Rumination and Its Impact on Socially Anxious Individuals in Romantic Relationships

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Abstract

Socially anxious individuals were compared to control participants regarding romantic relationship satisfaction and rumination. Socially anxious individuals had higher levels of rumination than their low anxiety counterparts. Contrary to expectations, high and low social anxiety groups did not differ in relationship satisfaction. Participants were asked to recall a hurtful event within their romantic relationship, a task intended to provoke rumination. Contrary to hypotheses, socially anxious individuals did not experience a noticeable decrease in romantic relationship satisfaction after this task. All participants experienced a decrease in negative emotions since the hurtful relationship event. Contrary to expectations, socially anxious individuals did not continue to experience more negative emotions tied to the event than controls. Lastly, high social anxiety and high rumination were predicted to interact to produce low levels of relationship satisfaction. The data did not support this hypothesis.
Rumination and Its Impact on Socially Anxious Individuals in Romantic Relationships

Social anxiety is characterized by fear of negative evaluation in social situations (American Psychiatric Association, 2013). Social anxiety exists along a continuum ranging from very low levels to clinical levels characterized by significant distress and/or impairment. Individuals with clinically significant social anxiety may be given a diagnosis of social anxiety disorder (SAD).

SAD has been associated with many negative outcomes. Social anxiety symptoms are associated with low life satisfaction (Hambrick, Turk, Heimberg, Schneier, & Liebowitz, 2003). Most individuals with social anxiety disorder report serious impairment in their career, academic, and social functioning (e.g., Katzelnick et al., 2001; Schneier et al., 1994). They have fewer friends and are less likely to marry than individuals with other anxiety disorders (Rodebaugh, 2009; Sanderson, DiNardo, Rapee, & Barlow, 1990). For individuals who are in romantic relationships, those who have social anxiety tend to suppress negative emotions to maintain their relationship (Kashdan, Volkmann, Breen, & Han, 2007).

The current study seeks to better understand the impact of social anxiety on romantic relationships. Specifically, the current study proposes that rumination is an important factor to consider when examining the relationship between social anxiety and satisfaction in romantic relationships.

Clark and Wells’ Cognitive Model of Social Anxiety

Clark and Wells (1995) propose that various dysfunctional beliefs or assumptions are important to the maintenance of high levels of social anxiety. The first assumption involves excessively high standards about the individual’s social performance (e.g., “I must speak intelligently” or “I must not make a mistake.”). In their romantic relationships, standards that
individuals with SAD may have for themselves could include, “I must be the perfect partner.” The second assumption is conditional beliefs concerning social evaluation (Clark & Wells, 1995). These conditional beliefs are standards based on the individual’s presumption that, if the socially anxious individual acts a certain way, others will have a strong negative reaction (e.g., “If I disagree with somebody, they will reject me.”). Other individuals’ thoughts are presumed to be negative, due to the belief that people are inherently highly critical (Rapee & Heimberg, 1997). In romantic relationships, a conditional belief that an individual with SAD might experience could be, “If my partner knew the real me, they will leave me.” The third assumption is unconditional beliefs, which are relatively stable and persistent negative beliefs that socially anxious individuals direct toward themselves. These assumptions often become prominent during social situations but wane when the individual is in a non-threatening situation or is alone (Clark & Wells, 1995). For example, in social situations, thoughts such as “I am unacceptable” or “I am inadequate” may emerge. In a romantic relationship, an individual with SAD might experience the unconditional belief “I am unattractive” or “I can never be loved.”

Another cognitive factor involved in the maintenance of social anxiety is rumination (Clark & Wells, 1995). Rumination, as defined by the Response Style Theory (Nolen-Hoeksoma, 1991), involves continuously thinking about the impacts of one's symptoms, as well as their causes and consequences. These ruminative thoughts have been found to further perpetuate symptoms of depression (Nolen-Hoeksoma & Morrow, 1991).

Rumination has since been found to play a role in other disorders as well. Clark and Wells (1995) proposed that individuals who have SAD concretize and reinforce negative beliefs about themselves by engaging in rumination following a social interaction. After a social interaction, individuals with SAD tend to repeatedly go over negative aspects of the social
exchange and then use these negative thoughts and memories as evidence for their negative beliefs about themselves.

Multiple studies support the idea that social anxiety plays a significant role in the likelihood of rumination after a social interaction (also known as post-event processing). Rumination can be found during the development of SAD, as early as adolescence (Jose, Wilkins, & Spendelow, 2012). Fehm, Schneider, and Hoyer (2007) found that social events resulted in more rumination than other phobic events among socially anxious individuals. Kocovski and Rector (2007) reported that individuals with higher levels of social anxiety and anxious rumination were more likely to engage in post-event processing following an anxiety-provoking social situation. The lack of corrective experiences allows the cycle of post-event rumination to perpetuate social anxiety. Modini and Abbott (2017) found that, without intervention, individuals with SAD continued to experience negative post-event rumination compared to those who received cognitive interventions. With increased engagement in post-event rumination, individuals with SAD recall more negative self-related information from a prior social event (Mellings & Alden, 2000). Nepon, Flett, Hewitt, and Molnar (2011) reported that rumination can serve as a contributing factor to experiencing depressive symptoms in SAD.

Social Anxiety and the Romantic Relationship Climate

Multiple studies suggest that high levels of social anxiety affect the quality of relationships. Two studies found a small negative correlation between social anxiety and relationship satisfaction among individuals in a romantic relationship (Bar-Kalifa, Hen-Weissberg, & Rafaeli, 2015; Porter & Chambless, 2013). Socially anxious individuals also experience a lower quality of relationships with friends and relatives (Priest, 2013). Although individuals with high levels of social anxiety do experience positive aspects of romantic
relationships, highly socially anxious individuals are affected more by the negative aspects of romantic relationships than their less anxious counterparts (Gordon, Heimberg, & Fauber, 2012). Gordon et al. (2012) also reported that those who experienced social anxiety stated they experienced a decrease in social anxiety, increased comfort in interacting with others, and overall improvement in their well-being due to their romantic relationship. However, socially anxious individuals may be negatively impacted by romantic relationships as well, such as becoming dependent on their partner in order to interact with others (Darcy, Davila, & Beck, 2005; Gordon et al., 2012).

Communication between a socially anxious individual and their romantic partner is also negatively affected by social anxiety. Individuals who have higher levels of social anxiety tend to disclose less personal information to their partner compared to their less anxious peers (Cuming & Rapee, 2010). When experiencing a negative interaction with their partner, individuals who have higher levels of social anxiety tend to be more critical towards their partner than those with lower levels of social anxiety (Wenzel, Graff-Dolezal, Macho, & Brendle, 2005). Wenzel et al. (2005) also found that socially anxious individuals displayed more negative nonverbal behaviors such as fidgeting and less frequent positive nonverbal cues (smiling, head nods, touching) than controls. The interpretation of communication from the partner is affected as well. If an individual with SAD perceives their partner as less responsive, daily romantic relationship satisfaction decreases greatly (Bar-Kalifa et al., 2015).

Not only does social anxiety impact the dynamics of a relationship, but it also impacts the socially anxious individual's perception of their romantic relationship. Individuals with social anxiety may experience less intimate romantic relationships because intimacy is perceived as a risk (Porter & Chambless, 2013). Higher social anxiety predicts perceptions of risk of social and
emotional intimacy in both men and women (Porter & Chambless, 2013). When faced with the possibility of experiencing rejection by their romantic partners, individuals with social anxiety tend to devalue their romantic partners more compared to those who experience low social anxiety (Afram & Kashdan, 2015).

**Current Study**

Few studies have investigated variables that may help explain the relationship between social anxiety and negative outcomes in romantic relationships. Post-event rumination has not been directly investigated but would appear to be a promising variable to examine. It is known from other research that arguments occur more frequently with individuals who ruminate, especially if the individual views that the subject of the argument was not properly resolved (Carr, Schrodt, & Ledbetter, 2012). Rumination also serves as a link to romantic jealousy, which can impact relationship satisfaction with one’s current romantic partner (Elphinston, Feeney, Noller, Connor, & Fitzgerald, 2013).

The current study adopts the methodology and extends the work of Jostmann, Karremans, and Finkenauer (2011). Jostmann et al. (2011) conducted a series of studies that examined the impact of rumination on affect regulation towards an individual's romantic partner. Study 1 found that those who ruminated less experienced less negative emotions towards their partner compared to when a hurtful relationship event took place. Those who were high ruminators also experienced a decrease in negative emotions from the time of the event, but not as much of a decrease as those who were low ruminators. Subsequent experimental studies demonstrated that high ruminators experienced more negative emotions (e.g., irritated, hostile) towards their partner than low ruminators after being exposed to a relationship threat. The current study is modeled after the first study.
The current study proposed the following hypotheses:

1. Individuals with high social anxiety will have lower levels of baseline romantic relationship satisfaction than individuals with low social anxiety.

2. Individuals with high social anxiety will have higher levels of trait rumination than individuals with low social anxiety.

3. Individuals with low social anxiety will show a greater decrease in the level of negative emotions since a hurtful romantic relationship event than individuals with high social anxiety.

4. Individuals with high social anxiety will show a greater decrease in the level of romantic relationship satisfaction following a rumination task than individuals with low social anxiety.

5. Actual rumination, defined by how frequently the individual spontaneously thinks back to the event and ruminates, will moderate the relationship between social anxiety and romantic relationship satisfaction. Specifically, high social anxiety and high actual rumination will be associated with lower levels of romantic relationship satisfaction following the induction of ruminative memories. No predictions were made with regard to other combinations of variables (i.e., high anxiety and low rumination).

**Method**

**Participants**

Participants who qualified for the study were individuals who have been in a romantic relationship for at least 3 months. The participants needed to pass all four attention checks and complete all measures to be included in the final analyses.

A total of 255 students from a midsized Midwestern university responded to a survey in exchange for introductory psychology class credit. One participant did not consent to participate
in the study. Seventy-nine participants were disqualified for not being in a romantic relationship. Thirty-three participants were disqualified for being in a romantic relationship for less than three months. An additional three had incomplete data. Six participants did not report a hurtful relationship event. Twenty-five participants were disqualified by inaccurately answering at least one of the four attention check questions. Eighteen participants were disqualified for depression scores of 19 or higher on the Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979). Rumination is characteristic of depressed individuals (Nolen-Hoeksoma, 1991). The measure was used to create a homogenous sample of high social-anxiety individuals and exclude those who are experiencing rumination as a part of significant depression. Individuals who scored a 19 or higher, which suggests moderate or higher levels of depression, were excluded from the study (Beck et al., 1979). After these exclusions, 90 respondents were retained for correlation, moderation, and mediation analyses. Considering moderation and mediation analyses measure variables along a continuum, the whole sample was retained for these analyses. For group analyses, 69 participants were included, with 41 individuals in the high social anxiety group and 28 individuals in the low social anxiety group based on Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998) cut-off scores. Twenty-one participants whose scores fell between the designated cutoff points were excluded from the group comparisons.

Most respondents from the complete sample were female (70.0%) and Caucasian (70.0%). Other ethnicities included Hispanic (10.0%), Mixed Race (10%), African American (3.3%), Asian (3.3%), and Other (3.3%). Ages of participants ranged from 18 - 55 years old ($M = 20.87$, $SD = 4.16$). The majority of participants were heterosexual (82.2%) with male partners (65.6%). Other sexual orientations recorded included bisexual (8.9%), homosexual (4.4%), and asexual (4.4%).
Measures

Couples Satisfaction Index (CSI). The Couples Satisfaction Index (CSI; Funk & Rogge, 2007) is a self-report measure that assesses an individual’s perceived satisfaction in their romantic relationship. The measure has three versions based on the number of items: CSI (4), CSI (16), and CSI (32). CSI (32) was not used due to its length and similar psychometric properties to the shorter versions. Versions CSI (4) and CSI (16) were used in the current study to directly compare some items before and after the manipulation and to note any changes in satisfaction after rumination was induced. Each version begins with the statement “Please indicate the degree of happiness, all things considered, of your relationship.” Participants indicated their happiness on a 7-point Likert scale ranging from 0 = *Extremely unhappy* to 6 = *Perfect*. For the CSI (4), three additional statements were presented. Participants rated how accurately the statements captured their relationship on a 6-point Likert scale, ranging from 0 = *Not true at all* to 5 = *Completely true*. Scores were summed with higher scores indicating higher relationship satisfaction. The CSI (4) scores range from 0 to 21. The CSI (16) consists of the same items as the CSI (4), plus six similar items (e.g., “I really feel like part of a team with my partner”). The final six questions on the CSI (16) involve two opposing words on each question, such as *Discouraging* and *Hopeful*. A 6-point Likert scale ranging from 0 to 5 is placed between the words, with the highest value nearest to the positive word. The participants were asked to select the value that best reflected their feelings towards their romantic relationship. Items on the CSI (16) were summed with higher scores indicating higher relationship satisfaction. The CSI (16) scores range from 0 to 81. The CSI (4) has a reported Cronbach’s alpha of .94 and the CSI (16) has an alpha of .98 (Funk & Rogge, 2007). Convergent validity was reported between the Dyadic Adjustment Scale (DAS; Spanier, 1976) and both the CSI (4) and the CSI (16) with
correlations of .87 and .89, respectively (Funk & Rogge, 2007). Both measures have strong convergent validity with the Relationship Assessment Scale (RAS; Hendrick, 1998), with correlations of .94 and .95, respectively (Funk & Rogge, 2007). See Appendices A and B for complete copies of the CSI (4) and CSI (16), respectively.

**Action Control Scale (ACS).** The Action Control Scale (ACS; Kuhl, 1994) is a self-report measure that assesses trait rumination. The measure consists of three subscales: Preoccupation, Hesitation, and Volatility. Only the Preoccupation subscale was used in the current study to replicate the procedure of Jostmann et al. (2011). Items on the Preoccupation subscale describe 12 brief scenarios (e.g., "When I am told that my work has been completely unsatisfactory") followed by two possible responses to the scenario. One response reflects ruminative thinking (e.g., "I feel paralyzed") and one reflects non-ruminative thinking (e.g., "I don't let it bother me for too long"). Participants were asked to select the option that best reflected their response to the given scenario. Ruminative responses received a score of 1; non-ruminative responses received a score of 0. Total scores range from 0 to 12 with higher scores indicating more rumination. Based on the recommendation from Kuhl (1994), individuals who scored between 0 and 6 were considered to be low ruminators, while individuals who scored between 7 and 12 were considered to be high ruminators. The Preoccupation subscale has a Cronbach’s alpha of .70 (Kuhl, 1994). An analysis conducted by Diefendorff, Hall, Lord, and Strean (2000) found that the items in the Preoccupation subscale had loadings on that factor ranging from .37 to .80. The same analysis found a significant relationship between the Preoccupation subscale and an individual’s focus on the self (Diefendorff et al., 2000). When comparing the Preoccupation scale to the anxiety subscale of the Self-Consciousness Scale (SCS; Fenigstein, Schneir, & Buss, 1975), a correlational relationship of $\beta = -.35$ was found. This result
indicated that individuals who had high action-state orientation (i.e., low ruminators) had lower Anxiety subscale scores (Diefendorff et al., 2000). See Appendix C.

**Negative Emotions Questionnaire.** Participants were asked to indicate to what extent they experienced seven emotions (anger, sadness, disappointment, irritation, impatience, jealousy, anxiety) during a hurtful event in their current romantic relationship on a measure developed by Jostmann et al. (2011). Participants were then asked to rate the intensity of the same emotions *currently* after thinking about the hurtful event. The emotions were assessed on a 7-point Likert scale, ranging from 1 = *not at all* to 7 = *to a great extent*. Summing across seven items produces scores ranging from 7 to 49, with higher scores suggesting an experience of greater emotional intensity. Jostmann et al. (2011) reported that the scale (which did not include an item for anxiety) had a Cronbach’s alpha of .78 when assessing past emotions and an alpha of .51 for current emotions. Since a characteristic of SAD is experiencing anxiety within social contexts, the intensity of anxiety that the person experienced during and recalling the hurtful event was added to the questionnaire. See Appendix D.

**Actual Rumination Questionnaire.** Participants were asked to respond to two items that reported how frequently they have thoughts about the hurtful event and ruminated. The measure was originally developed by Jostmann et al. (2011). The items were assessed on a 7-point Likert scale, ranging from 1 = *not at all* to 7 = *to a great extent*. Jostmann et al. (2011) reported a Cronbach’s alpha of .82 for these items. See Appendix E.

**Social Interaction Anxiety Scale (SIAS).** The Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998) is a 20-item self-report measure that assesses fear during interactions with others. Statements about discomfort during social interactions (e.g., “I have difficulty talking with other people;” “I am nervous mixing with people I don’t know well”) were rated on
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a 5-point Likert scale from 0 (*not at all characteristic*) to 4 (*extremely characteristic*). The SIAS was scored by summing the ratings (which included reverse scoring items five, nine, and eleven). Scores range from 0 to 80, with higher scores indicating higher levels of anxiety during social interactions. The measure has Cronbach’s alphas ranging from .88-.94 and a test-retest correlation of .92 after four weeks and 12 weeks (Mattick & Clarke, 1998). The SIAS was positively correlated with other measures of social anxiety disorder such as the Social Phobia and Anxiety Inventory (SPAI; Turner, Beidel, & Dancu, 1996) and Social Phobia Scale (SPS; Mattick & Clarke, 1998) and discriminates among individuals who experience social anxiety disorder and individuals with other anxiety disorders (Peters, 2000). A minimum score of 34 was used to identify individuals in the high social anxiety group. The score correctly identified 82% of individuals who were diagnosed with social anxiety and incorrectly classified 18% of community controls (Heimberg, Mueller, Holt, Hope, & Liebowitz, 1992). A maximum score of 20 was used to identify the low socially anxious control group since the score is one standard deviation below the recommended cutoff score for social anxiety disorder and also represents the mean of undergraduate samples (Heimberg et al., 1992). Participants who scored between 20 and 34 were eliminated from analyses involving group comparisons. See Appendix F.

**Beck Depression Inventory (BDI).** The Beck Depression Inventory (BDI; Beck et al., 1979) is a 21 item self-report questionnaire that assesses depression symptoms experienced over a period of two weeks. Items are rated on a 4-point Likert scale ranging from 0 to 3. Each rating corresponds with a statement that suggests severity of a depression symptom (e.g., 0 = *I do not feel like a failure*; 3 = *I feel I am a complete failure as a person*). The ratings were summed with higher ratings indicating more severe depression. Scores range from 0 to 63. Cronbach’s alphas
of .86 for psychiatric patients and .81 for non-psychiatric individuals were yielded in a 25-year meta-analysis (Beck, Steer, & Garbin, 1988). See Appendix G.

**Procedure**

Students initiated the study by clicking on a link to SurveyMonkey. Students reviewed and agreed to the informed consent before they were allowed to proceed (see Appendix H). Participants were first asked questions about their romantic relationship status and, if applicable, how long they have been in the relationship. Those who indicated that they are not in a relationship were redirected to the end of the survey and were awarded credit for participation (see Relationship Status Questionnaire in Appendix I). Participants who stated that they are currently in a romantic relationship with a duration of fewer than 3 months were redirected to the end of the survey and were awarded credit for participation.

Participants then completed the ACS and the CSI (4). Next, they were asked to briefly write about a specific time within the past few months that they experienced upsetting feelings towards their partner, such as during a disagreement. Participants rated the intensity of the painful emotions they felt during the incident on the Negative Emotions Questionnaire. They then rated their current negative emotions about the event. Participants also rated two items assessing the extent to which they have ruminated about the event (Actual Rumination Scale). Participants then completed the CSI (16) questionnaire to assess their relationship satisfaction. Following the CSI (16), they completed the SIAS and BDI. Participants were asked about demographic information last (see Appendix J). After completing the survey, participants were debriefed (see Appendix K).

**Results**

**Preliminary Analyses**
A t-test indicated that high and low social anxiety groups did not differ on age. Chi-square analyses revealed the groups did not differ on gender or ethnicity. The social anxiety group differed significantly from the control group for sexual orientation. All participants in the control group reported their sexual orientation as heterosexual. Participants in the high social anxiety group reported heterosexual, homosexual, bisexual, and asexual orientations. The social anxiety group’s romantic partner’s gender differed significantly from the control group; social anxiety participants had more male romantic partners. In addition, the social anxiety group’s length of current romantic relationship differed significantly from the control group. Participants in the control group reported being in their current romantic relationship longer than the social anxiety group. As expected, the social anxiety group scored significantly higher than the control group on the SIAS. The groups did not differ in terms of depression. See Table 1.

Correlational analyses were conducted for all independent and dependent variables. See Table 2.

**Test of Hypotheses**

Baseline romantic relationship satisfaction was assessed with the CSI (4), which was administered prior to the instructions to write about a hurtful relationship experience. The social anxiety group (\(M = 16.43, SD = 3.50\)) did not differ in their baseline romantic relationship satisfaction relative to the control group (\(M = 16.57, SD = 3.12\)), \(t(67) = .16, p = .87\).

To test the second hypothesis, a t-test comparing the participants’ trait rumination was assessed with the ACS. The social anxiety group (\(M = 7.63, SD = 2.31\)) reported significantly higher trait rumination compared to the control group (\(M = 5.18, SD = 2.98\)), \(t(67) = -3.85, p < .001\).
A 2 group (social anxiety, control) X 2 time (past, present) ANOVA with repeated measures on the second factor was conducted for the third hypothesis to determine the intensity of distressing emotions from a hurtful relationship event. The main effect of group was not significant, $F(1, 67) = 1.98, p = .164$. The main effect of time was significant, $F(1, 67) = 142.59, p < .001$. Specifically, participants experienced a reduction of intensity of painful emotions over time. The interaction between group and time was not significant, $F(1, 67) = .09, p = .761$.

A 2 group (social anxiety, control) X 2 time (pre-manipulation, post-manipulation) ANOVA with repeated measures on the second factor was conducted for the fourth hypothesis to determine changes in relationship satisfaction before and after the manipulation of thinking about a hurtful relationship experience. The main effect of group was not significant, $F(1, 67) = .01, p = .926$. The main effect of time was not significant, $F(1, 67) = .46, p = .499$. The interaction between group and time was not significant, $F(1, 67) = .07, p = .80$.

*Moderation Analysis*

A hierarchal regression following the guidelines of Baron and Kenny (1986) was used for the fifth hypothesis to measure the interaction between social anxiety and rumination predicting romantic relationship satisfaction. According to the main effects model predicting CSI (16) romantic relationship satisfaction (Step 1), social anxiety symptoms ($\beta = -.04, p = .70$) did not make a significant contribution to the model but actual rumination ($\beta = -.25, p = .02$) did. The main effects model was significant, $\Delta R^2 = .02, \Delta F (2, 87) = 3.29, p = .04$. The interaction model (Step 2) did not significantly predict romantic relationship satisfaction, $\Delta R^2 = .08, \Delta F (1, 86) = 1.29, p = .26$.

*Mediation Analysis*
Whether the relationship between high social anxiety and currently distressing feelings from the hurtful relationship incident could be explained by rumination about that particular experience was explored. Barron and Kenny’s (1986) approach was used to test whether actual rumination mediated the relationship between social anxiety and current painful feelings regarding the hurtful relationship incident. The first model was significant, with the SIAS associated with current feelings about the hurtful incident, $\beta = .28$, $p = .009$. The second model was significant, with the SIAS associated with rumination, $\beta = .29$, $p = .001$. The third model was significant, with rumination associated with current feelings about the hurtful incident, $\beta = .71$, $p = .001$. Finally, the association between social anxiety and current feelings was reduced when controlling for actual rumination, $\beta = .08$, $p = .31$. A Sobel test revealed that the indirect effect of social anxiety on current feelings via rumination was significant, $z = 2.71$, $p = .007$.

**Discussion**

Contrary to the hypotheses, baseline romantic relationship satisfaction was not significantly different between high social anxiety and low social anxiety individuals. Additionally, a significant negative correlation between social anxiety and romantic relationship satisfaction was not found. In contrast, Porter and Chambless (2014) found a small but significant negative correlation between social anxiety symptoms and romantic relationship satisfaction in women ($r = -.30$, $p < .001$) and a marginally significant negative correlation in men ($r = -.14$, $p = .07$). That study assessed romantic relationship satisfaction using the RAS, and participants were primarily Caucasian undergraduate students who had been in a heterosexual romantic relationship for a minimum of three months. Homosexual couples were excluded from the study. Bar-Kalifa et al. (2015) also found a small but significant negative relationship ($r = -.24$, $p < .01$) between social anxiety, measured by the Social Phobia Inventory (SPIN; Conner et
al., 2000), and relationship satisfaction, measured by the CSI (16) for their first relationship satisfaction assessment. Daily relationship satisfaction, measured with an adapted version of the Emotional Tone Index (ETI; Berscheid, Snyder, & Omoto, 1989; adapted by Rafaeli, Cranford, Green, Shroud, & Bolger, 2008), was found to have a significant negative relationship ($r = -.27, p < .001$) with social anxiety. Bar-Kalifa et al. excluded all undergraduate participants who were not heterosexual. Differences in samples (e.g., the current study did not limit the sample to heterosexual participants) and measures employed may explain the different findings between the current study and other studies in the literature. Alternatively, the negative association between social anxiety and relationship satisfaction may be rather small and, thus, inconsistently detected.

As predicted, individuals with higher levels of social anxiety reported higher levels of trait rumination. Several studies in the literature support this finding (e.g., Jose et al., 2012; Kashdan & Roberts, 2007; Kocovski & Rector, 2007). This finding is consistent with the Clark and Wells’ (1995) model of social anxiety. The findings from this study expand research by using the ACS as a measurement of trait rumination. Much of the previous research on the relationship between social anxiety and rumination has largely relied on measures that ask specifically about rumination over social events (e.g., Modini & Abbott, 2017; Nepon et al., 2011; Penney & Abbott, 2015) while the ACS asks about rumination more broadly. Interestingly, the correlation between the ACS and the more specific measure of rumination about a hurtful relationship incident was not significant. That is, high trait rumination did not automatically translate into rumination about a specific difficult relationship event.

Contrary to predictions, romantic relationship satisfaction did not significantly change for either group following a task of recalling a hurtful event, which was intended to engender
rumination. Romantic relationship satisfaction with committed couples may be too stable to be significantly impacted by briefly recalling a hurtful relationship event. Additionally, future research may benefit from the use of state romantic relationship satisfaction measures that might be more sensitive to experimental manipulations.

In contrast, participants did report decreases in the intensity of painful feelings from after the hurtful event to the present time. Jostmann et al. (2011) found that both the high ruminator group and the low ruminator group experienced significant reductions of painful feelings over time and that there was a trend toward low ruminators experiencing more of a reduction in painful feelings than high ruminators. Contrary to predictions, when compared to the control group, socially anxious individuals did not remain more hurt by the experience.

The moderation hypothesis with actual rumination was not supported. Actual rumination did not interact with social anxiety to predict romantic relationship satisfaction. Actual rumination was the only significant predictor of romantic relationship satisfaction. This finding is consistent with the findings of Elphinstion et al. (2013) who reported a negative relationship between rumination and romantic relationship satisfaction.

Social anxiety was highly correlated with current painful feelings about a past hurtful incident. A mediation analysis explored whether rumination about that specific event served as a mediator between social anxiety and the current painful feelings. The results indicated that rumination about a specific hurtful relationship event accounts for the relationship between social anxiety and current painful feelings. In contrast, the more general measure of rumination was not related to current painful feelings about a past hurtful incident (although it was related to social anxiety). A ruminative response to a hurtful relationship event may prevent these feelings from resolving. The painful feelings in the current study included anger; therefore, these
findings seem relevant to previous research that has shown that the relationship between social anxiety and anger suppression is partially mediated by reflective pondering, a type of ruminative contemplation (Trew & Alden, 2009). Research has also shown that socially anxious individuals are more likely to experience anger than other individuals (Erwin, Heimberg, Schneier, & Liebowitz, 2003; Kashdan & Collins, 2010) and are more likely to suppress it (Erwin et al., 2003; Moscovitch, McCabe, Antony, Rocca, & Swinson, 2008). Socially anxious individuals who ruminate and hold onto negative emotions may benefit from interventions that encourage appropriate and assertive communication of emotions, cognitive restructuring, problem-solving, and other techniques as alternatives to coping via rumination (Trew & Alden, 2009).

There were limitations to the current study. Specifically, the total sample size was 90 participants. Considering high and low social anxiety groups, the number of participants was reduced even further to 69 participants. Some small effects might have been detected with a larger sample. The sample also consisted of primarily Caucasian college students, which limits the generalizing of the results. High and low social anxiety groups differed on sexual orientation and partner gender, which provides an alternative explanation for between-group differences. Replicating the study with a clinical sample may yield more significant results. Additionally, a large enough sample size to examine the effects of sexual orientation and partner gender would be beneficial as well.

Additional limitations were found in the structure of the study. The study did not identically replicate the Jostmann et al. (2011) study. Specifically, typing was used in the current study rather than writing down the event (as in the original study). Typing the hurtful relationship event might not have been potent enough to induce rumination. Literature has not developed a consensus in regards the writing modality used to elicit strong negative affect.
Brewing and Lennard’s (1999) results indicated writing essays about stressful events longhand significantly induced negative affect more than typing the essays. However, Sharp and Hargrove (2004) did not support these findings, reporting no significant difference between the modalities. Further assessment is needed to determine the extent to which rumination is influenced by writing or typing.

The current study sought to improve the understanding of rumination’s role in relationship satisfaction among individuals with high social anxiety. Socially anxious individuals were found to experience both state and trait forms of rumination, replicating previously established literature. However, social anxiety, as measured in the study, did not significantly relate to romantic relationship satisfaction. More research is needed to replicate the finding that rumination mediated the relationship between social anxiety and painful current emotions related to a hurtful event. Moreover, additional research is warranted to examine the cognitive processes of socially anxious individuals and the impacts these processes have on their romantic relationships.
### Table 1

**Participant Characteristics**

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<thead>
<tr>
<th>Variable</th>
<th>Social Anxiety ($n = 41$)</th>
<th>Control ($n = 28$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>32 (78.0%)</td>
<td>17 (60.7%)</td>
</tr>
<tr>
<td>Male</td>
<td>8 (19.5%)</td>
<td>11 (39.3%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (2.4%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>31 (75.6%)</td>
<td>22 (78.6%)</td>
</tr>
<tr>
<td>African American</td>
<td>1 (2.4%)</td>
<td>2 (7.1%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4 (9.8%)</td>
<td>2 (7.1%)</td>
</tr>
<tr>
<td>Asian</td>
<td>1 (2.4%)</td>
<td>1 (3.6%)</td>
</tr>
<tr>
<td>Mixed Ethnicity</td>
<td>3 (7.3%)</td>
<td>1 (3.6%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (2.4%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>*<em>Participant Orientation</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>29 (70.7%)</td>
<td>28 (100%)</td>
</tr>
<tr>
<td>Homosexual</td>
<td>2 (4.9%)</td>
<td></td>
</tr>
<tr>
<td>Bisexual</td>
<td>7 (17.1%)</td>
<td></td>
</tr>
<tr>
<td>Asexual</td>
<td>3 (7.3%)</td>
<td></td>
</tr>
<tr>
<td><strong>Partner Gender</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>10 (24.4%)</td>
<td>13 (46.4%)</td>
</tr>
<tr>
<td>Male</td>
<td>31 (75.6%)</td>
<td>15 (53.6%)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>$M = 21.24$, $SD = 5.77$</td>
<td>$M = 20.79$, $SD = 2.47$</td>
</tr>
<tr>
<td><strong>Relationship – Months</strong></td>
<td>$M = 18.07$, $SD = 13.54$</td>
<td>$M = 27.83$, $SD = 4.5$</td>
</tr>
<tr>
<td><strong>SIAS</strong></td>
<td>$M = 44.24$, $SD = 7.58$</td>
<td>$M = 12.04$, $SD = 5.32$</td>
</tr>
<tr>
<td><strong>BDI</strong></td>
<td>$M = 7.37$, $SD = 5.37$</td>
<td>$M = 5.29$, $SD = 5.00$</td>
</tr>
</tbody>
</table>

*Note. *Indicates groups differ at $p < .05$. 
Table 2

*Bivariate Correlations Among ACS, Actual Rumination, SIAS Total, CSI (16), CSI (4), Emotions Past, and Emotions Present*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ACS Total</td>
<td>-</td>
<td>.145</td>
<td>.395**</td>
<td>-.116</td>
<td>-.156</td>
<td>-.135</td>
<td>.151</td>
<td>.216</td>
</tr>
<tr>
<td>2. Actual Rumination Index</td>
<td>-</td>
<td>.286**</td>
<td>-.262*</td>
<td>-.290**</td>
<td>-.276**</td>
<td>.544**</td>
<td>.706**</td>
<td></td>
</tr>
<tr>
<td>3. SIAS Total</td>
<td>-</td>
<td>-.114</td>
<td>-.093</td>
<td>-.092</td>
<td>.219*</td>
<td>.276**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. CSI (16) Total</td>
<td>-</td>
<td>.745**</td>
<td>.890**</td>
<td>.027</td>
<td>-.204</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CSI (4) Time 1</td>
<td>-</td>
<td>.841**</td>
<td>-.058</td>
<td>-.224*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. CSI (4) Time 2</td>
<td>-</td>
<td>.004</td>
<td>-.241*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Emotions Past</td>
<td>-</td>
<td>.607**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Emotions Present</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Score

| Mean | 6.46 | 3.26 | 30.27 | 65.89 | 16.56 | 16.34 | 4.39 | 2.58 |
| SD   | 2.77 | 1.80 | 15.33 | 11.13 | 3.11 | 3.19 | 1.37 | 1.46 |

*Note.*  *p* < .05; **p** < .01.
References


Appendix A

*Couples Satisfaction Index (4)*

1. Please indicate the degree of happiness, all things considered, of your relationship.

   Extremely Unhappy = 0  
   Fairly Unhappy = 1  
   A Little Unhappy = 2  
   Happy = 3  
   Very Happy = 4  
   Extremely Happy = 5  
   Perfect = 6

2. I have a warm and comfortable relationship with my partner.

   Not at all True = 0  
   A little True = 1  
   Somewhat True = 2  
   Mostly True = 3  
   Almost Completely True = 4  
   Completely True = 5

3. How rewarding is your relationship with your partner?

   Not at all = 0  
   A little = 1  
   Somewhat = 2  
   Mostly = 3  
   Almost Completely = 4  
   Completely = 5

4. In general, how satisfied are you with your relationship?

   Not at all = 0  
   A little = 1  
   Somewhat = 2  
   Mostly = 3  
   Almost Completely = 4  
   Completely = 5
Appendix B

*Couples Satisfaction Index (16)*

1. Please indicate the degree of happiness, all things considered, of your relationship.
   - Extremely Unhappy = 0
   - Fairly Unhappy = 1
   - A Little Unhappy = 2
   - Happy = 3
   - Very Happy = 4
   - Extremely Happy = 5
   - Perfect = 6

2. In general, how often do you think that things between you and your partner are going well?
   - All the time = 5
   - Most of the time = 4
   - More often than not = 3
   - Occasionally = 2
   - Rarely = 1
   - Never = 0

3. Our relationship is strong.
   - Not at all True = 0
   - A little True = 1
   - Somewhat True = 2
   - Mostly True = 3
   - Almost Completely True = 4
   - Completely True = 5

4. My relationship with my partner makes me happy.
   - Not at all True = 0
   - A little True = 1
   - Somewhat True = 2
   - Mostly True = 3
   - Almost Completely True = 4
   - Completely True = 5

1. I have a warm and comfortable relationship with my partner.
   - Not at all True = 0
   - A little True = 1
   - Somewhat True = 2
   - Mostly True = 3
   - Almost Completely True = 4
   - Completely True = 5

2. I really feel like part of a team with my partner.
3. Please select somewhat for this question.
   Not at all = 0
   A little = 1
   Somewhat = 2
   Mostly = 3
   Almost Completely = 4
   Completely = 5

4. How rewarding is your relationship with your partner?
   Not at all = 0
   A little = 1
   Somewhat = 2
   Mostly = 3
   Almost Completely = 4
   Completely = 5

5. How well does your partner meet your needs?
   Not at all = 0
   A little = 1
   Somewhat = 2
   Mostly = 3
   Almost Completely = 4
   Completely = 5

6. To what extent has your relationship met your original expectations?
   Not at all = 0
   A little = 1
   Somewhat = 2
   Mostly = 3
   Almost Completely = 4
   Completely = 5

7. In general, how satisfied are you with your relationship?
   Not at all = 0
   A little = 1
   Somewhat = 2
   Mostly = 3
   Almost Completely = 4
   Completely = 5
For each of the following items, select the answer that best describes how you feel about your relationship. Base your responses on your first impressions and immediate feelings about the item.

11. INTERESTING  5 4 3 2 1 0 BORING
12. BAD  0 1 2 3 4 5 GOOD
13. FULL  5 4 3 2 1 0 EMPTY
14. STURDY  5 4 3 2 1 0 FRAGILE
15. DISCOURAGING  0 1 2 3 4 5 HOPEFUL
16. ENJOYABLE  5 4 3 2 1 0 MISERABLE
Appendix C

*Action Control Scale- Preoccupation Subscale*

1. When I have lost something that is very valuable to me and I can’t find it anywhere:
   a. I have a hard time concentrating on something else.
   b. I put it out of my mind after a little while.

2. If I’ve worked for weeks on one project and then everything goes completely wrong with the project:
   a. It takes me a long time to adjust myself to it.
   b. It bothers me for a while, but then I don’t think about it anymore.

3. When I’m in a competition and have lost every time:
   a. I can soon put losing out of my mind.
   b. The thought that I lost keeps running through my mind.

4. If I had just bought a new piece of equipment (for example a tape deck) and it accidentally fell on the floor and was damaged beyond repair:
   a. I would manage to get over it quickly.
   b. It would take me a long time to get over it.

5. If I have to talk to someone about something important and, repeatedly, can’t find him or her at home:
   a. I can’t stop thinking about it, even while I’m doing something else.
   b. I easily forget about it until I see the person.

6. When I’ve bought a lot of stuff at the store and realize when I get home that I’ve paid too much- but I can’t get my money back:
   a. I can’t concentrate on anything else.
b. I easily forget about it.

7. Pick the second statement.
   a. Not this one.
   b. This one.

8. When I am told that my work has been completely unsatisfactory:
   a. I don’t let it bother me for too long.
   b. I feel paralyzed.

9. If I’m stuck in traffic and miss an important appointment:
   a. At first, it’s difficult for me to start to do anything else at all.
   b. I quickly forget about it and do something else.

10. When something is very important to me, but I can’t seem to get it right:
    a. I gradually lose heart.
    b. I just forget about it and do something else.

11. When something really gets me down:
    a. I have trouble doing anything at all.
    b. I find it easy to distract myself by doing other things.

12. When several things go wrong on the same day:
    a. I usually don’t know how to deal with it.
    b. I just keep going as though nothing happened.

13. When I have put all my effort into doing a really good job on something and the
    whole thing doesn’t work out:
    a. I don’t have too much difficulty starting something else.
    b. I have trouble doing anything else at all.
Appendix D

Negative Emotions Questionnaire

1. For this question, think back about a time when your current romantic partner did or said something that was hurtful to you and you experienced negative feelings towards them.

In the text box below, please briefly describe (in a paragraph) the event, including details that you feel comfortable sharing.

2. How long ago did this incident occur?

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Not at all</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>Anger</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Sadness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Disappointment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Irritation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Impatience</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Jealousy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

For each question, please indicate the degree to which you felt the following emotions DURING THE PAST EVENT.

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Not at all</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>Anger</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Sadness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Disappointment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Irritation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Impatience</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Jealousy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

For each question, please indicate the degree to which you felt the following emotions CURRENTLY as you thought back on the hurtful event.
Appendix E

*Actual Rumination Questionnaire*

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>To a great extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I still sometimes ruminate about the incident.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I spontaneously think back about the incident every now and then.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
Appendix F

*Social Interaction Anxiety Scale*

For each question, please indicate the degree to which you feel the statement is characteristic or true of you.

<table>
<thead>
<tr>
<th></th>
<th>Not at all characteristic or true of me.</th>
<th>Slightly characteristic or true of me.</th>
<th>Moderately characteristic or true of me.</th>
<th>Very characteristic or true of me.</th>
<th>Extremely characteristic or true of me.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I get nervous if I have to speak with someone in authority (teacher, boss).</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have difficulty making eye-contact with others.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I become tense if I have to talk about myself or my feelings.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I find it difficult mixing comfortably with the people I work with.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I find it easy to make friends of my own age.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>I tense up if I meet an acquaintance in the street.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>When mixing socially, I am uncomfortable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel tense if I am alone with just one person.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am at ease meeting people at parties, etc.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>I have difficulty talking with other people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find it easy to think of things to talk about.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>I worry about expressing myself in case I appear awkward.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find it difficult to disagree with another’s point of view.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have difficulty talking to attractive persons of the opposite sex.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find myself worrying that I won’t know what to say in social situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>I am nervous mixing with people I don’t know well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel I’ll say something embarrassing when talking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When mixing in a group, I find myself worrying I will be ignored.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am tense mixing in a group.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am unsure whether to greet someone I know only slightly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G

Beck Depression Inventory

1. 0= I do not feel sad.
    1= I feel sad.
    2= I am sad all the time and I can’t snap out of it.
    3= I am so sad or unhappy that I can’t stand it.

2. 0= I am not particularly discouraged about the future.
    1= I feel discouraged about the future.
    2= I feel I have nothing to look forward to.
    3= I feel that the future is hopeless and that things cannot improve.

3. 0= I do not feel like a failure.
    1= I feel that I have failed more than the average person.
    2= As I look back on my life, all I can see is a lot of failures.
    3= I feel I am a complete failure as a person.

4. 0= I get as much satisfaction out of things as I used to.
    1= I don’t enjoy things the way I used to.
    2= I don’t get real satisfaction out of anything anymore.
    3= I am dissatisfied or bored with everything.

5. 0= Pick this item.
    1= Please pick the first item.
    2= Check the first item.
    3= Do not choose this item.

6. 0= I don’t feel particularly guilty.
    1= I feel guilty a good part of the time.
    2= I feel quite guilty most of the time.
3= I feel guilty all of the time.

7. 0= I don’t feel like I am being punished.
   1= I feel I may be punished.
   2= I expect to be punished.
   3= I feel I am being punished.

8. 0= I don’t feel disappointed in myself.
   1= I am disappointed in myself.
   2= I am disgusted with myself.
   3= I hate myself.

9. 0= I don’t feel I am any worse than anybody else.
   1= I am critical of myself for my weaknesses or mistakes.
   2= I blame myself all the time for my faults.
   3= I blame myself for everything bad that happens.

10. 0= I don’t have any thoughts of killing myself.
    1= I have thoughts of killing myself, but I would not carry them out.
    2= I would like to kill myself.
    3= I would kill myself if I had the chance.

11. 0= I don’t cry any more than usual.
    1= I cry more now than I used to.
    2= I cry all the time now.
    3= I used to be able to cry, but now I can’t cry even though I want to.

12. 0= I am no more irritated now than I ever am.
    1= I get annoyed or irritated more easily than I used to.
    2= I feel irritated all the time now.
3= I don’t get irritated at all by the things that used to irritate me.

13. 0= I have not lost interest in other people.
    1= I am less interested in other people than I used to be.
    2= I have lost most of my interest in other people.
    3= I have lost all of my interest in other people.

14. 0= I make decisions about as well as I ever could.
    1= I put off making decisions more than I used to.
    2= I have greater difficulty in making decisions than before.
    3= I can’t make decisions at all anymore.

15. 0= I don’t feel I look any worse than I used to.
    1= I am worried that I am looking old or unattractive.
    2= I feel that there are permanent changes in my appearance that make me look unattractive.
    3= I believe that I look ugly.

16. 0= I can work about as well as before.
    1= It takes an extra effort to get started at doing something.
    2= I have to push myself very hard to do anything.
    3= I can’t do any work at all.

17. 0= I can sleep as well as usual.
    1= I don’t sleep as well as I used to.
    2= I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
    3= I wake up several hours earlier than I used to and cannot get back to sleep.

18. 0= I don’t get more tired than usual.
    1= I get tired more easily than I used to.
2= I get tired from doing almost anything.
3= I am too tired to do anything.

19. 0= Pick the last item.
   1= Check the last one.
   2= Do not choose this item.
   3= Please pick this item.

20. 0= My appetite is no worse than usual.
    1= My appetite is not as good as it used to be.
    2= My appetite is much worse now.
    3= I have no appetite anymore.

21. 0= I haven’t lost much weight, if any, lately.
    1= I have lost more than 5 pounds.
    2= I have lost more than 10 pounds.
    3= I have lost more than 15 pounds.

        *I am purposely trying to lose weight by eating less.*
          µ Yes       µ No

22. 0= I am no more worried about my health than usual.
    1= I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
    2= I am very worried about physical problems and it’s hard to think about much else.

23. 0= I have not noticed any recent change in my interest in sex.
    1= I am less interested in sex than I used to be.
    2= I am much less interested in sex now.
    3= I have lost interest in sex completely.
Appendix H

Informed Consent

The Department of Psychology supports the practice of protection for human subjects participating in research. The following information is provided so that you can decide whether you wish to participate in the present study. You should be aware that even if you agree to participate you are free to withdraw at any time, without penalty.

You will be participating in this study anonymously. No identifying information (such as your name) will be recorded in the study. While examining the data, the answers you provide will be replaced with numbers.

You will first be asked about your relationship status. Based on the answers provided, you might be redirected towards the end of the study and awarded credit. In this case, participation is anticipated to take 5 minutes or less.

Alternatively, you might be given additional questions to answer. These additional questions include the following topics: your relationship satisfaction, your thoughts, anxiety, mood, age, gender, ethnicity, education level, and sexual orientation. You will also be asked to think and briefly write about an experience where you felt hurt by your relationship partner. If you continue in the study as described in this paragraph, your participation is anticipated to take approximately 30 minutes. Research participation in PY 100 classes is awarded based on the amount of time spent in the study. In this way, your name will not be associated with your answers to any survey questions.

The results of this study may be shared at professional meetings, presentations, and/or published. Your participation is solicited, but strictly voluntary. Please feel free to ask any questions about the study. We greatly appreciate your cooperation.

Sincerely,

Sarah Nelson

785-670-1010
Appendix I

*Relationship Status Questionnaire*

1. Are you currently in a romantic relationship?
   a. Yes
   b. No

2. How long have you been in your current romantic relationship?
   a. More than 3 months
   b. Less than 3 months

3. Please indicate the length of time you have been in a romantic relationship with your current partner.
Appendix J

Demographic Questionnaire

Age: ____

Gender:
- ____ Male
- ____ Female
- ____ Transgender
- ____ Other (please specify)

Ethnicity:
- ____ Caucasian
- ____ African American
- ____ Hispanic
- ____ Asian
- ____ Mixed Ethnicity (please specify) _________________________________
- ____ Other (please specify) _________________________________

Sexual Orientation:
- ____ Heterosexual
- ____ Homosexual
- ____ Bisexual
- ____ Asexual
- ____ Other (please specify) _________________________________

Education: (highest completed)
- ____ Some High School
- ____ High School Diploma
- ____ Technical/Trade Certification
- ____ Associate’s Degree
- ____ Bachelor’s Degree
- ____ Master’s Degree
- ____ Doctoral Degree

What gender does your romantic partner identify with?

- ____ Male
- ____ Female
- ____ Transgender
- ____ Other (please specify)
Appendix K

Debriefing Form

Thank you for your participation in this study. The goal of the study is to investigate how thoughts towards negative events influence romantic relationship satisfaction. Thinking about a negative past event for an extended period of time might negatively affect an individual’s perception towards their romantic relationship. Therefore, the present study is seeking to determine whether or not thoughts about past negative events, particularly for those who experience anxiety in social situations, would influence a person’s view towards their romantic relationship.

You have just participated in an experiment that may have evoked strong negative emotions. It is not the intention of this study to leave you upset at the conclusion. If you feel distressed after your participation, please notify the researcher. There are also resources listed below if you later experience distress based on your participation.

If you have any comments, concerns or questions please feel free to contact the principal investigator, Sarah Nelson (785-670-1010), or the faculty supervisor, Cindy Turk (785-670-1565).

WASHBURN UNIVERSITY RESOURCES:

Washburn Psychological Services Clinic (very small charge, open to students and others in the community) Henderson 111: 785-670-1750

Counseling Services (free to students): Kuehne 200, 785-670-3100

Student Health Services: Morgan 140, 785-670-1470

Community Resources:

Stormont-Vail Behavioral Health Services: (785) 270-4600

Valeo Behavioral Health Care: (785) 234-3300