Loss and the Organization of Affect

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The present studies evaluated the association between positive affect (PA) and negative affect (NA) following romantic relationship loss experiences, as well as following less stressful romantic relationship situations, given theoretical evidence that the structure of affect may differ following a relationship loss. Across two studies, evidence suggested that the association between NA and PA was more strongly inverse following romantic relationship loss experiences when compared to less stressful relationship experiences. Such findings provide important implications for the study of romantic relationship loss, as well as the treatment of psychopathology following romantic relationship loss.

KEYWORDS negative affect, positive affect, romantic relationships, loss, stress

The experience of both negative (e.g., Field, Diego, Pelaez, Deeds, & Delgado, 2011; Rhoades, Kamp Dush, Atkins, Stanley, & Markman, 2011) and positive (e.g., Lewandowski & Bizzoco, 2007) emotions has been identified following romantic relationship loss, although negative emotions may be experienced more frequently than positive emotions (e.g., Lewandowski & Radice, 2012). A variety of studies have evaluated the sequelae of emotion
following romantic relationship dissolution (e.g., Fagundes, 2011) and have identified both linear and nonlinear changes in emotions during the recovery period among those who have experienced a romantic relationship loss; however, the valence of affect has been highlighted, with little attention to the manner in which emotions are structured or interrelated. This represents a potentially important gap in our knowledge of the affective experience associated with romantic relationship loss, and the current study attempted to address this gap. Knowledge of the structure of emotion may provide implications for the study of romantic relationship loss, as well as information pertinent to effective recovery from a romantic relationship loss, a loss that is both common and stressful (Field, Diego, Pelaez, Deeds, & Delgado, 2009).

AFFECTIVE STRUCTURE

Two research traditions have dominated the general psychological literature on affect for many years, each with a large literature in support of its conceptualization and measurement. The first approach posits that negative affect (NA) (i.e., general distress) and positive affect (PA) (i.e., energy and engagement with one’s environment) are largely independent dimensions of affect (hereafter referred to as the “independent” approach). Watson and Tellegen’s (1985) conceptualization of NA and PA is the most commonly used approach to affect in which independence of NA and PA is assumed, and these dimensions are most frequently measured using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The second approach assumes that NA and PA are inversely related (hereafter referred to as the “inverse” approach). Depression is conceptualized using the inverse approach such that increased NA is accompanied by decreased PA (e.g., Watson et al., 1988). The Beck Depression Inventory, Second Edition (BDI-II; Beck, Steer, & Brown, 1996) is a commonly used measure from the inverse approach.

THE DYNAMIC MODEL OF AFFECT (DMA)

The DMA (Reich, Zautra, & Davis, 2003) provides an integrative model of the two approaches to affect and specifies the conditions under which each perspective is applicable. This information-processing model posits that the differentiating factor in whether or not NA and PA reflect either approach is the degree of stress and uncertainty about the future one is experiencing. The model posits that when individuals are not experiencing stress or uncertainty about the future, they are able to process affective information in a complex manner, and an independent relationship between NA and PA
emerges. However, when individuals experience stress and uncertainty, the DMA posits that their affective processing capacity is diminished, and NA and PA become inversely related. These hypotheses are congruent with theories, such as load theory (e.g., Lavie, Hirst, de Fockert, & Viding, 2004), suggesting that when one is under high cognitive load, such as during stressful situations (e.g., Sato, Takenaka, & Kawahara, 2012), working memory processes are reduced due to cognitive interference, and individuals selectively attend to information in a more simplified manner in order to compensate. In particular, highly stressed individuals may selectively attend to negative, as compared to positive, information (e.g., Mansell, Ehlers, Clark, & Chen, 2002; Reich et al., 2003). Thus, individuals have a reduced processing capacity when stressed, and their ability to attend to and provide responses for multiple dimensions of affect may be reduced, as suggested by the DMA (Reich et al., 2003).

Indirect evidence suggesting that stress and uncertainty, and the associated decrease in processing capacity, may be key variables influencing the association between NA and PA has been identified. For example, following highly stressful events, individuals who were able to provide complex representations of themselves were less likely to be depressed than participants who provided less complex representations of themselves (e.g., Cohen, Pane, & Smith, 1997). Direct evidence for the DMA has also been identified among participants experiencing a variety of potentially stressful situations such as rheumatoid arthritis (Finan et al., 2010), workplace stress (Zautra, Berkhof, & Nicolson, 2002), the death of a loved one (Coifman, Bonanno, & Rafaeli, 2007), and experimental manipulations of stress (Zautra, Reich, Davis, Potter, & Nicolson, 2000). Therefore, tests of the DMA have suggested that a variety of stressful life experiences may influence the association between NA and PA; however, some evidence suggests that stress influences NA to a greater degree than PA (Dowd, Zautra, & Hogan, 2010), and therefore, the inverse association between NA and PA may be largely due to stress influencing NA to a greater degree than PA.

ROMANTIC RELATIONSHIP LOSS

Given that romantic relationship loss has been rated as one of life’s most distressing psychological events (e.g., Field et al., 2009), the structure of affect following events in which romantic relationship loss was considered or carried out may differ when compared to less stressful situations, according to the DMA. Even those initiating the dissolution of a romantic relationship may experience feelings of stress, guilt, and sadness associated with hurting the other individual (e.g., Davis, Shaver, & Vernon, 2003). Accordingly, NA and PA may become inversely associated for both the “dumpers” and “dumpees” in a potential or actual breakup. Furthermore, individuals who
experience a romantic relationship loss are at increased risk for developing a variety of mental health and physical health concerns (e.g., Chung et al., 2003). As a result, an understanding of the structure of affect following romantic relationship loss may be important for identifying effective means for adaptive recovery from such a loss.

In the present studies, we evaluated the association between NA and PA among individuals who experienced events related to romantic relationship loss and nonstressful relationship events using both experimental and correlational designs. In Study 1, participants recalled a romantic relationship experience where dissolution was considered or recalled a neutral or positive relationship experience using an experimental design. In Study 2, individuals who experienced a romantic relationship loss and those who remained in an intact relationship participated. We hypothesized that a more strongly inverse association between NA and PA would be found following stressful romantic relationship events involving loss when compared to following nonstressful relationship events.

STUDY 1

Study 1 was designed as an experimental test of the association between NA and PA following a situation in which relationship dissolution was considered. Participants were asked to complete a measure of affect before and after engaging in an experimental priming manipulation in which they were asked to provide a written description of one of three situations outlined below (i.e., relationship loss, nonstressful, and neutral). We predicted that NA and PA would be relatively independent before and after participation in the nonstressful or control conditions. Additionally, we predicted that NA and PA would be relatively independent before engaging in the relationship loss manipulation; however, we predicted that the association between NA and PA would become more strongly inverse following the stressful manipulation.

Method

PARTICIPANTS AND PROCEDURE

Three hundred eighty-four young adults (58.1% female; mean age = 19.46) from a large midwestern university who had been in a romantic relationship for at least 12 months ($M = 24.60$) participated in Study 1 for course credit. The majority of participants self-identified as Caucasian (68%; African-American, 15%; Hispanic, 10%; other, 7%). Participants completed the measures described below via an online Web site used to track study participation for university students. As compensation for their time, participants received credit towards the research participation requirement for an introductory psychology course.
Measures

Affect. Participant affect was measured twice, once before and once after the manipulations described above, utilizing the Positive and Negative Affect Schedule (Watson et al., 1988). The PANAS is a widely used 20-item self-report measure in which 10 items assess NA and 10 items assess PA. Items consist of words describing different feelings or emotions (e.g., alert, guilty), and respondents in the present study were asked to indicate the extent to which they were experiencing each feeling or emotion “right now,” using a 5-point scale. Internal consistency was adequate for NA before ($\alpha = .90$) and after ($\alpha = .85$) the manipulations, as well as PA before ($\alpha = .90$) and after ($\alpha = .84$) the manipulations. Measures that were not pertinent to the current investigation were completed in between the first measurement of affect and the manipulation to increase the amount of time between affect measurements.

Manipulation check. As a manipulation check to ensure that stress and uncertainty about the future occurred in the relationship loss group, but not in the positive or neutral group, participants were asked to indicate, on a 5-point scale ranging from 0 (none at all) to 4 (a lot), how much stress and uncertainty about the future of their romantic relationship was experienced during the writing exercise.

Manipulation. Participants were asked to type, in as much detail as possible, a passage describing one of three situations: (a) the last time they thought their romantic relationship might end and any circumstances that contributed to these thoughts (hereafter referred to as the “relationship loss group”; $n = 175$), (b) a recent positive experience in their relationship (hereafter referred to as the “nonstressful group”; $n = 103$), and (c) details regarding the room in which the online measures were completed (hereafter referred to as the “neutral group”; $n = 104$). Participants who did not provide at least 75 words in their response were not included in the current study analyses. The relationship loss group was asked to write about the last time they thought their relationship would end in order to induce stress and uncertainty about the future. Alternatively, the nonstressful and neutral groups were designed to be utilized as comparison groups, as stress and uncertainty about the future of their romantic relationship were not hypothesized to increase at any point during the study.

Results

Descriptive statistics for study 1 participants are presented in Table 1. To evaluate the effectiveness of each manipulation, group differences regarding the amount of stress and uncertainty about the future of the romantic relationship associated with the writing experience were examined. Results indicated that the relationship loss group experienced significantly more
stress during the writing experience than both the positive ($t = 10.43, p < .01$) and neutral groups ($t = 10.83, p < .01$); they also experienced increased uncertainty about the future of their romantic relationship relative to both the positive ($t = 4.47, p < .01$) and neutral groups ($t = 6.24, p < .01$). These results suggest that Study 1 may be an adequate test of DMA principles given the observed increase in stress and uncertainty about the future of romantic relationships only when individuals were asked to describe a difficult relationship situation in which dissolution was considered.

To examine whether the association between NA and PA varied across groups, a confirmatory factor analysis (CFA) using the robust maximum likelihood estimator was generated with EQS (Version 6.1; Bentler, 2004) structural equation modeling software for each manipulation group. For each CFA, item-parceling techniques were utilized, and three parcels of items were generated and used as indicators of the latent constructs of NA and PA both pre- and post-manipulation (for a review of item parceling, see Little, Cunningham, Shahar, & Widaman, 2002). As shown in Figure 1, fit indices generated for the relationship loss group CFA suggest an acceptable fit to the data and are consistent with previous research (Reich et al., 2003). For instance, the comparative fit index (CFI) was .98, indicating a good fit relative to the baseline model (see Schermelleh-Engel, Moosbrugger, & Müller, 2003). Additionally, the root mean square error of approximation (RMSEA) in the present study was .05, representing a good model fit (see Browne & Cudeck, 1993). Prior to the manipulation, the identified association between NA and PA for the relationship loss group ($\beta = -.15, p > .05$) supports the hypothesis that NA and PA would be relatively independent before the manipulation and suggests that an independent approach to affect was most appropriate; however, following the manipulation, the association between NA and PA was more strongly inverse ($\beta = -.42, p < .05$). To test whether

### TABLE 1 Descriptive Statistics for Study 1 Participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Relationship loss group $M (SD)$</th>
<th>Positive group $M (SD)$</th>
<th>Control group $M (SD)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>19.32 (1.72)</td>
<td>19.33 (2.67)</td>
<td>19.82 (2.21)</td>
</tr>
<tr>
<td>Relationship months</td>
<td>25.51 (13.88)</td>
<td>22.74 (16.10)</td>
<td>24.89 (17.08)</td>
</tr>
<tr>
<td>Pre-manipulation NA</td>
<td>18.43 (7.47)</td>
<td>18.69 (6.32)</td>
<td>16.83 (5.45)</td>
</tr>
<tr>
<td>Pre-manipulation PA</td>
<td>29.35 (8.28)</td>
<td>35.23 (6.62)</td>
<td>34.53 (7.39)</td>
</tr>
<tr>
<td>Post-manipulation NA</td>
<td>18.29 (5.86)</td>
<td>17.01 (7.56)</td>
<td>15.60 (5.76)</td>
</tr>
<tr>
<td>Post-manipulation PA</td>
<td>28.95 (6.39)</td>
<td>30.89 (8.55)</td>
<td>28.96 (9.45)</td>
</tr>
<tr>
<td>Stress post-manipulation</td>
<td>1.92 (1.40)</td>
<td>.45 (.96)</td>
<td>.43 (.91)</td>
</tr>
<tr>
<td>Uncertainty post-manipulation</td>
<td>1.60 (1.32)</td>
<td>.87 (1.29)</td>
<td>.70 (1.06)</td>
</tr>
</tbody>
</table>

*Note. Relationship loss group $n = 177$; positive group $n = 103$; control group $n = 104$. Stress = amount of stress associated with the writing exercise; uncertainty = uncertainty about future of romantic relationship associated with the writing exercise.*
these correlations were statistically different, the model was evaluated while constraining the associations to be equal. The goodness of fit reduction when these correlations were constrained to be equal, $\chi^2(1) \text{ change} = 16.16$, $p < .01$, suggests that the association following the manipulation was stronger than the association prior to the manipulation.

The CFA for the nonstressful group, as shown in Figure 2, was a relatively good fit to the data given the observed CFI (.99) and RMSEA (.05)
values. The CFA suggests that the NA × PA relationship was similar both pre-manipulation (β = −.13) and post-manipulation (β = −.15), as evidenced by no significant difference in goodness of fit when the associations were constrained to be equal. These results provide evidence for the hypothesis that NA and PA would be relatively independent both pre- and post-manipulation for the nonstressful group. Similarly, the CFA for the neutral group, as shown in Figure 3, was a good fit to the data (CFI = 1.00, RMSEA < .01) and suggested a relatively independent association between NA and PA both pre-manipulation (β = −.05) and post-manipulation (β = −.11), as evidenced by similar goodness of fit when the correlations were constrained to be equal.

Discussion

Given the adequate model fit for each CFA and an identified stronger inverse association between NA and PA post-manipulation for only the relationship loss group, Study 1 provides initial evidence that the association between NA and PA may differ following a romantic relationship loss processing situation when compared to processing of nonstressful relationship situations. More specifically, an inverse association between NA and PA was observed only when recalling a stressful relationship experience where dissolution was considered, which was consistent with expectations.

Although Study 1 provides an initial indication that the association between NA and PA may differ following recall of relationship loss consideration, it remains unclear whether or not the association between NA and PA

**FIGURE 3** Confirmatory factor analysis model of the relationship between positive and negative affect before and after the control manipulation. N = 104. *p < .05. Values represent standardized regression coefficients. CFI = 1.00; RMSEA < .01.
differs when dissolution actually occurs. Furthermore, all participants in Study 1 were at similar relationship stages (i.e., an intact relationship lasting at least 12 months), making generalization of the data to those with differing romantic relationship statuses difficult. Therefore, further examination of the association between NA and PA following romantic relationship loss events is needed.

STUDY 2

Study 2 was designed to complement Study 1 in several ways. First, Study 2 evaluated the association between NA and PA following actual romantic relationship loss. An evaluation of affect among participants who recently experienced a romantic relationship loss may provide a “real-world” evaluation of the structure of affect following relationship loss. Moreover, uncertainty about the future, a hypothesized contributor to an increase in the strength of the relationship between affect dimensions (Reich et al., 2003), is likely heightened given the number of life changes occurring after a relationship loss (Rhoades et al., 2011). Second, the design of Study 2 allowed for comparisons between groups at differing relationship stages, as a control group containing individuals in intact relationships was utilized. Third, variables that may be associated with the interaction between NA and PA (e.g., relationship quality) were included in Study 2. We predicted that the association between NA and PA would be significantly inverse only among participants who recently experienced a romantic relationship loss. Furthermore, we predicted that relationship length, relationship quality, and terminator status (i.e., being a “dumper” or “dumpee” within the romantic relationship dissolution) would not be associated with NA, PA, or the interaction between NA and PA for the romantic relationship loss group given evidence that romantic relationship dissolution may be stressful even for those responsible for terminating the relationship (Davis et al., 2003).

Method

Participants

The study included two groups of young adults who were recruited from either a large western or large midwestern university. The first group consisted of individuals \( n = 107; 66\% \text{ female}; M_{\text{age}} = 21.64, SD = 3.34 \) who had recently experienced the dissolution of a romantic relationship \( M_{\text{days}} = 16.43, SD = 8.8 \) that had lasted at least 4 months \( M_{\text{months}} = 19.26, SD = 16.05 \); hereafter referred to as the “romantic relationship loss group”). The second group, serving as a control group, consisted of individuals \( n = 85; 87\% \text{ female}; M_{\text{age}} = 19.42, SD = 3.78 \) who were currently in a romantic relationship that had lasted at least 4 months \( M_{\text{months}} = 21.99, SD = 14.18 \). The
majority of participants self-identified as Caucasian (79%; African-American, 11%; Hispanic, 5%; other, 5%). Participants received either research credit for an introductory psychology course or $12 as compensation for their time.

PROCEDURE

Romantic relationship loss group participants scheduled a laboratory visit within 2 weeks of the date on which their romantic relationship was terminated. To recruit individuals for the romantic relationship loss group, an e-mail was sent to registered undergraduate students asking if they had experienced a relationship loss from a relationship that had lasted at least 4 months in the past 2 weeks. Relationship loss group participants were provided with a list of local resources specializing in providing therapy associated with mental health and romantic relationship issues immediately following study participation. The control group completed study procedures online via a Web site used to track study participation for university students.

MEASURES

Affect. Participants completed the PANAS (Watson et al., 1988), a widely used measure of NA and PA. Ten items assess each dimension of affect, and each item describes a feeling or emotion (e.g., scared, enthusiastic). Participants in Study 2 were asked to indicate the extent to which they were experiencing each feeling or emotion “right now,” on a 5-point scale. Internal consistency was adequate for both the romantic relationship loss (NA = .89, PA = .91) and control groups (NA = .86, PA = .87). Participants in the relationship loss group reported significantly higher NA than control participants (M = 25.71, SD = 8.51, for the relationship loss group; M = 15.88, SD = 5.98, for the control group; t = 9.38, p < .01), while control participants reported significantly higher PA (M = 27.87, SD = 8.08, for the relationship loss group; M = 34.14, SD = 7.44, for the control group; t = −5.53, p < .01).

Relationship quality. Relationship quality was assessed with the Quality of Relationship Inventory (QRI; Pierce, Sarason, & Sarason, 1991). The QRI is a 25-item measure assessing the quality of a close relationship, and all items are answered on a 4-point scale (1 = not at all, 4 = very much). This measure assesses the degree of support, depth, and conflict in close relationships. Romantic relationship loss group participants were asked to complete the QRI when thinking about their prior romantic relationship partner. For the current study, these dimensions were consolidated into one scale reflecting an overall index of relationship quality. Internal consistency for the QRI was adequate for both the romantic relationship loss (α = .86) and control groups (α = .93), and relationship loss group participants
reported lower relationship quality than control participants \((M = 70.64, SD = 11.42,\) for the relationship loss group; \(M = 80.64, SD = 17.07,\) for the control group; \(t = -4.64, p < .01\)).

**Terminator status.** Participants in the relationship loss group were asked to indicate who terminated their relationship by selecting one of the three following items: “I terminated the relationship (I dumped my partner),” “The break-up was mutual,” or “My partner terminated the relationship (I was dumped).” In the current study, terminator status was coded as 1 (dumped) or 2 (not dumped) (i.e., participants terminated the relationship or felt the termination was mutual).

**Results**

For the romantic relationship loss group, a large inverse association between NA and PA \((r = -0.56)\) was identified (see Table 2), while a small inverse association was identified for the control group \((r = -0.19)\). To evaluate whether or not the associations between NA and PA differed between groups, a Fisher’s \(r\)-to-\(z\) transformation was utilized, and a significant difference was identified \((z = -2.98, p < .01)\). Thus, the association between NA and PA was more strongly inverse for the romantic relationship loss group, as compared to the control group. Furthermore, for the romantic relationship loss group, correlational analyses revealed that participant age, gender, relationship length, and relationship quality, as well as terminator status, were not significantly associated with NA or PA; however, participant age was negatively associated with PA in the control group.

Regression analyses were also utilized to evaluate whether or not NA, PA, or the interaction between NA and PA were associated with relationship characteristics of romantic relationship loss group participants. Neither NA, PA, nor the interaction between NA and PA were significantly associated with relationship length, relationship quality, or terminator status among romantic relationship loss group participants as hypothesized.

**TABLE 2** Bivariate Correlations Between Study 2 Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative affect</td>
<td>—</td>
<td>-.01</td>
<td>-.03</td>
<td>.02</td>
<td>-.19</td>
<td>-.34</td>
<td>**</td>
</tr>
<tr>
<td>2. Positive affect</td>
<td>-.56</td>
<td>—</td>
<td>-.26</td>
<td>-.11</td>
<td>.07</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>3. Age</td>
<td>.16</td>
<td>-.12</td>
<td>—</td>
<td>.07</td>
<td>.06</td>
<td>-.33</td>
<td>**</td>
</tr>
<tr>
<td>4. Gender</td>
<td>.09</td>
<td>-.02</td>
<td>-.01</td>
<td>—</td>
<td>-.07</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>5. Relationship length</td>
<td>.09</td>
<td>.04</td>
<td>.14</td>
<td>.15</td>
<td>—</td>
<td>—</td>
<td>.13</td>
</tr>
<tr>
<td>6. Relationship quality</td>
<td>-.07</td>
<td>-.04</td>
<td>-.09</td>
<td>.06</td>
<td>-.09</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7. Terminator status</td>
<td>.16</td>
<td>-.12</td>
<td>.01</td>
<td>-.10</td>
<td>.02</td>
<td>.23</td>
<td>*</td>
</tr>
</tbody>
</table>

*Note.* Gender was coded as 0 = male and 1 = female. Relationship length reflects time in months. Terminator status was coded as 1 = not dumped and 2 = dumped. Breakup group participants \((n = 107)\) are presented below the diagonal, and control group participants \((n = 85)\) are presented above the diagonal.

\(^*p < .05; \ **p < .01.\)
Discussion

Study 2 data provide further evidence that the association between NA and PA may differ among those who recently experienced a relationship loss. As hypothesized, an inverse association between NA and PA was identified for participants who recently experienced a relationship loss, and an independent association was identified for those whose relationships remained intact. Furthermore, given that neither NA, PA, nor their interaction were significantly associated with relationship length, quality, or terminator status, Study 2 findings indicate that the structure of affect may differ following romantic relationship loss regardless of one's position within the loss.

GENERAL DISCUSSION

Although evidence for an inverse association between NA and PA has been identified following numerous stressful life experiences and during experimentally induced stress conditions, only one study, to our knowledge, has evaluated the association between NA and PA among those exposed to a romantic relationship loss. That study evaluated the structure of affect among middle-aged adults coping with the death of a loved one, and a significant inverse association between NA and PA was identified (Coifman et al., 2007). Despite the differences in the duration and nature of the romantic relationships of the participants included in Coifman et al. (2007) as compared to the present study, findings suggesting a significant inverse association between NA and PA among individuals processing or experiencing relationship loss appear to be robust.

These results provide implications for the research area given the growing interest in coping with relationship loss (e.g., Fagundes, 2011; Finkel & Fitzsimons, 2011), affective forecasting following loss (Eastwick, Finkel, Krishnamurti, & Loewenstein, 2008), and coping strategies that may assist in restoring emotional balance (e.g., Perilloux & Buss, 2008). For instance, when evaluating affect among those experiencing a loss, measurement of both NA and PA allows for appropriate measurement and interpretation of the data, as previously discussed (see Reich et al., 2003).

Results from the present studies also provide information pertinent to adaptive recovery from a relationship threat or a relationship loss. Such recovery may be associated with engagement in strategies aimed at reducing the strength of the association between NA and PA, which are discussed below. Strand, Reich, and Zautra (2007) suggest that the ability to process affect in a complex manner may be associated with individuals' being able to “restore and sustain emotional balance” (p. 517) even during aversive states or events. Therefore, given the results identified in the present studies, strategies that reduce the strength of the association between negative
and positive emotions may be of high importance for individuals who develop psychopathology following a relationship loss. Two such strategies have been identified. First, high cardiovascular reactivity occurring in response to a stressful situation has been found to return to resting levels more rapidly if one is immediately exposed to positive stimulation, as compared to those not exposed to positive stimuli (Fredrickson & Levenson, 1998), a process described as “undoing” (p. 193). Therefore, immediately following a relationship threat or loss, participation in enjoyable activities or situations in which positive emotions are likely to be elicited may assist in adaptive recovery. Such participation in enjoyable activities may be a more beneficial coping strategy than many widely used behaviors, such as discussing the loss with another individual and ruminating about the loss (e.g., Perilloux & Buss, 2008).

A second strategy that may assist in reducing the strength of the relationship between NA and PA following relationship loss is engagement in mindfulness therapy (e.g., Kabat-Zinn, 1982). Generally, when individuals encounter stressors, they engage in hypervigilance, and NA tends to dominate their affective processing space (Reich et al., 2003). In order to reduce the strength of the association between NA and PA using mindfulness techniques, one must learn to accept stress and negative cognitions. Such acceptance is thought to reduce one’s stress response (Kabat-Zinn, 1982), potentially allowing for a reduction of the strength of the relationship between NA and PA.

Limitations and Future Directions

Although Studies 1 and 2 have implications for the study of romantic relationship dissolution, various aspects of the studies limit the generalizability of the findings. First, given that participants in Studies 1 and 2 were university students in early adulthood, future research should examine the association between NA and PA following stressful romantic relationship loss events among samples varying in levels of education and age. Moreover, a number of potentially stressful romantic relationship loss situations were not evaluated in Studies 1 and 2 (e.g., divorce), and therefore, future research examining the association between NA and PA among populations experiencing a variety of romantic relationship loss experiences is warranted. Also, the majority of participants in Studies 1 and 2 self-reported Caucasian ethnicity, and therefore future research should examine whether or not a similar strengthening of the relationship between affect dimensions occurs in larger samples that allow for examination of the generalizability of effects among differing ethnic groups.

In addition to sample limitations, measurement of affect in the present studies reflected concurrent measurement or measurement separated by relatively short time periods. As a result, it may be beneficial for future research
to examine the association between NA and PA using an increased number of time points across a wider range of time in order to more fully understand the course of the association between NA and PA following a relationship loss. Such measurement of affect may assist in understanding the dynamic nature of affect within romantic relationships. Moreover, although the ability to process affect is the main hypothesized contributor to the association between NA and PA according to the DMA, the methodology utilized in the present studies did not include examination of whether or not participants differed in terms of their ability to process affect. As a result, it may be beneficial to measure processing capacity following a relationship loss in future research in order to elucidate the present study findings. This may be accomplished by including measures of processing performance, such as measures of working memory or dual task performance. Lastly, future research examining potentially useful techniques for reducing the strength of the association between NA and PA following relationship loss events may be beneficial, as an independent relationship between NA and PA may provide a buffer against the development of future psychopathology.

REFERENCES


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 relationship...
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