

Promoting positive emotions following relationship dissolution through writing

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Past research shows that writing promotes coping following traumatic events, but pays limited attention to the benefits of writing following relationship dissolution. Research also largely overlooks the utility of positively-focused writing following stressful events. A total of 87 currently single participants (25 males, 62 females) who recently experienced relationship dissolution were randomly assigned to one of three writing conditions (negatively-focused, positively-focused, and neutral) to determine writing's impact on change in emotions. As hypothesized, participants in the positive writing condition increased in positive emotions from pretest to immediate posttest compared to both the negative writing and neutral writing conditions. There were no differences between conditions in the experience of negative emotions. These findings show how writing can help people cope with relationship dissolution.

Keywords: coping; relationship termination; positive emotions; negative emotions; writing

Introduction

A commonly cited statistic is that approximately 50% of marriages will end in divorce (Popenoe & Whitehead, 2004). While that number seems high, the percentage of premarital relationships that eventually end is likely much higher. In fact, the prevalence of premarital break-up is such that nearly everyone experiences one or more break-ups in their lifetime. Although relationship dissolution (i.e., break-up) can lead to positive outcomes such as personal growth and positive emotions (Lewandowski & Bizzoco, 2007; Tashiro, Frazier, & Berman, 2006), research demonstrates that relationship dissolution coincides with the experience of distress (e.g., Choo, Levine, & Hatfield, 1996; Fine & Sacher, 1997), loss of self (e.g., Drew, Heesacker, Frost, & Oelke, 2004; Lewandowski, Aron, Bassis, & Kunak, 2006), and precipitates major depression (Monroe, Rohde, & Seeley, 1999). These outcomes necessitate strategies that maximize positive emotions post-dissolution while simultaneously minimizing negative emotions. The purpose of this study is to assess the potential for an expressive writing task that focuses on positive aspects of a stressful event to increase the experience of positive emotions, and decrease the experience of negative emotions post-dissolution.

Positive outcomes post-dissolution

Although relationship dissolution is a stressful event, it has the potential to produce positive outcomes

(Tashiro et al., 2006). In response to the open-ended growth item, college students cited an average of five positive changes, most commonly in terms of personal growth associated with the self (Tashiro & Frazier, 2003). More recent research found that personal growth was greater if undergraduates had ended an unfulfilling relationship, and if participants experienced more positive emotions following dissolution (Lewandowski & Bizzoco, 2007). Results also indicated that positive emotions were negatively correlated with coping through venting, and positively correlated with coping through positive reinterpretation of relationship dissolution. The cognitive nature of positive reinterpretation suggests that coping strategies based on cognitive processing may be a good strategy for coping with dissolution. Further, those focused on negative emotions such as venting may be less effective. Finally, results suggest that initiator status may have played a role in the post-dissolution experience of emotions such that those who reported the self as the initiator reported more positive emotions and less negative emotions compared to those who reported the partner as the initiator.

Coping with traumatic events through expressive writing

Expressive writing or journaling is an intervention that is well-suited to coping with relationship dissolution due to its focus on cognitive-processing, simple format,

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and previous application to other traumatic experiences (Pennebaker, 1997). The general format of these writing studies involves participants in the experimental group coming to a laboratory and writing about a traumatic topic 15–30 minutes a day for 3–5 consecutive days without receiving any feedback from the experimenter. The control group writes about a superficial, non-traumatic topic. Studies have modified this paradigm slightly by having participants partake in the writing exercises at home or in the environment of their choosing (e.g., Lepore & Greenberg, 2002; Low, Stanton, & Danoff-Burg, 2006; Pennebaker & Beall, 1986), while other studies have varied the period over which participants write (e.g., Low et al., 2006; Ullrich & Lutgendorf, 2002).

Results from a meta-analysis suggest that, compared to control conditions, writing about traumatic events produces an initial increase in distress from pretest to posttest (Smyth, 1998). However, over the long-term, writing leads to a decrease in negative outcomes and feelings compared to the control group (Smyth, 1998). A more recent and more inclusive meta-analysis found that writing is beneficial in decreasing distress and increasing subjective well-being (Frattaroli, 2006).

Coping with relationship dissolution through expressive writing

Interestingly, in studies where participants were able to choose the traumatic event about which they could write, many choose to write about relationship dissolution or relationship difficulties. In fact, relationship problems/dissolution was second only to death of a loved one in which data on essay topic was reported, and was mentioned by up to 25% of participants (Kloss & Lisman, 2002; Park & Blumberg, 2002; Pennebaker & Beall, 1986; Ullrich & Lutgendorf, 2002). This demonstrates that participants considered relationship dissolution an upsetting or traumatic event. Indeed, a study of word use in college students' narratives about their most recent break-up found that inclusion of negative emotions and first person singular pronouns was associated with grief (Boals & Klein, 2005). However, the single time point in this study makes it impossible to determine if participants benefited from the writing about the relationship.

Of the numerous writing studies, only one focused specifically on using writing to cope with relationship dissolution (Lepore & Greenberg, 2002). In this study, 145 undergraduates who recently experienced relationship dissolution wrote for 20 minutes a day for 3 consecutive days. The experimental group wrote about slightly different aspects of the break-up each day. On consecutive days the experimental group wrote about what their relationship was like before the break-up

(Day 1), what factors led up to the break-up (Day 2), and about the aftermath of the break-up (Day 3). The directions, however, were general and did not ask participants to focus on positive or negative aspects of the break-up.

Interviews conducted before and after the writing task assessed upper respiratory health symptoms, mood (tension, anger, depression, vigor, and fatigue), cognitive processing, and attitudes about the ex-partner. Findings indicated that those in the experimental condition experienced fewer upper respiratory health symptoms compared to the control group. No significant differences between groups were found for overall mood from pretest to 2 weeks after writing. When researchers examined each of the five items from the mood measure individually, tension and fatigue increased significantly in the control condition from pretest to 2 weeks after writing, while the experimental group showed no significant change. In the long term, there were no differences between groups. These findings suggest that writing about dissolution can be beneficial because it leads to fewer health symptoms, but may not have any influence on negative mood in the short or long-term. The inconclusive findings regarding change in mood from pretest to 2 weeks after writing contrasts with findings from other applications of the writing paradigm to traumatic events that show initial increases in negative mood (Smyth, 1998). This may be a simple result of having the posttest measure 2 weeks after the writing exercise (Lepore & Greenberg, 2002). It would be also helpful to examine if writing about relationship dissolution could influence positive emotions.

The positive side of expressive writing

Previous research established that positive emotions can occur naturally following dissolution (Lewandowski & Bizzoco, 2007; Tashiro & Frazier, 2003). It would be beneficial to identify strategies people can adopt to increase positive emotions as soon after dissolution as possible, particularly since the experience of positive emotions positively correlates with personal growth (Lewandowski & Bizzoco, 2007). There is a growing body of literature based in positive psychology that examines the positive elements of experience that promote growth and personal prosperity (Seligman & Csikszentmihalyi, 2000). Consistent with this approach, researchers examine if writing about traumatic events can produce positive emotions.

Positive events

The most straightforward way to promote positive outcomes is to write about positive aspects of positive experiences. Kloss and Lisman (2002) found that participants who wrote about a positive event

experienced an increase in positive emotions from before to immediately after writing compared to those who wrote about a traumatic event. Using a similar design, Marlo and Wagner (1999) found no difference between groups for positive emotions, but did report that those in the positive event writing condition experienced greater psychological health at immediate posttest. Increases in positive affect were found at immediate posttest in a study that had participants focus on intensely positive experiences (Burton & King, 2004). Specifically, those who wrote about positive events, compared to control, experienced greater positive affect and less negative affect immediately following writing. Another study of positive events found that life satisfaction was greater when measured 4 weeks later when participants thought about positive events compared to those who talked or wrote about them (Lyubomirsky, Sousa, & Dickerhoof, 2006). Taken together, these studies suggest that thinking or writing can promote positive emotions.

Negative events

A less intuitive possibility is that writing about negative events can lead to positive emotions. Although not the primary purpose of the research, several studies were inconclusive regarding the influence of writing about negative experiences on positive emotions (e.g., Lyubomirsky et al., 2006; Pennebaker, Colder, & Sharp, 1990; Range, Kovac, & Marion, 2000). Several studies have reported that writing about negative events results in decreased positive affect (e.g., Greenberg & Stone, 1992; Páez, Velasco, & Gonzalez, 1999). A study on relationship loss, in this case writing about the death of a spouse, found a decrease in positive affect over 2 weeks (Segal, Bogaards, & Chatman, 1999). In contrast, a study of adolescents with asthma found that those who wrote at home for 3 days about stressful events had increased positive emotions compared to the control group (Warner et al., 2006). Unfortunately, it is not clear whether these outcomes are a result of the nature of the event or of the writing instructions.

Writing content and positive outcomes

The general writing paradigm asks participants to generally describe an event without a specific prompt from researchers to focus on positive or negative aspects. Subsequently, some research analyzed the essay's content and showed that the use of positive emotion words related to positive outcomes such as better health (Pennebaker, 1997), while the use of negative emotion words related to negative outcomes such as illness symptoms (Ullrich & Lutgendorf, 2002),

or more grief related to relationship dissolution (Boals & Klein, 2005).

More recently, the writing paradigm has been applied to those currently in a romantic relationship to determine if writing related to relationship stability (Slatcher & Pennebaker, 2006). In this study, 86 participants currently involved in a romantic relationship were randomly assigned to either write about their relationship or about their daily activities for 3 days. Those assigned to the relationship condition were given the standard writing instructions to focus on thought and feelings and were not told to focus on any particular aspect of the experience. Participant's instant message conversations with their romantic partner from the days before and after the writing manipulation were also collected and analyzed for emotional content. Results at the 3 month follow-up indicated that those in the relationship writing condition were more likely to remain in their relationship compared to control, and that remaining in the relationship was associated with greater use of positive emotions in the instant message conversations. Because participants in these studies get to choose whether they write about negative or positive aspects, it is impossible to determine if positive outcomes are the result of the writing or if those who select to write about more positive aspects already experience more positive outcomes.

If the use of positive emotions following a general writing prompt relates to positive outcomes, it is likely that prompting participants to focus specifically on positive aspects of a traumatic event would be beneficial. One study placed participants in four conditions as part of a 2 (perceived benefits vs. no perceived benefits) \times 2 (trauma versus no trauma) design to determine the influence of writing on positive affect and health benefits (King & Miner, 2000). Results indicated that those in the trauma only and the benefits only writing conditions experienced health benefits. Further, regardless of perceived benefits, those who wrote about trauma experienced lower positive affect at immediate posttest compared to those who did not write about trauma. This suggests that focusing on negative or positive aspects has beneficial health outcomes. Similarly, a study of breast cancer patients had participants write either about their general thoughts and feelings related to their cancer, their positive thoughts and feelings, or facts about cancer (Low et al., 2006). This study also found that the general emotion and positive emotion conditions had fewer symptoms and medical appointments 3 months after the writing exercise compared to the control condition. There were no differences in positive affect found between groups at immediate posttest. The previous two studies demonstrate that positively focused writing about traumatic experiences can

produce positive health outcomes, but fail to find increases in positive emotion.

The present study

Past research shows that despite initial increases in negative emotions, the writing paradigm is an effective strategy for dealing with traumatic experiences (Frattaroli, 2006; Pennebaker, 1997; Smyth, 1998). The present research builds on previous work by randomly assigning participants who recently experienced relationship dissolution to three writing conditions (negatively-focused, positively-focused, and neutral) to determine their impact on the experience of positive and negative emotions.

Negative emotions

The only previous application of the writing paradigm to relationship dissolution found no influence on negative emotions at a 2 week follow-up (Lepore & Greenberg, 2002). The present study extends previous findings by measuring negative emotions a day after the conclusion of writing, and tests the influence of positively focused writing on negative emotions. The independent nature of positive and negative emotions (e.g., Reis & Gable, 2003) suggests that positively focused writing should not influence negative emotions.¹ Thus, this study did not hypothesize differences between the three writing conditions for negative emotions.

Positive emotions

Due to relationship dissolution's potential for negative outcomes, identifying a way to increase positive emotions without increasing negative emotions would be beneficial. Increasing positive emotions should be adaptive post-dissolution for several reasons. First, a previous application of writing to relationships found that the experience of positive emotions following writing mediated the association between writing and relationship stability (Slatcher & Pennebaker, 2006). This suggests that positive emotions resulting from writing have important implications on romantic relationships. In the context of relationship dissolution, past research has also established that the experience of positive emotions following relationship dissolution was positively correlated with personal growth (Lewandowski & Bizzoco, 2007).

Research finds that when participants answer a question about how relationship dissolution influenced them, participants list numerous negative outcomes (Lewandowski et al., 2006). In studies of positive outcomes of relationship dissolution, some, but not all, participants report more positive

emotions than negative emotions (Lewandowski & Bizzoco, 2007; Tashiro & Frazier, 2003). In these cases, it is hard to know if those who report more negative emotions than positive truly had more negative emotions (i.e., it was a particularly devastating break-up) or if they underreport their experience of positive emotions because they never thought to purposefully look for the positive aspects of what is generally considered a negative experience. This suggests that, without prompting, people may be less inclined to consider the positive aspects of their dissolution. Studies of other negative experiences have produced mixed, but generally discouraging, results for the influence of writing on positive emotions following negative events (e.g., Páez et al., 1999; Range et al., 2000; Segal et al., 1999; Warner et al., 2006). However, it is important to note that the writing tasks in the aforementioned studies asked participants to generally describe thoughts and largely negative feelings related to their traumatic experience. Taken together, these findings suggest a need to determine if positively-focused writing about a negative event such as relationship dissolution has the ability to increase positive emotions. It is hypothesized that participants in the positive writing condition will report an increase in positive emotions from pretest to immediate posttest compared to the negative writing and neutral writing (control) conditions.

Method

Participants

Participants were 87 (25 males, 62 females) currently single undergraduates from a private university in the Northeast who had experienced the dissolution of an exclusive romantic relationship in the past 6 months.² The sample ranged in age from 18 to 41 years, with a mean age of 19.5 years. A majority of the participants were Caucasian (89.7%), 2.3% identified themselves as African American, 4.6% identified themselves as Hispanic American, 1.1% identified themselves as Asian American, and 2.3% identified as Other. The majority of the participants were freshmen (67.8%), 13.8% were sophomores, 13.8% were juniors, and 4.6% were seniors. On average, participants had experienced relationship dissolution within the past 3 months ($M = 11.50$ weeks, $SD = 6.83$). The average relationship length prior to dissolution was approximately 20 months ($M = 79.71$ weeks, $SD = 55.67$). None of the participants started a new relationship while participating in the study. The participants signed up to participate in a study 'Writing about Self and Relationships,' through the participant pool and received class credit for their participation.

Materials

Negative emotions scale

An 18-item scale measured, at pretest and posttest, the extent to which participants had experienced negative emotions post-dissolution (Lewandowski & Bizzoco, 2007). The items were: anger, anxious, betrayal, bored, confused, depression, dissatisfied, empty, exhausted, frustration, hate, hurt, indifferent, jealousy, loneliness, rejected, resentment, and traumatized. Participants used a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*extremely*) to rate each item. Reported alpha for the scale was 0.93. In the present study, pretest = 0.91; posttest = 0.93.

Positive emotions scale

A 20-item scale measured, at pretest and posttest, the extent to which participants had experienced positive emotions post-dissolution (Lewandowski & Bizzoco, 2007). The items were: calm, comforted, competent, confident, contentment, empowered, energized, free, fulfilled, happiness, hopeful, optimistic, pleased, relaxed, relief, satisfaction, strong, thankful, thrilled, and wise. Participants used a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*extremely*) to rate each item. Reported alpha for the scale was 0.96. In the present study, pretest = 0.93; posttest = 0.95.

Writing packet

Each participant received a packet of materials labeled 'Writing Packet.' This contained the manipulation and instructions for the writing task, as well as pages of double-spaced lines in which to write. The last page of the writing packet contained contact information for the primary investigator and the university counselling center, as well as a reminder for the date and time of their posttest appointment.

Demographics

In addition to basic demographic information, several questions asked about the amount of time since the dissolution, initiator status (self, partner, mutual), the length of the relationship prior to dissolution, and current relationship status.

Design and procedure

Participants completed parallel pretests and posttests, as well as a randomly assigned writing task, as part of a repeated measures design. The independent variable, writing task, was a between-subjects variable with three levels (positive, negative, neutral). The dependent variables, positive and negative emotions, were within-subjects and were completed before and after the writing task.

After signing up to participate in the study via an online registration system, participants arrived at a research laboratory to complete the pretest measures. Consistent with the general writing paradigm (Pennebaker, 1997), and the procedure used by Lepore and Greenberg (2002), after completing the pretest, the researcher randomly assigned participants to writing conditions that were completed at home. Directions instructed participants 'Do not worry about grammar and spelling. Please write about the following topic for 20 minutes a day, for three consecutive days, starting today. When you write, please do so in a place of your choosing that is comfortable and free from distractions.'

For the positive and negative conditions, participants received the following general instructions (based on Lepore & Greenberg, 2002): 'We want you to let go and write about your deepest thoughts and (positive/negative) feelings about the relationship that ended. The important thing is that you dig down into your deepest (positive/negative) emotions and explore them in your writing.' Each day, participants answered a question related to their break-up (Day 1 = 'Write down the events and factors that you think led up to your breakup and about the actual breakup.' Day 2 = 'Write about the aftermath of the breakup a few days after it happened.' Day 3 = 'Write about the aftermath of the breakup a few weeks after it happened.').

As in Lepore and Greenberg (2002), the control condition received the following instructions: 'Try to develop rational, or logical, arguments and do not express your feelings or emotional reactions to this issue.' They answered general questions about relationship topics each day that were unrelated to their own break-up (Day 1 = 'Should universities promote "safe sex" materials, even though this may offend some students' religious views?' Day 2 = 'Should men and women be allowed to cohabitate in the same dormitory or dormitory room?' Day 3 = 'Should college students and professors be allowed to date?').

Although the present design largely replicated Lepore and Greenberg's (2002) design, the timing of the follow-up was altered (participants returned for the posttest and debriefing an average of 2 days following the last writing session) to increase the amount of control. Specifically, this was done to eliminate the possibility that participants would start a new relationship in between pretest and posttest. As Erber and Erber (2001) have stated 'the initiation of a relationship is generally accompanied by positive emotions associated with a sense of acceptance, such as happiness, elation, love, and joy' (p. 7). Due to the present study's focus on positive emotions, and the nature of the participants (i.e., single college students on a college campus where there are numerous alternative partners), it was thought prudent to limit

the possibility of participants starting a relationship while part of the study. Controlling for starting new relationships is particularly important because previous research has found that starting a new relationship aided in post-dissolution recovery (Lewandowski & Bizzoco, 2007). Ultimately, the modification to the procedure was successful such that none of the participants started a new relationship during participation in the study. Further, this modification also helped prevent study attrition, thus avoiding one of the main threats to study quality cited by Frattaroli (2006).

Results

Writing characteristics

In order to be able to rule out the possibility that the amount of writing influenced the dependent variables, participants written responses were transcribed into an electronic format, spell-checked, and submitted to a Linguistic Inventory Word Count (LIWC; Pennebaker, Francis, & Booth, 2001) analysis. Participants averaged 190.23 words per entry ($SD=90.39$). To ensure that each participant's writing content paralleled their condition, as a manipulation check two independent coders rated each participant's writing for adherence to the writing instructions on a 4-point scale (1=Did Not Follow Directions At All-Incorrect Content; 4=Followed Directions Very Well-Correct Content). Across the 3 days of writing, the raters assessments were significantly correlated for the manipulation check ($r=0.84, 0.80, \text{ and } 0.81$, respectively). An average was created for the manipulation check using the respective scores for the 3 days. Overall, the sample had an average manipulation check rating of 3.31 ($SD=0.68$) indicating a high overall adherence to the study's directions.

Baseline differences

Potential covariates

A one-way analysis of variance was used to determine if any baseline differences existed between conditions on potential covariates (relationship length, time since relationship dissolution, manipulation check, word count) or outcome variables (negative and positive emotions). There were no significant differences between writing conditions for relationship length [$F(2, 84)=0.27, p=0.97$], or time since relationship dissolution [$F(2, 84)=0.67, p=0.52$]. A similar analysis was carried out to examine differences in the manipulation check by condition. There were no significant differences between the three conditions ($F(2, 84)=2.70, p=0.07$), and post-hoc analyses among conditions were all non-significant. Analyses indicated no significant difference ($F(2, 82)=2.66, p=0.08$) between the conditions for word count.

Post-hoc analyses revealed that the difference between the negative writing condition ($M=216.06; SD=96.62$) and the control condition ($M=161.78; SD=83.16$) was also not significant ($p=0.09$). The differences between the positive writing condition ($M=198.34; SD=87.74$) and the negative and control conditions were also not significant ($p=1.00$ and 0.33 , respectively).

Negative and positive emotions

Analyses were conducted to determine if there were baseline differences between conditions for negative or positive emotions, and if emotions correlated with initiator status or gender. A one-way ANOVA revealed that there were no significant differences between conditions at the pretest for negative emotions ($F(2, 84)=0.49, p=0.62$); or positive emotions ($F(2, 84)=0.82, p=0.45$), and that there were no significant differences between initiator status and pretest negative emotions ($F(2, 84)=2.05, p=0.14$); or positive emotions ($F(2, 84)=1.10, p=0.34$). There were also no significant differences for gender on pretest negative emotions ($t(85)=-1.92, p=0.06$); or positive emotions ($t(85)=0.19, p=0.85$). Finally, pretest negative emotion was not significantly correlated with relationship length ($r=0.03, p=0.78$), time since relationship dissolution ($r=-0.12, p=0.28$), manipulation check ($r=-0.02, p=0.83$), or word count ($r=0.04, p=0.75$). Pretest positive emotion was not significantly correlated with relationship length ($r=-0.01, p=0.95$), word count ($r=0.04, p=0.72$), or manipulation check ($r=0.01, p=0.90$), but was significantly correlated with time since relationship dissolution ($r=0.29, p=0.01$). For this reason, time since relationship dissolution was included as a covariate in subsequent analyses.

Negative emotions

To test the potential influence of writing condition on negative emotions, a set of 2 (writing condition) \times 2 (time) repeated measures analyses of variance were conducted with negative emotions as the dependent variable with time since relationship dissolution included as a covariate. The difference between positive ($M\Delta=-0.07; SD=0.12$) and negative writing ($M\Delta=-0.004; SD=0.14$) conditions was not significant ($F(1, 54)=0.19, p=0.67$, partial $\eta^2=0.003$). Similarly, the difference between positive and neutral writing ($M\Delta=-0.09; SD=0.12$) conditions was not significant ($F(1, 60)=0.01, p=0.92$, partial $\eta^2=0.001$). Finally, the difference between negative and neutral writing conditions was also not significant ($F(1, 52)=0.28, p=0.60$, partial $\eta^2=0.005$). In each case, the results suggest that writing condition had little influence on the experience of negative emotions.

Positive emotions

The hypothesized influence of writing condition on positive emotions was tested with a set of 2 (writing condition) × 2 (time) repeated measures analysis of variance in which positive emotions was the dependent variable with time since relationship dissolution included as a covariate. Results are shown in Figure 1. The hypothesized difference between positive and negative writing conditions was significant $F(1, 54)=4.43, p=0.04, \text{partial } \eta^2=0.08$. Similarly, the hypothesized difference between positive and neutral writing conditions was significant $F(1, 60)=9.40, p=0.01, \text{partial } \eta^2=0.14$. There was no significant difference between the negative and neutral writing conditions on change in positive emotions $F(1, 52)=1.39, p=0.24, \text{partial } \eta^2=0.03$. As hypothesized, positively focused writing led to greater increases in positive emotions from pre to post, than negatively focused or neutral writing tasks.

Exploratory analyses

Although they are not the focus of the present study, in light of the significant findings for writing condition on positive emotions, analyses were conducted to test whether participant’s gender or initiator status influenced the effect of writing condition on change in

positive emotion. In each set of analyses, time since relationship dissolution was included as a covariate. For the analysis including initiator status as an additional independent variable, the main effect for writing condition was significant, $F(2, 77)=4.04, p=0.02, \text{partial } \eta^2=0.10$, while the main effect for initiator status was inconclusive $F(2, 77)=1.74, p=0.18, \text{partial } \eta^2=0.04$. There was an interaction effect, $F(4, 77)=4.01, p=0.01, \text{partial } \eta^2=0.17$, such that those in the positive writing condition benefited the most, especially if the break-up was mutual, while those in the negative and neutral writing conditions only increased in positive emotions if the break-up was initiated by the self. The remaining effects were not significant. Results are shown in Figure 2. *Post-hoc* analyses reveal that the significant interaction was largely the result of differences between the positive and neutral writing condition, $F(2, 56)=6.50, p=0.003, \text{partial } \eta^2=0.19$. Differences between the positive and negative writing condition were marginally significance, $F(2, 50)=3.13, p=0.05, \text{partial } \eta^2=0.11$, while differences between negative and neutral writing conditions were inconclusive, $F(2, 47)=1.47, p=0.24, \text{partial } \eta^2=0.06$. (A parallel set of analyses on negative emotions did not yield any significant differences.) For the analysis including gender as an additional independent variable,

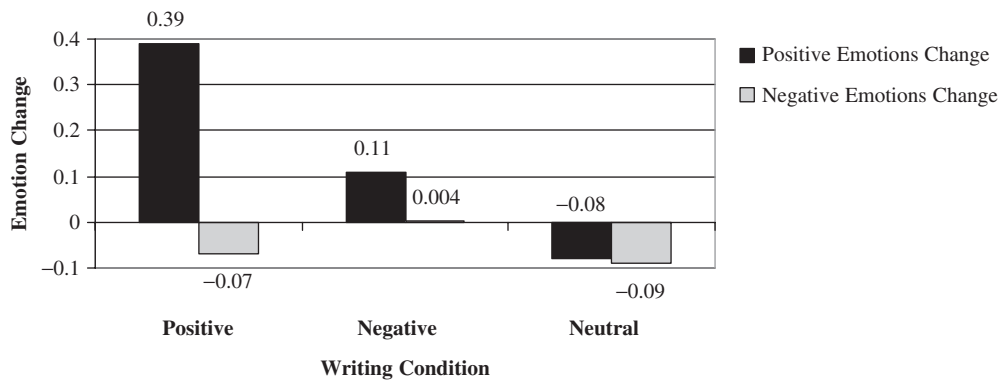


Figure 1. Change in emotions from pretest to posttest by writing condition.

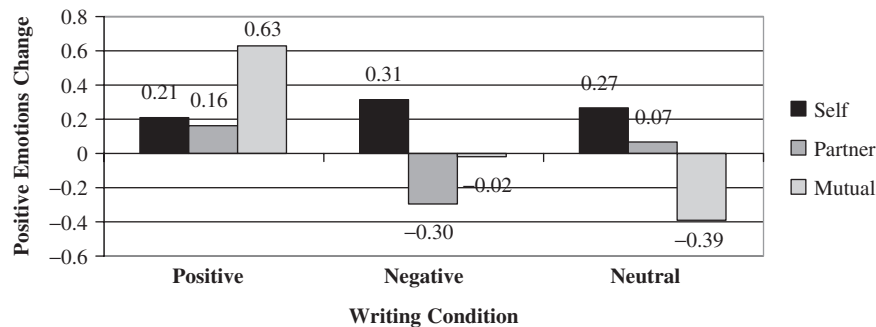


Figure 2. Change in positive emotions from pretest to posttest by writing condition and initiator status.

the main effect for writing condition was significant, $F(2, 80) = 5.65$, $p = 0.01$, partial $\eta^2 = 0.12$, while the main effect for gender, $F(1, 80) = 0.90$, $p = 0.35$, partial $\eta^2 = 0.01$, and the interaction of gender with writing condition, were inconclusive $F(2, 80) = 1.29$, $p = 0.25$, partial $\eta^2 = 0.03$.

Discussion

The purpose of this study was to assess expressive writing's potential for coping with relationship dissolution. More specifically, this study sought to determine if writing that focused on positive aspects of a stressful experience such as relationship dissolution had the ability to increase positive emotions, without a coinciding increase in negative emotions. Following from previous work by Lepore and Greenberg (2002), there were no differences between negative and neutral writing for negative emotions. Further, there were no significant differences in negative emotions between positively focused writing and negative or neutral writing. As hypothesized, participants in the positive writing condition experienced an increase in positive emotions from pretest to immediate posttest compared to the negative writing and neutral writing (control) conditions.

Negative emotions

The one previous study that examined the efficacy of writing as a means of coping with relationship dissolution found that there was no significant difference in negative emotion for negative compared to neutral writing at the 2 week follow-up (Lepore & Greenberg, 2002). The present study successfully extends these results by not finding significant differences between the negative and neutral writing condition at immediate posttest. The present study also extends previous work by testing if positively focused writing decreases negative emotions relative to other conditions. The present study did not find significant differences between positively focused writing and the other two writing conditions. Taken together, these findings suggest that expressive writing has limited influence on the experience of negative emotions following relationship dissolution.

Although this is consistent with Lepore and Greenberg (2002), it contrasts the finding that writing increases negative emotions in the short-term (Pennebaker, 1997; Smyth, 1998). One possible reason for this inconsistency is that relationship dissolution may present a unique set of circumstances compared to the types of traumatic events examined in a majority of previous studies. Relationship dissolution is an atypical traumatic experience because it may be less negative and less absolute compared to other

traumas such as the death of a loved one. For example, the dissolution of a romantic relationship has the potential to result in friendship between former partners (Masuda, 2006). It is also possible that participants may have experienced dissolution previously (Tashiro et al., 2006). As a result, participants may be more comfortable discussing the event, and may have done so with members of their social network. Each of these factors likely decreases expressive writing's influence on negative emotions.

Positive emotions

The present results establish that positively-focused writing produces increases in positive emotions compared to negatively-focused and neutral writing. Negative and neutral writing conditions were not significantly different in their impact on positive emotions. These findings are consistent with previous research that found focusing on positive aspects of traumatic events has health benefits (King & Miner, 2000). However, the present study is the first to show that writing about positive aspects of a stressful event such as relationship dissolution can produce psychological benefits such as increases in positive emotions.

Further, the ability of the positive writing to produce improvements in positive emotions in the short term is important due to the potential for relationship dissolution to lead to more serious problems (Monroe et al., 1999). Thus, it would seem that any attempt at coping with relationship dissolution should focus on minimizing negative emotions, while emphasizing positive emotions. Promoting post-dissolution positive emotions is also important due to the potential for positive emotions to lead to other positive outcomes. The broaden-and-build theory of positive emotions states that the experience of positive emotions promotes flourishing by building social, psychological, and physical resources (Fredrickson, 1998). Additional resources accrue because positive emotions help to broaden thought patterns, counteract negative emotions, and promote resiliency (Fredrickson, 2001). Research also suggests that positive emotions and resiliency have a bidirectional effect such that gains in one, lead to gains in the other (Fredrickson & Joiner, 2002). In these capacities, positive emotions are not merely a signal of well-being but serve as a means of facilitating future growth.

One way to interpret positive writing's ability to increase positive emotions is that positively-focused writing simply primes positive feelings (c.f. Bargh, 2006). While it is not possible to completely rule this out, if priming were entirely responsible for the increase in positive emotions, negatively-focused

writing should have produced an increase in negative emotions from pretest to posttest. However, that was not the case. Instead, it seems more likely that positively focused writing may have helped participants take a new perspective or reinterpret the break-up in positive ways. This explanation is consistent with previous findings that coping strategies involving reinterpretation and taking perspective are effective means of promoting positive outcomes such as growth and positive emotions following dissolution (Lewandowski & Bizzoco, 2007; Park, Cohen, & Murch, 1996).

Pennebaker (1997) points out that identifying a consistent effect of expressive writing on psychological variables such as mood or distress have been elusive. These findings add to the existing literature on the writing paradigm by showing how expressive writing can influence psychological variables such as positive emotions. The present study also provides additional support to a growing body of literature showing that positively-focused writing can be beneficial (King & Miner, 2000; Low et al., 2006), and extends that work by demonstrating how positively-focused writing about a stressful even can increase positive emotions. The ability for positively focused writing to have an immediate impact demonstrates how this technique can be used as an effective short-term coping strategy for relationship dissolution. Exploratory analyses reveal that positive writing is most beneficial in mutual break-ups, and that all writing was most beneficial for self-initiated break-ups. This is consistent with previous work that showed self initiators experienced more positive emotions following dissolution (Lewandowski & Bizzoco, 2007).

Strengths and limitations

The major strength of this study is that it is the first to demonstrate that positively-focused writing produces positive emotions in participants who recently experienced relationship dissolution. Using a largely parallel design, this study extends the work of Lepore and Greenberg (2002). The study also benefits from the homogeneous nature of the sample. Participants were required to be single, and most had experienced dissolution within the past 3 months. The study also avoids three key threats to writing study quality (Frattaroli, 2006). Specifically, the study had no attrition from pretest to posttest, kept condition masked from the experimenter by having participants read the writing instructions themselves at home, and did not create any participant expectations (i.e., participants were only told that they would write, and not why). The present study also contributes to the writing literature more generally by instituting a

design that enables a direct comparison of positively-focused and negatively-focused writing to a neutral writing condition, rather than a singular experimental condition that asks participants to write generally (and consequently leaving the content of the writing up to the participant).

As with any study, the present study has limitations. First, due to the nature of the sample, the results may only apply to those dealing with premarital relationship dissolution and may not generalize to those recovering from divorce or other forms of relationship distress. Second, the short period of time in which participants completed the writing tasks may have worked against the study's ability to find effects. Smyth (1998) found that more time between writing, and that more days of writing led to stronger effects. In contrast, another more comprehensive meta-analysis failed to replicate this finding (Frattaroli, 2006). However, the short period has the benefit of decreasing the influence of outside events (e.g., starting a new relationship) and study attrition that may cloud the results. Finally, although the purpose of the study was to focus on the immediate benefits of writing, including a long-term follow-up would help determine if improvements in positive emotions persist over time.

Future directions and applications

The present research represents an important first step by identifying a directed coping strategy that increases positive emotions in the short-term. In light of Fredrickson and Joiner's (2002) previous research on the role of positive emotions in resiliency and further promotion of positive emotions, it would be beneficial to examine the longitudinal effects of increasing positive emotions post-dissolution to determine if these initial gains lead to more permanent improvements. Future research might also examine if more specific writing instructions in the positive condition (e.g., focusing on perceived benefits or reinterpretation) can produce even more increases in positive emotions or in other positive outcomes such as personal growth. Finally, the new techniques used in the writing exercises (focused writing on positive or negative aspects, and examining positive outcomes), could be applied in other contexts (e.g., bereavement, victimization, divorce, etc.) and benefit other literatures.

In conclusion, the present study is the first to demonstrate how positively-focused expressive writing can produce immediate increases in positive emotions for those who recently experienced relationship dissolution. Due to the high prevalence of premarital dissolution, and the negative consequences typically associated with that experience, positively focused

writing is an effective means of coping with relationship dissolution.

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Notes

1. While there continues to be debate on this issue, research suggests that positive and negative affect, while related, are not polar opposites (e.g., Feldman-Barrett & Russell, 1999). In the context of relationship dissolution, several studies report that positive and negative emotions were significantly negatively correlated (Lewandowski & Bizzoco, 2007; Sprecher, 1994; Sprecher, Felmler, Metts, Fehr, & Vanni, 1998). They were not perfectly correlated as would be expected if the emotions were at opposite ends of the same spectrum. In the present study, positive and negative emotions were also negatively correlated (Pretest, $r = -0.49$, $p < 0.001$; Posttest, $r = -0.50$, $p < 0.001$). This suggests that it is worthwhile to examine positive and negative emotions as unique experiences, and may be particularly useful in the context of relationship dissolution.
2. A total of 13 participants were not included in the sample due to failure to meet study requirements. Specifically 3 were excluded because they reported on a break-up from over 6 months in the past. In addition, I excluded 7 participants because they reported on the break-up of an engaged relationship, and 3 because they reported on the dissolution of a casual dating relationship. All participants who completed Part 1, returned for Part 2.
3. I ran all analyses involving negative and positive emotions several times with various combinations of covariates (including time since relationship dissolution and the manipulation check score simultaneously and separately), as well as without covariates. In each case, the pattern of significance was identical to the reported pattern.

References

- Bargh, J.A. (2006). Agenda 2006: What have we been priming all these years? On the development, mechanisms, and ecology of nonconscious social behavior. *European Journal of Social Psychology, 36*, 147–168.
- Boals, A., & Klein, K. (2005). Word use in emotional narratives about failed romantic relationships and subsequent mental health. *Journal of Language and Social Psychology, 24*, 252–268.
- Burton, C.M., & King, L.A. (2004). The health benefits of writing about intensely positive experiences. *Journal of Research in Personality, 38*, 150–163.
- Choo, P., Levine, T., & Hatfield, E. (1996). Gender, love schemas, and reactions to romantic break-ups. *Journal of Social Behavior & Personality, 11*, 143–160.
- Drew, S.S., Heesacker, M., Frost, H.M., & Oelke, L.E. (2004). The role of relationship loss and self-loss in women's and men's dysphoria. *Journal of Social and Personal Relationships, 21*, 381–397.
- Erber, R., & Erber, M.W. (2001). *Intimate relationships: Issues, theories, and research*. Boston, MA: Allyn & Bacon.
- Feldman-Barrett, L., & Russell, J.A. (1999). The structure of current affect: Controversies and emerging consensus. *Current Directions in Psychological Science, 8*, 10–14.
- Fine, M.A., & Sacher, J.A. (1997). Predictors of distress following relationship termination among dating couples. *Journal of Social and Clinical Psychology, 16*, 381–388.
- Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin, 132*, 823–865.
- Fredrickson, B.L. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300–319.
- Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*, 218–226.
- Fredrickson, B.L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science, 13*, 172–175.
- Greenberg, M.A., & Stone, A.A. (1992). Emotional disclosure about traumas and its relation to health: Effects of previous disclosure and trauma severity. *Journal of Personality and Social Psychology, 63*, 75–84.
- King, L.A., & Miner, K.N. (2000). Writing about the perceived benefits of traumatic events: Implications for physical health. *Personality and Social Psychology Bulletin, 26*, 220–230.
- Kloss, J.D., & Lisman, S.A. (2002). An exposure-based examination of the effects of written emotional disclosure. *British Journal of Health Psychology, 7*, 31–46.
- 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 break-up. *Psychology and Health, 17*, 546–560.
- Lewandowski, G.W. Jr, & Bizzoco, N. (2007). Addition through subtraction: Positive outcomes following the loss of a dating relationship. *Journal of Positive Psychology, 2*, 40–54.
- Lewandowski, G.W. Jr, Aron, A., Bassis, S., & Kunak, J. (2006). Losing a self-expanding relationship: Implications for the self-concept. *Personal Relationships, 13*, 317–331.
- Low, C.A., Stanton, A.L., & Danoff-Burg, S. (2006). Expressive disclosure and benefit finding among breast cancer patients: Mechanisms for positive health effects. *Health Psychology, 25*, 181–189.
- Lyubomirsky, S., Sousa, L., & Dickerhoof, R. (2006). The costs and benefits of writing, talking, and thinking about life's triumphs and defeats. *Journal of Personality and Social Psychology, 90*, 692–708.
- Marlo, H., & Wagner, M.K. (1999). Expression of negative and positive events through writing: Implications for psychotherapy and health. *Psychology & Health, 14*, 193–215.
- Masuda, M. (2006). Perspectives on premarital post-dissolution relationships: Account-making of friendships between former romantic partners. In M.A. Fine, &

- J.H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 113–132). Mahwah, NJ: Lawrence Erlbaum and Associates.
- Monroe, S.M., Rohde, P., & Seeley, J.R. (1999). Life events and depression in adolescence: Relationship loss as a prospective risk factor for first onset of major depressive disorder. *Journal of Abnormal Psychology, 108*, 606–614.
- Páez, D., Velasco, C., & González, J.L. (1999). Expressive writing and the role of alexythimia as a dispositional deficit in self-disclosure and psychological health. *Journal of Personality and Social Psychology, 77*, 630–641.
- Park, C.L., & Blumberg, C.J. (2002). Disclosing trauma through writing: Testing the meaning-making hypothesis. *Cognitive Therapy and Research, 26*, 597–616.
- Park, C.L., Cohen, L.H., & Murch, R.L. (1996). Assessment and prediction of stress-related growth. *Journal of Personality, 64*, 71–105.
- Pennebaker, J.W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science, 8*, 162–166.
- Pennebaker, J.W., & Beall, S.K. (1986). Confronting a traumatic event: Toward an understanding of inhibition and disease. *Journal of Abnormal Psychology, 95*, 274–281.
- Pennebaker, J.W., Colder, M., & Sharp, L.K. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology, 58*, 528–537.
- Pennebaker, J.W., Francis, M.E., & Booth, R.J. (2001). *Linguistic Inquiry and Word Count (LIWC)*. Mahwah, NJ: Erlbaum.
- Popenoe, D., & Whitehead, B.D. (2004). *The state of our unions, 2004*. Piscataway, NJ: The National Marriage Project.
- Range, L.M., Kovac, S.H., & Marion, M.S. (2000). Does writing about the bereavement lessen grief following sudden, unintentional death? *Death Studies, 24*, 115–134.
- Reis, H.T., & Gable, S.L. (2003). Toward a positive psychology of relationships. In C.L.M. Keyes, & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived* (pp. 129–159). Washington, DC: American Psychological Association.
- Segal, D.L., Bogaards, J.A., & Chatman, C. (1999). Emotional expression improves adjustment to spousal loss in the elderly. *Journal of Mental Health and Aging, 5*, 297–310.
- Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*, 5–14.
- Slatcher, R.B., & Pennebaker, J.W. (2006). How do I love thee? Let me count the words. *Psychological Science, 17*, 660–664.
- Smyth, J.M. (1998). Written emotional expression: Effect sizes, outcome types, and moderating variables. *Journal of Consulting and Clinical Psychology, 66*, 174–184.
- Sprecher, S. (1994). Two sides to the breakup of a dating relationship. *Personal Relationships, 1*, 199–222.
- Sprecher, S., Felmlee, D., Metts, S., Fehr, B., & Vanni, D. (1998). Factors associated with distress following the breakup of a close relationship. *Journal of Social and Personal Relationships, 15*, 791–809.
- Tashiro, T., & Frazier, P. (2003). 'Ill never be in a relationship like that again': Personal growth following romantic relationship breakups. *Personal Relationships, 10*, 113–128.
- Tashiro, T., Frazier, P., & Berman, M. (2006). Stress-related growth following divorce and relationship dissolution. In M.A. Fine, & J.H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 361–384). Mahwah, NJ: Lawrence Erlbaum and Associates.
- Ullrich, P.M., & Lutgendorf, S.K. (2002). Journaling about stressful events: Effects of cognitive processing and emotional expression. *Annals of Behavioral Medicine, 24*, 244–250.
- Warner, L.J., Lumley, M.A., Casey, R.J., Pierantoni, W., Salazar, R., Zoratti, E.M., et al. (2006). Health effects of written emotional disclosure in adolescents with asthma: A randomized, controlled trial. *Journal of Pediatric Psychology, 31*, 557–568.

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