experienced a breakup, when more change in any of the aspects of identity was reported (compared to when participants reported little change), they also tended to report negative changes in mood. The results suggest that

those who did experience change in these aspects, it was associated with negative changes in mood. Based on previous research by Slotter and colleagues (2010), who found that decline in self-concept clarity accounted for post-breakup distress, I speculate that it is the changes in these aspects of identity (i.e., concern for others, self-assurance and self-concept clarity) that predict changes in mood. However, given the correlational nature of the present research, I cannot infer causality. It may be that those who experience a decrease in mood report more change in these aspects of identity as a result of their worsened mood.

Finally, Studies 2 and 3 also examined the factors that may contribute to the perception of identity change. Drawing from the bereavement literature (e.g., Boelen, 2012; Gillies & Neimeyer, 2006; Park, 2010), I hypothesized two possible factors that might predict perceptions of identity change: 1) the extent to which one searches for and finds meaning, and 2) the extent to which one perceives the breakup as central to one's identity. My hypotheses were partially supported. Consistent with predictions, when participants in Studies 2 and 3 reported searching for meaning, they were more likely to report a greater loss of self and lower self-assurance following the breakup. However, unexpectedly, finding meaning and the extent to which the breakup was central to one's identity were not consistently associated with perceived identity change. A week following the breakup (Study 3) participants who reported finding meaning were more likely to report rediscovering the self. However, when more time had passed since the breakup (Study 2), participants who found meaning were no more likely than those who did not find meaning to perceived change in the self. Typically, in the adversity literature, finding meaning has been associated with positive outcomes, even after some time has

passed since the event (e.g., Davis & Novoa, 2013; Neimeyer et al., 2006; Park, 2010).

The findings appear to suggest that after some time has passed following a breakup, finding meaning may no longer be relevant in the context of breakups. This may be because unlike other adversities, the individuals involved can discuss why the relationship ended. The discussion may provide individuals with the answers needed to move on but may require time to accept. The time needed to process or accept the reason(s) for the end of the relationship may explain the inconsistency across studies. Another explanation may be that some individuals who experience relationship dissolution have control over when the relationship ends. Across both studies, the majority of participants (62% in Study 2 and 69% in Study 3) indicated that they had initiated the breakup. Even though individuals may be aware of the reason(s) for the breakup, the earlier stages of dissolution may be perceived as threatening to the self. As a result, participants may report finding meaning early on to alleviate the threat.

Perceiving the relationship dissolution as threatening could also explain the inconsistency in the relation between centrality and perceiving change in these aspects of identity. Debate remains in the literature as to whether perceiving an adversity as central to one's identity is beneficial (e.g. Boelen, 2009; Schuetter & Boals, 2011). Some researchers (e.g., Brewin & Holmes, 2003) argue that it is necessary for individuals to integrate their adversity (i.e., perceive the breakup as central to their identity) to properly cope with adversity. However, others (e.g., Berntsen & Rubin 2006; 2007) argue that the inability to cope with adversity is the result of an over-integration of the event. When an adversity is over-integrated into identity, it becomes important to one's identity and a focal point to which every other event is compared. There is evidence that provides

support to both these arguments. Specifically, for some, perceiving the adversity as central to his or her life can be distressing (e.g., Boals, 2010). For others, perceiving the adversity as central is associated with personal growth (e.g., Schuetter & Boals, 2011). In the present study, when participants perceived the breakup as central to their identity, they were more likely to perceive a loss of self (correlation was statistically significant in Study 2 but marginally significant in Study 3). This seems to support the notion that perceiving the breakup as central to one's identity may be more associated with negative outcomes rather than positive outcomes. However, a week following the breakup, it seems that perceiving the breakup as central to one's identity is more strongly associated with a rediscovery of self. A few months after the breakup, the relation between centrality and rediscovery of the self is no longer statistically significant. It may be that soon after the breakup, the breakup is more threatening to the self but may dissipate with time. Participants may alleviate the threat early on by perceiving a rediscovery of self where they indicate the breakup made them a better person (i.e., positively integrating the breakup into their identity).

In addition to examining the extent to which these factors (i.e., meaning and centrality) predicted retrospective change in aspects of identity, Study 3 also examined whether these factors predicted genuine change in aspects of identity (i.e., change pre- to post-breakup). Whereas the extent to which one searched for meaning and perceived the breakup as central to one's identity were associated with perceiving negative changes in aspects of identity (e.g., self-assurance and concern for others), these factors did not predict change in self-assurance, concern for others, or self-concept clarity from before to after the breakup (i.e., genuine change). In Study 2, when participants reported searching

for meaning or perceiving the breakup as central to their identity, they also reported lower self-assurance. Furthermore, the extent to which participants perceived their breakup as central to their identity predicted lower concern for others and self-concept clarity. However, I found no consistent relations between searching for and finding meaning or centrality of the breakup and change in aspects of identity pre- to post-breakup. That is, whether participants searched for and found meaning or perceived their breakup as central to their identity did not predict genuine change in self-assurance, concern for others, or self-concept clarity. Thus, meaning associated with the breakup or perceiving the breakup as central to one's identity may not be as informative for understanding genuine change in aspects of identity as it is in understanding one's own personal interpretation of the breakup. More research is needed to better understand the extent to which event centrality and meaning-making facilitate or hinder one's adjustment to relationship dissolution.

Implications

The present research contributes to the literature in two ways. First, it further sheds light on the transition one experiences as well as perceives pre- to post-breakup, contributing evidence to the self-expansion model. The self-expansion model argues that when individuals enter a relationship they begin to adopt aspects of the other into the self. Previous research has provided extensive evidence of this phenomenon (see Aron & Nardone, 2012 and Aron et al., 2013 for a review). According to Aron and colleagues (2013), once aspects of another have been integrated into the self, there is a reluctance to disintegrate (i.e., reluctance to lose previously integrated aspects of their past partner) because the loss is perceived as threatening to the self.

Consistent with what Aron and colleagues argue in the self-expansion model, the results of the present research seem to suggest that the loss of the relationship may result in the perception of threat. Immediately following the breakup, compared to participants who remained in relationships (i.e., no threat of disintegration), those who experienced a breakup consistently derogated their pre-breakup self. In other words, those who experienced a breakup tended to retrospectively underestimate the extent to which their pre-breakup selves were self-assured and concerned for others compared to the ratings they provided when they were in relationships. These effects were not observed when I examined genuine change in self-assurance and concern for others. When examining the change in mean levels of self-assurance and concern for others from pre-breakup to post-breakup, I found no statistically significant differences in the breakup group. Combined these findings may suggest when participants perceive a change in the self post-breakup (even when no such changes have occurred), the discrepancy they perceive between their pre- and post-breakup selves may be threatening. The threat may then motivate people to feel they have changed for the better (i.e., self-enhance) as a protective strategy. This protective strategy may, in turn, alleviate the perception of loss. In the present research, the tendency to underestimate pre-breakup levels of self-assurance immediately following the breakup was associated with lower perception of loss and greater rediscovery of the self. It may be that by devaluing one's past self-assurance, it may buffer the perception that one has lost part of one's self after the breakup.

The presence of threat seems to lessen with the passing of time. A few months after the breakup, participants reported a decline in self-assurance. The perception of decline in self-assurance may indicate that participants are willing to explore how they

have changed rather than derogating their past self. In other words, with time, the threat associated with the breakup may decrease where participants no longer need to use the protective strategy of self-enhancing and can freely explore how they have changed (positively, negatively, or not at all).

In addition to evaluating one's pre-breakup self more negatively (i.e., derogate pre-breakup self). There is evidence that in the presence of threat people are motivated to make sense of their experience to alleviate threat (Park, 2010). Researchers in the adversity literature (e.g., Janoff-Bulman, 1992; Tedeschi & Calhoun, 2004) argue that people are more likely to engage in searching for meaning following an adversity when the event poses a threat to the self. Following the dissolution of a relationship, individuals may be motivated to search for meaning for the same reason. Indeed, perceived change in aspects of identity was associated with more frequent searching for meaning after the breakup. Genuine change in identity (i.e., change pre- to post-breakup) was not associated with searching for meaning. This may suggest that when participants are interpreting change in the self since the end of their relationship (even though they may not have experienced change), the discrepancy between who they were prior to the breakup and who they are post-breakup may be threatening. By attempting to make sense of why they are different now, they may be attempting to alleviate the discrepancy by perceiving the change as purposeful.

Together these results seem to suggest that to the extent that the breakup is perceived as a threat to the self, it may motivate people to self-enhance to alleviate the perceived threat. By derogating their past self, they can perceive growth and decrease the extent to which they perceive loss of the self. Although I speculate that the data suggest

that following a breakup people first perceive threat from the breakup then self-enhance to reduce the perceived threat and loss, the present research cannot speak to causal pathways. It is possible that the derogation of past self may not be a result of threat. There is evidence that, in general, people are motivated to perceive personal improvement with time (e.g., Ross & Wilson, 2003). To ensure they perceive the current self as always improving they negatively evaluate their past selves (e.g., Wilson & Ross, 2001). However, given that we do not observe participants who remained in relationships derogating their past self to the same extent as those who experienced a breakup, it seems that it is likely the loss of the relationship that motivates the derogation of the past self.

The tendency to self-enhance following a threat to the self is also consistent with the adversity literature. Researchers have found that reports of growth or positive change in the self following a negative event were likely due to attempts to alleviate harm to the current self (e.g., Kross & Ayduk, 2011; McFarland & Alvaro, 2000; Wilson & Ross, 2001). Taylor and colleagues (e.g., Taylor & Armor, 1996; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000) suggest that people self-enhance following a negative event as a protective strategy allowing time to cope with the loss. It appears that following the dissolution of a relationship, people are engaging in the same protective strategy by maintaining a façade of growth until time passes and the breakup is less threatening to process the changes.

The second contribution of the present research to the literature is that it further elucidates the concerns associated with the assumption that reported or perceived change following adversity is equivalent to genuine transformation. Results from the present research suggest that relying solely on participants' retrospective evaluation of their

transformation following adversity does not appear to be wise. As argued by Tennen and Affleck (2009) as well as others (e.g., Davis 2008; Frazier et al., 2009; Jayawickreme & Blackie, 2014; McFarland & Alvaro, 2000), when asking participants to evaluate the change they have experienced, we are relying on them to engage in a number of cognitive processes. First, the participant has to evaluate retrospectively his or her standing on the target characteristic (e.g., “how self-assured was I?”), then he or she has to assess his or her current standing on the target characteristic (e.g., “how self-assured am I?”). Once the retrospective and current assessments have occurred, the participant has to calculate the difference between the past and present and evaluate the extent to which the change is attributed to the experience or other factors. Rather than engaging in the complete process, participants are likely providing a global evaluation of change. If participants are providing a global evaluation of change, there may be increased risk that their assessment of change is inaccurate. Indeed, when comparing perceptions of growth following a negative event to change in growth pre- to post-adversity (i.e., genuine growth), Frazier and colleagues (2009) found modest relation ($r = .22$) between perceived growth and genuine growth. If participants were accurately recalling aspects of their past selves, the correlation would be much higher. Given the inconsistency between perceived and genuine growth following adversity in past research, it is likely that the changes reported in the current study following breakup are also discrepant from genuine change.

Consistent with the argument that perceived changes in the self following adversity are not necessarily reflective of genuine change, the present research found evidence of a discrepancy between retrospective assessment of change and pre- to post-breakup change in two aspects of identity. Shortly after the breakup, although participants

reported change in self-assurance and concern for others since the breakup, I found no statistically significant genuine changes in these aspects. Without comparing changes in status in self-assurance and concern for others as the changes happened and with participants' retrospective evaluation of how they have changed, we would not be aware of the extent of bias in the perceived change. As scientists, we endeavor to understand accurately how people adapt following adversity, yet many researchers seem to take self-reports of change in aspects of the self at face value (e.g., Tedeschi & Calhoun, 2004). To the extent that these reports of change are accepted despite their inaccuracy, our understanding of the adjustment process may be distorted. Indeed, some researchers appear to assume that reports of growth indicate adjustment (e.g., Gangstad, Norman, & Barton, 2009; Phelps, Williams, Raichle, Turner, & Ehde, 2008) even though reports of growth are not consistently associated with standard indicators of psychological adjustment (e.g., Helgeson et al., 2006; see Park, 2010 for a review). Such reports might better be understood as a coping strategy rather than as an indicator of adjustment. By comparing changes experienced against the perception of change, we can achieve a greater understanding of how people cope with loss, and advance our understanding of what meaning should be ascribed to reports of change following adversity. Perceptions of positive changes following adversity are important as they have been associated with better well-being (Helgeson et al., 2006). The issue lies in the misinterpretation of the perceived changes as real transformations.

In addition to methodological implications, the discrepancy between perceived change and genuine change in aspects of identity also has clinical implications. In the present research, the discrepancy between perceived (i.e., retrospective assessment of

change) and genuine change (i.e., change pre- to post-breakup) following the loss of a relationship, suggests that individuals engage in a temporary coping mechanism to attenuate the threat of the loss. Immediately following the dissolution of the relationship, participants seem to react defensively to the loss by self-enhancing. Whereas such coping mechanisms may alleviate the threat temporarily, dismissing the loss immediately following the breakup may hinder the cognitive processing of the breakup needed to adapt to the loss. When the loss is not processed, it may prolong an individual's connection to their past relationship and this continued connection may be harmful. Indeed, there is evidence that maintaining a connection with a past relationship partner following the end of the relationship is associated with greater breakup distress (e.g., Mason et al., 2012; Valois, Novoa, & Davis, 2016). Given the methodological and clinical implications of the present research, it is important to understand when change is real and when it is not.

Limitations and Future Directions

Although the present research provides support for the self-expansion model and has methodological and clinical implications, it is necessary to discuss the potential caveats of the present research. First, similar to many longitudinal studies, a limitation of Study 3 was the degree of attrition where 33% of the sample dropped out of the study following Time 1. The attrition was not at random as individuals who dropped out of the study tended to report more unpleasant affect, depressive symptoms, and lower relationship satisfaction than those who completed follow-up sessions. The differences on these Time 1 variables between those who did and did not complete the subsequent sessions may be related to the small proportion of participants who experienced a

breakup. It is possible that the individuals who chose not to continue participating following the first session experienced a breakup. As it was mandatory for participants at Time 1 to be in a relationship, some who subsequently broke up may have believed they were no longer eligible for the study. Some also may have preferred not to continue with the study because they may have felt that it might be distressing to recall the loss. Consistent with this notion, it was noted that breakup sample was over-represented by those who had initiated the breakup (leaving under-represented those who were ‘dumped’).

The differences in depressive symptoms and mood between those who continued the study and those who did not may also explain why there were no statistically significant genuine changes in aspects of identity post-breakup when previous research has found evidence of self-concept clarity change following a breakup (e.g., Slotter et al., 2010). Because I was only able to retain 33 individuals who suffered a breakup in Study 3, it is possible that I did not have a large enough breakup sample to detect genuine changes following the loss of the relationship. Researchers interested in examining the effects of breakup prospectively should ensure that they recruit a large enough sample and/or enough assessments to increase their ability to detect an effect. Slotter and colleagues (2010) recruited participants in relationships and assessed them biweekly for 6 months. On average, participants in the study experienced a breakup approximately 3.5 months into the study. Given the restrictions of the psychology research pool at Carleton University, I was not able to collect participants beyond the 2 month period. I suspect that if I extended the length of the study that more participants would have experienced

relationship dissolution. Future research endeavoring to examine relationship dissolution prospectively should ensure that the time frame of the study is longer than 2 months.

Another limitation of the present research is that the results may not be generalizable to the general population, especially those who are married. The present research consisted of undergraduate students in non-marital relationships so it is unlikely the results are generalizable to the loss of marital relationships. The consequences following the end of a marriage are not limited to the disintegration of aspects of the past partner from the self but also include a division of assets and potential custody battles. As such, one should use caution when generalizing the results of a university sample to those in the general population currently in romantic relationships.

Given the findings that indicate a discrepancy between perceived and actual change in self-assurance future research would benefit from measuring retrospective ratings in addition to current ratings for the other aspects of identity and mood measures. For example, it would have been interesting to examine the potential discrepancy between perceived change in self-concept clarity and genuine change in self-concept clarity. To my knowledge, no studies have directly compared a retrospective assessment of change in self-concept clarity to genuine change in self-concept clarity following the loss of a relationship. Given that several researchers assessing change in the self following relationship dissolution have used self-concept clarity as the key aspect of the self, understanding any potential responding bias would be beneficial for the literature. In addition, it would be interesting to assess whether retrospective ratings of emotional outcomes differ from genuine ratings. There is evidence that people make errors when estimating how they will react to future events (e.g., affective forecasting error, for

review see Wilson & Gilbert, 2003; 2005). For instance, previous research has shown that people have a tendency to overestimate their level of distress following a breakup (Eastwick et al., 2008). It is conceivable that participants would make similar errors when they estimate retrospectively the state of their pre-breakup emotional well-being.

Finally, another potential caveat of the present research is that the studies were completed online. There is increasing concern that when participants complete online surveys, they are not attentive or accurate in their responses or they are likely to drop out of the study early. Indeed, there is evidence that when participants complete questionnaires carelessly or with insufficient effort, it is associated with increased missing data (e.g., Zhou & Fishbach, 2016) and unreliable means (e.g., Huang, Curran, Keeney, Poposki & DeShon, 2012). However, I utilized attention checks (e.g., instructing participants to leave the question blank) to help flag problematic responses for further inspection. Attention checks have been used in previous research (e.g., Huang et al., 2012) and although they can be successful in reducing unreliable data, they are not without flaws. Curran (2016) recommends that when using attention checks to keep them simple and include multiple checks. The present research used clear attention checks multiple times (with the exception of Study 1a where attention checks were not used) and when participants failed more than one check, their data were removed. When possible, it is important that future research incorporates these techniques when designing studies to ensure the reliability of data.

Although the present research is not without flaws, these studies advance both the relationship dissolution literature and the adversity literature by demonstrating support for the self-expansion model and by demonstrating the importance of assessing the

discrepancy between perceived and genuine change following adversity. Future research can expand on the present research beyond the suggestions noted above. First, it would be interesting for future research to examine what other aspects of the self are affected following the dissolution of a relationship. Although participants reported retrospective changes in self-assurance and concern for others, focusing on the changes in these two aspects may have been too narrow. It is possible that following the dissolution of a relationship, people exhibit more prominent changes in other aspects of identity. Future research could explore the additional aspects of identity that may be susceptible to change following relationship dissolution. For instance, researchers (e.g., Burkley, Curtis, Burkley, & Hatvany, 2015; Campbell et al., 2000; McAdams, 1996; 2001; 2008) argue that goals are an important aspect of one's identity. Goals may be an aspect of the self that may be affected by relationship dissolution. Indeed, a recent study (Gomillon, Murray, & Lamarch, 2015) found that when one's past partner was instrumental in goal progression during the relationship, the end of that relationship was associated with poorer goal progress in the future. The end of a relationship has the potential to affect many goals. Relationships open up the possibility of inclusion of new identities (e.g., becoming a parent or a spouse) and these, in turn, are potentially harmed when a relationship ends.

Finally, future research could examine other factors that may facilitate a perception of change in the self following relationship dissolution. The present research drew upon the bereavement literature to uncover factors that facilitated perceived change in aspects of identity. Drawing upon the adversity literature, another possible factor that may contribute to perceived identity change is whether an individual engages in

counterfactual thinking post-breakup. After the loss of a relationship, participants may think about what might have been if the relationship was successful. Some research has shown that making upward counterfactual comparisons (i.e., thinking the alternative is better than the reality) is associated with poorer well-being following adversity (e.g., Davis, Lehman, Wortman, Silver, & Thompson, 1995). Counterfactual thinking may also facilitate the perception of change in the self, as thinking about the better alternative may be threatening. When reflecting on what might have been, people who experience relationship dissolution may be mourning the loss of the life they could have had.

Conclusion

For young adults, relationships come and go. Previous research has demonstrated that following the loss of a romantic relationship, people report feeling heartache and feeling as though they have lost a piece of themselves. Fortunately, not everyone reports feeling such loss. The present research found evidence that after a breakup, individuals perceived a change in the self, even when no such changes have occurred. However, when individuals experience genuine changes it is associated with negative changes in mood. Furthermore, immediately following the loss of the relationship, participants appeared to engage in self-enhancement techniques (e.g., derogating pre-breakup self) possibly to alleviate the threat inherent to the breakup. People appear to react to the loss of a relationship defensively by perceiving they have changed for the better when they may not have necessarily changed at all. The present research advances the understanding of the perceived changes in aspects of identity of young adults as they transition into singlehood as well as advances methodological techniques in assessing such change. As researchers, it is important that we assess both perceived and genuine changes following

loss, if we rely solely on people's estimation of change following loss, we may be telling an incomplete story.

References

- Agnew, C. R., Van Lange, P. A. M., Rusbult, C. E., & Langston, C. A. (1998). Cognitive interdependence: Commitment and the mental representation of close relationships. *Journal of Personality and Social Psychology, 74*, 939-954.
- Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. *Journal of Research in Personality, 40*, 440-450.
doi:10.1016/j.jrp.2005.03.002
- Anderson, S. M., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review, 109*, 619-645. doi:10.1037//0033-295X.109.4.619
- Aron, A., & Aron, E. (1986). *Love and the expanding self: Understanding attraction and satisfaction*. New York, NY: Hemisphere.
- Aron, A., & Aron, E. (1996). Self and self-expansion in relationships. In G. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 325-344). Hillsdale, NJ: Lawrence Erlbaum.
- Aron, A., Aron, E. N., & Norman, C. (2001). Self-expansion model of motivation and cognition in close relationships and beyond. In G. J. O. Fletcher, & M. S. Clark (Eds.), *Handbook of Social Psychology: Interpersonal Processes* (pp. 478-501). Malden, Massachusetts: Blackwell Publishers.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology, 63*, 596-612.

- Aron, A., Aron, E., Tudor, M., & Nelson, G. (1991). Close relationships as including the self in other. *Journal of Personality and Social Psychology*, *60*, 241-253.
- Aron, A., Lewandowski, G. W., Jr., Mashek, D., & Aron, E. N. (2013). The self-expansion model of motivation and cognition in close relationships. In J. A. Simpson & L. Campbell (Eds.), *The Oxford handbook of close relationships*. New York, NY: Oxford University Press.
- Aron, A., Ketay, S., Riela, S., & Aron, E. (2008). How close others construct and reconstruct who we are and how we feel about ourselves. In J. V. Wood, A. Tesser, & J. G. Holmes (Eds.), *The Self and Social Relationships* (pp. 209-230). New York, NY: Psychology Press.
- Aron, A., Mashek, D., & Aron, E. N. (2004). Closeness as including other in the self. In D. Mashek & A. Aron (Eds.), *Handbook of closeness and intimacy* (pp. 27- 41). Mahwah, NJ: Erlbaum.
- Aron, A., & Nardone, N. (2012). Self and close relationships. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of Self and Identity*. (pp. 520-542). New York, NY: The Guilford Press.
- Aron, A., Paris, M., & Aron, E. N. (1995). Falling in love: Prospective studies of self-concept change. *Journal of Personality and Social Psychology*, *69*, 1102-1112.
- Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of Social Psychology* (4th ed., pp. 680-740). New York: McGraw-Hill.

- Berntsen, D., & Rubin, D. C. (2006). The centrality of event scale: A measure of integrating a trauma into one's identity and its relation to post-traumatic stress disorder symptoms. *Behaviour Research and Therapy, 44*, 219-231. doi:10.1016/j.brat.2005.01.009
- Berntsen, D., & Rubin, D. C. (2007). When trauma becomes a key to identity: Enhanced integration of trauma memories predicts posttraumatic stress disorder symptoms. *Applied Cognitive Psychology, 21*, 417-431. doi:10.1002/acp.1290
- Boals, A. (2010). Events that have become central to identity: Gender differences in the centrality of events scale for positive and negative events. *Applied Cognitive Psychology, 24*, 107-121. doi:10.1002/acp.1548
- Boelen, P. A. (2009). The centrality of a loss and its role in emotional problems among bereaved people. *Behaviour Research and Therapy, 47*, 616-622. doi:10.1016/j.brat.2009.03.009
- Boelen, P. A. (2012). Variables mediating the linkage between loss centrality and postloss psychopathology. *The Journal of Nervous and Mental Disease, 200*, 801-806. doi:10.1097/NMD.0b013e318266ba02
- Boelen, P. A., Keijsers, L., & van den Hout, M. A. (2012). The role of self-concept clarity in prolonged grief disorder. *The Journal of Nervous and Mental Disease, 200*, 56-62. doi:10.1097/NMD.0b013e31823e577f
- Boelen, P. A., & Reijnjes, A. (2009). Negative cognitions in emotional problems following romantic relationship break-ups. *Stress and Health, 25*, 11-19. doi:10.1002/smi.1219

- Boelen, P. A., & van de Hout, M. A. (2010). Inclusion of the other in the self and breakup-related grief following relationship dissolution. *Journal of Loss and Trauma, 15*, 534-547. doi: 10.1080/15325024.2010.519274
- Bluck, S. (2003). Autobiographical memory: Exploring its function in everyday life. *Memory, 11*, 113-124.
- Brewer, M. B., & Gardner, W. (1996). Who is this "we"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology, 71*, 83-93.
- Brewin, C. R., & Holmes, E. A. (2003). Psychological theories of posttraumatic stress disorder. *Clinical Psychology Review, 23*, 339-376. [http://doi.org/10.1016/S0272-7358\(03\)00033-3](http://doi.org/10.1016/S0272-7358(03)00033-3)
- Brooks, J. L. (Producer), & Crowe, C. (Director). (1996). *Jerry Maguire* [Motion Picture]. USA: Columbia Pictures.
- Campbell, J. D., Trapnell, P., Heine, S. J., Katz, I. M., Lavalley, & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*, 141-156.
- Campbell, J. D., Assanand, S., & Di Paula, A. (2000). Structural features of the self-concept and adjustment. In A. Tesser, R. B. Felson, & J. M. Suls (Eds.), *Psychological perspectives on the self and identity*. (pp. 67-87). Washington, DC, US: American Psychological Association.
- Carvalho, M., & Pelham, B. W. (2006). When fiends become friends: The need to belong and perceptions of personal and group discrimination. *Journal of Personality and Social Psychology, 90*, 94-108. doi: 10.1037/0022-3514.90.1.94

- Cassidy, C., & Trew, K. (2004). Identity change in Northern Ireland: A longitudinal study of students' transition to university. *Journal of Social Issues, 60*, 523-540.
- Cetera, P. (1976). If you leave me now [Recorded by Chicago]. On *Chicago X* [Casette] Columbia Records.
- Cheek, J. M., (1989). Identity orientations and self-interpretation. In D. M. Buss, & N. Cantor, *Personality psychology: Recent trends and emerging directions* (pp. 275-285). New York: Springer.
- Cheek, J. M., Smith, S. M., & Tropp, L. R. (2002, February). *Relational identity orientation: A fourth scale for the AIQ*. Paper presented at the meeting of the Society for Personality and Social Psychology, Savannah, GA.
- Chen, S., Boucher, H., & Kraus, M. (2011). The Relational Self. In Schwartz, Luyckx & Vignoles (Eds.), *Handbook of Identity Theory and Research*, Vol. I, (pp. 149-176). New York, NY: Springer.
- Chung, M. C., Farmer, S., Grant, K., Newton, R., Payne, S., Perry, M.,...Stone, N. (2002). Self-esteem, personality, and posttraumatic stress symptoms following the dissolution of a dating relationship. *Stress and Health, 18*, 83-90. doi: 10.1002/smi.929
- Curran, P. G. (2016). Methods for the detection of carelessly invalid responses in survey data. *Journal of Experimental Social Psychology, 66*, 4-19.
- Davis, C. G. (2008). Redefining goals and redefining self: A closer look at posttraumatic growth following loss. In M. S. Stroebe, R. O. Hansson, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement: 21st century perspectives* (pp. 309-325). Washington DC: American Psychological Association.

- Davis, C. G., & Morgan, M. S. (2008). Finding meaning, perceiving growth, and acceptance of tinnitus. *Rehabilitation Psychology, 53*, 128–138. doi: 10.1037/0090-5550.53.2.128
- Davis, C. G., & Novoa, D. C. (2013). Meaning-making following spinal cord injury: Individual differences and within-person change. *Rehabilitation Psychology, 58*, 166-177. <http://doi.org/10.1037/a0031554>
- Davis, C. G., Lehman, D. R., Wortman, C. B., Silver, R. C., & Thompson, S. C. (1995). The undoing of traumatic life events. *Personality and Social Psychology Bulletin, 21*, 109-124.
- Davis, C. G., Nolen-Hoeksema, S. & Larson, J. (1998). Making sense of loss and benefiting from the experience: Two construal of meaning. *Journal of Personality and Social Psychology, 75*, 561-574.
- Davis, C. G., Wortman, C. B., Lehman, D. R., & Silver, R. C. (2000). Searching for meaning in loss: Are clinical assumptions correct? *Death Studies, 24*, 497-540.
- Davis, C. G., Thake, J., Vilhena, N. (2010). Social desirability biases in self-reported alcohol consumption and harms. *Addictive Behaviors, 35*, 302-311. doi:10.1016/j.addbeh.2009.11.001
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575. doi:10.1037/0033-2909.95.3.542
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75. doi:10.1207/s15327752jpa4901_13

- Drigotas, S. M. (2002). The Michelangelo phenomenon and personal well-being. *Journal of Personality, 70*, 59-77.
- Drigotas, S. M., Rusbult, C. E., Wieselquist, J., & Whitton, S. (1999). Close partner as sculptor of the ideal self: Behavioral affirmation and the Michelangelo phenomenon. *Journal of Personality and Social Psychology, 77*, 293-323.
- Eastwick, P. W., Finkel, E. J., Krishnamurti, T., & Loewenstein, G. (2008). Mispredicting distress following romantic breakup: Revealing the time course of the affective forecasting error. *Journal of Experimental Social Psychology, 44*, 800-807. doi: 10.1016/j.jesp.2007.07.001
- Fabrigar, L. R., Wegener, D. T., MacCullum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4*, 272-299.
- Fagundes, C. P. (2011). Implicit negative evaluations about ex-partner predicts break-up adjustment: The brighter side of dark cognitions. *Cognition and Emotion, 25*, 164-173. doi: 10.1080/09602011003683976
- Field, T., Diego, M., Pelaez, M., Deeds, O., & Delgado, J. (2009). Breakup distress in university students. *Adolescence, 44*, 705-727.
- Frazier, P. A., & Cook, S. (1993). Correlates of following heterosexual relationship dissolution. *Journal of Social and Personal Relationships, 10*, 55-67.
- Frazier, P. A., Tennen, H., Gavian, M., Park, C., Tomich, P., & Tashiro, T. (2009). Does self-reported posttraumatic growth reflect genuine positive change? *Psychological Science, 20*, 912-919.

- Gaertner, L., Sedikides, C., Luke, M., O'Mara, E. M., Iuzzini, J., Jackson, L. E., Cai, H., & Wu, Q. (2012). A motivational hierarchy within: Primacy of the individual self, relational self, or collective self? *Journal of Experimental Psychology, 48*, 997-1013. doi: 10.1016/j.jesp.2012.03.009
- Gangstad, B., Norman, P., & Barton, J. (2009). Cognitive processing and posttraumatic growth after stroke. *Rehabilitation Psychology, 54*, 69–75.
<http://doi.org/10.1037/a0014639>
- Gecas, V. (1982). The self-concept. *Annual Review of Sociology, 8*, 1-33.
- Gillies, J. & Neimeyer, R. A. (2006). Loss, grief, and the search for significance: Toward a model of meaning reconstruction in bereavement. *Journal of Constructivist Psychology, 19*, 31-65. doi: 10.1080/10720530500311182
- Hatchett, G. T., & Park, H. L. (2004). Relationships among optimism, coping styles, psychopathology, and counseling outcome. *Personality and Individual Differences, 36*, 1755-1769. doi: 10.1016/j.paid.2003.07.014
- Hartley, W. S. (1970). *Manual for the twenty statements problem*. Kansas City, MO: Greater Kansas City Mental Health Foundation.
- Heatherton, T. F., & Nichols, P. A. (1994). Personal accounts of successful versus failed attempts at life change. *Personality and Social Psychology Bulletin, 20*, 664-675.
doi: 10.1177/0146167294206005
- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology, 60*, 895-910.

- Helgeson, V. S. (1994). Long-distance romantic relationships: Sex differences in adjustment and breakup. *Personality and Social Psychology Bulletin*, *20*, 254-265. doi:10.1177/0146167294203003
- Helgeson, V. S., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth. *Journal of Consulting and Clinical Psychology*, *74*, 797-816. doi:10.1037/0022-006X.74.5.797
- Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology*, *27*, 99-114.
- James, W. (1950). *Principles of psychology*. New York: Dover. [Originally published in 1890.]
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: Free Press.
- Jayawickreme, E., & Blackie, L. (2014). Posttraumatic growth as positive personality change: Evidence, controversies and future directions. *European Journal of Personality*, *331*, 312-331.
- Konrath, S., Bushman, B. J., & Grove, T. (2009). Seeing my world in a million little pieces: Narcissism, self-construal, and cognitive-perceptual style. *Journal of Personality*, *77*, 1197-1228. doi: 10.1111/j.1467-6494.2009.00579.x
- Kross, E., & Ayduk O. (2011). Meaning making out of negative experiences by self-distancing. *Current Directions in Psychological Science*, *20*, 187-191. doi:10.1177/0963721411408883

Lepore, S. J., & Greenberg, M. A. (2002). Mending broken hearts: Effects of expressive writing on mood cognitive processing, social adjustment, and health following a relationship breakup. *Psychology and Health, 17*, 547-560. doi:

10.1080/08870440290025768

Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2012). *Individual differences in the need to belong: Mapping the nomological network*.

Unpublished manuscript, Duke University. retrieved from

<http://www.duke.edu/~leary/scales.html#ntb>

Lewandowski, G.W. (2009). Promoting positive emotions following relationship dissolution through writing. *The Journal of Positive Psychology, 4*, 21-31.

doi:10.1080/17439760802068480

Lewandowski, G. W., & Bizzoco, N. M. (2007). Addition through subtraction: Growth following the dissolution of a low quality relationship. *Journal of Positive Psychology, 2*, 40-54. doi: 10.1080/17439760601069234

doi: 10.1080/17439760601069234

Lewandowski, G. W., Aron, A., Bassis, S., & Kunak, J. (2006). Losing a self-expanding relationship: Implications for the self-concept. *Personal Relationships, 13*, 317-331.

Linville, P. W. (1985). Self-complexity and affective extremity: Don't put all your eggs in one cognitive basket, *Social Cognition, 3*, 94-120. doi: 10.1521/soco.1985.3.1.94

Lydon, J., Pierce, T., & O'Regan, S. (1997). Coping with moral commitment to long-distance dating relationships. *Journal of Personality and Social Psychology, 73*, 104-113.

Mason, A. E., Law, R. W., Bryan, A. E. B., Portley, R. M., & Sbarra, D. A. (2012).

Facing a breakup: Electromyographic responses moderate self-concept recovery following romantic separation. *Personal Relationships, 19*, 551-568. doi: 10.1111/j.1475-6811.2011.01378.x

Mashek, D. J., Aron, A., Boncimino M. (2003). Confusions of self with close others.

Personality and Social Psychology Bulletin, 29, 382–392. doi: 10.1177/0146167202250220

Markus, H., & Kunda, Z. (1986). Stability and malleability of the self-concept. *Journal of Personality and Social Psychology, 51*, 858-866.

McAdams, D. P. (1996). Personality, modernity, and the storied self: A contemporary framework for studying persons. *Psychological Inquiry, 7*, 295-321.

McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology, 5*, 100-122.

McAdams, D. P. (2008). Personal narratives and the life story. In O. P. John, R. W.

Robins, & L. A. Pervin (Eds.), *Handbook of Personality: Theory and Research* (pp. 242-262). New York, NY: The Guilford Press.

McAdams, D. P., Anyidoho, N. A., Brown, C., Huang, Y. T., Kaplan, B., & Machado, M.

A. (2004). Traits and stories: Links between dispositional and narrative features of personality. *Journal of Personality, 72*, 762-783. doi: 10.1111/j.0022-3506.2004.00279.x

McAdams, D. P., & Pals, J. L. (2006). A new big five: Fundamental principles for an integrative science of personality. *American Psychologist, 61*, 204-217.

doi:10.1037/0003-066X.61.3.204

- McFarland, C., & Alvaro, C. (2000). The impact of motivation on temporal comparisons: Coping with traumatic events by perceiving personal growth. *Journal of Personality and Social Psychology, 79*, 327-343. doi:10.1037/0022-3514.79.3.327
- Montpetit, M. A., Bergeman, C. S., & Bisconti, T. L. (2010). The self-concept and conjugal loss: Evidence for structural change. *Death Studies, 34*, 606-624. doi:10.1080/07481187.2010.495522
- Neimeyer, R. A., Baldwin, S. A., and Gillies, J. (2006). Continuing bonds and reconstructing meaning: Mitigating complications in bereavement. *Death Studies, 30*, 715-738. doi:10.1080/07481180600848322
- Oyserman, D., Elmore, K., Smith, G. (2012). Self, self-concept, and identity. In M. R. Leary and J. P. Tangey (Eds.), *Handbook of self and identity* (pp. 69-104). New York, NY: Guilford Press.
- Pals, J. L. (2006). Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of Personality, 74*, 1079-1109. doi: 10.1111/j.1467-6494.2006.00403.x
- Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful events. *Psychological Bulletin, 136*, 257-301. doi: 10.1037/a0018301
- Park, C. L., Cohen, L. H., & Murch, R. L. (1996). Assessment and prediction of stress-related growth. *Journal of Personality, 64*, 71-105. doi: 10.1111/j.1467-6494.1996.tb00815.x

- Park, C. L., Zlateva, I., Blank, T. O. (2009). Self-identity after cancer: “Survivor”, “victim”, “patient”, and “person with cancer.” *Journal of General Internal Medicine*, 24, 430-435.
- Paulhus, D. L. (1998). *Manual for the Balanced Inventory of Desirable Responding: Version 7*. Toronto/Buffalo: Multi-Health Systems.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8, 162-166.
- Phelps, L., Williams, R., Raichle, K., Turner, A., & Ehde, D. (2008). The importance of cognitive processing to adjustment in the 1st year following amputation. *Rehabilitation Psychology*, 53, 28-38. <http://doi.org/10.1037/0090-5550.53.1.28>
- Radloff, L. (1977). The CES-D scale: a self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Newbury Park, CA: Sage.
- Rhoades, G. K., Kamp Dush, C. M., Atkins, D. C., Stanley, S. M., & Markman, H. J. (2011). Breaking up is hard to do: The impact of unmarried relationships dissolution on mental health and life satisfaction. *Journal of Family Psychology*, 25, 366-374. doi:10.1037/a0023627
- Robins, R. W., & Beer, J. S. (2001). Positive illusions about the self: Short-term benefits and long-term costs. *Journal of Personality and Social Psychology*, 80, 340-352. doi:10.1037//0022-3514.80.2.340
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton: Princeton University Press.

- Ross, M., & Wilson, A. E. (2003). Autobiographical memory and conceptions of self: Getting better all the time. *Current Directions in Psychological Science, 12*, 66-69.
- Rusbult, C. E., Finkel, E. J., & Kumashiro, M. (2009). The Michelangelo phenomenon. *Current Directions in Psychological Science, 18*, 305-309. doi:10.1111/j.1467-8721.2009.01657.x
- Rusbult, C. E., Kumashiro, M., Kubacka, K. E., & Finkel, E. J. (2009). "The part of me that you bring out": Ideal similarity and the Michelangelo phenomenon. *Journal of Personality and Social Psychology, 96*, 61-82. doi: 10.1037/a0014016
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The investment model scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 357-391. doi: 10.1111/j.1475-6811.1998.tb00177.x
- Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology, 39*, 1161-1178.
- Sbarra, D. A., & Emery, R. E. (2005). The emotional sequelae of nonmarital relationship dissolution: Analysis of change and intraindividual variability over time. *Personal Relationships, 12*, 213-232. doi: 10.1111/j.1350-4126.2005.00112.x
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology, 67*, 1063-1078.

- Schuetter, D., & Boals, A. (2011). The path to posttraumatic growth versus posttraumatic stress disorder: Contributions of event centrality and coping. *Journal of Loss and Trauma, 16*, 180-194. doi: 10.1080/15325024.2010.519273
- Schultz, L. E. (2007). The influence of maternal loss on young women's experience of identity development in emerging adulthood. *Death Studies, 31*, 17-43.
doi:10.1080/07481180600925401
- Slotter, E. B., & Gardner, W. L. (2009). Where do "you" end and "I" begin? Pre-emptive self-other inclusion as a motivated process. *Journal of Personality and Social Psychology, 96*, 1137-1151. doi: 10.1037/a0013882
- Slotter, E. B., & Gardner, W. L. (2011). How needing you changes me: The influence of attachment anxiety on self-concept malleability in romantic relationships. *Self and Identity, 11*, 386-408. doi: 10.1080/15298868.2011.591538
- Slotter, E. B., Gardner, W. L., & Finkel, E. J. (2010). Who am I without you? The influence of romantic breakup on the self concept. *Personality and Social Psychology Bulletin, 36*, 147-160. doi:10.1177/0146167209352250
- Slotter, E. B. & Lucas, G. M. (2012). Validating a measure of self and partner change in romantic relationships: The perceived change in relationships scale. *Self and Identity, 12*, 177-185. doi: 10.1080/15298868.2011.649860
- Tashiro, T. & Frazier, P. (2003). I'll never be in a relationship like that again: Personal growth following romantic relationship breakup. *Personal Relationships, 10*, 113-128. doi: 10.1111/1475-6811.00039

- Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress, 9*, 455-471. doi:10.1007/BF02103658
- Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry, 15*, 1-18. doi:10.1207/s15327965pli1501_01
- Tennen, H., & Affleck, G. (2009). Assessing positive life changes: In search of meticulous methods. In C. L. Park, S. C. Lechner, M. H. Antoni, & A. L. Stanton (Eds.), *Medical illness and positive life change: Can crisis lead to personal transformation?* (pp. 31-49). Washington, DC, US: American Psychological Association.
- Trapnell, P. D., & Paulhus, D. L. (2012). Agentic and communal values: Their scope and measurement. *Journal of Personality Assessment, 94*, 39-52. doi: 10.1080/00223891.2011.627968
- Valois, D. D., Novoa, D. C., & Davis, C. G. (2016) Since you've been gone: Coping with a relationship breakup. *Journal of International Relations, Intergroup Relations and Identity, 9*, 10-22.
- Velicer, W. F., & Jackson, D. N. (1990). Component analysis versus common factor analysis: Some issues in selecting an appropriate procedure. *Multivariate Behavioral Research, 25*, 1-28.

- Walker, W. R., Skowronski, J. J., Gibbons, J. A., Vogl, R. J., & Thompson, C. P. (2003). On the emotions that accompany autobiographical memories: Dysphoria disrupts the fading affect bias. *Cognition & Emotion, 17*, 703-723. doi: 10.1080/02699930302287
- Wilson, A. E., & Ross, M. (2001). From chump to champ: People's appraisals of their earlier and present selves. *Journal of Personality and Social Psychology, 80*, 572-584. doi:10.1037/0022-3514.80.4.572
- Wilson, A. E., & Ross, M. (2003). The identity function of autobiographical memory: Time is on our side. *Memory, 11*, 37-149. doi: 10.1080/741938210
- Wilson, T. D., & Gilbert, D. T. (2003). Affective forecasting. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 345-411). New York: Elsevier.
- Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting: Knowing what to want. *Current Directions in Psychological Science, 14*, 131-134.
- Worthington, R. L., & Wittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist, 34*, 806-838. doi: 10.1177/0011000006288127
- Wortman, C. B. (2004). Posttraumatic growth: Progress and problems. *Psychological Inquiry, 15*, 81-89.
- Zhou, H., & Fishbach, A. (2016). The pitfall of experimenting on the Web: How unattended selective attrition leads to surprising (yet false) research conclusions. *Journal of Personality and Social Psychology, 1-12*.

Table 1. Correlation among Factors in Principal Factor Analysis (Study 1a)

	1	2	3
1. Factor 1	-		
2. Factor 2	-.32	-	
3. Factor 3	.24	-.08	-

Table 2. *Results of Principal Axis Factor EFA – 3 factor structure (Study 1a)*

	Factor 1	Factor 2	Factor 3
13. My relationships are extremely important to me.	.73	-.12	
25. I invest a great deal of time in my relationships with others.	.66		
15. Being a good friend to those I care about is really important to me.	.65	-.11	
12. I have a great deal of compassion or empathy for people.	.61		
27. I understand the true thoughts and feelings of my close friend(s) or romantic partner.	.58		.20
14. Having my actions reflect who I am and what I believe in is very important to me	.54	-.13	.24
21. It is really important that my relationships are mutually satisfying.	.51		.13
31. I connect well with others.	.51	-.34	.22
22. I enjoy connecting with people on an intimate level.	.47		.12
28. I do not have close bonds with other people.	-.47	.36	.12
5. I know that I can count on friends and/or family.	.42	.38	
7. I am able to see things from other people's point of view.	.31		.16
29. My faith in the goodness of people is unshakeable.	.27	-.18	.11
16. At times I wonder about my worth as a person		.66	
6. My life lacks purpose or meaning.	-.26	.60	-.16
17. On the whole I am satisfied with who I am.	.17	-.59	.41
10. I have difficulty dealing with my fears and anxieties.		.58	-.12
24. I am pessimistic about my future.	-.16	.54	-.11
3. Bad things always seem to happen to me.		.52	
26. I think a lot about how much time I have left in my life.		.45	.20
11. I really know who I am.	.18	-.43	.43
8. I don't believe the world is a safe place.		.42	.17
1. I am enthusiastic about my life.	.27	-.36	.36
18. I rarely step out of my comfort zone.	-.13	.35	
2. I am not a courageous person.	-.11	.28	
34. It's easy for me to trust others	.17	-.23	
30. I am highly motivated and ambitious to get what I want out of life.	.28	-.32	.58
33. I am resilient; nothing can knock me down.		-.33	.51
4. I have high hopes for my future.	.36	-.31	.42
9. I don't depend on anyone.	-.20	.18	.37
20. My happiness is most important to me.			.36
23. I am more mature than my peers.	.20	.13	.35
19. I truly believe that people get what they deserve.			.35
32. I firmly believe that everything happens for a reason.	.33		.35

Note. Loadings in boldface font indicate meeting criteria of .40+ loading and item did not double load on both factors. Grey toned items indicate the items that were subsequently eliminated.

Table 3. *Results of Principal Axis Factor Exploratory Factor Analysis – 2 factor structure (Study 1a)*

	Factor 1	Factor 2
13. My relationships are extremely important to me.	.71	
25. I invest a great deal of time in my relationships with others.	.67	
15. Being a good friend to those I care about is really important to me.	.63	
27. I understand the true thoughts and feelings of my close friend(s) or romantic partner.	.61	-.14
12. I have a great deal of compassion or empathy for people.	.61	
14. Having my actions reflect who I am and what I believe in is very important to me	.58	-.18
21. It is really important that my relationships are mutually satisfying.	.54	
31. I connect well with others.	.50	-.33
22. I enjoy connecting with people on an intimate level.	.50	
17. On the whole I am satisfied with who I am.	.25	-.68
16. At times I wonder about my worth as a person		.65
6. My life lacks purpose or meaning.	-.27	.62
10. I have difficulty dealing with my fears and anxieties.		.59
11. I really know who I am.	.27	-.55
24. I am pessimistic about my future.	-.16	.53
3. Bad things always seem to happen to me.		.50
30. I am highly motivated and ambitious to get what I want out of life.	.36	-.43
33. I am resilient; nothing can knock me down.	.11	-.42
26. I think a lot about how much time I have left in my life.		.36
8. I don't believe the world is a safe place.		.34

Note. Loadings in boldface font indicate meeting criteria of .40+ loading and item did not double load on both factors. Grey toned items indicate the items that were subsequently eliminated.

Table 4. *Convergent and Discriminate Validity of SACO Scale (Study 1a and 1b)*

	Concern for Others	Self-Assurance
Study 1a (N = 1397)		
Self-Concept Clarity	.26**	.67**
Self-Deception	.29**	.42**
Impression Management	.29**	.29**
Study 1b (N = 134)		
Agentic Values	.05	.27**
Communal Values	.46**	.09
Narcissism	.05	.45**
Need to belong	.16[†]	-.30**
Optimism	.33**	.72**

Note. [†] < .06, * $p < .05$, ** $p < .01$.

Table 5. *Means and Standard Deviations of Well-being, Identity and Meaning-Making and Centrality (Study 2)*

	Mean (SD)
Life Satisfaction	4.88 (1.09)
Performance Self-Esteem	3.57 (.70)
Social Self-Esteem	3.36 (.73)
Appearance Self-Esteem	3.29 (.82)
Concern for others (Current)	3.92 (.73)
Concern for others (Retro)	3.94 (.73)
Self-assurance (Current)	3.50 (.85)
Self-assurance (Retro)	3.73 (.75)
Self-Concept Clarity	2.98 (.77)
Loss of Self	2.65 (1.55)
Rediscovery of Self	3.95 (1.47)
Searching for meaning	2.31 (1.47)
Finding meaning	3.37 (1.29)
Centrality	3.26 (1.61)

Table 6. *Intercorrelations among Changes in Identity Measures (Study 2)*

	1	2	3	4	5	6	7
1. Concern for Others (Today)	-						
2. Concern for Others (Retro)	.67**	-					
3. Self-Assurance (Today)	.40**	.12	-				
4. Self-Assurance (Retro)	.16	.29**	.46**	-			
5. Self-Concept Clarity	.26*	.18 [†]	.66**	.47**	-		
6. Rediscovery of Self	-.05	-.12	.21*	-.12	.002	-	
7. Loss of Self	-.34**	.02	-.70**	.13	-.50**	-.20*	-

Note. [†] < .10, * $p < .05$, ** $p < .01$

Table 7. *Relation of Identity Change and Well-being (Study 2)*

	Life Satisfaction	Performance Self-esteem	Social Self-esteem	Appearance Self-esteem
Concern for Others (Today) ^a	.36**	.28**	.18 [†]	.41**
Self-Assurance (Today) ^a	.62**	.56**	.52**	.56**
Self-Concept Clarity	.53**	.55**	.56**	.46**
Rediscovery of Self	.003	.07	.09	.15
Loss of Self	-.50**	-.42**	-.39**	-.44**

Note. ^a The relation of self-assurance and concern for others (current ratings) with well-being controlled for past ratings of self-assurance or concern for others via partial correlation. [†] < .08, * $p < .05$, ** $p < .01$.

Table 8. *Relation of Meaning Making and Centrality with Identity Change (Study 2)*

	Self- Assurance (Today)	Concern for Others (Today)	Self- Concept Clarity	Rediscovery of Self	Loss of Self
Searching for meaning	-.36**	-.03	-.10	-.37**	.59**
Finding meaning	.01	-.11	-.04	.12	-.09
Centrality	-.39**	-.17	-.30**	.07	.66**

Note. * $p < .05$, ** $p < .01$.

Table 9. Summary of Regression Analyses for Variables Predicting Identity Change (Study 2, N = 100)

	Self-Assurance (Today)		Concern for Others (Today)		Self-Concept Clarity		Rediscovery of Self		Loss of Self	
	B	p	B	p	B	p	B	p	B	p
Self-Assurance (retro)	.52**	<.001	-	-	-	-	-	-	-	-
Concern for Others (retro)	-	-	.67**	<.001	-	-	-	-	-	-
Searching for meaning	-.16*	.005	-.03	.46	.04	.48	-.46**	<.001	.35**	<.001
Finding meaning	-.01	.84	-.03	.48	-.04	.54	.10	.36	-.02	.76
Centrality	-.11*	.03	-.08*	.05	-.17**	.003	.16	.12	.46**	<.001

Note. The overall model predicting identity measures were significant $p < .05$ (R^2 range .10 to .51). † $p < .06$, * $p < .05$, ** $p < .01$.

Table 10. Summary of Regression Analyses for Variables Predicting Identity Change (Study 2, N = 100)

	Self-Assurance (Today)		Concern for Others (Today)		Self-Concept Clarity		Rediscovery of Self		Loss of Self	
	B	p	B	p	B	p	B	p	B	p
Self-Assurance (retro)	.52**	<.001	-	-	-	-	-	-	-	-
Concern for Others (retro)	-	-	.69**	<.001	-	-	-	-	-	-
Searching for meaning	-.13	.10	.01	.82	-.01	.89	-.23	.16	.28	.03
Found meaning	-.003	.96	-0.08	.12	.13 [†]	.07	.15	.26	.003	.98
Centrality	.03	.70	-.06	.31	-.02	.76	.29	.04	.23	.047
Initiator (Partner)	-.24	.15	-.01	.92	.09	.62	-.12	.72	.19	.49
Expected	-.05	.36	-.02	.60	-.14*	.02	-.19	.10	.07	.41
Months since	-.07	.14	-.04	.35	-.01	.88	.001	.99	.13 [†]	.09
Local (1)	-.45*	.04	-.14	.39	.06	.79	-.73 [†]	.09	.21	.53
Surprised	-.04	.43	-.05	.19	-.04	.46	-.12	.26	.01	.90
Upsetting	.08	.45	.05	.58	-.16	.15	-.09	.68	.04	.84
Intensity	-.08	.35	-.05	.48	.09	.31	.02	.90	-.05	.73
Over it	.10	.10	.06	.17	.03	.67	.18	.13	-.13	.19
Regret	-.13*	.02	-.12**	.005	-.03	.62	-.11	.33	.27	.003
Think about	.09	.19	.08	.17	.05	.48	-.01	.95	-.07	.56
Change in Self	-.12	.19	.09	.22	-.26	.008	.10	.58	.13	.37

Note. The overall models predicting identity measures were significant $p < .05$ (R^2 range .28 to .63).

Table 11. *Means and Standard Deviations of Mood, Identity and Meaning-Making and Centrality (Study 3)*

	Time 1 Mean (SD)	Time 2 Mean (SD)	Time 3 Mean (SD)	Time 4 Mean (SD)
Pleasant Affect ^a	3.34 (.64)	3.29 (.74)	3.30 (.77)	3.22 (.80)
Unpleasant Affect ^a	1.96 (.61)	1.92 (.69)	1.86 (.67)	1.89 (.73)
Depressive Symptoms ^a	15.07 (9.31)	15.33 (10.57)	15.12 (10.81)	15.29 (11.46)
Concern for others (Current) ^a	4.28 (.60)	4.22 (.57)	4.22 (.63)	4.23 (.63)
Concern for others (Retro) ^a		4.15 (.63)	4.19 (.63)	4.12 (.71)
Self-assurance (Current) ^a	3.66 (.75)	3.65 (.78)	3.70 (.82)	3.66 (.81)
Self-assurance (Retro) ^a		3.58 (.80)	3.64 (.81)	3.58 (.85)
Self-Concept Clarity ^a	3.18 (.77)	3.21 (.85)	3.28 (.89)	3.32 (.87)
Relationship Satisfaction ^b	6.67 (1.45)	6.69 (1.43)	6.63 (1.53)	6.68 (1.54)
Loss of Self ^c		2.81 (1.71)	2.61 (1.44)	2.14 (1.29)
Rediscovery of Self ^c		2.98 (1.46)	3.74 (2.07)	4.03 (1.95)
Searching for meaning ^c		3.28 (1.41)	2.64 (1.50)	2.58 (1.50)
Finding meaning ^c		3.44 (1.20)	3.73 (1.62)	3.42 (1.54)
Centrality ^c		2.82 (1.70)	3.23 (1.93)	3.38 (1.95)

Note. ^a Means and standard deviations based on whole sample, Time 1 $N = 330$, Time 2 $N = 295$, Time 3 $N = 251$, Time 4 $N = 243$. ^b Means and standard deviations for relationship sample who completed relationship satisfaction, Time 1 $n = 327$, Time 2 $n = 273$, Time 3 $n = 229$, Time 4 $n = 219$. ^c Means and standard deviations based on breakup sample, Time 2 $n = 18$, Time 3 $n = 11$, Time 4 $n = 19$.

Table 12. *List of Level 1 and Level 2 variables in Study 3*

Study 3 Variables	Level
Identity	
Concern for others (current & retrospective ratings)	1 (within person)
Self-Assurance (current & retrospective ratings)	1 (within person)
Self-Concept Clarity	1 (within person)
Δ Concern for others (absolute change)	1 (within person)
Δ Self-Assurance (absolute change)	1 (within person)
Δ Self-Concept Clarity (absolute change)	1 (within person)
Mood	
Pleasant Affect	1 (within person)
Unpleasant Affect	1 (within person)
Depressive Symptoms	1 (within person)
Time and Breakup	
Time (session)	1 (within person)
Immediate effect of Breakup	1 (within person)
Residual effect of Breakup	1 (within person)
Level 2	
Breakup (Yes/No)	2 (between persons)
Gender ^a	2 (between persons)
Age	2 (between persons) covariate
Term of Study (Fall/Winter)	2 (between persons) covariate

Note. ^a Gender variable not included in HLM models because number of men who broke up during the study too small.

Table 13a. *Correlations among Identity Measures across Entire Sample at Time 1 (Study 3, N = 330)*

	1	2	3
1. Concern for Others	-		
2. Self-assurance	.33**	-	
3. Self-Concept Clarity	.35**	.71**	-

Note. * $p < .05$. ** $p < .01$.

Table 13b. *Correlations among Identity Measures across Entire Sample at Time 2 (Study 3, N = 295)*

	1	2	3	4	5
1. Concern for Others (Today)	-				
2. Concern for Others (Retro)	.84**	-			
3. Self-assurance (Today)	.33**	.28**	-		
4. Self-assurance (Retro)	.18**	.34**	.74**	-	
5. Self-Concept Clarity	.42**	.41**	.70**	.63**	-

Note. * $p < .05$. ** $p < .01$.

Table 13c. *Correlations among Identity Measures across Entire Sample at Time 3 (Study 3, N = 251)*

	1	2	3	4	5
1. Concern for Others (Today)	-				
2. Concern for Others (Retro)	.78**	-			
3. Self-assurance (Today)	.39**	.21**	-		
4. Self-assurance (Retro)	.22**	.33**	.69**	-	
5. Self-Concept Clarity	.44**	.36**	.72**	.65**	-

Note. * $p < .05$. ** $p < .01$.

Table 13d. *Correlations among Identity Measures across Entire Sample at Time 4 (Study 3, N = 243)*

	1	2	3	4	5
1. Concern for Others (Today)	-				
2. Concern for Others (Retro)	.79**	-			
3. Self-assurance (Today)	.38**	.26**	-		
4. Self-assurance (Retro)	.25**	.45**	.67**	-	
5. Self-Concept Clarity	.37**	.34**	.70**	.58**	-

Note. * $p < .05$. ** $p < .01$.

Table 14. *Correlations of Rediscovery and Loss of Self with Other Identity Measures Breakup Sample Only Session Immediately Following Breakup (Study 3, n = 32)*

	1	2	3	4	5	6	7
1. Concern for Others (Today)	-						
2. Concern for Others (Retro)	.63**	-					
3. Self-assurance (Today)	.30 [†]	.10	-				
4. Self-assurance (Retro)	.13	.37*	.33 [†]	-			
5. Self-Concept Clarity	.44*	.51**	.52**	.61**	-		
6. Rediscovery of Self	.02	.01	.33 [†]	-.30	-.05	-	
7. Loss of Self	.03	.37*	-.55**	.15	-.25	-.24	-

Note. [†] $p < .10$. * $p < .05$, ** $p < .01$.

Table 15. *Summary of Intraclass Correlations (ICC) for Outcome Variables(Study 3)*

Variance (intercept only)	PL	UNPL	DEP	CO today	CO retro	SA today	SA retro	SCC
Level 1 (within person)	.25	.21	48.04	.11	.09	.14	.12	.11
Level 2 (between person)	.29	.23	61.76	.26	.35	.47	.56	.60
ICC	.53	.52	.56	.70	.80	.77	.83	.85

Note. PL = Pleasant affect, UNPL = Unpleasant affect, DEP = Depressive symptoms, SCC = Self-concept clarity. CO = concern for others, SA = self-assurance. Today = current ratings, Retro = retrospective rating of Time 1.

Table 16. *Multilevel Models Predicting Current Concern for Others, Self-Assurance, and Self-Concept Clarity From Immediate and Residual Effects of Breakup: Within-Person Effects (Study 3)*

Predictors	Concern for Others (Today)			Self-Assurance (Today)			Self-Concept Clarity		
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>
Constant	4.23	.03	141.23**	3.66	.04	92.28**	3.23	.04	73.67**
Time	-.03	.01	-2.81**	.01	.01	.59	.04	.01	4.18*
Immediate effect of break up	-.04	.07	-.54	-.05	.09	-.59	-.09	.08	-1.24
Residual effect of breakup	-.08	.10	-.86	-.14	.11	-1.24	.05	.10	.52

Note. Table presents three models: effects of breakup (immediate and residual) on Concern for others, Self-assurance, and Self-concept clarity. Degrees of freedom for Level 1 effects = 767 (Concern for others model), 765 (Self-assurance model), 763 (Self-concept clarity model); for Level 2 $df = 327$ (all models). Level 1 predictor time is person mean centered (group mean centered), effects of breakup (immediate and residual) uncentered. No predictors at Level 2. * $p < .05$. ** $p < .01$.

Table 17. *Multilevel Models Predicting Retrospective Concern for Others, and Self-Assurance From Immediate and Residual Effects of Breakup: Within-Person Effects (Study 3)*

Predictors	Concern for Others (Retro)			Self-Assurance (Retro)		
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>
Constant	4.15	.04	117.91**	3.61	.04	81.26**
Time	-.03	.01	-2.38*	.02	.02	1.09
Immediate effect of break up	-.16	.09	-1.80 [†]	-.32	.10	-3.05**
Residual effect of breakup	-.17	.11	-1.47	-.41	.13	-3.10**

Note. Table presents two models: effects of breakup (immediate and residual) on retrospective ratings of Time 1 Concern for others and Self-assurance. Degrees of freedom for Level 1 effects = 434 (Concern for others model), 433 (Self-assurance model); for Level 2 $df = 325$ (all models). Level 1 predictor time is person mean centered (group mean centered), effects of breakup (immediate and residual) uncentered. No predictors at Level 2. [†] $p = .07$, * $p < .05$. ** $p < .01$.

Table 18. *Multilevel Models Predicting Pleasant Affect, Unpleasant Affect, and Depressive Symptoms From Immediate and Residual Effects of Breakup: Within-Person Effects (Study 3)*

Predictors	Pleasant Affect			Unpleasant Affect			Depressive Symptoms		
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>
Constant	3.31	.03	98.88**	1.91	.03	63.00**	15.13	.48	31.24**
Time	-.03	.01	-2.19*	-.02	.01	-1.86 [†]	.17	.20	.86
Immediate effects of breakup	-.38	.11	-3.56*	.36	.10	3.63**	5.71	1.49	3.83**
Residual effects of breakup	-.13	.14	-.96	.04	.12	-.29	-.20	1.90	-.11

Note. Table presents three models: effects of breakup (immediate and residual) on Pleasant affect, Unpleasant affect, Depressive symptoms. Degrees of freedom for Level 1 effects = 780 (Pleasant Affect model), 778 (Unpleasant Affect model), 773 (Depressive Symptoms model); for Level 2 $df = 327$ (all models). Level 1 predictor time is person mean centered (group mean centered), effects of breakup (immediate and residual) uncentered. No predictors at Level 2. [†] $p = .06$, * $p < .05$. ** $p < .01$.

Table 19. *Multilevel Models Predicting Pleasant and Unpleasant Affect, and Depressive Symptoms From Identity Change Scores (absolute) and Effects of Breakup: Between-Person and Within-Person Effects (Study 3)*

Predictors	Pleasant Affect			Unpleasant Affect			Depressive Symptoms		
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>
Constant	3.27	.04	86.55**	1.91	.03	56.42**	15.45	.54	28.54**
Breakup (Between Effect)	-.47	.13	-3.80**	.42	.11	3.70**	5.62	1.82	3.09**
Time	-.04	.02	-2.07*	-.01	.02	-.36	.11	.32	.34
Concern for others change	-.23	.10	-2.30*	.27	.09	3.01**	3.54	1.36	2.60*
Self-assurance change	-.31	.10	-3.22**	.45	.09	5.34**	6.29	1.29	4.90
Self-Concept Clarity change	.07	.10	.66	-.07	.09	-.77	-2.72	1.38	-1.97 [†]
Concern for others change X Breakup	-.84	.26	-3.24**	1.01	.23	4.37**	15.41	3.50	4.40**
Self-assurance change X Breakup	-1.18	.28	-4.29**	.95	.25	3.83**	12.09	3.77	3.21**
Self-Concept Clarity change X Breakup	-.03	.30	-.09	-.69	.27	-2.57*	-9.88	4.01	-2.46*

Note. Table presents nine models: Identity change scores (change in concern for others, self-assurance, self-concept clarity) and relationship status (relationship or broken up) on Pleasant affect, Unpleasant affect, and Depressive Symptoms. Change in identity absolute scores calculated by subtracting Time 1 current ratings by Time 2, 3 and 4 current ratings and using absolute value. Degrees of freedom for Level 1 effects = 439 (Concern for others predicting Pleasant affect), 437 (Self-assurance predicting Pleasant affect), 435 (Self-concept clarity predicting Pleasant affect); 437 (Concern for others predicting Unpleasant affect), 435 (Self-assurance predicting Unpleasant affect), 433 (Self-concept clarity predicting Unpleasant affect); 437 (Concern for others predicting Depressive symptoms), 435 (Self-assurance predicting Depressive symptoms), 433 (Self-concept clarity predicting Depressive symptoms). Degrees of freedom for Level 2 effect = 325 (Pleasant Affect models), 325 (Unpleasant Affect models), 324 (Depressive symptoms models). Level 1 predictors are person mean centered (group mean centered). Level 2 predictor Breakup (i.e., relationship status) is grand mean centered. [†] $p = .05$, * $p < .05$. ** $p < .01$.

Table 20. *Correlations of Meaning Making, and Centrality with Change in Identity Scores (Genuine Change, Study 3)*

	Δ Concern for Others	Δ Self-Assurance	Δ Self-Concept Clarity
Searching for meaning	.05	.30	.21
Finding meaning	.12	.12	.43*
Centrality	-.12	.22	.17

Note. Change in concern for others, self-assurance and self-concept clarity calculated by subtracting Time 1 current rating (pre breakup) from current ratings provided in session immediately following breakup (either Time 2, 3 or 4) and using absolute value.

* $p < .05$. ** $p < .01$.

Table 21. *Correlations of Meaning Making, and Centrality with Change in Perceived Identity Scores and Rediscovery and Loss of Self Scores (Study 3)*

	Concern for Others	Self-Assurance	Rediscovery of Self	Loss of Self
Searching for meaning	.07 (-.15)	-.36 [†] (-.52**)	-.44*	.64**
Finding meaning	.02 (-.04)	.04 (.09)	.32 [†]	-.15
Centrality	.21 (.01)	.08 (.11)	.46**	.34 [†]

Note. Concern for others and self-assurance are current ratings immediately following the breakup. Coefficients in parentheses reflect the partial correlations controlling for retrospective ratings for concern for others and self-assurance.

[†] $p \leq .08$. * $p < .05$. ** $p < .01$.

Table 22. *Summary of Regression Analyses for Factors Predicting Identity Change (N = 32, Study 3)*

	Δ Concern for Others		Δ Self-Assurance		Δ Self-Concept Clarity		Rediscovery of Self		Loss of Self	
	B	<i>p</i>	B	<i>p</i>	B	<i>p</i>	B	<i>p</i>	B	<i>p</i>
Searching for meaning	.01	.85	.07	.17	.03	.43	-.66**	<.001	.63**	<.001
Finding meaning	.05	.57	.02	.78	.11*	.02	.53**	.003	-.27	.10
Centrality	-.04	.48	.04	.33	.03	.40	.53**	<.001	.20	.09

Note. Change in concern for others, self-assurance and self-concept clarity calculated by subtracting Time 1 current rating (pre-breakup) from current ratings provided in session immediately following breakup (either Time 2, 3 or 4) and using absolute value.
* $p < .05$, ** $p < .01$.

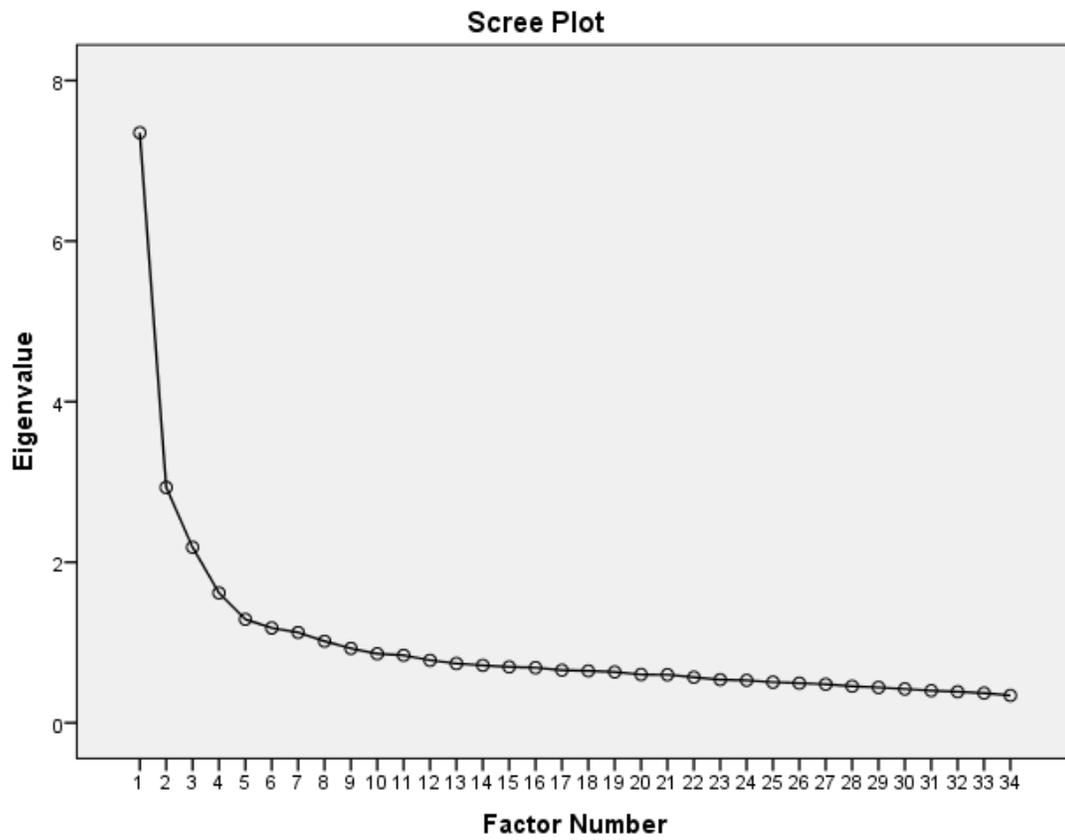


Figure 1. Scree plot of varimax rotation principal axis factor analysis (Study 1a).

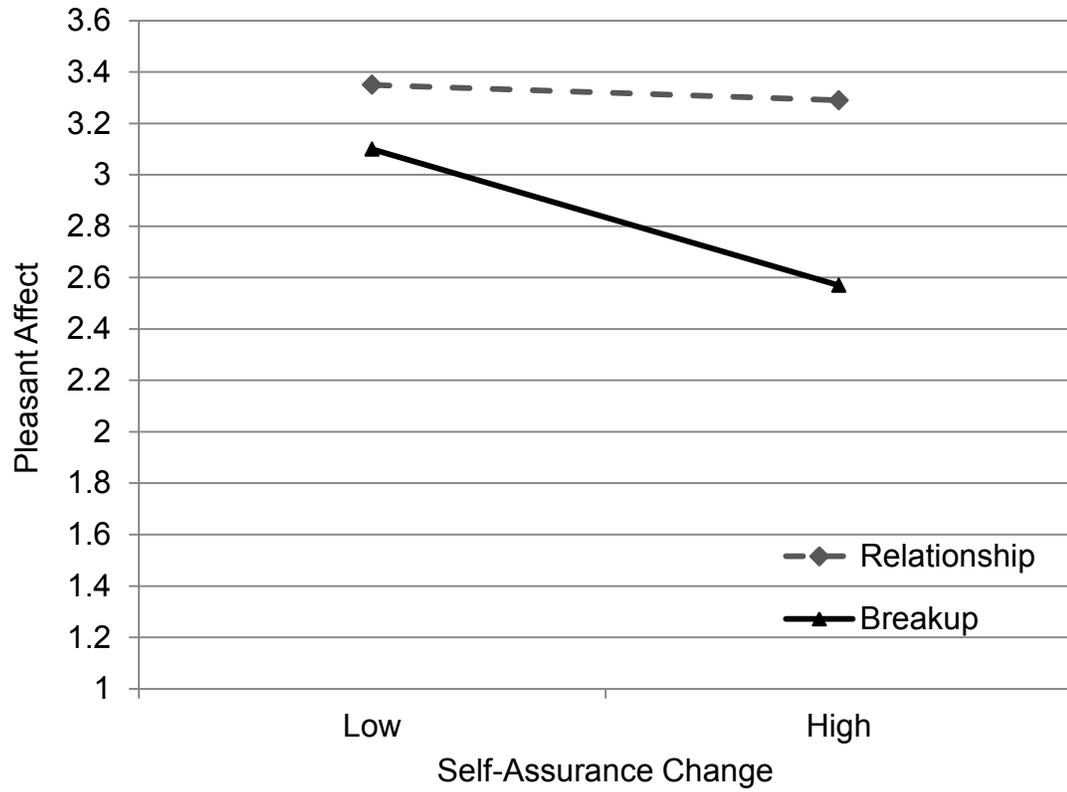


Figure 2a. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-assurance and pleasant affect (Study 3).

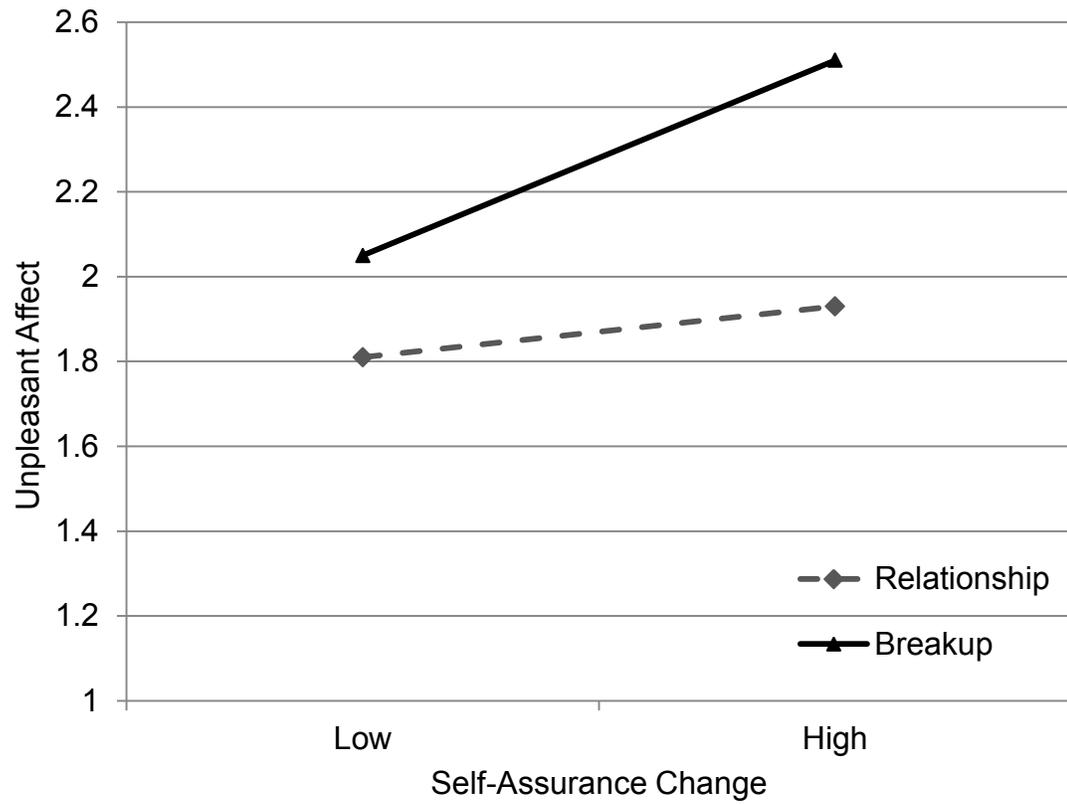


Figure 2b. The effect of relationship status (intact vs. breakup) on the relation between on absolute change in self-assurance and unpleasant affect (Study 3).

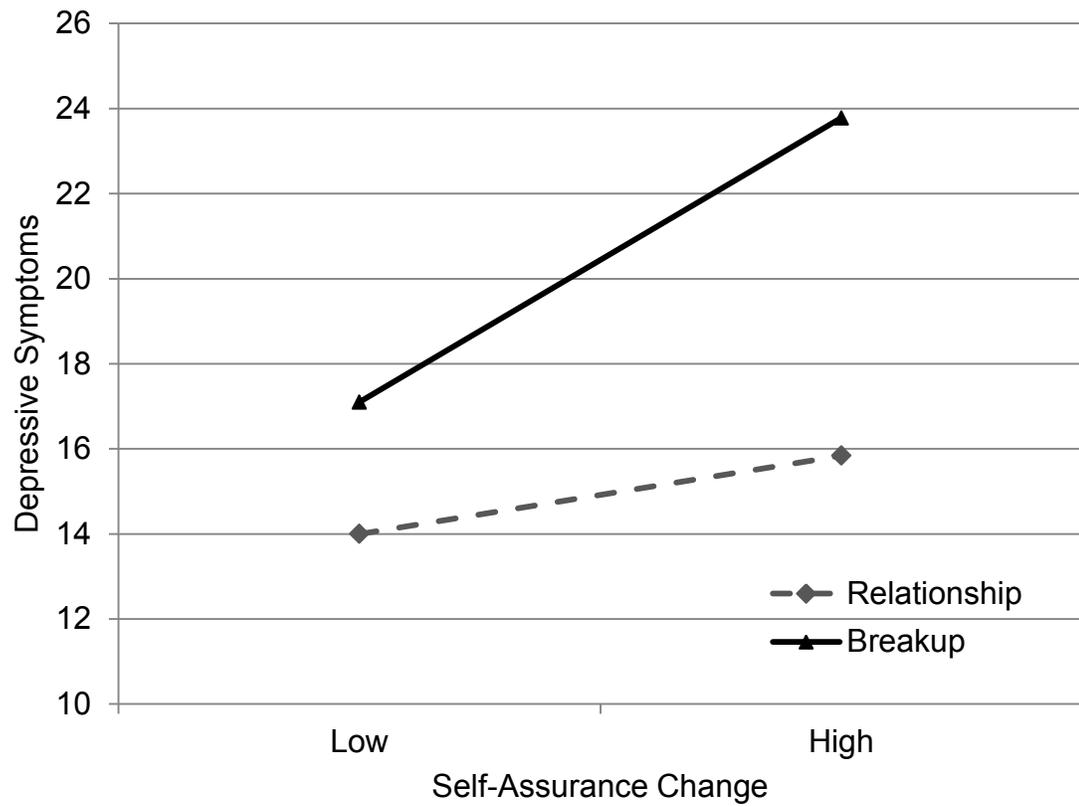


Figure 2c. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-assurance and depressive symptoms (Study 3).

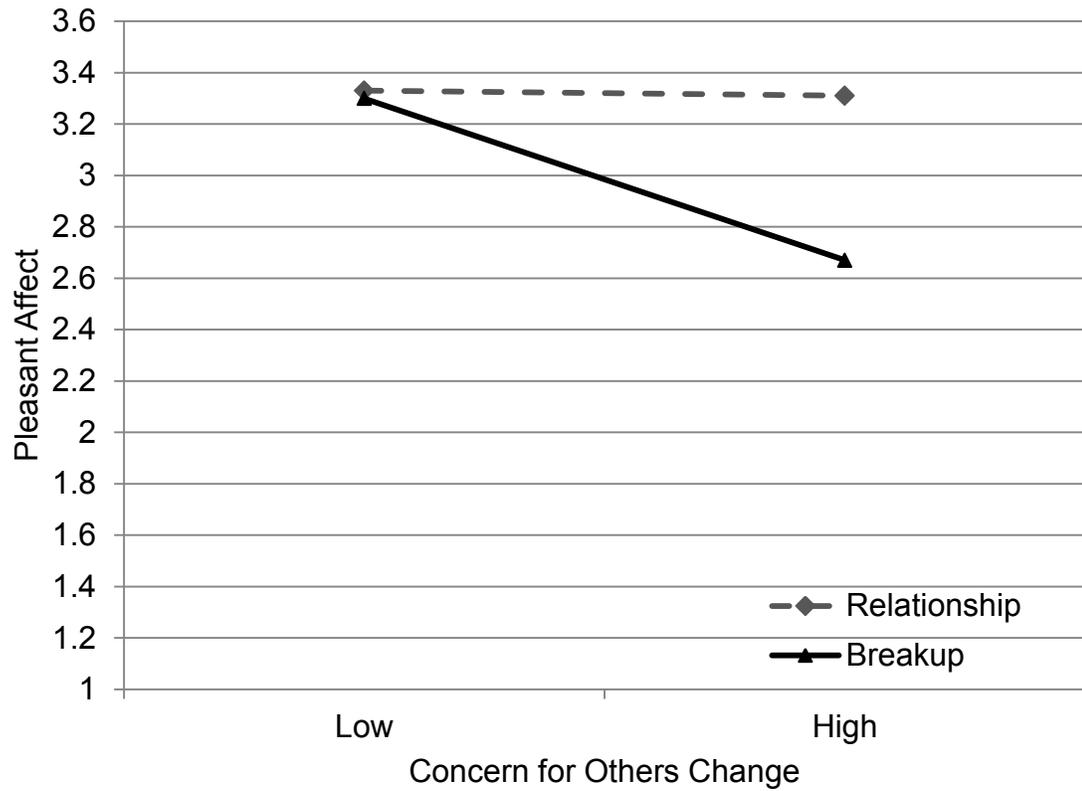


Figure 3a. The effect of relationship status (intact vs. breakup) on the relation between absolute change in concern for others and pleasant affect (Study 3).

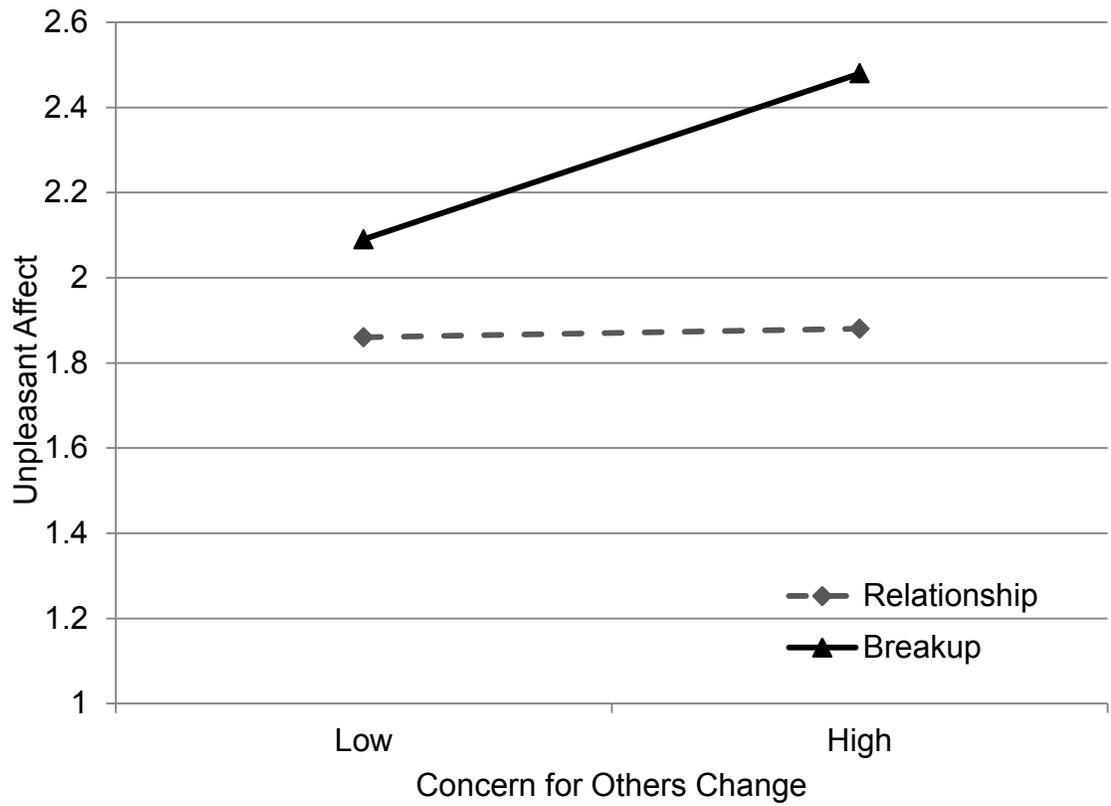


Figure 3b. The effect of relationship status (intact vs. breakup) on the relation between absolute change in concern for others and unpleasant affect (Study 3).

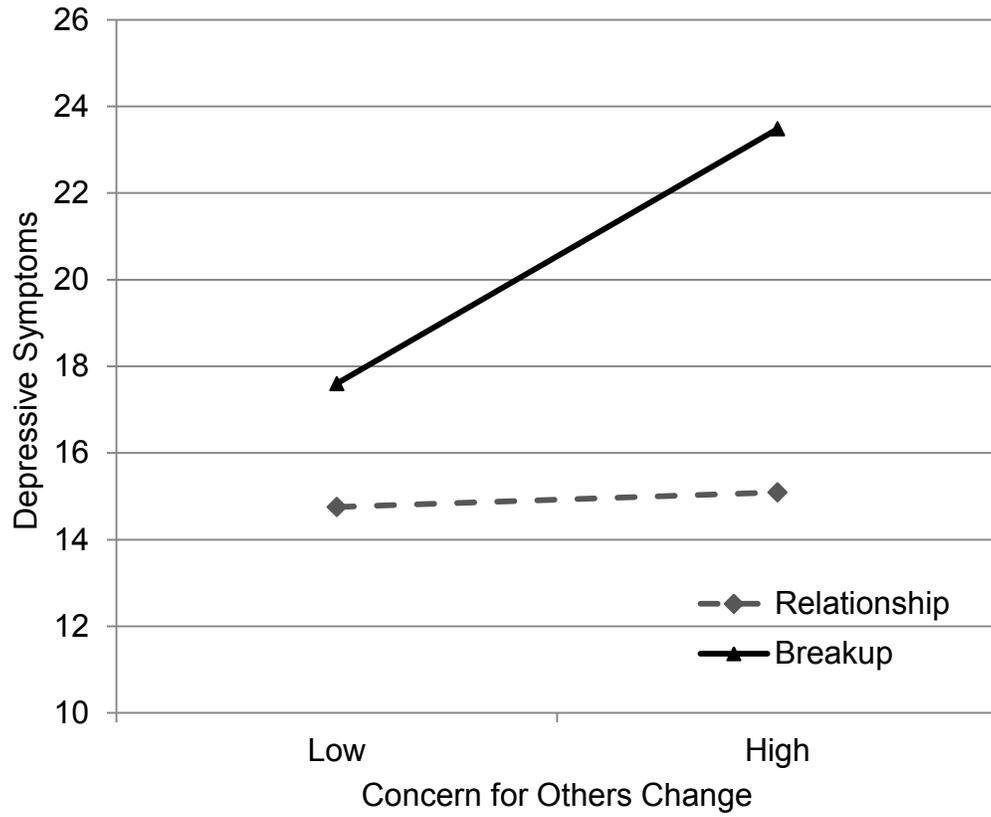


Figure 3c. The effect of relationship status (intact vs. breakup) on the relation between absolute change in concern for others and depressive symptoms (Study 3).

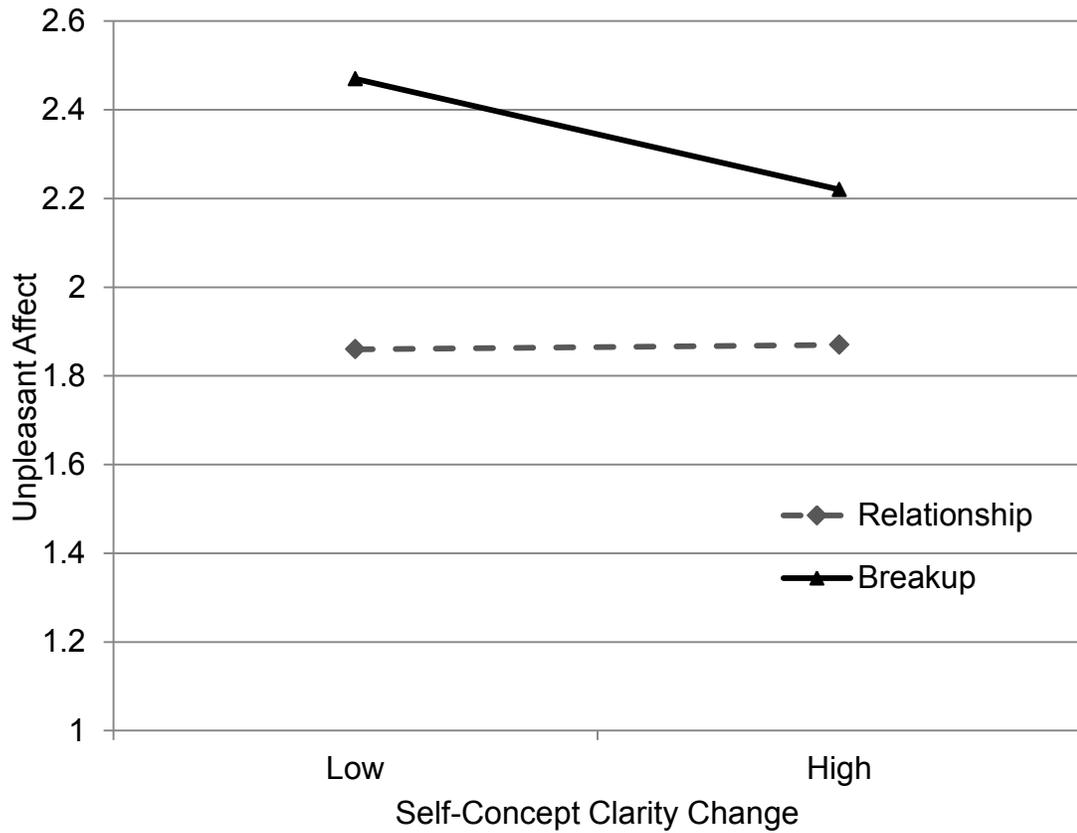


Figure 4a. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-concept clarity and unpleasant affect (Study 3).

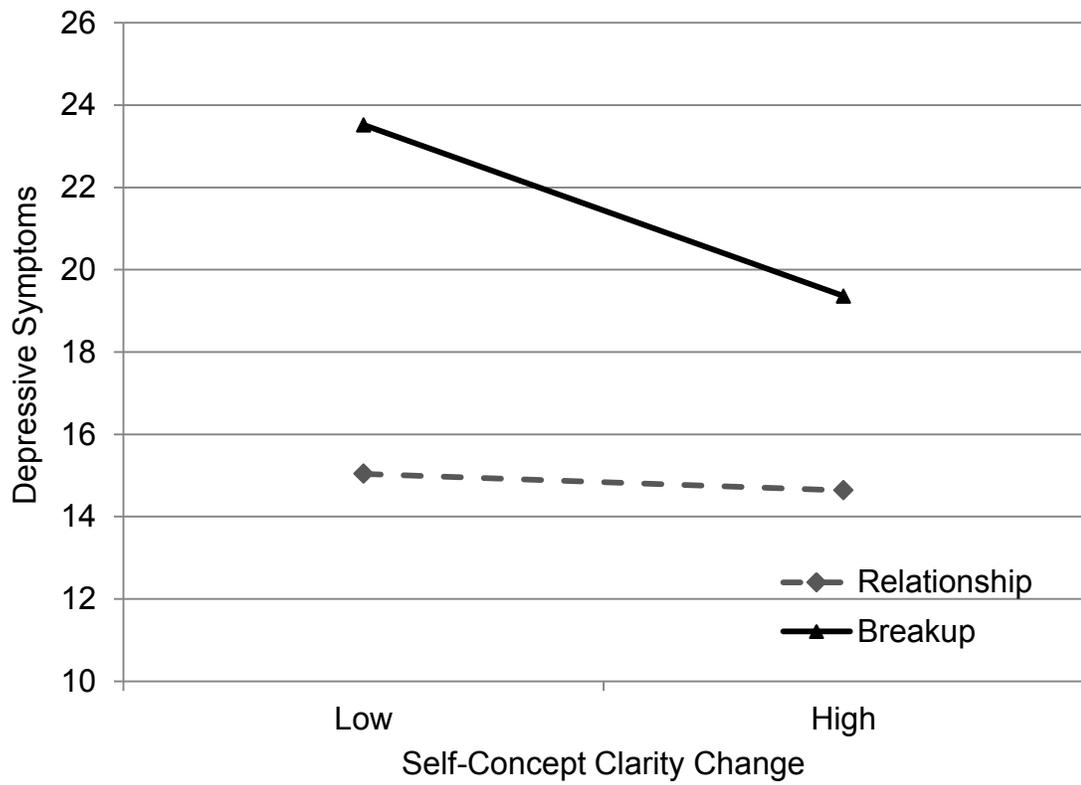


Figure 4b. The effect of relationship status (intact vs. breakup) on the relation between absolute change in self-concept clarity and depressive symptoms (Study 3).

Appendices

Appendix A: List of Items for AIQ-IV and Rosenberg Self-Esteem

Note: The personal and relational items have been highlighted.

INSTRUCTIONS: These items describe different aspects of identity. Please read each item carefully and consider how it applies to you. Fill in the blank next to each item by choosing a number from the scale below:

- 1 = Not important to my sense of who I am
- 2 = Slightly important to my sense of who I am
- 3 = Somewhat important to my sense of who I am
- 4 = Very important to my sense of who I am
- 5 = Extremely important to my sense of who I am

- 1. The things I own, my possessions
- P_ 2. My personal values and moral standards
- 3. My popularity with other people
- 4. Being a part of the many generations of my family
- P_ 5. My dreams and imagination
- 6. The ways in which other people react to what I say and do
- 7. My race or ethnic background
- P_ 8. My personal goals and hopes for the future
- 9. My physical appearance: my height, my weight, and the shape of my body
- 10. My religion
- P_ 11. My emotions and feelings
- 12. My reputation, what others think of me
- 13. Places where I live or where I was raised
- P_ 14. My thoughts and ideas
- 15. My attractiveness to other people
- 16. My age, belonging to my age group or being part of my generation
- 17. My gestures and mannerisms, the impression I make on others
- P_ 18. The ways I deal with my fears and anxieties
- 19. My sex, being a male or a female
- 20. My social behavior, such as the way I act when meeting people

- P_ 21. My feeling of being a unique person, being distinct from others
- _R_ 22. My relationships with the people I feel close to
- ___ 23. My social class, the economic group I belong to whether lower, middle, or upper class
- _ 24. My feeling of belonging to my community
- _P_ 25. Knowing that I continue to be essentially the same inside even though life involves many external changes
- _R_ 26. Being a good friend to those I really care about*
- P_ 27. My self-knowledge, my ideas about what kind of person I really am
- _R_ 28. My commitment to being a concerned relationship partner
- ___ 29. My feeling of pride in my country, being proud to be a citizen
- ___ 30. My physical abilities, being coordinated and good at athletic activities
- R_ 31. Sharing significant experiences with my close friends
- _P_ 32. My personal self-evaluation, the private opinion I have of myself
- ___ 33. Being a sports fan, identifying with a sports team
- R_ 34. Having mutually satisfying personal relationships
- _R_ 35. Connecting on an intimate level with another person
- _ 36. My occupational choice and career plans
- _R_ 37. Developing caring relationships with others
- _ 38. My commitments on political issues or my political activities
- _R_ 39. My desire to understand the true thoughts and feelings of my best friend or romantic partner
- ___ 40. My academic ability and performance, such as the grades I earn and comments I get from teachers
- _R_ 41. Having close bonds with other people
- ___ 42. My language, such as my regional accent or dialect or a second language that I know
- R_ 43. My feeling of connectedness with those I am close to
- ___ 44. My role of being a student in college
- ___ 45. My sexual orientation, whether heterosexual, homosexual, or bisexual

Rosenberg Self Esteem Scale Items

Note. Items that are highlighted were modified and used in aspects of identity scale.

1. ___ **On the whole I am satisfied with myself.**
2. ___ **At times I think I am no good at all.**
3. ___ I feel that I have a number of good qualities.
4. ___ I am able to do things as well as most other people.
5. ___ I feel I do not have much to be proud of.
6. ___ I certainly feel useless at times.
7. ___ I feel that I'm a person of worth, at least on an equal plane with others.
8. ___ I wish I could have more respect for myself.
9. ___ All in all I am inclined to feel that I am a failure.
10. ___ I take a positive attitude toward myself.

Appendix B (SACO Questionnaire)

We are interested in how people think about themselves, in particular, who they feel they are (i.e. their identity). Below is a list of items that represent aspects of people's identity. Using the scale below, please indicate the degree to which each item describes **who you are right now and who you were in the past (before your breakup)**.

	1	2	3	4	5
	Not at all like me	Somewhat like me	Moderately like me	Quite a bit like me	Definitely like me
				NOW (Today)	THEN (Before Breakup)
1. Bad things always seem to happen to me				_____	_____
2. My life lacks purpose or meaning.				_____	_____
3. I have difficulty dealing with my fears and anxieties.				_____	_____
4. I really know who I am.				_____	_____
5. I have a great deal of compassion or empathy for people.				_____	_____
6. My relationships are extremely important to me.				_____	_____
7. Having my actions reflect who I am and what I believe in is very important to me				_____	_____
8. Being a good friend to those I care about is really important to me.				_____	_____
9. At times I wonder about my worth as a person.				_____	_____
10. On the whole I am satisfied with who I am.				_____	_____
11. It is really important that my relationships are mutually satisfying.				_____	_____
12. I enjoy connecting with people on an intimate level.				_____	_____
13. I am pessimistic about my future.				_____	_____
14. I invest a great deal of time in my relationships with others.				_____	_____
15. I understand the true thoughts and feelings of my close friend(s) or romantic partner.				_____	_____
16. I connect well with others.				_____	_____
17. I am resilient; nothing can knock me down.				_____	_____

Appendix C: Study 1a Questionnaire (Mass testing)

Aspects of Identity

We are interested in how people think about themselves, in particular, who they feel they are (i.e. their identity). Below is a list of items that represent aspects of people’s identity. Using the scale below, please indicate the degree to which each item describes **who you are right now and who you were in the past (in September).**

	1	2	3	4	5
	Not at all like me	Somewhat like me	Moderately like me	Quite a bit like me	Definitely like me
				NOW (Today)	THEN (September)
1. I am enthusiastic about my life.				_____	_____
2. I am not a courageous person.				_____	_____
3. Bad things always seem to happen to me				_____	_____
4. I have high hopes for my future.				_____	_____
5. I know that I can count on friends and/or family.				_____	_____
6. My life lacks purpose or meaning.				_____	_____
7. I am able to see things from other people’s point of view.				_____	_____
8. I don’t believe the world is a safe place.				_____	_____
9. I don’t depend on anyone.				_____	_____
10. I have difficulty dealing with my fears and anxieties.				_____	_____
11. I really know who I am.				_____	_____
12. I have a great deal of compassion or empathy for people.				_____	_____
13. My relationships are extremely important to me.				_____	_____
14. Having my actions reflect who I am and what I believe in is very important to me				_____	_____
15. Being a good friend to those I care about is really important to me.				_____	_____
16. At times I wonder about my worth as a person				_____	_____
17. On the whole I am satisfied with who I am.				_____	_____

Using the scale below, please indicate the degree to which each item describes **who you are right now and who you were in the past (in September).**

	1	2	3	4	5
	Not at all like me	Somewhat like me	Moderately like me	Quite a bit like me NOW (Today)	Definitely like me THEN (September)
18. My happiness is most important to me.				_____	_____
19. It is really important that my relationships are mutually satisfying.				_____	_____
20. I enjoy connecting with people on an intimate level.				_____	_____
21. I am more mature than my peers.				_____	_____
22. I am pessimistic about my future.				_____	_____
23. I invest a great deal of time in my relationships with others.				_____	_____
24. I think a lot about how much time I have left in my life.				_____	_____
25. I understand the true thoughts and feelings of my close friend(s) or romantic partner.				_____	_____
26. I do not have close bonds with other people.				_____	_____
27. My faith in the goodness of people is unshakeable.				_____	_____
28. I am highly motivated and ambitious to get what I want out of life.				_____	_____
29. I connect well with others.				_____	_____
30. I firmly believe that everything happens for a reason.				_____	_____
31. I am resilient; nothing can knock me down.				_____	_____
32. It's easy for me to trust others.				_____	_____
33. I rarely step out of my comfort zone.				_____	_____
34. I truly believe that people get what they deserve.				_____	_____

Self-Concept Clarity

Using the scale below, please indicate the extent to which you agree or disagree with the following statements *right at this moment*.

	Strongly Disagree					Strongly Agree	
1. My beliefs about myself often conflict with one another.	1	2	3	4	5		
2. On one day I might have one opinion of myself and on another day I might have a different opinion.	1	2	3	4	5		
3. I spend a lot of time wondering about what kind of person I really am.	1	2	3	4	5		
4. Sometimes I feel that I am not really the person that I appear to be.	1	2	3	4	5		
5. When I think about the kind of person I have been in the past, I'm not sure what I was really like.	1	2	3	4	5		
6. I seldom experience conflict between the different aspects of my personality.	1	2	3	4	5		
7. Sometimes I think I know other people better than I know myself.	1	2	3	4	5		
8. My beliefs about myself seem to change very frequently.	1	2	3	4	5		
9. If I were asked to describe my personality, my description might end up being different from one day to another.	1	2	3	4	5		
10. Even if I wanted to, I don't think I would tell someone what I am really like.	1	2	3	4	5		
11. In general, I have a clear sense of who I am and what I am.	1	2	3	4	5		
12. It is often hard for me to make up my mind about things because I don't really know what I want.	1	2	3	4	5		

Balanced Inventory of Desirable Responding - Version 7 (BIDR-7)

Using the scale below as a guide, write a number beside each statement to indicate how true it is.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- ___ 1. My first impressions of people usually turn out to be right.
- ___ 2. It would be hard for me to break any of my bad habits.
- ___ 3. I don't care to know what other people really think of me.
- ___ 4. I have not always been honest with myself.
- ___ 5. I always know why I like things.
- ___ 6. When my emotions are aroused, it biases my thinking.
- ___ 7. Once I've made up my mind, other people can seldom change my opinion.
- ___ 8. I am not a safe driver when I exceed the speed limit.
- ___ 9. I am fully in control of my own fate.
- ___ 10. It's hard for me to shut off a disturbing thought.
- ___ 11. I never regret my decisions.
- ___ 12. I sometimes lose out on things because I can't make up my mind soon enough.
- ___ 13. The reason I vote is because my vote can make a difference.
- ___ 14. My parents were not always fair when they punished me.
- ___ 15. I am a completely rational person.
- ___ 16. I rarely appreciate criticism.
- ___ 17. I am very confident of my judgments
- ___ 18. I have sometimes doubted my ability as a lover.
- ___ 19. It's all right with me if some people happen to dislike me.

Using the scale below as a guide, write a number beside each statement to indicate how true it is.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- ___ 20. I don't always know the reasons why I do the things I do.
- ___ 21. I sometimes tell lies if I have to.
- ___ 22. I never cover up my mistakes.
- ___ 23. There have been occasions when I have taken advantage of someone.
- ___ 24. I never swear.
- ___ 25. I sometimes try to get even rather than forgive and forget.
- ___ 26. I always obey laws, even if I'm unlikely to get caught.
- ___ 27. I have said something bad about a friend behind his/her back.
- ___ 28. When I hear people talking privately, I avoid listening.
- ___ 29. I have received too much change from a salesperson without telling him or her.
- ___ 30. I always declare everything at customs.
- ___ 31. When I was young I sometimes stole things.
- ___ 32. I have never dropped litter on the street.
- ___ 33. I sometimes drive faster than the speed limit.
- ___ 34. I never read sexy books or magazines.
- ___ 35. I have done things that I don't tell other people about.
- ___ 36. I never take things that don't belong to me.
- ___ 37. I have taken sick-leave from work or school even though I wasn't really sick.
- ___ 38. I have never damaged a library book or store merchandise without reporting it.
- ___ 39. I have some pretty awful habits.
- ___ 40. I don't gossip about other people's business.

Appendix D: Study 1b Questionnaire

Demographics

Age: _____

Gender: _____

SACO Scale

We are interested in how people think about themselves, in particular, who they feel they are (i.e. their identity). Below is a list of items that represent aspects of people's identity. Using the scale below, please indicate the degree to which each item describes **who you are right now.**

- | | 1 | 2 | 3 | 4 | 5 |
|---------|-----------------------|---------------------|-----------------------|------------------------|-----------------------|
| | Not at all
like me | Somewhat
like me | Moderately
like me | Quite a bit
like me | Definitely like
me |
| 1. ___ | | | | | |
| 2. ___ | | | | | |
| 3. ___ | | | | | |
| 4. ___ | | | | | |
| 5. ___ | | | | | |
| 6. ___ | | | | | |
| 7. ___ | | | | | |
| 8. ___ | | | | | |
| 9. ___ | | | | | |
| 10. ___ | | | | | |
| 11. ___ | | | | | |
| 12. ___ | | | | | |
| 13. ___ | | | | | |
| 14. ___ | | | | | |
| 15. ___ | | | | | |
| 16. ___ | | | | | |
| 17. ___ | | | | | |

**Agentic and Communal Values
(Trapnell & Paulhus, 2012)**

Below are 24 different values that people rate of different importance in their lives. FIRST READ THROUGH THE LIST to familiarize yourself with all the values. While reading over the list, consider which ones tend to be most important to you and which tend to be least important to you. After familiarizing yourself with the list, rate the relative importance of each value to you as “A GUIDING PRINCIPLE IN MY LIFE.” It is important to spread your ratings out as best you can – be sure to use some numbers in the lower range, some in the middle range, and some in the higher range. Avoid using too many similar numbers. Work fairly quickly.

- | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------------------------------------------------------------------|---|---|---|-----------------------------|---|---|---|------------------------------|
| Not
important to
me | | | | Quite
important
to me | | | | Highly
important to
me |
| 1. ___ WEALTH (financially successful, prosperous) | | | | | | | | |
| 2. ___ PLEASURE (having one’s fill of life’s pleasures and enjoyments) | | | | | | | | |
| 3. ___ FORGIVENESS (pardoning other’s faults, being merciful) | | | | | | | | |
| 4. ___ INFLUENCE (having impact, influencing people and events) | | | | | | | | |
| 5. ___ TRUST (being true to one’s word, assuming good in others) | | | | | | | | |
| 6. ___ COMPETENCE (displaying mastery, being capable, effective) | | | | | | | | |
| 7. ___ HUMILITY (appreciating others, being modest about oneself) | | | | | | | | |
| 8. ___ ACHIEVEMENT (reaching lofty goals) | | | | | | | | |
| 9. ___ ALTRUISM (helping others in need) | | | | | | | | |
| 10. ___ AMBITION (high aspirations, seizing opportunities) | | | | | | | | |
| 11. ___ LOYALTY (being faithful to friends, family, and group) | | | | | | | | |
| 12. ___ POLITENESS (courtesy, good manners) | | | | | | | | |
| 13. ___ POWER (control over others, dominance) | | | | | | | | |
| 14. ___ HARMONY (good relations, balance, wholeness) | | | | | | | | |
| 15. ___ EXCITEMENT (seeking adventure, risk, an exciting lifestyle) | | | | | | | | |
| 16. ___ HONESTY (being genuine, sincere) | | | | | | | | |
| 17. ___ COMPASSION (caring for others, displaying kindness) | | | | | | | | |
| 18. ___ STATUS (high rank, wide respect) | | | | | | | | |
| 19. ___ CIVILITY (being considerate and respectful toward others) | | | | | | | | |
| 20. ___ AUTONOMY (independent, free of others’ control) | | | | | | | | |
| 21. ___ EQUALITY (human rights and equal opportunity for all) | | | | | | | | |

22. ____ RECOGNITION (becoming notable, famous, or admired)
23. ____ TRADITION (showing respect for family and cultural values)
24. ____ SUPERIORITY (defeating the competition, standing on top)

Narcissism Scale (Ames, Rose, & Anderson, 2006)

Indicate which statement below comes closest to describing your feelings and beliefs about yourself.

- | | |
|-----------|--------------------------------------------------------------------------------------|
| 1 | <input type="checkbox"/> I know that I am good because everybody keeps telling me so |
| | <input type="checkbox"/> When people compliment me I sometimes get embarrassed |
| 2 | <input type="checkbox"/> I like to be the centre of attention |
| | <input type="checkbox"/> I prefer to blend in with the crowd |
| 3 | <input type="checkbox"/> I think I am a special person |
| | <input type="checkbox"/> I am no better or no worse than most people |
| 4 | <input type="checkbox"/> I like having authority over people |
| | <input type="checkbox"/> I don't mind following others |
| 5 | <input type="checkbox"/> I find it easy to manipulate people |
| | <input type="checkbox"/> I don't like it when I find myself manipulating people |
| 6 | <input type="checkbox"/> I insist upon getting the respect that is due to me |
| | <input type="checkbox"/> I usually get the respect that I deserve |
| 7 | <input type="checkbox"/> I am apt to show off if I get the chance |
| | <input type="checkbox"/> I try not to be a show off |
| 8 | <input type="checkbox"/> I always know what I am doing |
| | <input type="checkbox"/> Sometimes I am not sure of what I am doing |
| 9 | <input type="checkbox"/> Everybody likes to hear my stories |
| | <input type="checkbox"/> Sometimes I tell good stories |
| 10 | <input type="checkbox"/> I expect a great deal from other people |
| | <input type="checkbox"/> I like to do things for other people |
| 11 | <input type="checkbox"/> I really like to be the centre of attention |
| | <input type="checkbox"/> It makes me uncomfortable to be the centre of attention |
| 12 | <input type="checkbox"/> People always seem to recognize my authority |
| | <input type="checkbox"/> Being an authority doesn't mean that much to me |
| 13 | <input type="checkbox"/> I am going to be a great person |
| | <input type="checkbox"/> I hope that I am going to be successful |
| 14 | <input type="checkbox"/> I can make anybody believe anything I want them to |
| | <input type="checkbox"/> People sometimes believe what I tell them |
| 15 | <input type="checkbox"/> I am more capable than other people |
| | <input type="checkbox"/> There is a lot that I can learn from other people |
| 16 | <input type="checkbox"/> I am an extraordinary person |
| | <input type="checkbox"/> I am much like everybody else |

Need to Belong Scale

(Leary, Kelly, Cottrell, & Schreindorfer, 2005)

Instructions: For each of the statements below, indicate the degree to which you agree or disagree with the statement by writing a number in the space beside the question using the scale below:

- 1 = Strongly disagree
- 2 = Moderately disagree
- 3 = Neither agree nor disagree
- 4 = Moderately agree
- 5 = Strongly agree

- _____ 1. If other people don't seem to accept me, I don't let it bother me.
- _____ 2. I try hard not to do things that will make other people avoid or reject me.
- _____ 3. I seldom worry about whether other people care about me.
- _____ 4. I need to feel that there are people I can turn to in times of need.
- _____ 5. I want other people to accept me.
- _____ 6. I do not like being alone.
- _____ 7. Being apart from my friends for long periods of time does not bother me.
- _____ 8. I have a strong need to belong.
- _____ 9. It bothers me a great deal when I am not included in other people's plans.
- _____ 10. My feelings are easily hurt when I feel that others do not accept me.

Revised Life Orientation Test (LOT-R)
(Scheier, Carver, & Bridges, 1994)

Instructions:

Please answer the following questions about yourself by indicating the extent of your agreement using the following scale:

[1] = strongly disagree

[2] = disagree

[3] = neutral

[4] = agree

[5] = strongly agree

Be as honest as you can throughout, and try not to let your responses to one question influence your response to other questions. There are no right or wrong answers.

- _____ 1. In uncertain times, I usually expect the best.
- _____ 2. It's easy for me to relax.
- _____ 3. If something can go wrong for me, it will.
- _____ 4. I'm always optimistic about my future.
- _____ 5. I enjoy my friends a lot.
- _____ 6. It's important for me to keep busy.
- _____ 7. I hardly ever expect things to go my way.
- _____ 8. I don't get upset too easily.
- _____ 9. I rarely count on good things happening to me.
- _____ 10. Overall, I expect more good things to happen to me than bad.

Accuracy and Honesty Question (Everyone)

Sometimes, for a variety of reasons, people do not respond to study questions honestly or accurately. We recognize that this may occur, and it is very helpful to us in understanding our results if we can identify such cases. Please help us by answering the question below about how you responded to the questionnaire. You still receive full credit for participation in this study regardless of your response.

- Have you responded to this questionnaire package accurately and honestly?

___ Yes ___ No

Appendix E: Study 2 Questionnaire**Demographics**

Age: _____ Gender: _____

Relationship Questions

1. What is your current relationship status?
 - a. Single
 - b. Dating (not eligible)
 - c. Cohabiting (not eligible)
 - d. Married (not eligible)
 - e. Separated
 - f. Divorced

2. Have you experienced a **recent** breakup (**within the last 6 months**)?
____ Yes
____ No (not eligible)

3. How long ago did your relationship end?
____ 0 – 3 months ago
____ 3 – 6 months ago
____ greater than 6 months ago (not eligible)

Satisfaction with Life Scale

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

- _____ 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.
- _____ If I could live my life over, I would change almost nothing.

State Self-Esteem Scale

This is a questionnaire designed to measure what you are thinking **at this moment**. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Again, answer these questions as they are true for you **right now**.

1 = *not at all* 2 = *a little bit* 3 = *somewhat* 4 = *very much* 5 = *extremely*

1. _____ I feel confident about my abilities.
2. _____ I am worried about whether I am regarded as a success or failure.
3. _____ I feel satisfied with the way my body looks right now.
4. _____ I feel frustrated or rattled about my performance.
5. _____ I feel that I am having trouble understanding things that I read.
6. _____ I feel that others respect and admire me.
7. _____ I am dissatisfied with my weight.
8. _____ I feel self-conscious.
9. _____ I feel as smart as others.
10. _____ I feel displeased with myself.
11. _____ I feel good about myself.
12. _____ I am pleased with my appearance right now.
13. _____ I am worried about what other people think of me.
14. _____ I feel confident that I understand things.
15. _____ I feel inferior to others at the moment.
16. _____ I feel unattractive.
17. _____ I feel concerned about the impression I am making.
18. _____ I feel that I have less scholastic ability right now than others.
19. _____ I feel like I'm not doing well.
20. _____ I am worried about looking foolish.

SACO Scale

The following section will ask you questions concerning your identity.

We are interested in how people think about themselves, in particular, who they feel they are (i.e. their identity). Below is a list of items that represent aspects of people’s identity. Using the scale below, please indicate the degree to which each item describes **who you are right now and who you were in the past (before your breakup).**

	1	2	3	4	5
	Not at all	Somewhat	Moderately	Quite a bit	Definitely
	like me	like me	like me	like me	like me
				NOW	THEN
				(Today)	(Before
					Breakup)
1. Bad things always seem to happen to me					
2. My life lacks purpose or meaning.					
3. I have difficulty dealing with my fears and anxieties.					
4. I really know who I am.					
5. I have a great deal of compassion or empathy for people.					
6. My relationships are extremely important to me.					
7. Having my actions reflect who I am and what I believe in is very important to me					
8. Being a good friend to those I care about is really important to me.					
9. At times I wonder about my worth as a person.					
10. On the whole I am satisfied with who I am.					
11. It is really important that my relationships are mutually satisfying.					
12. I enjoy connecting with people on an intimate level.					
13. I am pessimistic about my future.					
14. I invest a great deal of time in my relationships with others.					
15. I understand the true thoughts and feelings of my close friend(s) or romantic partner.					
16. I connect well with others.					
17. I am resilient; nothing can knock me down.					

Self-concept Clarity

Using the scale below, please indicate the extent to which you agree or disagree with the following statements *right at this moment*.

	Strongly Disagree				Strongly Agree
1. My beliefs about myself often conflict with one another.	1	2	3	4	5
2. On one day I might have one opinion of myself and on another day I might have a different opinion.	1	2	3	4	5
3. I spend a lot of time wondering about what kind of person I really am.	1	2	3	4	5
4. Sometimes I feel that I am not really the person that I appear to be.	1	2	3	4	5
5. When I think about the kind of person I have been in the past, I'm not sure what I was really like.	1	2	3	4	5
6. I seldom experience conflict between the different aspects of my personality.	1	2	3	4	5
7. Sometimes I think I know other people better than I know myself.	1	2	3	4	5
8. My beliefs about myself seem to change very frequently.	1	2	3	4	5
9. If I were asked to describe my personality, my description might end up being different from one day to another.	1	2	3	4	5
10. Even if I wanted to, I don't think I would tell someone what I am really like.	1	2	3	4	5
11. In general, I have a clear sense of who I am and what I am.	1	2	3	4	5
12. It is often hard for me to make up my mind about things because I don't really know what I want.	1	2	3	4	5

To what extent do you feel that you are over this person?

1	2	3	4	5	6	7
Not at all						Very

To what extent do you regret the break-up?

1	2	3	4	5	6	7
Not at all						Very

To what extent do you think about this person now that the relationship is over?

1	2	3	4	5	6	7
Not at all						Very

Has the breakup of this relationship changed you?

1	2	3	4	5
Not at all	A little	Somewhat	Quite a bit	A Great Deal

If yes, how has it changed you?

Loss and Rediscovery of the Self
(Lewandowski & Bizzoco, 2007).

Please answer the following items using the scale below with how you feel RIGHT NOW.

Not at all Very Much

1 2 3 4 5 6 7

Since my recent breakup...

1. I do not know who I am.
2. I have lost my sense of self.
3. I have done the things I once enjoyed that I could not do while I was in my relationship.
4. I have regained my identity.
5. I feel as though I am missing a part of me.
6. I have reclaimed lost parts of myself that I could not express while with my partner.
7. I feel as though many of my good qualities have been lost.
8. I have focused more on my needs that were neglected while with my partner.
9. I do not feel like myself anymore.
10. I have become reacquainted with the person I was before the relationships.
11. I have rediscovered who I am
12. I feel incomplete.

Meaning Making

Some people who have experienced a negative event find themselves trying to make sense or find some purpose in their experience.

	No, Never	Yes, but rarely	Yes, sometimes	Yes, often	Yes, all the time
Have you tried making sense of your break-up? E.g., asking "Why did we break up?"	1	2	3	4	5
Have you tried making sense of your break-up in the last two weeks?	1	2	3	4	5
Have you asked why this break-up happened to you?	1	2	3	4	5
	Not at all	A little	Somewhat	Quite Important	Very Important
How important is it for you to make sense of or find some purpose in your breakup?	1	2	3	4	5
	No, not at all	Yes, a little bit	Yes, some	Yes, quite a bit	Yes, a great deal
Have you been able to make any sense or find any purpose in your breakup?	1	2	3	4	5

If you haven't made sense of your breakup, can you tell me more about why you feel that way?

If you have made sense of your breakup, how have you done so?

Centrality of Event Scale

Please answer the following questions thinking about your break-up you described earlier as honestly and sincerely as you can, by using the scale below.

1	2	3	4	5	6	7
Totally disagree			Totally agree			

1. ____ I feel that this break-up has become part of my identity.
2. ____ This break-up has become a reference point for the way I understand myself and the world.
3. ____ I feel that this break-up has become a central part of my life story.
4. ____ This break-up has coloured the way I think and feel about other experiences.
5. ____ This break-up permanently changed my life.
6. ____ I often think about the effects this break-up will have on my future.
7. ____ This break-up was a turning point in my life.

Mood Booster

Try to think of something very positive that has happened within the past 2 years. This could be one of a variety of events such as an academic, athletic, or interpersonal success. This experience can involve other people but it must have had a direct impact on your self. That is, it should have made you feel good about yourself.

Once you have thought of a positive life event, please describe it briefly (in one or two sentences) below.

Please estimate, to the best of your ability, the actual date of this positive event:

/_____
Month / Year

Please rate your current mood using the following scale:

1	2	3	4	5	6	7
Very Negative	Somewhat Negative	A little Negative	Neutral	A little Positive	Somewhat Positive	Very Positive

Accuracy and Honesty Question

Sometimes, for a variety of reasons, people do not respond to study questions honestly or accurately. We recognize that this may occur, and it is very helpful to us in understanding our results if we can identify such cases. Please help us by answering the question below about how you responded to the questionnaire. You still receive full credit for participation in this study regardless of your response.

- Have you responded to this questionnaire package accurately and honestly?

___ Yes ___ No

Appendix F: Study 3 Questionnaire

What is your current relationship status?

- a. Single (not eligible)
- b. Dating
- c. Cohabiting
- d. Married
- e. Separated (not eligible)
- f. Divorced (not eligible)

Age: _____ Gender: _____

Please enter the initials of your *current* partner: _____

What is your ethnic/racial background?

- a. Asian (e.g., Chinese, Japanese, Korean)
- b. South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)
- c. South East Asian (e.g., Cambodian, Indonesian, Laotian)
- d. Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)
- e. Black (e.g., African, Haitian, Jamaican, Somali)
- f. Latin American/Hispanic
- g. Aboriginal
- h. White/Euro-Caucasian
- i. Other (please specify) _____

Center for Epidemiologic Studies Depression Scale (CES-D)

The current items list ways you might have felt or behaved recently. Please indicate how often you have felt this way during the past week. Please use the following scale and put the appropriate number in the space provided.

Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 Days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
0	1	2	3

1. _____ I was bothered by things that usually don't bother me
2. _____ I did not feel like eating; my appetite was poor
3. _____ I felt that I could not shake off the blues even with help from my family or friends
4. _____ I felt that I was just as good as other people
5. _____ I had trouble keeping my mind on what I was doing
6. _____ I felt depressed
7. _____ I felt that everything I did was an effort
8. _____ I felt hopeful about the future
9. _____ I thought my life had been a failure
10. _____ I felt fearful
11. _____ My sleep was restless
12. _____ I was happy
13. _____ I talked less than usual
14. _____ I felt lonely
15. _____ People were unfriendly
16. _____ I enjoyed life
17. _____ I had crying spells
18. _____ I felt sad
19. _____ I felt that people disliked me
20. _____ I could not get "going"

SACO Scale

We are interested in how people think about themselves, in particular, who they feel they are (i.e. their identity). Below is a list of items that represent aspects of people’s identity. Using the scale below, please indicate the degree to which each item describes **who you are right now and who you were in the past (before your breakup)**.

	1	2	3	4	5
	Not at all like me	Somewhat like me	Moderately like me	Quite a bit like me	Definitely like me
				NOW (Today)	THEN (Septemeber /Before breakup)
1. Bad things always seem to happen to me					
2. My life lacks purpose or meaning.					
3. I have difficulty dealing with my fears and anxieties.					
4. I really know who I am.					
5. I have a great deal of compassion or empathy for people.					
6. My relationships are extremely important to me.					
7. Having my actions reflect who I am and what I believe in is very important to me					
8. Being a good friend to those I care about is really important to me.					
9. At times I wonder about my worth as a person.					
10. On the whole I am satisfied with who I am.					
11. It is really important that my relationships are mutually satisfying.					
12. I enjoy connecting with people on an intimate level.					
13. I am pessimistic about my future.					
14. I invest a great deal of time in my relationships with others.					
15. I understand the true thoughts and feelings of my close friend(s) or romantic partner.					
16. I connect well with others.					
17. I am resilient; nothing can knock me down.					

Self-concept Clarity

Using the scale below, please indicate the extent to which you agree or disagree with the following statements *right at this moment*.

	Strongly Disagree					Strongly Agree
1. My beliefs about myself often conflict with one another.	1	2	3	4	5	
2. On one day I might have one opinion of myself and on another day I might have a different opinion.	1	2	3	4	5	
3. I spend a lot of time wondering about what kind of person I really am.	1	2	3	4	5	
4. Sometimes I feel that I am not really the person that I appear to be.	1	2	3	4	5	
5. When I think about the kind of person I have been in the past, I'm not sure what I was really like.	1	2	3	4	5	
6. I seldom experience conflict between the different aspects of my personality.	1	2	3	4	5	
7. Sometimes I think I know other people better than I know myself.	1	2	3	4	5	
8. My beliefs about myself seem to change very frequently.	1	2	3	4	5	
9. If I were asked to describe my personality, my description might end up being different from one day to another.	1	2	3	4	5	
10. Even if I wanted to, I don't think I would tell someone what I am really like.	1	2	3	4	5	
11. In general, I have a clear sense of who I am and what I am.	1	2	3	4	5	
12. It is often hard for me to make up my mind about things because I don't really know what I want.	1	2	3	4	5	

Relationship Satisfaction

Satisfaction Level Facet and Global Items

1. Please indicate the degree to which you agree with each of the following statements regarding your current relationship (circle an answer for each item).

(a) My partner fulfills my needs for intimacy (sharing personal thoughts, secrets, etc.)	Don't Agree At All	Agree Slightly	Moderately Agree	Agree Completely
(b) My partner fulfills my needs for companionship (doing things together, enjoying each other's company, etc.)	Don't Agree At All	Agree Slightly	Moderately Agree	Agree Completely
(c) My partner fulfills my sexual needs (holding hands, kissing, etc.)	Don't Agree At All	Agree Slightly	Moderately Agree	Agree Completely
(d) My partner fulfills my needs for security (feeling trusting, comfortable in a stable relationship, etc.)	Don't Agree At All	Agree Slightly	Moderately Agree	Agree Completely
(e) My partner fulfills my needs for emotional involvement (feeling emotionally attached, feeling good when another feels good, etc.)	Don't Agree At All	Agree Slightly	Moderately Agree	Agree Completely

2. I feel satisfied with our relationship (please circle a number).

0	1	2	3	4	5	6	7	8
Do Not Agree At all				Agree Somewhat				Agree Completely

3. My relationship is much better than others' relationships.

0	1	2	3	4	5	6	7	8
Do Not Agree At all				Agree Somewhat				Agree Completely

4. My relationship is close to ideal.

0	1	2	3	4	5	6	7	8
Do Not Agree At all				Agree Somewhat				Agree Completely

5. Our relationship makes me very happy.

0	1	2	3	4	5	6	7	8
Do Not Agree At all				Agree Somewhat				Agree Completely

6. Our relationship does a good job of fulfilling my needs for intimacy, companionship, etc.

0	1	2	3	4	5	6	7	8
Do Not Agree At all				Agree Somewhat				Agree Completely

Relationship Questions (Relationship Intact condition only)

1. How long have you and your partner been together? _____
2. Is this a monogamous relationship? ____ Yes ____ No
3. How would you label your current relationship status?
 - a. Dating
 - b. Cohabiting (living together)
 - c. Married
 - d. Open relationship
4. Is your relationship long distance or local? ____ Long distance ____ Local
5. If the relationship is long distance, please specify where your partner lives.

Breakup Questions

The next section of questions will involve questions regarding your past romantic relationship. Please take some time to describe how the break-up happened?

Who initiated the break up? You Partner

To what degree was the breakup expected?

1 2 3 4 5 6 7

Not at all Very

What was the date of your break-up? Day: Month: Year:

How long were you and your partner together?

Was your past relationship long distance or local? Long distance Local

If the relationship was long distance, please specify the city/town your partner lived then.

Can you describe briefly (in a few sentences) why the relationship ended?

How surprised were you by the break-up?

1 2 3 4 5 6 7

Not at all Very

How upsetting was the experience for you?

1 2 3 4 5 6 7

Not at all Very

How emotionally intense was the experience for you?

1 2 3 4 5 6 7

Not at all Very

To what extent do you feel that you are over this person?

1 2 3 4 5 6 7

Not at all Very

To what extent do you regret the break-up?

1	2	3	4	5	6	7
						Very

To what extent do you miss this person?

1	2	3	4	5	6	7
						Very

To what extent do you think about this person now that the relationship is over?

1	2	3	4	5	6	7
						Very

Has the breakup of this relationship changed you?

1	2	3	4	5
Not at all	A little	Somewhat	Quite a bit	A Great Deal

If yes, how has it changed you?

Loss and Rediscovery of Self

Please answer the following items using the scale below with how you feel RIGHT NOW.

Not at all

Very Much

1

2

3

4

5

6

7

Since my recent breakup...

1. I do not know who I am.
2. I have lost my sense of self.
3. I have done the things I once enjoyed that I could not do while I was in my relationship.
4. I have regained my identity.
5. I feel as though I am missing a part of me.
6. I have reclaimed lost parts of myself that I could not express while with my partner.
7. I feel as though many of my good qualities have been lost.
8. I have focused more on my needs that were neglected while with my partner.
9. I do not feel like myself anymore.
10. I have become reacquainted with the person I was before the relationships.
11. I have rediscovered who I am.
12. I feel incomplete.

Meaning Questions (Break up Condition only)

Some people who have experienced a negative event find themselves trying to make sense or find some purpose in their experience.

	No, Never	Yes, but rarely	Yes, sometimes	Yes, often	Yes, all the time
Have you tried making sense of your break-up? E.g., asking "Why did we break up?"	1	2	3	4	5
Have you tried making sense of your break-up in the last two weeks?	1	2	3	4	5
Have you asked why this break-up happened to you?	1	2	3	4	5
	Not at all	A little	Somewhat	Quite Important	Very Important
How important is it for you to make sense of or find some purpose in your breakup?	1	2	3	4	5
	No, not at all	Yes, a little bit	Yes, some	Yes, quite a bit	Yes, a great deal
Have you been able to make any sense or find any purpose in your breakup?	1	2	3	4	5

If you haven't made sense of your breakup, can you tell me more about why you feel that way?

If you have made sense of your breakup, how have you done so?

Mood Booster

Try to think of something very positive that has happened within the past 2 years. This could be one of a variety of events such as an academic, athletic, or interpersonal success. This experience can involve other people but it must have had a direct impact on your self. That is, it should have made you feel good about yourself.

Once you have thought of a positive life event, please describe it briefly (in one or two sentences) below.

Please estimate, to the best of your ability, the actual date of this positive event:

/_____
Month / Year

Please rate your current mood using the following scale:

1	2	3	4	5	6	7
Very Negative	Somewhat Negative	A little Negative	Neutral	A little Positive	Somewhat Positive	Very Positive

Accuracy and Honesty Question (Everyone)

Sometimes, for a variety of reasons, people do not respond to study questions honestly or accurately. We recognize that this may occur, and it is very helpful to us in understanding our results if we can identify such cases. Please help us by answering the question below about how you responded to the questionnaire. You still receive full credit for participation in this study regardless of your response.

- Have you responded to this questionnaire package accurately and honestly?

____ Yes

____ No

Appendix G: Additional Tables

Table 23. *Multilevel Models Predicting Pleasant and Unpleasant Affect, and Depressive Symptoms From Identity Change Scores (valence) and Effects of Breakup: Between-Person and Within-Person Effects (Study 3)*

Predictors	Pleasant Affect			Unpleasant Affect			Depressive Symptoms		
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>b</i>	<i>SE</i>	<i>t</i>
Constant	3.27	.04	86.55**	1.91	.03	56.42**	15.45	.54	28.54**
Breakup (Between Effect)	-.47	.13	-3.80**	.42	.11	3.70**	5.62	1.82	3.09**
Time	-.04	.02	-2.07*	-.01	.02	-.36	.11	.32	.34
Concern for others change	.44	.08	5.71**	-.31	.07	-4.32**	-4.66	1.07	-4.37**
Self-assurance change	.57	.06	10.16**	-.55	.05	-10.95**	-10.30	.69	-14.84**
Self-Concept Clarity change	.40	.07	5.59**	-.37	.07	-5.58**	-7.25	.95	-7.65**
Concern for others change X Breakup	.25	.18	1.37	-.64	.17	-3.82**	-6.25	2.55	-2.45*
Self-assurance change X Breakup	.07	.13	.49	-.16	.12	-1.37	-2.52	1.63	-1.55
Self-Concept Clarity change X Breakup	.50	.21	2.37*	-.61	.19	-3.22**	-12.25	2.72	-4.50**

Note. Table presents nine models: Identity change scores (change in concern for others, self-assurance, self-concept clarity) and relationship status (relationship or broken up) on Pleasant affect, Unpleasant affect, and Depressive Symptoms. Change in identity valence scores calculated by subtracting Time 1 current ratings by Time 2, 3 and 4 current ratings. Degrees of freedom for Level 1 effects = 439 (Concern for others predicting Pleasant affect), 437 (Self-assurance predicting Pleasant affect), 435 (Self-concept clarity predicting Pleasant affect); 437 (Concern for others predicting Unpleasant affect), 435 (Self-assurance predicting Unpleasant affect), 433 (Self-concept clarity predicting Unpleasant affect); 437 (Concern for others predicting Depressive symptoms), 435 (Self-assurance predicting Depressive symptoms), 433 (Self-concept clarity predicting Depressive symptoms). Degrees of freedom for Level 2 effect = 325 (Pleasant Affect models), 325 (Unpleasant Affect models), 324 (Depressive symptoms models). Level 1 predictors are person mean centered (group mean centered). Level 2 predictor Breakup (i.e., relationship status) is grand mean centered. * $p < .05$. ** $p < .01$.

Table 24. *Correlations of Meaning Making, and Centrality with Valence Change in Identity Scores (Genuine Change, Study 3).*

	Δ Concern for Others	Δ Self-Assurance	Δ Self-Concept Clarity
Searching for meaning	-.07	-.44*	-.22
Finding meaning	.06	-.03	-.15
Centrality	.03	-.04	.08

Note. Change in concern for others, self-assurance and self-concept clarity calculated by subtracting Time 1 current rating (pre-breakup) from current ratings provided in session immediately following breakup (either Time 2, 3 or 4).

* $p < .05$. ** $p < .01$.

Table 25. *Summary of Regression Analyses for Factors Predicting Valence Identity Change (N = 32, Study 3)*

	Δ Concern for Others		Δ Self-Assurance		Δ Self-Concept Clarity	
	B	<i>p</i>	B	<i>p</i>	B	<i>p</i>
Searching for meaning	-.04	.66	-.20*	.02	-.08	.26
Finding meaning	.04	.69	.03	.75	-.05	.51
Centrality	.01	.87	.003	.96	.03	.55

Note. Change in concern for others, self-assurance and self-concept clarity calculated by subtracting Time 1 current rating (pre-breakup) from current ratings provided in session immediately following breakup (either Time 2, 3 or 4).

* $p < .05$, ** $p < .01$.

Table 26. Summary of Spearman's rho Correlation Analyses for Variables Predicting Identity Change ($N = 32$, Study 3)

	Δ Self-Assurance		Δ Concern for Others		Δ Self-Concept Clarity		Loss of Self		Rediscovery of Self	
	B	p	β	p	β	p	β	p	β	p
Expected	.11	.57	-.02	.94	.24	.20	-.42*	.02	.15	.44
Surprised	.06	.76	-.26	.17	-.10	.60	.23	.23	-.15	.44
Upsetting	-.04	.84	-.01	.95	-.03	.89	.65**	<.001	-.32 [†]	.09
Intensity	-.06	.77	.16	.40	-.20	.29	.60**	<.001	-.15	.42
Over it	-.05	.78	.05	.80	.08	.70	-.60**	<.001	.32 [†]	.09
Regret	.16	.40	-.11	.58	-.08	.67	.51**	.004	-.23	.21
Miss them	.10	.60	.01	.95	-.24	.21	.53**	.003	-.08	.69
Think about	-.01	.96	.11	.55	-.21	.27	.46*	.01	-.20	.30
Change in Self	.11	.58	.26	.17	-.28	.15	.20	.30	.42*	.02
Impact	.11	.57	.05	.81	-.20	.30	.42*	.02	.49**	.006
Changed for better	.11	.58	.31	.10	-.26	.17	-.44*	.02	.46*	.01
Changed for worse	.23	.23	-.19	.31	.09	.63	.80**	<.001	-.19	.31

Note. Change in concern for others, self-assurance and self-concept clarity calculated by subtracting Time 1 current rating (pre-breakup) from current ratings provided in session immediately following breakup (either Time 2, 3 or 4) and using absolute value.

[†] $p \leq .09$. * $p < .05$. ** $p < .01$.

Appendix H: Additional Figures

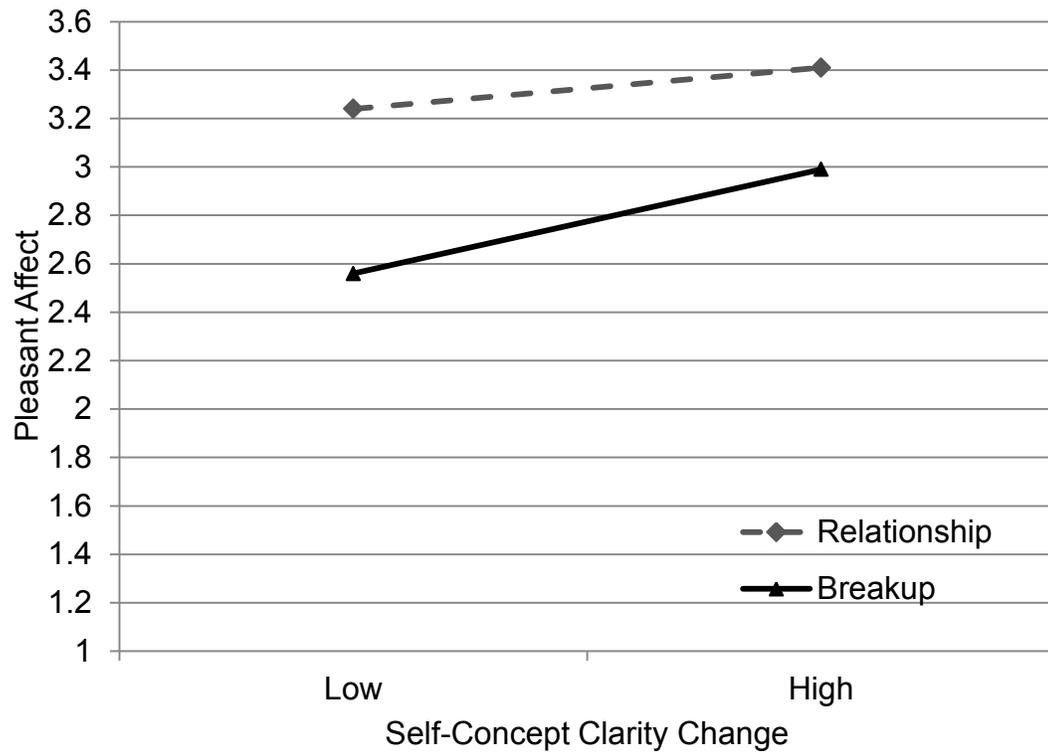


Figure 5. The effect of relationship status (intact vs. breakup) on the relation between valence change in self-concept clarity and pleasant affect (Study 3).

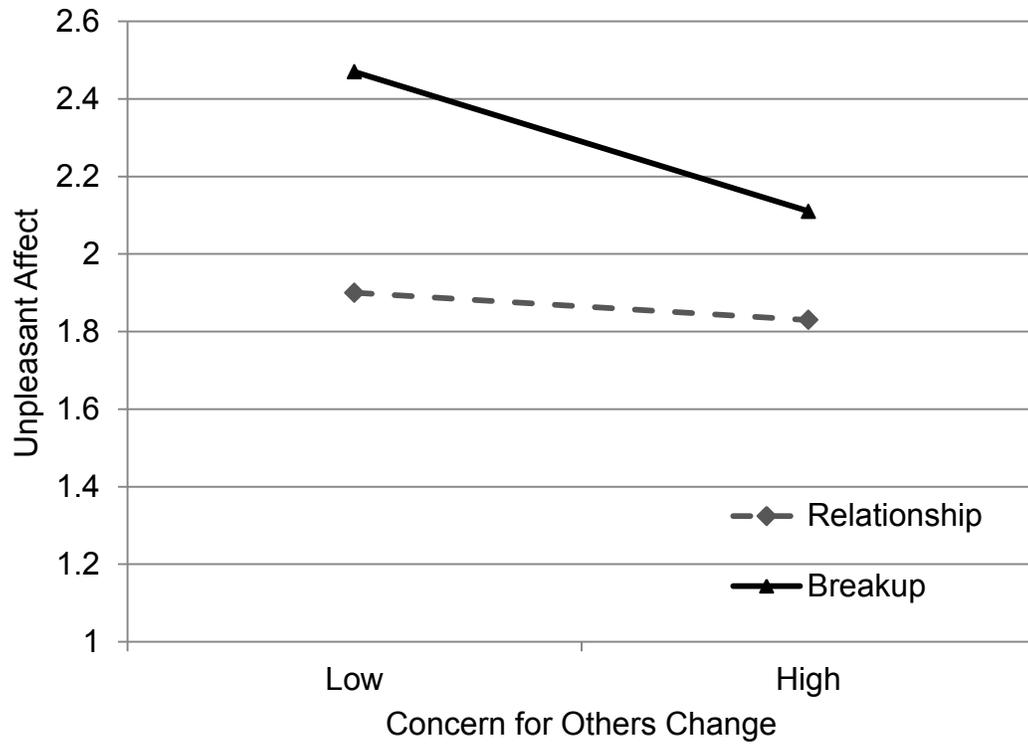


Figure 6a. The effect of relationship status (intact vs. breakup) on the relation between valence change in concern for others and unpleasant affect (Study 3).

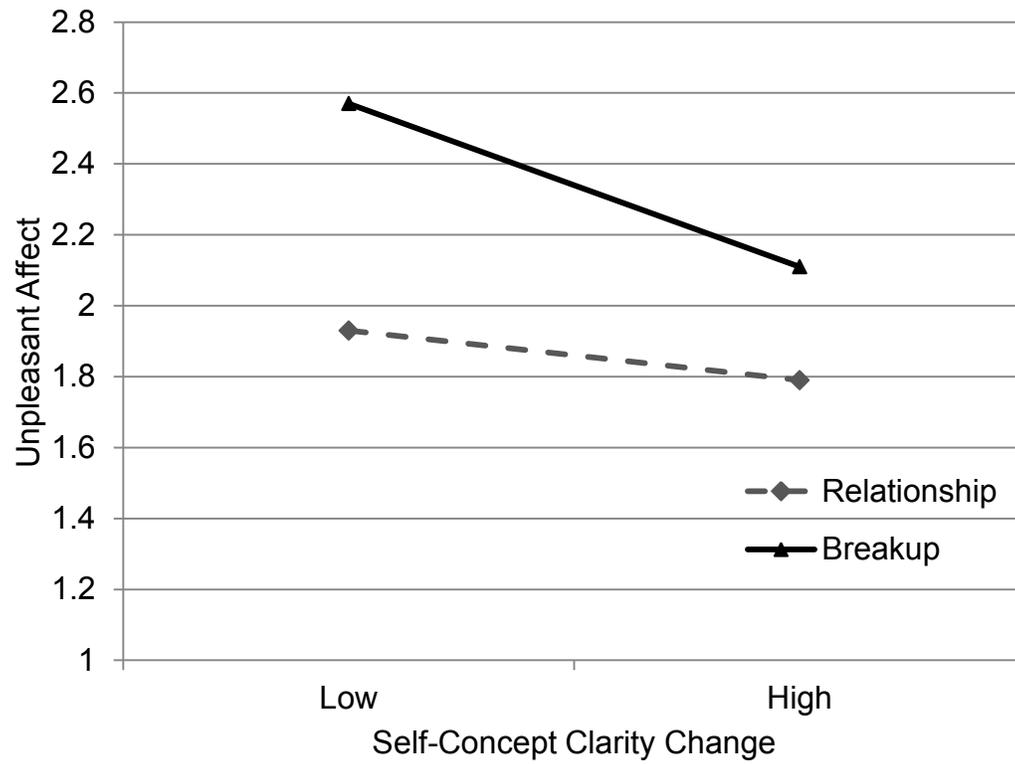


Figure 6b. The effect of relationship status (intact vs. breakup) on the relation between valence change in self-concept clarity and unpleasant affect (Study 3).

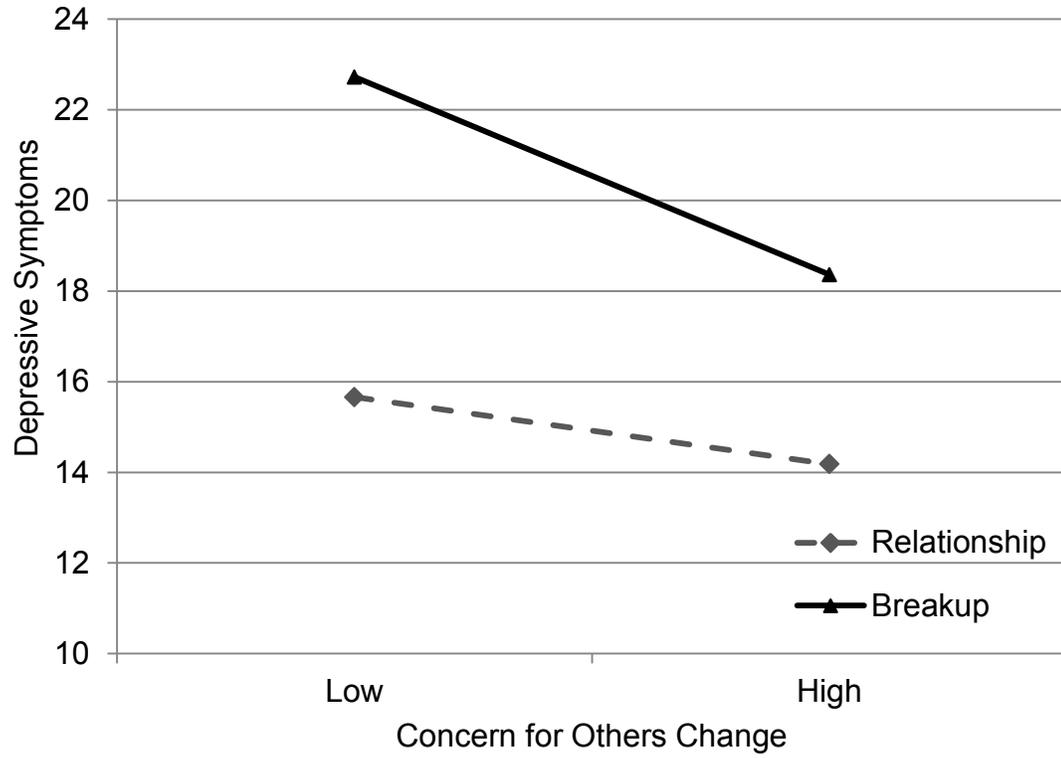


Figure 7a. The effect of relationship status (intact vs. breakup) on the relation between valence change in concern for others and depressive symptoms (Study 3).

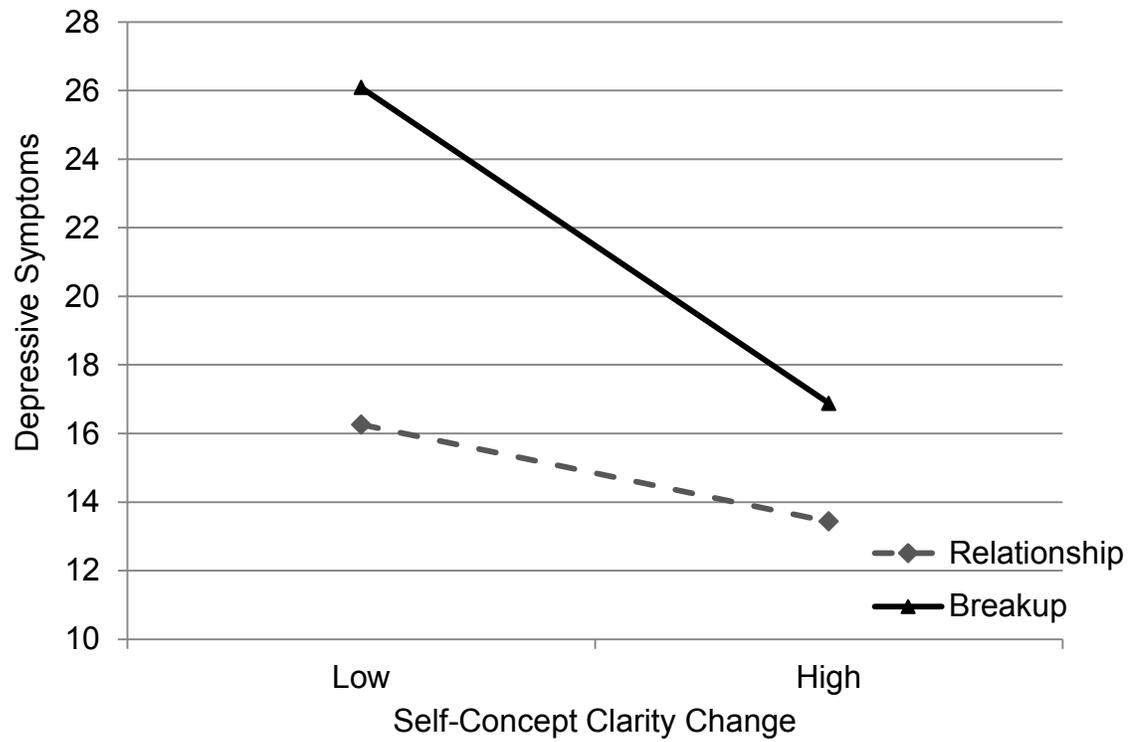


Figure 7b. The effect of relationship status (intact vs. breakup) on the relation between valence change in self-concept clarity and depressive symptoms (Study 3).