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In the Face of Threat: How Relationship Threat Affects Cognitive Processing

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A Thesis Presented

by

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ABSTRACT

IN THE FACE OF THREAT: HOW RELATIONSHIP THREAT AFFECTS COGNITIVE PROCESSING

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This investigation examined the hypothesis that the presence of relationship threat leads to decreased working memory capacity, and also changes partner perceptions based on adult attachment style. To test this hypothesis, participants were exposed to a threat or no-threat manipulation and then completed measures examining partner perceptions and individual differences. Results suggest that the threat manipulation might have been strong enough for only highly anxious people. These individuals showed higher levels of working memory capacity following a relationship threat, compared to more securely attached persons, and later described their partners in more global, less desirable terms, regardless of threat condition. Highly avoidant individuals also described romantic partners in less desirable terms compared to more securely attached persons, regardless of threat condition. Individual difference measures suggest that rejection sensitivity and neuroticism may contribute to how romantic partners are perceived. Implications for future research on relationship threat and partner perceptions are discussed.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

In the Face of Threat: How Relationship Threat Affects Cognitive Processing

Romantic couples vary in their ability to deal with threats and conflict, and how they do so can significantly impact the quality and stability of their relationship (Kobak & Hazan, 1991). Dealing with threat and conflict depends in part on individuals' ability to think constructively and problem solve, and this ability may vary as a function of differences in individuals' expectations, beliefs, and goals about relationships (i.e., working models) and their associated ability to regulate negative emotions (Mikulincer, Shaver, & Pereg, 2003). When individuals are unable to inhibit negative emotions, they may have fewer cognitive resources available for thinking constructively about their partner and relationship. Specifically, in the face of conflict or relational stress, some individuals may show a deficit in working memory capacity, which in turn could interfere with their ability to perceive and judge their partner and relationship in ways that will promote healthy relationship functioning.

The present work draws on attachment theory (e.g., Bowlby, 1973; Hazan & Shaver, 1987) and prior work on the connection between stress and working memory capacity (e.g., Schmader & Johns, 2003; Schmeichel, Volokhov, & Demaree, 2008) to test predictions about (a) people's ability to maintain adequate working memory capacity in the face of relational threat, (b) the extent to which attachment style moderates the connection between threat and working memory

capacity, and (c) the extent to which working memory capacity mediates the connection between threat and perceptions of the partner and relationship for individuals with different attachment styles. Little research has explored the influence of relationship threat on memory, and how memory, in turn, influences partner perceptions. An examination of how memory impairments may hinder rapidly-formed perceptions could pave the way for a greater understanding of how individuals cognitively represent their romantic partners and relationships and influence behavior.

Attachment Theory and Response to Threats

According to attachment theory (Bowlby, 1973, 1969/1982), individuals possess an *attachment behavioral system* that enables them to regulate their affect when face with stressful or threatening events; this system motivates some to seek comfort from attachment figures (caregivers, close friends, romantic partners, etc.) when distressed and others to withdraw from them. Attachment theory suggests that, through the attachment system, infants develop *internal working models;* these are representations of the quality of responsiveness and supportiveness that one comes to expect from caregivers during times of need (Bowlby, 1973). These working models are thought to evolve from infants' day-to-day experiences with caregivers. Early expectations of attachment figures are a reflection of regularities in patterns of interactions between infant and caregiver, and these models carry forward into adult relationships. These representations assist in the ability to regulate processing of, and response to, attachment-relevant

information (e.g., response to relationship threats) in later relationships. Specifically, the type of care received from early attachment figures influences how individuals respond to relationships with attachment figures in adulthood, particularly, romantic partners (Hazan & Shaver, 1987). Although these patterns tend to be consistent from childhood to adulthood, they can shift as a function of experiences with other important figures such as peers and romantic partners (Hazan & Shaver, 1987; Fraley & Shaver, 2000; Hazan & Zeifman, 1999).

Adult Attachment and Romantic Relationships

In adulthood, attachment styles are best characterized by two underlying dimensions: anxiety and avoidance (Bartholomew & Horowitz, 1991). Anxiety indicates concerns over abandonment and a high desire for closeness and intimacy, whereas avoidance refers to greater discomfort with intimacy and closeness, and a desire to maintain one's independence. Figure 1 depicts the interaction between these two dimensions, which yield four attachment prototypes. The upper left quadrant reflects the secure prototype (low anxiety and low avoidance), whereas the lower left quadrant reflects the dismissing prototype (low anxiety and high avoidance). The upper right quadrant reflects the preoccupied prototype (high anxiety and low avoidance), and the lower right quadrant indicates the fearful prototype (high anxiety and high avoidance).

A person's attachment style has been shown to predict emotion regulation in adult close relationships; threats to an attachment relationship produce similar patterns as those evidenced when infants perceive threats with their caregiver

(Mikulincer & Shaver, 2005). Consistent with attachment theory (Bowlby, 1973, 1969/1982), *securely* attached adults rely on support-seeking strategies when distressed. For example, they maintain a stable sense of attachment security and assert confidence in their attachment figures' availability to support them. Conversely, *insecure* persons will either distance themselves from an attachment figure (highly avoidant) or cling to their romantic partner out of fear of rejection (highly anxious).

Response to Romantic Relationship Threat

Attachment style influences response to threats in romantic relationships, such that more anxious adults respond to such threats with heightened feelings of jealousy (Guerrero, 1998) and stronger doubts about self-worth and a partner's love (Hazan & Shaver, 1987), whereas more avoidant adults respond to threats with increased distance from their partner due to a lack of trust (Mikulincer & Florian, 1998). Individuals lower in anxiety and avoidance respond less negatively to relationship threats. Over time, these secure individuals have developed working models that help them to approach and resolve conflicts more easily than insecurely attached persons (Bowlby, 1973). Specifically, when the attachment system in secure individuals becomes activated, they are able to focus on seeking support from romantic partners without fear of being abandoned or unloved (Mikulincer & Shaver, 2003; Collins & Read, 1990).

*Relationship threats and attachment anxiety***.** Activation of relationship threat heightens the accessibility of representations of inconsistently responsive

attachment figures for individuals high in attachment anxiety (Mikulincer, Gillath, & Shaver, 2002). These individuals lack confidence that their partners will be responsive to their needs and worry that they are not cared about enough (Hazan & Shaver, 1994). Because of these fears, the attachment system for more anxious individuals becomes hyperactivated, which can result in over disclosing intimate details (Mikulincer & Nachshon, 1991), consistently recalling negative thoughts and memories (Mikulincer & Orbach, 1995), and contemplating worst-case scenarios (Mikulincer, Shaver & Pereg, 2003). Additionally, highly anxious people are likely to continue acting in an anxious manner after the threat has diminished. For example, even in non-stressful situations, these individuals are distracted by fearful thoughts (e.g., doubting a partners' feelings or having negative views of the self; Mikulincer, Gillath, & Shaver, 2002; Fraley & Shaver, 1997). Thus, when faced with a relationship threat, people who are highly anxious should experience impaired cognitive ability (i.e., their ability to process at a higher level diminishes).

*Relationship threats and attachment avoidance***.** In contrast to highly anxious individuals, more avoidant persons inhibit accessibility of representations of attachment figures when relationship threat is present. These individuals have difficulty becoming close with romantic partners, and are least likely to rely on their partners as a source of reassurance in threatening situations (Simpson, Tholes, & Nelligan, 1992). Instead of seeking support in the face of threat, they depend on avoidant defensive strategies to distance themselves from their partner

(Fraley, Davis, & Shaver, 1998; Edelstein & Gillath, 2008) and dismiss the importance of stressful or threatening situations. That is, a fear of intimacy causes avoidant individuals to withdraw from their romantic partners (and attachment-related stimuli, in general; Hazan & Shaver, 1987). Consequently, highly avoidant individuals experience distress and anxiety physiologically while they attempt to maintain distance from attachment figures (Mikulincer, Shaver, & Pereg, 2003). In threatening situations, the attachment system for dismissive-avoidant and fearful-avoidant persons becomes deactivated. In an attempt to promote distance between themselves and the threatening situation (e.g., a romantic partner; Fraley & Shaver, 1998; Simpson, Rholes, & Nelligan, 1992), these individuals disengage from close relationships and inhibit the cognitive accessibility of attachment-related material.

Working Memory Capacity and Relationship Threat

The activation of stress and anxiety has been shown to impair individual's working memory capacity (the ability to attend to temporarily activated information while inhibiting irrelevant information; Engle 2001; Derakshan & Eysenck, 1998). Stressful situations elicit changes in how people respond to and process information (Baddeley & Hitch, 1974). For example, individuals low in executive functioning have less control of their emotions when faced with stressful life events compared to individuals with higher executive control (Klein & Boals, 2001). Working memory capacity is an important part of emotion regulation, and should play a prominent role in determining response to

challenging situations (e.g., relationship conflict). While working memory can become impaired under stress, the extent of impairment is partially determined by the importance of the stressor. In romantic relationships specifically there are particular kinds of stress that couples face that influence a person's ability to communicate with their partner in constructive ways. For instance, arguing with a romantic partner (and related unwanted thoughts that emerge) is more difficult to ignore than simply irrelevant thoughts. As situations become more *stressful* (and thus, compete for working memory resources), the effects of stress on working memory should become increasingly negative. Response to these stressors, however (and the extent to which negative effects from stress increase), might vary by person due to differences in attachment style or individual differences (e.g., neuroticism or rejection sensitivity).

Higher levels of working memory capacity are associated with more successful inhibition of distracting information and better performance on tests of cognitive ability (Rosen & Engle, 1998; La Pointe & Engle, 1990**)**. Research by Barrett and colleagues (2004) suggests that individuals high in working memory capacity are better able to control goal-directed processing. Conversely, individuals who are low in working memory capacity are more likely to respond quickly (e.g., when communicating with someone) and in less desirable ways without considering more appropriate alternatives. Thus, regulating behavior under stress is easier with greater executive control.

Further, research by Deater-Deckard, Sewell, Petrill, and Thompson

(2010) demonstrates that mothers with lower levels of working memory capacity experience more negativity in reaction to their children's difficult behavior because of an inability to cognitively control their emotions. Similarly, individuals who experience threat should show deficits in working memory, which in turn, should affect how they perceive their partner and relationships, and also influence their behavior in challenging interactions.

Attachment and Working Memory Capacity

How might attachment styles influence working memory capacity? Avoidant strategies that are used to inhibit threat-related information may promote interpersonal distance and influence critical relationship processes (e.g., ability to discuss a disagreement constructively, make benign attributions about a partner's negative behavior) and maintain favorable perceptions of partners. Previous research by Edelstein (2006) used a modified version of La Pointe and Engle's (1990) operation span task to assess how levels of working memory are affected by emotional or attachment relevant stimuli. Participants completed two tasks concurrently: they identified simple mathematical equations as "true" or "false" and were asked to remember a series of words rated high on attachment or emotional valence. At the end of each set, participants were asked to recall all words in the order they appeared. Working memory capacity scores were generated by totaling the number of all correctly recalled sets. Attachment anxiety was unrelated to memory, however, people high in attachment avoidance showed decreased levels of working memory capacity, but only when attachment-relevant

material was activated (Edelstein, 2006). Specifically, when individuals were exposed to attachment-related material (e.g., words such as: avoid, cuddle, loving, or reject), those higher in avoidance showed decreased levels of working memory. This effect was not observed when participants recalled non-attachment related emotional material (e.g., words such as: beauty, cancer, gossip, or peace), suggesting that the link between impairments in working memory for highly avoidant individuals is specific to attachment stimuli. This finding is consistent with the theory that more avoidant individuals attempt to inhibit attachment-system activation to minimize the processing of attachment-relevant information (Bowlby, 1980).

The current research investigates the relationship between attachment and working memory by examining how changes in memory might mediate the association between threat and perceptions of romantic partners and relationships. This study extended Edelstein's work (2006) by inducing stress (i.e., activating threat). When stress is encountered in relationships with attachment figures (e.g., during separation or conflict), cognitive representations of the attachment system become activated, regardless of attachment style (Mikulincer et al., 2000). Once activated, attempts made to ignore the unwanted information (e.g., relationship threat) could result in depletion of working memory, which could lead to adverse perceptions of partners and relationships. The current study explored this possibility.

Attachment, Working Memory, and Perceptions of Partners

Bowlby (1969/1982) argued that differences in attachment style predict how individuals view their partners and relationships. When an individual's attachment system is activated in response to relationship threat, this may have a profound influence on the individual's perceptions of his or her partner. These perceptions can influence conflict resolution by inhibiting one's ability to comprehend situations appropriately, and thus, communicate and respond successfully. Understanding changes in partner perceptions could lead to useful techniques for better understanding and resolving conflict between partners.

Research has shown that partner perceptions shape expectations and guide behavior within that relationship (Snyder, Tanke, & Berscheid, 1977). Maintaining positive perceptions of romantic partners can lead to strengthening relationships and adding to one's overall satisfaction (Swann et al, 1994). In healthy relationships, negative traits of romantic partners are frequently described using specific terms or phrases (e.g., "My romantic partner doesn't pick up his/her laundry."). These negative traits are typically undervalued and do not impede one's overall, positive view of his or her romantic partner (John, Hampson, & Goldberg, 1991). Positive attributes of romantic partners, however, are often described (in healthy relationships) using abstract terms or phrases (e.g., "My romantic partner is amazing."). Perceiving partners' positive traits globally allows individuals to overvalue positive traits in a way that reinforces liking of one's partner (Neff & Karney, 2002).

What role might working memory play in guiding perceptions of partners

and relationships? That is, when individuals experience deficits in working memory, might their ability to inhibit negative emotions also decrease? This could lead to a decreased ability to think constructively about romantic partners and relationships. While previous studies have examined differences in response to threat based on attachment style (e.g., Mikulincer, Gillath, & Shaver, 2002; Simpson, Rholes, & Nelligan, 1992; Guerrero, 1998; Birnbaum, Orr, Mikulincer, & Florian, 1997), the current research extends findings by examining differences in partner perceptions (described in specific or abstract terms) after inducing a relationship threat and exhausting working memory. The moderating role of attachment is considered.

CHAPTER II

THE CURRENT RESEARCH

This research sought to expand our understanding of how stress influences behavior regulation in the context of romantic relationships. The influence of relationship threat on partner perceptions was examined, as well as the extent to which this association might be mediated by differences in working memory capacity. Further, the moderating role of attachment was considered (see Figure 2). Participants were exposed to a manipulation that induced a state of relationship threat or non-threat (control) and then they completed a working memory capacity test (Turner & Engle's operation span task, 1989). Following this task, participants completed several measures designed to tap participants' specific and abstract perceptions of their partner (see Neff & Karney, 2002).

This study examined the hypothesis that relationship threat will lead to a reduction in working memory capacity, and this reduction may influence subsequently reported perceptions of partners under conditions in which the attachment system has been activated (i.e., in response to relationship threat). When there is no threat present, individuals are likely to view their relationship in predisposed patterns, which are moderated by attachment style. Participants who are low in both attachment anxiety and avoidance (i.e., more securely attached adults) should produce more abstract descriptions of romantic partners and relationships than highly anxious or avoidant participants. Highly anxious individuals (i.e., who are preoccupied) are expected to rely more on specific

attributes, whereas individuals with more avoidant attachment are expected to fall somewhere between secure and anxiously attached individuals. When relationship threat becomes salient and the attachment system becomes activated, individuals are likely to enhance descriptions of their partner and relationship in the previously described patterns (e.g., more securely attached individuals will use more *abstract* descriptions and highly anxious individuals will use more *specific* descriptions).

Specific predictions regarding gender were not made, however, women typically attend more to relationship information than do men. Therefore, possible gender effects were explored.

CHAPTER III

METHOD

Participants

Two hundred and four psychology students (144 women) from the University of Massachusetts Amherst were recruited for this study. All participants were healthy university students, 18 years of age or older. As part of a prescreening, participants completed the short version of the Experiences in Close Relationships questionnaire (ECR-S; Wei, Russel, Mallinckrodt, & Vogel, 2007). An equal number of students from each attachment prototype (as evidenced by responses on the ECR-S) were contacted via email to participate in the study. Only students who were involved in a romantic relationship for a minimum of three months at the time of the study were selected to participate, therefore forty participants (26 women) were excluded because they did not meet this recruitment criterion at the time they completed the study.

Manipulation of Threat

To temporarily induce a state of threat, participants completed a *relationship threat* task. From a list provided by the experimenter, participants chose three aspects of themselves that they would prefer their romantic partner did not see. Then, they described in detail their "secret selves" and provided information regarding how they think their romantic partner might react if their "secret selves" were revealed (see Appendix A). This task has been used in prior research to activate threat and make participants believe that their romantic

partners might find out about personal details these individuals were hoping to remain hidden. More specifically, it has reliably increased concerns of rejection without altering state self-esteem (Murray et al., 2002).

In a *no-threat* control condition, participants wrote about an average day in their life (see Appendix B). The goal was to provide participants with a similar writing task that was similar to the one completed by participants in the threat condition, but without eliciting any threat. These stories were coded to ensure they were free of relationship threat.

Dependent Variables

Working Memory Capacity

Following the threat manipulation, participants completed the working memory capacity operation-span task developed by Turner and Engle (1989). In this task participants are presented with two concurrent tasks. The first is a processing task in which participants determine whether basic mathematical equations (e.g., 4 x 3 = 13) are *true* or *false*, and the second is a memory task in which participants are shown a letter that they will be asked to recall at a later time. Each letter presented appears after an equation is shown. There are a maximum of eight equation-letter pairs to recall per series. Following a series of equation-letter pairs, participants must recall all letters in the same order. Consistent with prior work, working memory capacity is operationally defined as the number of correctly remembered letters from all perfectly recalled equation-letter pairs. That is, letters are counted as correct only if all letters in a given series

are recalled in the exact order in which they were viewed. Better performance on the letter recall task demonstrates greater working memory capacity. This task is commonly used as a measure of working memory capacity (e.g., Schmader & Johns, 2003; Schmeichel, Volokhov, & Demaree, 2008; Conway, Cowan, & Bunting, 2001). The instructions for this task are provided in Appendix C.

Partner Perceptions

Participants completed four measures (two open-ended, two closed-ended) to assess perceptions of their romantic partners and relationships (see Table 1).

Spontaneous descriptions of partner. To evaluate spontaneously reported perceptions of partners, participants completed two open-ended questions describing how they think about and view their partners. Coding of the participants responses to these questions was similar to the method originally used by Neff and Karney (2001, unpublished manuscript). Each participant was asked to answer the following questions: (a) What do you think of your romantic partner? and (b) What kind of person is he or she? (See Appendix D). Two coders worked independently to read through the responses and pick out terms and phrases that were used to describe the participant's romantic partner (e.g., if a participant wrote, "My boyfriend is funny and creative, but procrastinates," the terms would be: funny, creative, and procrastinates). After compiling a list of responses measuring *breadth* (question a) and *desirability* (question b), the two coders compared lists. Any discrepancies between the two coders' lists were resolved by discussing the specific terms and phrases in question; the coders then

mutually agreed upon what was a description of one's partner.

Two master lists were created: terms and phrases used to describe a romantic partner's *breadth*, and those that describe a partner's *desirability*. Students enrolled in summer courses at the University of Massachusetts Amherst then completed one of two studies in which they rated the words for either breadth or desirability for extra credit ($N = 52$). Of these participants, 34 rated the words for breadth and 18 rated the words for desirability. Participants who rated the words for breadth were shown the following instructions:

> This questionnaire presents you with a number of terms and phrases that may be used to describe a romantic partner. We would like for you to think about how broad or specific these terms and phrases are. By broad, we mean that the word or phrase includes in its meaning a *wide* range of behaviors. For instance, the word "good" could include in its definition a large number of distinct behaviors. In contrast, narrow words or phrases include in their meaning a very limited range of behaviors. For instance, the word "punctual" refers to very few distinct behaviors. For each term or phrase, please consider how many different behaviors the term could include in its meaning, then please indicate how broad (abstract, general, global) the term is.

Participants rated each term on a 7-point scale, where 1 is *very specific* and 7 is *very broad*.

Participants who rated the words for desirability were given the following instructions:

> This questionnaire presents you with a number of terms and phrases that may be used to describe a romantic partner. For the following task, we would like for you to think about how positive or negative these terms and phrases are when describing a romantic partner. In other words, for each term or phrase, please ask yourself the following question: How desirable is it for a romantic partner to possess this quality?

Participants rated each term on a 7-point scale, where -3 is *very undesirable*, 0 is

neutral, and 3 is *very desirable*.

Closed-ended global measure. To evaluate global perceptions of one's romantic partner, a Revision of the Rosenberg Self-Esteem Questionnaire (see Appendix E) was used. This measure includes 10 statements addressing one's level of esteem held for a current romantic partner, rated on a 1 to 4 scale (1 = *strongly disagree* and 4 = *strongly agree*). Scores for this scale can range from 10 to 40, where higher scores indicate higher partner-esteem ($\alpha = .90$).

Closed-ended specific measure. To measure how individuals perceive their romantic partner's attributes, participants completed the Self-Attributes Questionnaire-Partner version (see Appendix F; SAQP; Swann et al., 1994). This measure asks individuals to rate their romantic partners on the following qualities: intellectual ability, social skills, artistic or musical ability, athletic ability, and physical attractiveness ($\alpha = .89$). For each attribute, participants rate their romantic partner relative to other people of the same age and gender as their partner on a scale ranging from 1 (the bottom 5%) to 19 (the top 5%).

Mood Measure

Two 10-item mood scales were used to assess positive and negative affective states (see Appendix G; PANAS; Watson, Clark, & Tellegen, 1988). These scales served as a manipulation check to assess whether the *threat*- and *no*-threat manipulations were effective. Items describing current feelings and emotions were rated on a 5-point scale where 1 equals *very slightly or not at all*, 2 equals *a little*, 3 equals *moderately*, 4 equals *quite a bit*, and 5 equals *extremely.*

High Positive Affect (PA; α = .65) indicates a state of high energy, full concentration, and pleasurable engagement, and is strongly linked to social activity. Low PA implies sadness and lethargy. Conversely, Negative Affect (NA; α = .67) is a state of distress that links to negative emotions. Low NA is associated with calmness and serenity. Low PA and high NA have been linked to depression and anxiety (Crawford & Henry, 2004).

General Anxiety

To account for anxiety that is unrelated to adult attachment, Spielberger, Gorusch, & Lushene's *State-Trait Anxiety Inventory* was administered (1970; see Appendix H). Individuals are asked to rate the first 20 items on a 4-point scale indicating how they feel "right now, at this moment" to measure state anxiety (1 = *almost never*, 2 = *sometimes*, 3 = *often*, 4 = *almost always*). The following items are reverse scored: 1, 2, 5, 8, 10, 11, 15, 16, 19, and 20. All other items are positive scored. To compute an overall score for state anxiety, calculate the total for all 20 items, where the means are generally high 30's to low 40's (α = .88). The next 20 items ask individuals to rate how they "generally feel" (1 = *almost never*, 2 = *sometimes*, 3 = *often*, 4 = *almost always*) to assess their trait anxiety. The following items are reverse scored: 1, 3, 6 7, 10, 13, 14, 16, and 19. All other items are positive scored. To compute an overall score for trait anxiety, calculate the total for all 20 items.

Individual Differences Measures

*Attachment Styl*e

Attachment style was assessed twice, once during a prescreening prior to the lab session and again at the end of the lab session. The prescreening measure was the short form of the Experiences in Close Relationships (ECR-S; see Appendix I; Wei et al., 2007), which consists of 12-items (6 measuring attachment anxiety and 6 measuring attachment avoidance) and has been shown to assess the same psychological properties of attachment as the longer ECR form. Items are rated on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Six items measure attachment anxiety (e.g., "I need a lot of reassurance that I am loved by my partner") and 6 items measure attachment avoidance (e.g., "I try to avoid getting too close to my partner"). This scale was used to recruit participants from each of the four attachment quadrants. At the end of the lab session, the longer form of the ECR (Brennan et al., 1998) was administered (see Appendix J). This 36-item, self-report scale measures attachment anxiety and avoidance by assessing participants' identification with specific feelings in close relationships. Items are rated on a 7-point scale from 1 (*not at all*) to 7 (*very much*). Eighteen items measure attachment anxiety (e.g., "I worry a lot about my relationships") and 18 items measure attachment avoidance (e.g., "I prefer not to be too close to romantic partners"). The reliability and construct validity of the two subscales have been demonstrated (Brennan et al., 1998).

Individuals' responses to items on the ECR pertaining to anxious behavior were averaged to generate a score for attachment anxiety ($\alpha = .92$). Similarly, each person's responses to items relating to avoidant behaviors were averaged to

obtain a score for attachment avoidance (α = .90) See Table 2 for correlations with the pre-screen.

Rejection Sensitivity

Downey & Feldman's rejection sensitivity measure (1996) was included to differentiate relationship attachment anxiety (i.e., ECR; Brennen et al., 1988) from more general anxiety related to rejection. Assessments of attachment examine current working models, however, a measure of rejection sensitivity considers how early rejection experiences influence behavior in social situations (e.g., in romantic relationships). To account for individuals who might be more prone to feelings of rejection (i.e., as a result of relationship threat), and thus might be predisposed to expect rejection from partners, participants completed Downey and Feldman's Rejection Sensitivity Questionnaire (see Appendix K, 1996). This 8-item measure asks individuals to rate on a 6-point scale (a) how concerned or anxious they might be in certain situations (1 = *very unconcerned*, 6 = *very concerned*), and (b) how they might expect other people to respond in the same situation (1 = *very unlikely*, 6 = *very likely*). To calculate a score for each situation, the score on question (a) is multiplied by the reverse score of question (b), and then the mean of the resulting eight scores is computed to reflect an overall rejection sensitivity score (α = .68).

Neuroticism

To rule out the possibility that effects of attachment style might be due to variance shared with neuroticism, participants completed the 20-item Neuroticism

scale from Goldberg's International Personality Item Pool (see Appendix L; IPIP; Goldberg, 1999). This scale is correlated .86 with Costa and McCrae's NEO Personality Inventory. Participants rate phrases (e.g., "Panic easily" or "Rarely get irritated") on a 5-point scale from 1 (*I strongly agree*) to 5 (*I strongly disagree*). Ten items are keyed positively for neuroticism and ten items are scored negatively for neuroticism ($\alpha = .91$). Scores can range from 20 to 100, where higher scores indicate greater neuroticism.

CHAPTER IV

PROCEDURE

Participants recruited for this study (based on where they fell on the ECR-S taken during the pre-screen) were informed that they would be completing two different studies that were being conducted during the same laboratory session to save time. The first task (i.e., the threat/control manipulation) was described as an assessment of their feelings and beliefs about themselves, others, and relationships. The second study (i.e., the WMC task) was described as an assessment of their cognitive ability via a memory task.

Participants were randomly assigned to either the *relationship threat* or *no-threat* condition. After completing the threat or no-threat writing task, participants proceeded to the operation-span task. Following this task, participants were told that we were interested in how individuals process information pertaining to their romantic partners. To determine participants' perceptions of their romantic partners, participants answered open-ended questions about how they view their partner and also completed measures to determine their global and specific perceptions of their partner (Neff & Karney, 2005; see Appendices D-F). Additionally, participants completed several individual difference measures (see Appendices G-L). Finally, participants reported demographic information (see Appendix M).

After completing the study, participants underwent a funneled debriefing procedure in which they were first asked a series of questions to probe their

suspicion about the experiment and to ascertain whether they believed the tasks were related. Participants then received a full debriefing and were provided with a description of the broader implications of this study for understanding and adapting techniques to resolve conflict in romantic relationships.

CHAPTER V

RESULTS

Effects of Threat Manipulation on Self-Reported Affect

Participants exposed to the relationship threat manipulation were expected to report greater negative affect and lower positive affect than those who were exposed to no threat. This was measured after completing all key experimental tasks. To test this possibility, positive and negative affect scores from the PANAS (Watson et al., 1988) were analyzed as repeated measures as a function of relationship threat condition and gender. The results of this analysis revealed that participants in the threat condition reported slightly higher negative affect (M = 14.66, SD = 4.46) than participants in the no-threat condition (M = 13.85, SD = 3.58), though this effect was not significant, $F_{(1, 166)} = 1.258$, $p = .26$. Participants in the threat condition also reported less positive affect (M = 23.59, SD = 6.30) than participants in the no-threat condition (M = 24.49, SD = 5.72), though this effect was also not significant, $F_{(1, 163)} = .93$, $p = .34$. No effects of gender were significant, all $p > .70$.

To further check the manipulation and assess whether levels of anxiety were affected by threat, state anxiety was analyzed as a function of relationship threat condition and gender. Participants in the threat condition reported slightly higher levels of state anxiety (M = 39.41, SD = 11.18) than participants in the no-threat condition (M = 38.30, SD = 9.42), however, this effect was not significant, $F_{(1,163)} = .05$, $p = .82$. These results suggest that the manipulation of threat was

not strong enough to significantly alter participants' mood or anxiety. No effects of gender were significant, all $p > .40$.

Effects of Threat on Working Memory Capacity

To examine the hypothesis that relationship threat leads to a reduction in working memory capacity, working memory capacity scores were analyzed as a function of relationship threat and gender. Although participants in the relationship threat condition demonstrated marginally lower levels of working memory capacity than those in the no-threat condition ($M = 43.01$, $SD = 17.22$, threat; $M = 45.90$, $SD = 14.99$, no-threat), this effect was not significant, $F_{(161)} = 0.99$, $p = .32$. The effect of gender, however, yielded marginally significant results, $F_{(161)} = 3.01$, $p = .09$, suggesting that there was a slight difference in working memory capacity scores for men and women. Men indicated higher levels of working memory capacity in the threat condition ($M = 46.83$, $SD = 16.66$) than women ($M = 41.48$, $SD = 17.34$), and also higher levels in the no-threat condition ($M = 49.19$, $SD = 13.72$) than women ($M = 45.34$, $SD = 14.79$). The condition by gender interaction, however, was not significant, $F_{(161)} = 0.26$, $p = .87$. It may be important, however, to consider attachment styles when examining working memory capacity; it is possible that the effects of threat on working memory capacity are moderated by attachment style. This is particularly likely given the relevance of threat to specific attachment styles.

Attachment Style as a Moderator of the Relationship between Working Memory Capacity and Relationship Threat

Individual differences in attachment anxiety and avoidance were hypothesized to influence levels of working memory capacity in the face of threat. To test this, I performed a hierarchical regression to predict working memory capacity from attachment, condition, and gender. Gender (effect-coded) was entered at Step 1, and Condition (effect-coded) was entered at Step 2. Attachment anxiety and avoidance (each centered around their group mean) were entered at Step 3. The two-way interactions (Gender X Anxiety, Gender X Avoidance, Condition X Anxiety, Condition X Avoidance, Gender X Condition) were entered at Step 4. Here, the change in R^2 was significant, $R^2 = .04$, $F_{(2, 157)} = 3.28$, $p = .04$ (see Table 3).

The Anxiety X Condition interaction was significant ($\beta = .22$, $t_{(4)} = 2.50$, $p = .01$; see Figure 3), such that in the threat condition, individuals high in anxious attachment showed higher levels of working memory capacity than those low in attachment anxiety. It is possible that the threat manipulation is working for highly anxious participants, and that the presence of relationship threat leads these individuals to be more vigilant and focus their cognitive resources. Alternatively, it is possible that the working memory capacity task is serving as a distraction for these individuals, and as a result they are better able to avoid thinking about relationship threat. None of the other two-way interactions were significant predictors of working memory capacity.

Effects of Threat on Partner Perceptions

Open-Ended Breadth Ratings

Ratings of the terms and phrases for breadth ranged from very specific ('I love my romantic partner's smile', $M = 1.55$) to very broad ('alright', $M = 6.06$; see Table 4). Overall means, however, suggest that on average, participants did not use primarily very broad (or very specific) descriptions of their partners, and fell closer to the midpoint of the scale, $M = 3.97$, $SD = 0.59$.

Compared to participants in the no-threat condition, participants in the relationship threat condition were hypothesized to use more specific terms and phrases when describing their romantic partner and relationship. To investigate this possibility, breadth scores were analyzed as a function of threat condition and gender. Neither condition, $F_{(150)} = .19$, $p = .66$, nor gender, $F_{(150)} = .52$, $p = .47$, significantly predicted breadth, however the Condition X Gender interaction showed a trend, $F_{(150)} = 2.72$, $p = .10$. Females that were exposed to a relationship threat described their partners in broader terms ($M = 4.02$, $SD = .08$) than male participants in the threat condition ($M = 3.92$, $SD = .12$). Females in the no-threat condition, however, described their partners in less broad terms ($M = 3.89$, $SD = .08$) than males in the no-threat condition ($M = 4.14$, $SD = .13$). These results suggest that women's perceptions of romantic partners become less broad when threatened, whereas men show the opposite pattern and describe their partners in broader terms. Such effects may be moderated by attachment style.

Attachment style as a moderator of the relationship between relationship threat and open-ended breadth ratings. When the attachment system becomes activated (i.e., by the presence of relationship threat) the breadth of participants'

descriptions of their partner is expected to vary by attachment style. Individuals who are low in both attachment anxiety and attachment avoidance (i.e., more securely attached adults) should elicit more abstract descriptions of romantic partners and relationships. Highly anxious individuals (i.e., who are preoccupied) are expected to rely more on specific attributes. Avoidantly attached individuals are expected to fall somewhere between secure and anxiously attached individuals.

To test whether attachment moderates the relationship between threat condition and partner perceptions, hierarchical regressions were used. At Step 1, I entered Gender (effect-coded); at Step 2, I entered Condition (effect-coded); at Step 3, I entered Anxiety and Avoidance scores (centered around the group mean). The two-way interactions (Gender X Anxiety, Gender X Avoidance, Condition X Anxiety, Condition X Avoidance, Gender X Condition) were entered at Step 4.

Results indicate that none of these effects were significant predictors of open-ended breadth (see Table 5).

Attachment style as a moderator of the relationship between threat and specific partner perceptions. To test whether attachment moderates the relationship between threat condition and reported specific partner perceptions (e.g., scores on the SAQP), hierarchical regressions were used. At Step 1, I entered Gender (effect-coded); at Step 2, I entered Condition (effect-coded); at Step 3, I entered Anxiety and Avoidance scores (centered around the group mean). The two-way interactions (Gender X Anxiety, Gender X Avoidance, Condition X

Anxiety, Condition X Avoidance, Gender X Condition) were entered at Step 4.

Results showed that Step 4 was marginally significant, the change in R^2 = .07, $F_{(5,148)}$ = 2.22, p = .06. The Condition by Gender interaction showed a trend in predicting specific partner perceptions, β = .14, $t_{(4)}$ = -1.50, p = .14. In the threat condition, men reported more specific perceptions of their partners (M = 10.96, SD = 33.35) than women (M = -1.14, SD = 44.29). In the no-threat condition, however, women reported more specific perceptions (M = 3.01, 42.14) than men (M = -17.91, SD = 71.19). This is consistent with the previous finding examining gender differences in reported open-ended breadth following the threat manipulation.

None of the other two-way interactions were significant predictors of the closed-ended measure of specific partner perceptions.

Attachment style as a moderator of the relationship between threat and closed-ended global partner perceptions. To test whether attachment moderates the relationship between threat condition and reported global partner perceptions (e.g., scores on the RRSE), hierarchical regressions were used. At Step 1, I entered Gender (effect-coded); at Step 2, I entered Condition (effect-coded); at Step 3, I entered Anxiety and Avoidance scores (centered around the group mean). The two-way interactions (Gender X Anxiety, Gender X Avoidance, Condition X Anxiety, Condition X Avoidance, Gender X Condition) were entered at Step 4.

Results indicate that the effect of gender was marginally significant, the change in R^2 = .02, $F_{(1,165)}$ = 2.68, p = .10, such that females reported more

esteem for their romantic partners than males, β = .13, $t_{(4)}$ = 1.64, p = .10 (see Figure 4). In Step 3, both attachment anxiety and attachment avoidance were significant predictors of overall *global* partner perceptions, the change in R^2 = .11, $F_{(2,162)}$ = 10.28, p < .001. Participants reporting higher attachment anxiety (β = -.24, $t_{(4)}$ = -2.85, p < .01) and avoidance (β = -.16, $t_{(4)}$ = -1.93, p = .06) reported less esteem for their romantic partners than participants low in attachment anxiety and avoidance. Consistent with my hypotheses, when relational stress was induced, these individuals were most affected by the threat and reported lower levels of esteem for their romantic partners.

Predicting Breadth from Threat Condition and Each Individual Difference Measure

Open-Ended Breadth

To examine whether individual differences account for participant's reported breadth of romantic partners, hierarchical regressions were used to regress participants' open-ended breadth scores on each individual difference measure that participants completed (e.g., Rejection Sensitivity and the IPIP), in addition to condition (threat vs. no-threat) and the Condition X Measure interaction. Gender was entered as a covariate for all subsequent regressions. Gender and condition were effect-coded, while all other variables were centered to make the mean equal to zero. Gender was entered on the first step, the measure and condition were entered on the second step, and the interactions were entered on the third step.

Results suggest that neither measure significantly predicted open-ended ratings of breadth (see Table 6).

Closed-Ended Breadth

Additional hierarchical regressions were used to regress participants' close-ended breadth scores on each individual difference measure that participants completed (e.g., Rejection Sensitivity and the IPIP). The same steps were followed for the close-ended regressions as were used for the open-ended regressions.

Revised-Rosenberg Self-Esteem. Hierarchical regressions using rejection sensitivity as a predictor showed a trend for the effect of gender in Step 1, the change in $R^2 = .02$, $F_{(1,165)} = 2.68$, $p = .10$, such that women reported more global closed-ended perceptions of their romantic partners than males, $\beta = .13$, $t_{(4)} = 1.64$, $p = .10$. In Step 3, rejection sensitivity was a significant predictor of global closed-ended perceptions, the change in $R^2 = .03$, $F_{(1,165)} = 5.21$, $p = .02$. That is, the higher the individuals' rejection sensitivity score, the lower esteem they held for their partner, $\beta = -.18$, $t_{(4)} = -2.28$, $p = .02$.

Hierarchical regressions using the IPIP as a predictor showed that in Step 3, neuroticism was a significant predictor of global closed-ended breadth, in $R^2 = .07$, $F_{(1,163)} = 11.98$, $p < .001$. The more neurotic an individual was reported to be, the lower esteem they held for their romantic partner, $\beta = -.26$, $t_{(4)} = -3.46$, $p < .001$. Thus, highly neurotic people may fail to cope with threatening situations in ways that promote resolution and begin to view romantic partners with less

esteem.

Self-attributes questionnaire partner version. Hierarchical regressions using rejection sensitivity as a predictor showed that in Step 3, there was a trend for rejection sensitivity as a predictor of specific closed-ended perceptions, the change in $R^2 = .02$, $F_{(1,154)} = 2.46$, $p = .12$. Individuals with higher rejection sensitivity scores reported fewer specific perceptions of romantic partners, $\beta = -.13$, $t_{(4)} = -1.57$, $p = .12$. Although I expected individuals high in rejection sensitivity to follow similar patterns to highly anxious individuals, this effect did not emerge for anxiously attached persons.

Further, results suggest that the IPIP did not significantly predict specific close-ended ratings of breadth.

Desirability Ratings

When relationship threat is activated, individuals should use less desirable terms and phrases to describe their romantic partner and relationship compared to individuals in the no-threat condition. To examine this possibility, desirability scores were analyzed as a function of threat condition and gender in a 2 x 2 ANOVA. Overall means suggest that participants described their partners and relationships relatively favorably, M = 1.60, SD = 0.72. Ratings of the terms and phrases describing desirability ranged from very undesirable (‘verbally abusive’, M = -2.59) to very desirable (‘honest‘, M = 3.00; see Table 7). There were no significant differences in participant’s reported descriptions of desirability. Neither Condition, $F_{(162)} = 2.03$, $p = .16$, nor Gender, $F_{(162)} = 0.58$, $p = .45$,

significantly predicted desirability, and the Condition X Gender interaction was also not significant ($F_{(162)} = 1.20$, $p = .28$). Participants' ratings in the threat condition ($M = 1.54$, $SD = .82$) were no different than participants' ratings in the no-threat condition ($M = 1.66$, $SD = .61$). Thus, the presence of relationship threat did not cause participants to describe their relationship and partner less desirably.

Attachment style as a moderator of the relationship between relationship threat and desirability ratings. In the presence of relationship threat, participants' descriptions of their partner were expected to vary by attachment style. Individuals who are low in both attachment anxiety and attachment avoidance (i.e., more securely attached adults) were expected to report more desirable descriptions of romantic partners and relationships. Highly anxious individuals (i.e., who are preoccupied) were expected to use less desirable terms to describe their partners. Avoidantly attached individuals were expected to fall somewhere between secure and anxiously attached individuals.

To test whether attachment moderates the relationship between threat condition and desirability ratings, hierarchical regressions were used. At Step 1, I entered Gender (effect-coded); at Step 2, I entered Condition (effect-coded); at Step 3, I entered Anxiety and Avoidance scores (centered around the group mean). The two-way interactions (Gender X Anxiety, Gender X Avoidance, Condition X Anxiety, Condition X Avoidance, Gender X Condition) were entered at Step 4.

Results showed that the effect of attachment anxiety on desirability was significant in Step 3, the change in $R^2 = .05$, $F_{(2,161)} = 4.61$, $p = .01$ (see Table 8).

Attachment anxiety was a significant predictor of overall desirability, $\beta = -.21$, $t_{(9)} = -2.47$, $p = .02$, such that the more anxiously attached an individual was, the less desirably they described their romantic partner, regardless of gender. The effect of attachment avoidance, however, was not significant, $\beta = -.04$, $t_{(9)} = -.51$, $p = .61$. None of the two-way interactions were significant predictors of desirability. Thus, highly anxious individuals are more likely to have relationship fears and doubts in general. It is not surprising that these individuals perceive their partners and relationships less favorably, even without the presence of relationship threat.

Predicting Desirability from Threat Condition and Each Individual Difference Measure

To test whether individual differences predict how desirably romantic partners were rated, hierarchical regressions were used. Desirability was regressed on each measure that participants completed (e.g., Rejection Sensitivity, and the IPIP) in addition to condition (threat vs. no-threat) and the Condition X Measure interaction. Gender was entered as a covariate for all subsequent regressions. Gender and condition were effect-coded, while all other variables were centered to make the mean equal to zero. Gender was entered on the first step, the individual difference measure and condition were entered on the second step, and the interaction was entered on the third step.

Results suggest that neither measure significantly predicted ratings of desirability (see Table 9).

Mediated Effects

To test whether the effects of attachment anxiety on partner perceptions were mediated by working memory capacity, hierarchical regressions were used. Each partner perception measure was regressed on individuals' total working memory capacity score. At Step 1, I entered Gender (effect-coded); at Step 2, I entered working memory capacity; at Step 3, I entered the Gender X WMC two-way interaction.

The only results that demonstrated a relationship between partner perceptions and working memory was for the open-ended desirability and the SAQP.

Open-Ended Breadth

Results indicate that neither gender, $R^2 = .003$, $F_{(1, 149)} = .40$, $p = .53$, nor total working memory capacity scores, $R^2 = .01$, $F_{(1,148)} = 1.88$, $p = .17$, were significant predictors of open-ended breadth. The two-way interaction between gender and working memory capacity was also not significant, $R^2 = .003$, $F_{(1,147)} = .43$, $p = .51$.

Open-Ended Desirability

Neither gender, $R^2 = .01$, $F_{(1,162)} = .99$, $p = .32$, nor working memory capacity score, $R^2 = .003$, $F_{(1,161)} = .52$, $p = .47$, were significant predictors of open-ended desirability. There was a trend, however, for the two-way interaction between gender and working memory capacity, $R^2 = .02$, $F_{(1,160)} = 2.83$, $p = .10$.

Revised-Rosenberg Self-Esteem

While there was a main effect of gender predicting responses on the R-

RSE, $R^2 = .03$, $F_{(1,163)} = 4.67$, $p = .03$, working memory capacity was not a significantly predictor, $R^2 = .01$, $F_{(1,162)} = .79$, $p = .38$. The two-way interaction between gender and working memory capacity was also not significant, $R^2 = .002$, $F_{(1,161)} = .41$, $p = .52$.

Self-Attributes Questionnaire Partner

Results suggest that gender was not a significant predictor of responses on the SAQP, $R^2 = .001$, $F_{(1,154)} = .09$, $p = .77$. Working memory capacity, however, $R^2 = .03$, $F_{(1,153)} = 4.20$, $p = .04$, and the gender by working memory capacity two-way interaction, $R^2 = .02$, $F_{(1,152)} = 3.13$, $p = .08$., were both significant predictors of closed-ended global partner perceptions.

Effects for Highly Anxious People

To examine whether the relationship between condition and partner perceptions was mediated by working memory capacity among highly anxious people (on the SAQP and for open-ended desirability responses only), I ran additional regressions. In order for a mediation to be present, the following two regressions must be significant for each predictor: (1) Threat condition must significantly predict WMC, and (2) Threat condition must significantly predict the partner perception measure (either open-ended desirability or SAQP). If these two criterions are met, the third regression must show that both working memory capacity *and* threat condition significantly predict the partner perception measure.

None of the regressions produced significant results for either open-ended desirability or responses on the SAQP (see Table 10).

CHAPTER VI

DISCUSSION

This paper was designed to examine the influence of relationship threat on working memory capacity, as well as the possible association between these effects and changes in partner perceptions based on attachment style.

Although the manipulation of threat was expected to activate concerns about rejection, no effects emerged. Previously, this task was used to evoke relationship concerns for individuals low in self-esteem (Murray et al., 2002). It is possible that in the current study, only participants who were high in anxious attachment (and are predisposed to greater concerns about romantic relationships) were affected by the threat. A stronger manipulation might be needed to produce similar results for both individuals with higher attachment avoidance and also individuals who show a more secure attachment pattern.

Alternatively, it is possible that feelings of threat *were* activated, however, a different manipulation check was needed. For example, participants might indicate differences by threat condition on a lexical decision task where they are instructed to identify attachment-relevant words. Work by Murray et al. (2002) was able to show effects of threat following the same manipulation, however, they used more concrete measures to assess emerging effects. Instead of measuring mood, they asked participants to describe the effects of trying to conceal their "secret selves" from their romantic partner. Participants were also asked to imagine how their partner might react if he/she discovered their "secret self" (both

manipulation checks assessed via Likert scale). They found that participants who completed this task reported greater concern that trying to keep their partner from seeing their secret selves would lead to more negative relationship outcomes compared to participants in a control condition.

Further, in the current study, the length of time between completion of the threat manipulation and when mood was measured (e.g., the PANAS) was prolonged and could have depleted any effects that may have otherwise emerged. The working memory capacity task takes, on average, 15-20 minutes to complete. Therefore, while it is possible that the manipulation did not produce effects of threat, I believe it is more likely that the effects diminished before they were measured.

Threat and Working Memory Capacity

I expected that the presence of relationship threat would lead individuals currently involved in a romantic relationship to experience deficits in working memory capacity. To investigate this, I exposed participants currently involved in a romantic relationship to either a relationship threat or no-threat, and then immediately measured their ability to retain information while distracted.

Gender predicted working memory, such that males scored higher than women in both the threat and no-threat conditions. This suggests that women attend more to attachment-relevant stimuli, and are more affected by relational stress. Compared to men, women were less able to remain focused, whether relationship threat was present or not. With regards to relationship threat, these

findings may have implications for understanding gender differences in how negative attachment-relevant information influences one's ability to focus. In heterosexual couples, women's cognitive processing might be more affected by negative attachment stimuli. When trying to resolve conflict, it may be beneficial for men to end a negative conversation by telling their partner something positive about their relationship.

Attachment, Threat, and Working Memory Capacity

Based on theories of adult attachment (Bartholomew & Horowitz, 1991), I expected individuals to experience and react to relationship threat in different ways. Specifically, when threatened, I expected highly anxious individuals' concerns of abandonment to lead to impaired cognitive ability, though this may be dependent on level of threat. Instead, I found that individuals high in anxious attachment showed *increased* levels of working memory capacity compared to less anxiously attached individuals in the threat condition. In a recent study, Parker and Isbell (2010) found that fear was associated with higher, more detailed processing. If the manipulation in the current study *did* lead highly anxious participants to feel threatened, these individuals might have been attending more to the working memory capacity task as a way to avoid thoughts of anxiety and their relationship. While research has shown that people high in working memory capacity are better able to control goal-directed processing (Barrett et al., 2004), it is possible that the goals of highly anxious individuals differs in the face of threat, such that they will focus on anything other than negative attachment information.

Thus, when relationship threat seems unavoidable, highly anxious individuals become more attentive and focus their cognitive resources on non-attachment-relevant information as a coping mechanism for dealing with the stress of conflict.

Conversely, Gasper and Clore (1998) found that attribute manipulations do not produce effects for highly anxious people. Perhaps these individuals were able to focus more on the working memory capacity task in the present study due to ample experience with anxiety.

Highly avoidant individuals were expected to block attachment-relevant stimuli and remain unaffected by the threat. Consistent with my predictions, avoidant individuals did not experience a change in working memory as a result of relationship threat. These individuals, who are more likely to inhibit attachment-relevant stimuli, may be more successful at focusing their cognitive resources on things other than stress and relationships. These findings, however, are inconclusive due to lack of strength of the threat manipulation.

Working Memory Capacity and Partner Perceptions

Depletion of working memory was expected to lead to adverse perceptions of romantic partners and relationships. When cognitive resources are diminished, there should be less ability to perceive romantic partners in ways that will promote healthy relationship functioning. Individuals who received a relationship threat were predicted to describe their partners using less broad terms and phrases, compared to individuals in the no-threat condition. The interaction between condition and gender suggests that while men in the no-threat condition described

their partners more broadly than women in the no-threat condition, women described their partners more broadly in the threat condition. This finding suggests that the way men perceive their partners is more affected by relationship threat than women. This is contrary to what I might expect, given the previous finding that men performed better on the working memory task overall, compared to women. Perhaps evoking relationship concerns leads men to show more negative *long-term* effects (e.g., less broad perceptions of partners), while women indicate more negative *short-term* effects (e.g., lower working memory capacity scores). Future research should examine this possibility.

Attachment and Breadth

Activation of the attachment system should elicit changes in how broadly individuals perceive their partners and relationships. More securely attached adults were expected to use more abstract descriptions of their partner, while highly anxious adults were expected to rely on more specific descriptions. Highly avoidant individuals were predicted as falling between secure and highly anxious individuals. These analyses did not reveal any significant main effects or interactions for gender, condition, or attachment style as predictors of open-ended breadth. Participants did, however, indicate differences in their reported closed-ended measures of breadth.

Consistent with the previous finding that men are more affected by relationship threat in the long-term, men reported more specific closed-ended perceptions (e.g., responses on the SAQP) of romantic partners than women,

regardless of attachment style. When no relationship threat was present, however, women reported more specific closed-ended perceptions of romantic partners than men, supporting the notion that women are more affected by relationship threat in the short-term.

Of greater note, however, is the association between attachment anxiety and avoidance with global partner perceptions. Both highly anxious and highly avoidant individuals were found to report lower levels of esteem for their romantic partners on the R-RSE than those low in attachment anxiety and avoidance. The results of this analysis, however, are inconsistent with the previous finding that neither attachment anxiety nor avoidance significantly predicted specific partner perceptions (e.g., scores on the SAQP). It is counterintuitive to suggest that while attachment causes individuals to hold lower levels of esteem for their partner, they don't also cause them to become more specific.

Breadth and Individual Difference Measures

Some predicted findings did not emerge. Rejection sensitivity and neuroticism were expected to explain differences in how individuals perceive their romantic partners. Measuring rejection sensitivity should help account for individuals who might be more likely to experience feelings of rejection (and thus be inclined to expect rejection from romantic partners), while neuroticism was expected to account for variance in attachment styles. Neither rejection sensitivity nor neuroticism were significant predictors of participants' open-ended ratings of

breadth or desirability. This is surprising because highly anxious individuals are more likely to experience greater sensitivity to rejection, and in the previous finding they reported less global perceptions of romantic partners (on a closed-ended measure only). Additionally, these individuals tend to indicate slightly higher levels of neuroticism (Shaver & Brennan, 1992). It is possible that the open-ended measures used in the current study were not adequate predictors of breadth or desirability, and that the closed-ended measures were more reliable (see Table 11).

Attachment and Desirability

Activation of the attachment system should elicit changes in how desirably individuals describe their romantic partners and relationships. More securely attached adults were expected to use more desirable descriptions of partners, while highly anxious adults were expected to use less desirable descriptions. Highly avoidant individuals were predicted to fall between secure and highly anxious individuals. Neither gender nor condition predicted descriptions of desirability. Again, this could be due in part to the weakness of the open-ended measure of desirability.

Attachment anxiety, however, was a significant predictor of desirability, suggesting that the more anxious the individual, the less desirably they described romantic partners, regardless of gender. Although the interaction between Attachment and Condition was not significant, this finding is consistent with previous work examining how differences in attachment style predict responses to

threat (Simpson, Rholes, & Phillips, 1996). It is not surprising that these individuals typically report less favorable perceptions of partners than people lower in attachment anxiety. Highly anxious individuals are generally more cognizant of relationship-based conflicts than either secure or highly avoidant individuals. If the current threat manipulation had been stronger or was assessed using different manipulation checks, perhaps this effect would have emerged. No effect was shown for highly avoidant individuals.

Mediated Effects

Highly anxious individuals were found to show increases in working memory capacity following a relationship threat. As a result, I explored whether changes in working memory capacity account for differences in partner perceptions, for highly anxious individuals only. Though working memory capacity significantly predicted participants' responses on the SAQP as well as for open-ended descriptions of partner desirability, these effects were not mediated by individuals high in attachment anxiety.

Limitations

Several limitations of the present research need to be addressed in future research. First, either a stronger manipulation of threat or alternative manipulation checks should be used. Given that the manipulation checks were not significant, it's hard to know whether the effects that emerged were due to the presence of relationship threat or more generally from differences in gender and attachment style. Perhaps having participants predict how their romantic partner would

respond to negative relationship information (see Murray at el., 2002), rather than just writing about past indiscretions, would lead to more adverse feelings of rejection and insecurity.

Second, a replication of this study might consider changing the order in which tasks are completed. For instance, if the working memory capacity task was used as an independent variable rather than a dependent variable, it would be possible to assess whether cognitive depletion, followed immediately by relationship threat, would lead to more significant changes in partner perceptions. Perhaps when individuals experience deficits in working memory capacity, they are more susceptible to relationship threat, and thus more likely to elicit changes in how they view their partner.

Third, the measures used to examine *open-ended* descriptions of breadth and desirability might not have properly captured partner perceptions. The *closed-ended* measures used in this study, however, did supply a relative approximation of individuals' breadth and desirability ratings of partners and relationships. It is possible that using a different method to measure partner perceptions might help us better understand the effects of relationship threat. Instead of comparing partner perceptions by condition, future research should measure these both before and after relationship threat is induced. This would lead to a clearer understanding of how partner perceptions change as a *result* of relationship threat.

Fourth, this study only examined differences in relationship threat versus no-threat. The addition of a non-relationship threat condition could better

differentiate the effect of threat on highly anxious people.

Despite these limitations, the results of this study contribute to our growing knowledge of romantic relationships and further our understanding of how individuals respond to and deal with relationship threat.

Conclusion

In summary, this study reveals several important findings. First, that men and women respond to and cope with relationship threat in different ways. While men performed better on a working memory task than women, the influence of the threat indicated longer lasting effects for men.

Second, that highly anxious individuals were, as predicted, more prone to adverse effects from exposure to relationship threat. These individuals reported less global and also less desirable descriptions of romantic partners and relationships when thoughts of rejection emerged. Surprisingly, however, they performed better on the working memory task than either securely or more avoidantly attached individuals.

Third, that more avoidant individuals were also less likely to describe romantic partners in global terms and phrases. It is possible, however, that these individuals would be more likely to describe partners in this way regardless of feelings of threat.

These findings have implications not only for resolution of conflict between romantic partners, but for understanding attention and processing in the face of negative attachment stimuli. Although the predicted differences in working

memory capacity were not detected, there was still some indication that partner perceptions were affected by attachment style. Bringing an attachment perspective to working memory and partner perceptions could lead to a better understanding of how our closest relationships impact every day processes.

Table 1

Measures Used to Assess Partner Perceptions

	Open-ended	Closed-ended
Global	Breadth	R-RSE
Specific	Desirability	SAQP

Table 2

Correlations Between ECR-S and ECR

Measure	Pre-screen Anxiety	Pre-screen Avoidance	Anxiety	Avoidance
Pre-screen Anxiety	1	-.047	.188*	-.184*
Pre-screen Avoidance	-.047	1	.255***	.107
Anxiety	.188*	.255***	1	.
426***				
Avoidance	-.184*	.107	.426***	1

Note. *$p < .05$, **$p < .01$, ***$p < .001$

Table 3

Summary of Hierarchical Regression Analysis for Variables Predicting Working Memory Capacity

	Model 1			Model 2			Model 3			Model 4		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE(B)*	*β*
Gender	-2.27	1.39	-.13	-2.32	1.39	-.13	-2.51	1.42	-.14	-2.96	1.44	-.17*
Condition				-1.72	1.24	-.11	-1.84	1.25	-.12	-1.28	1.41	-.08
Anxiety							1.18	1.13	.09	1.64	1.18	.13
Avoidance							-.55	1.61	-.03	-.73	1.88	-.04
Gender X Anxiety										-.92	1.18	-.07
Gender X Avoidance										-.31	1.87	-.02
Condition X Anxiety										2.89	1.13	.22**
Condition X Avoidance										-2.66	1.61	-.14
Gender X Condition										-1.04	1.43	-.07
R^2	.02			.03			.03			.07		
F for change in R^2	2.65			1.93			.55			3.28*		

Note: Gender and Condition were effect-coded; Anxiety and Avoidance were centered.
*$p < .05$
**$p < .01$

Table 4

Terms and Phrases Rated for Breadth

Terms/Phrases	*M*	SD
Above and beyond my expectations	3.65	1.78
Accepts me	3.41	1.48
Acts dumb	4.47	1.83
Adventurous	4.00	1.67
Affectionate	3.45	1.52
Aggressive	3.77	1.84
A good influence	3.69	1.82
Alright	6.06	1.48
Always have a good time with	3.47	1.61
Amazing	5.18	1.93
Annoying	3.84	1.71
Asian	2.10	1.76
A student	2.63	1.91
Athletic	3.40	1.94
Attractive	4.15	1.96
Awesome	5.03	1.75
Balances me out	3.50	1.63
Beautiful	4.16	1.80
Best person in the world	3.68	1.92
Best thing in my life	3.13	1.82
Blames me	3.69	1.79
Bossy	3.73	1.76
Brave	3.31	1.62
Brightens my day	3.60	1.55
Brilliant	3.42	1.48
Brutally honest	2.75	1.41
Busy with school	3.88	1.85
Calm	4.13	1.70
Can talk to about anything	3.25	1.63
Careless	3.97	1.59
Cares about me	3.70	1.78
Caring	3.85	1.75
Challenges me	3.83	1.72
Chubby	2.82	1.83
Comfortable	4.57	1.81
Comforts me	3.34	1.54
Communicates well	4.00	1.61

Compassionate		3.47	1.59
Compatible with me		3.12	1.72
Compliments me		3.43	1.79
Confident		3.53	1.55
Confusing		4.31	1.77
Considerate		3.17	1.51
Courageous		3.52	1.63
Creative		3.70	1.69
Cute		4.57	1.95
Deceitful		3.45	1.72
Dedicated		3.25	1.59
Deductive		3.36	1.50
Deep voice		2.39	1.94
Determined		3.41	1.64
Different than me		4.66	1.93
Difficult to deal with		3.67	1.69
Disorganized		3.43	1.57
Does anything I ask		3.47	1.85
Doesn’t apply him/herself		3.76	1.66
Doesn’t communicate well		3.50	1.64
Doesn’t know how to be a good partner		3.97	1.87
Doesn’t like to upset people		3.20	1.67
Doesn’t speak nicely to parents		2.76	1.87
Doesn’t try enough in relationship		3.50	1.63
Doesn’t try to be a good partner		3.40	1.55
Driven		3.23	1.65
Drives me crazy		4.50	1.48
Easily aggravated		3.17	1.46
Easily influenced		3.81	1.58
Easy going		3.90	1.65
Easy to talk to		3.33	1.76
Emotional		3.80	1.71
Emotional anchor		3.58	1.73
Emotionally unstable		3.24	1.75
Engaged		2.56	1.97
Enjoys being outdoors	3.03	1.62	
Entertaining		4.45	1.79
Everything I could ever want		3.55	2.17
Family-oriented		3.00	1.55
Friendly		3.69	1.84
Fun		4.73	1.89
Fun loving		4.13	1.70
Funny		3.84	1.86

Fun to be around	3.83	1.53
Generous	4.00	1.92
Gentle	3.59	1.79
Genuine	3.41	1.50
Gets really mad	3.27	1.64
Giving	3.84	1.73
Good	5.70	1.82
Good at math	2.97	2.01
Good boyfriend/girlfriend	4.56	1.81
Good match for me	3.84	1.80
Gorgeous	3.78	1.74
Great	5.37	1.94
Great friend	3.38	1.68
Had difficult upbringing	3.48	1.96
Hairy	2.79	1.88
Handsome	3.75	1.78
Hard working	2.94	1.44
Has a big heart	3.85	1.86
Has a good time	4.72	1.69
Has a heart of gold	3.57	1.70
Has a lot of growing up to do	3.67	1.59
Has a sense of humor	3.70	1.56
Has a temper	3.13	1.54
Has flaws	5.09	1.63
Has good intentions	4.33	1.88
Has some downsides	4.10	1.67
Head strong	3.23	1.36
Helpful	3.85	1.77
He/she is the best romantic partner	3.30	2.22
Hilarious	3.79	1.83
Honest	3.26	1.67
I am jealous of my romantic partner	3.28	1.69
I don’t know if my romantic partner is the one	3.16	1.76
I enjoy his/her company	3.19	1.67
I like my romantic partner	3.90	2.27
I look up to my romantic partner	3.26	1.43
I love his/her voice	3.32	1.96
I love my romantic partner’s laugh	2.71	1.60
I love my romantic partner’s smile	1.55	1.15
I love spending time with my romantic partner	2.76	1.82
Immature	3.73	1.79
Impresses my family	2.67	1.40

Impulsive	3.53	1.50
Incredible	4.67	1.83
Independent	3.16	1.44
Intelligent	4.06	1.69
Intimidating	3.62	1.62
Introverted	3.12	1.66
Involved	4.33	1.73
Irresistible	3.86	1.48
I speak of my romantic partner affectionately	3.43	1.70
I think highly of my romantic partner	3.30	2.08
I wish he/she was more talkative	3.17	1.76
I wish he/she would meet my expectations	3.71	1.70
Jealous	3.88	1.56
Keeps me calm	3.65	1.54
Kind	4.06	1.83
Knows how to have fun	4.03	1.65
Knows what I like	3.32	1.33
Laidback	3.76	1.84
Late	3.37	1.77
Laughs at my jokes	2.69	1.47
Level headed	3.48	1.46
Listens	3.91	1.44
Logical	3.31	1.60
Looks out for friends and family	3.53	1.57
Loud	3.47	1.78
Lovable	4.28	1.51
Love of my life	3.03	1.86
Loves friends	3.61	1.58
Loves me	3.16	1.83
Loves me unconditionally	3.10	1.47
Loves nature	3.18	1.85
Loves new activities	3.45	1.64
Loves new ideas	3.56	1.70
Loves new things	3.73	1.46
Love spending time together	3.57	1.70
Loving	3.90	1.64
Loyal	3.09	1.96
Makes me a better person	3.60	1.55
Makes me feel inadequate	2.79	1.65
Makes me feel like royalty	3.27	1.57
Makes me happy	4.12	1.95
Makes me laugh	2.91	1.57
Makes sacrifices	3.65	1.47

Makes the best out of things	3.94	1.70
Manly (for male partners)	3.82	1.93
Mature	3.61	1.59
Means the world to me	3.16	1.59
Means well	4.25	1.72
Mentor	3.97	1.72
My best friend	2.97	1.52
My confidant	3.00	1.62
My opposite	3.42	2.24
My other half	3.69	2.07
My peer	3.84	1.85
My rock	3.50	1.87
My soulmate	3.21	1.87
Naïve	3.48	1.87
Necessary	4.56	1.88
Needs to improve outlook on life	3.71	1.94
Nerdy	3.68	1.56
Never fights	3.18	1.57
Never talks badly about me	3.26	1.57
Nice	5.09	1.99
Nice once in a while	3.97	1.91
Not classically attractive	4.23	1.86
Not creative	3.93	1.75
Not empathetic	3.43	1.57
Not motivated	3.55	1.52
Not shallow	4.00	1.79
Not smart	3.78	1.74
Not the one for me	3.06	1.86
One in a million	3.47	2.11
Open about emotions	3.28	1.20
Opinionated	3.81	1.49
Our personalities compliment each other	3.32	1.70
Outgoing	3.94	1.80
Overcomes problems	3.67	1.49
Overdramatic	3.58	1.60
Passionate	3.48	1.62
Patient	3.66	1.72
Perfect	4.64	2.06
Perfect companion	3.77	1.77
Perfect fit for me	3.12	2.16
Physically attractive	4.07	2.02
Potential to be a great partner	4.13	2.00
Pushover	3.79	1.54

Puts me first	2.91	1.36
Quiet	3.56	1.72
Quirky	3.65	1.52
Rarely mad at each other	3.23	1.41
Respectful	3.18	1.83
Respects parents	2.93	1.31
Responsible	3.61	1.76
Romantic	4.03	1.88
Selfish	3.55	1.72
Selfless	3.50	1.43
Sensible	3.38	1.56
Sensitive	3.35	1.45
Sexy	4.39	1.89
Short	2.87	2.05
Short tempered	3.27	1.60
Shows that he cares	3.70	1.90
Shy	4.00	1.62
Smart	3.60	2.03
Smokes too much pot	2.24	1.50
Socially attractive	3.93	1.62
Solves problems	3.43	1.61
Spoils me	3.94	1.58
Spontaneous	3.87	1.55
Stands up for self	2.97	1.49
Stops talking mid conversation	2.33	1.71
Strong willed	3.32	1.54
Stubborn	3.41	1.50
Successful	4.03	1.90
Supportive	3.40	1.59
Sweaty	2.87	1.89
Sweet	4.37	1.94
Sweetheart	4.37	1.69
Sweet to my mother	2.35	1.31
Sympathetic	3.42	1.71
Takes care of me	3.74	1.63
Tall	2.58	1.71
Tan	2.91	1.88
The best	4.45	2.31
The man (for male partners)	3.72	1.84
There for me	3.59	1.54
There for me emotionally	3.24	1.68
There for me physically	2.77	1.36
Thinks she knows everything	3.30	1.42

Thoughtful	3.69	1.62
Too nice	4.30	2.02
Trustworthy	2.91	1.77
Understanding	3.52	1.26
Understands me	3.53	1.72
Unlike most other people his/her age	4.27	2.00
Wants me to be happy	3.58	1.59
Wants us to be happy	3.50	1.65
Warm	4.73	1.91
We bring out the best in each other	3.52	1.84
We fight over small things	3.09	1.59
We get along well	3.55	1.70
We have a strong connection	3.50	1.81
We have similar ideologies	3.37	1.56
We have similar interests	3.59	1.74
Well dressed	3.78	1.52
We see eye to eye	3.32	1.66
We tend to fight	3.35	1.57
Witty	3.55	1.62
Wonderful	5.17	1.74
Would do anything for me	4.06	1.95

Table 5

Summary of Hierarchical Regression Analysis for Variables Predicting Breadth

	Model 1			Model 2			Model 3			Model 4		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE(B)*	*β*
Gender	-.03	.05	-.05	-.03	.05	-.05	-.02	.05	-.03	-.01	0.09	.06
Condition				.02	.05	.03	.02	.05	.04	-.03	0.59	-.12
Anxiety							-.07	.04	-.15	-.10	0.26	.00
Avoidance							.05	.06	.08	.09	1.60	-.05*
Gender X Anxiety										.04	.05	.09
Gender X Avoidance										-.06	.07	-.09
Condition X Anxiety										-.03	1.11	.21
Condition X Avoidance										-.00	.06	-.00
Gender X Condition										.11	.06	.18*
R^2	.003			.004			.02			.06		
F for change in R^2	.40			.14			1.45			1.04		

Note: Gender and Condition were effect-coded; Anxiety and Avoidance were centered.
*$p < .05$

Table 6

Individual Difference Measures Predicting Open-Ended Breadth

Measure	*B*	*SE B*	ß
International Personality Item Pool (IPIP)			
Step 4			
Gender	-.040	.056	-.061
Condition	-.023	.054	-.039
IPIP	.002	.004	.045
IPIP X Gender	-.002	.004	-.053
IPIP X Cond	-.004	.004	-.093
Gender X Cond	.096	.055	.164
Rejection Sensitivity (RS)			
Step 4			
Gender	-.038	.054	-.058
Condition	-.023	.054	-.039
RS	-.002	.017	-.013
RS X Gender	.005	.017	.030
RS X Cond	-.005	.014	-.031
Gender X Cond	.088	.054	.150

Note.
* Significant at $p < .05$

Table 7

Terms and Phrases Rated for Desirability

Terms/Phrases	*M*	SD
Active	2.06	0.90
Acts young	0.65	1.62
Adorable	2.29	0.92
Adventurous	2.06	1.09
Affectionate	2.53	0.62
Afraid of failure	-0.65	0.93
A hard worker	2.24	0.90
A little insecure	-1.18	1.13
Almost 30	-1.41	1.28
Amazing	2.24	1.03
Amazing friend	2.24	0.83
Ambitious	2.41	0.51
Animated	1.24	1.09
Annoyed easily	-2.00	1.17
A people pleaser	0.59	1.58
Argumentative	-0.53	1.46
Artistic	1.06	1.09
A sore loser	-1.76	0.97
Assertive	2.00	0.73
Assumes the best	1.06	1.20
Athletic	1.76	1.09
Attractive	1.82	0.81
Average	-0.12	1.11
Awesome	2.35	0.86
Balances school with friends	1.76	1.09
Beautiful	1.94	0.77
Best friend	2.35	0.79
Big heart	2.41	1.00
Bookworm	0.71	1.05
Bored in school	-0.88	1.45
Brightens up day	2.35	0.86
Calm	1.18	1.19
Calming	1.88	0.93
Can be a bitch	-1.38	1.63
Can be mean	-0.94	1.20
Can give and take jokes	2.24	0.75
Career oriented	1.24	1.30

Carefree	1.24	1.15
Cares what others think	0.35	1.32
Caring	2.29	0.77
Charming	2.06	1.09
Cheers me up	2.35	0.70
Cleans my room	-0.65	1.17
Clever	1.82	0.88
Clingy	-1.44	1.46
Committed	2.71	0.59
Compassionate	2.24	1.09
Competitive	0.94	1.12
Concerned about others happiness and health	1.65	1.22
Confident	1.82	1.07
Considerate	2.24	1.09
Contentious	0.60	1.60
Controlling	-1.53	1.38
Courageous	1.94	0.90
Creative	1.82	1.02
Cuddles	2.00	1.03
Cute	1.94	0.90
Cuts him/herself	-2.25	1.39
Cynical	-1.65	1.32
Dedicated	1.71	1.05
Dedicated to sports	0.06	1.56
Deductive	0.12	1.26
Deep	1.71	0.92
Degrading	-2.24	1.30
Dependable	2.06	1.35
Determined	2.06	0.75
Does homework for me	-0.94	1.48
Doesn't apply him/herself	-2.18	0.81
Doesn't care what others think	1.41	1.06
Doesn't do much of anything	-1.88	1.36
Doesn't get too down	1.29	1.45
Doesn't let me think I have flaws	0.71	1.31
Doesn't let others push him/her around	2.19	0.66
Doesn't like attention	0.41	1.33
Doesn't like conflict	0.76	1.20
Doesn't like plans	-0.65	1.32
Doesn't like to show weakness	0.18	0.95
Doesn't push him/herself	-1.35	1.37
Doesn't reach potential	-1.53	0.87
Doesn't save money	-1.76	1.09

Doesn't take responsibility		-2.00	1.12
Doesn't talk about feelings		-1.29	0.99
Doesn't think highly of self		-0.47	1.66
Doesn't trust others		-1.24	1.35
Doesn't try in school		-1.71	1.16
Doesn't understand healthy risk taking		-1.41	1.12
Doesn't worry		0.59	1.00
Does the right thing		2.06	1.09
Down to earth		2.35	0.70
Drinker		0.00	1.41
Driven		1.88	0.93
Easily aggravated		-1.94	1.20
Easily stressed		-1.82	1.07
Easy going		2.06	0.90
Easy to get along with		2.06	0.97
Educated		2.06	0.90
Emotional		0.50	1.21
Emotionally strong		1.94	1.09
Emotionally withdrawn		-1.59	1.23
Encouraging		2.12	0.93
Energetic		1.88	1.05
Enjoys being outdoors	2.06	0.83	
Extroverted		0.76	1.72
Faithful		2.65	0.79
Family-oriented		1.65	1.12
Fat		-1.94	1.30
Focused		1.76	1.03
Forgetful		-0.53	1.46
Forgiving		1.76	0.83
Fragile		-1.12	1.32
Free spirit		1.29	1.21
Friendly		2.12	0.78
From New York		-0.25	1.34
Full of life		1.88	1.05
Fun		2.29	0.85
Fun loving		2.41	0.51
Funny		2.29	0.85
Fun to be around		2.65	0.61
Geeky		0.38	1.26
Generous		1.94	0.83
Gentle		1.94	0.93
Genuine		2.59	0.62
Gets down to business		0.94	1.35

Gets everything he/she wants	-1.24	1.20
Giving	1.71	0.92
Goal-oriented	2.12	0.96
Good	2.00	1.10
Good at cooking	1.71	1.21
Good at reading people	1.88	1.22
Good hearted	2.24	1.03
Goofy	2.18	0.95
Great	2.12	0.93
Great daughter/son	1.88	1.05
Great to talk to	2.41	0.87
Great with animals	1.88	1.32
Great with little kids	2.25	1.13
Happy	2.50	0.63
Happy with life	2.18	0.81
Has ADHD	-0.62	1.54
Has a mind of his/her own	2.00	1.28
Has a sense of humor	2.35	0.93
Has a soft side	1.94	1.14
Has a temper	-1.41	1.28
Has creative conversations	1.82	1.19
Has everything	0.00	1.17
Has good values	2.38	0.72
Has great taste in music	1.65	1.22
Has high self-esteem	2.24	0.90
Has integrity	1.94	1.03
Has red hair	-0.25	1.53
Has strong values	2.24	0.83
Hazardous	-1.71	1.40
Headstrong	0.47	1.46
Helpful	2.24	0.83
Helps people have fun	1.41	1.23
Hilarious	1.94	1.20
Hippie	-0.69	1.70
Holds in emotions	-1.29	1.21
Honest	3.00	0.00
Hot headed	-1.65	1.46
Humble	1.35	1.06
Immature	-1.53	1.59
Impressionable	-0.29	1.45
Impulsive	0.29	1.61
Independent	1.94	0.97
Inferiority complex with the world	-1.94	0.97

Insecure	-1.71	1.21
Intelligent	2.24	0.90
In tough with his/her emotions	1.12	1.32
Is a provider	1.41	1.06
Jealous	-0.82	1.63
Jock	0.18	1.47
Kind	2.47	0.94
Klutz	-0.29	1.26
Knows what she wants	2.06	0.83
Lacks self assurance	-1.59	1.00
Lacks self control	-1.53	1.38
Lazy	-1.71	1.16
Leader	1.31	1.20
Level headed	1.82	0.88
Liberal	0.81	1.05
Life of the party	1.00	1.32
Lighthearted	1.12	1.32
Likable	2.47	0.72
Like a big brother/sister	-0.24	2.02
Likes attention	0.06	1.14
Likes socialism	0.25	1.39
Likes sports	1.24	1.56
Likes to act	0.00	1.46
Likes to debate	0.47	1.42
Likes to fix things	1.41	0.94
Likes to help underprivileged people	1.88	1.50
Likes to party	1.00	1.06
Listens	2.41	0.80
Logical	1.59	0.71
Lovable	2.41	0.71
Loves a challenge	1.71	0.99
Loves a good time	2.12	0.86
Loves cars	-0.18	0.88
Loves control	-0.82	1.29
Loves eating	1.24	1.03
Loves to be right	-0.82	1.29
Loves to be with siblings	1.24	1.15
Loves to exercise	1.12	1.36
Loves to learn	2.12	0.86
Loves to play music	1.41	1.00
Loves to watch movies	1.59	1.00
Loves to write	0.65	1.22
Loving	2.65	0.61

Low confidence	-2.12	0.86
Loyal	2.35	0.70
Makes everyone happy	0.94	1.52
Makes good decisions	1.82	1.02
Makes me a better person	2.59	0.71
Makes me smile	2.88	0.33
Makes people laugh	2.29	0.77
Makes smart decisions	2.06	0.97
Makes up for mistakes	1.47	0.72
Manages time well	1.88	0.81
Manly	1.38	1.54
Masculine (for male partners)	1.60	1.99
Mature	1.76	0.90
Means well	1.88	1.11
Mentally distraught	-2.07	1.49
Mentally insane	-2.50	0.52
Modest	1.12	1.11
Morally supportive	2.00	0.94
Motherly	-0.25	1.77
Motivated	2.18	0.81
Musically talented	1.53	0.94
My bedtime story teller	0.44	1.71
My home	1.44	1.26
Needs alone time	0.65	1.06
Needs to tone it down	-1.12	1.36
Needy	-1.59	1.00
Nerdy	0.59	1.00
Never stressed	-0.41	1.28
Nice	2.06	0.82
Non-confrontational	0.06	1.64
Not afraid to express his/her opinions	1.76	0.97
Not complicated	0.88	1.32
Not materialistic	1.12	1.36
Not motivated	-2.19	0.66
Not obsessive	1.18	1.70
Not outgoing	-1.76	1.30
Not overbearing	0.94	1.56
Not self centered	1.82	0.88
Not stressed	1.41	1.23
Not uptight	1.47	1.38
Older	1.06	1.44
One of a kind	2.12	0.78
Open	1.88	0.78

Open minded	2.18	0.81
Operates by extremes	-1.65	1.17
Opinionated	-0.06	1.34
Outgoing	2.29	0.69
Outspoken	0.82	1.19
Over protective	-0.18	1.85
Overreacts	-1.76	0.90
Overweight	-1.76	0.97
Passionate	2.76	0.44
Patient	2.00	0.94
Pays attention	2.00	0.94
Perfect	0.62	1.71
Perfectionist	-0.41	1.18
Personable	2.35	0.70
Personal	1.35	1.00
Picky	-0.94	0.90
Plans for the future	1.71	0.99
Playful	2.56	0.63
Pleasant	2.12	0.93
Political	-0.24	1.30
Pothead	-1.35	1.41
Practical	1.88	0.78
Procrastinates	-0.76	1.20
Protective	1.53	1.01
Proud	1.88	1.03
Pushes for his/her absolute best	1.71	1.16
Puts family first	1.41	1.00
Puts me first	0.82	1.51
Puts others first	1.06	1.09
Puts thought into gifts	1.82	1.02
Quick witted	1.71	0.92
Quiet	-1.12	1.36
Rational	1.35	0.86
Realist	1.06	1.34
Reliable	2.35	0.79
Religious	0.12	1.41
Respectful	2.35	0.70
Responsible	2.12	1.05
Romantic	2.29	0.85
Rude	-2.41	0.87
Sarcastic	0.76	1.20
Satisfied	1.41	1.06
Scatterbrained	-1.18	1.33

Science-oriented	0.56	1.67
Secret romantic	1.82	1.24
Seems tough	0.18	1.51
Self-centered	-1.76	1.15
Selfish	-1.53	1.42
Selfless	1.41	0.94
Self-oriented	-0.41	1.66
Sensitive	0.47	1.51
Serious	0.71	0.99
Shy	-0.35	1.32
Silly	1.71	0.99
Simple	0.35	1.12
Sincere	2.12	1.05
Sleeps a lot	-0.29	1.40
Smart	2.06	0.90
Smiles	2.12	0.86
Sociable	2.29	0.69
Social	1.53	1.07
Socially motivated	2.06	0.97
Sometimes immature	0.12	1.41
Speaks mind	1.94	0.66
Spends time with me	2.29	0.85
Spoiled	-1.88	0.70
Stands up for what he/she believes	2.00	1.06
Stays busy	1.00	1.00
Steadfast	0.50	1.03
Straight A student	0.41	0.80
Stressed	-1.25	0.93
Stresses out	-1.65	1.22
Stress overwhelms him/her	-1.71	1.11
Strives for self improvement	1.82	0.88
Strong	1.82	1.19
Strong minded	1.18	1.13
Struggles to overcome stress	-0.65	1.66
Stubborn	-0.53	1.42
Studies a lot	1.06	1.09
Successful	1.88	1.05
Super	1.93	1.10
Supportive	2.41	0.94
Sweet	2.00	1.06
Sympathetic	1.76	1.09
Takes responsibility	2.18	0.95
Talented at sports	1.00	1.37

Talkative	1.12	1.27
Texts too much	-0.82	1.78
The most amazing person	2.12	1.03
There for me	2.53	0.62
Thinks he/she is always right	-1.71	1.11
Thinks of others	1.82	1.19
Thoughtful	2.18	1.02
Too good for me	-0.47	1.59
Tough	1.29	1.21
Tries to make people happy	0.82	1.24
Trustworthy	2.65	0.70
Typical Asian	-1.14	1.56
Uncaring	-2.44	0.51
Uncompromising	-1.35	1.58
Understanding	2.29	0.85
Unique	1.82	1.07
Upbeat	1.94	1.09
Upset when things don't go his/her way	-1.29	1.36
Values equality	2.06	1.14
Values family	2.18	0.88
Values loyalty	2.53	0.72
Values morals	1.88	1.11
Verbally abusive	-2.59	0.62
Very attached	-0.53	1.55
Wants the most out of life	2.24	0.90
Wants to be a firefighter	0.38	1.36
Wants to be successful	2.06	0.97
Wants to be the best	0.41	1.00
Wants to learn	1.59	1.06
Wants to make everyone happy	0.71	1.57
Wants what I want	1.18	0.88
Warm hearted	2.35	0.86
We have similar interests	1.88	0.93
Weird	0.29	1.53
Withdrawn	-1.65	1.12
Wonderful	2.44	0.73
Worries	-0.65	1.41
Would do anything for me	2.00	0.87

Table 8

Summary of Hierarchical Regression Analysis for Variables Predicting Desirability

	Model 1			Model 2			Model 3			Model 4		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE(B)*	*β*
Gender	.06	.06	.07	.06	.06	.07	.07	.06	.09	.06	0.09	.06
Condition				-.07	.06	-.09	-.05	.06	-.07	-.07	0.59	-.12
Anxiety							-.12	.05	-.21*	-.13	0.26	.00*
Avoidance							-.04	.07	-.04	-.08	1.60	-.05
Gender X Anxiety										.01	.05	.02
Gender X Avoidance										.08	.08	.10
Condition X Anxiety										-.06	.05	-.11
Condition X Avoidance										-.03	.07	-.03
Gender X Condition										.06	.06	.09
R^2	.005			.01			.07			.10		
F for change in R^2	.82			1.40			4.61			1.05		

Note: Gender and Condition were effect-coded; Anxiety and Avoidance were centered.
*$p < .01$

Table 9

Individual Difference Measures Predicting Open-Ended Desirability

Measure	*B*	*SE B*	ß
International Personality Item Pool (IPIP)			
Step 4			
Gender	.059	.064	.073
Condition	-.087	.063	-.121
IPIP	-.004	.004	-.084
IPIP X Gender	-.002	.004	-.045
IPIP X Cond	.002	.004	.033
Gender X Cond	.066	.064	.092
Rejection Sensitivity (RS)			
Step 4			
Gender	.050	.063	.062
Condition	-.093	.063	-.130
RS	-.027	.019	-.132
RS X Gender	.017	.019	.084
RS X Cond	-.004	.016	-.017
Gender X Cond	.065	.063	.091

Note.
* Significant at $p < .05$

Table 10

Regressions Predicting Mediated Effects of Highly Anxious People

Measure	*B*	*SE B*	ß
Open-Ended Desirability			
Condition	-.42	1.92	-.025
WMC	-.092	.098	-.107
Condition X WMC	.001	.006	.074
Self-Attributes Questionnaire Partner (SAQP)			
Condition	-.42	1.92	-.025
WMC	-2.59	4.92	-.062
Condition X WMC	.183	.302	.215

Note.
* Significant at $p < .05$

Table 11

Correlations Between Open-Ended and Closed-Ended Measures

Measure	Desirability	Breadth	RRSE	SAQP
Desirability	1	.197*	.481***	.093
Breadth	.197*	1	.030	-.068
RRSE	.481***	.030	1	.180*
SAQP	.093	-.068	.180*	1

Note. $*p < .05$, $**p < .01$, $***p < .001$

Figure Captions

Figure 1. Model of Adult Attachment Patterns

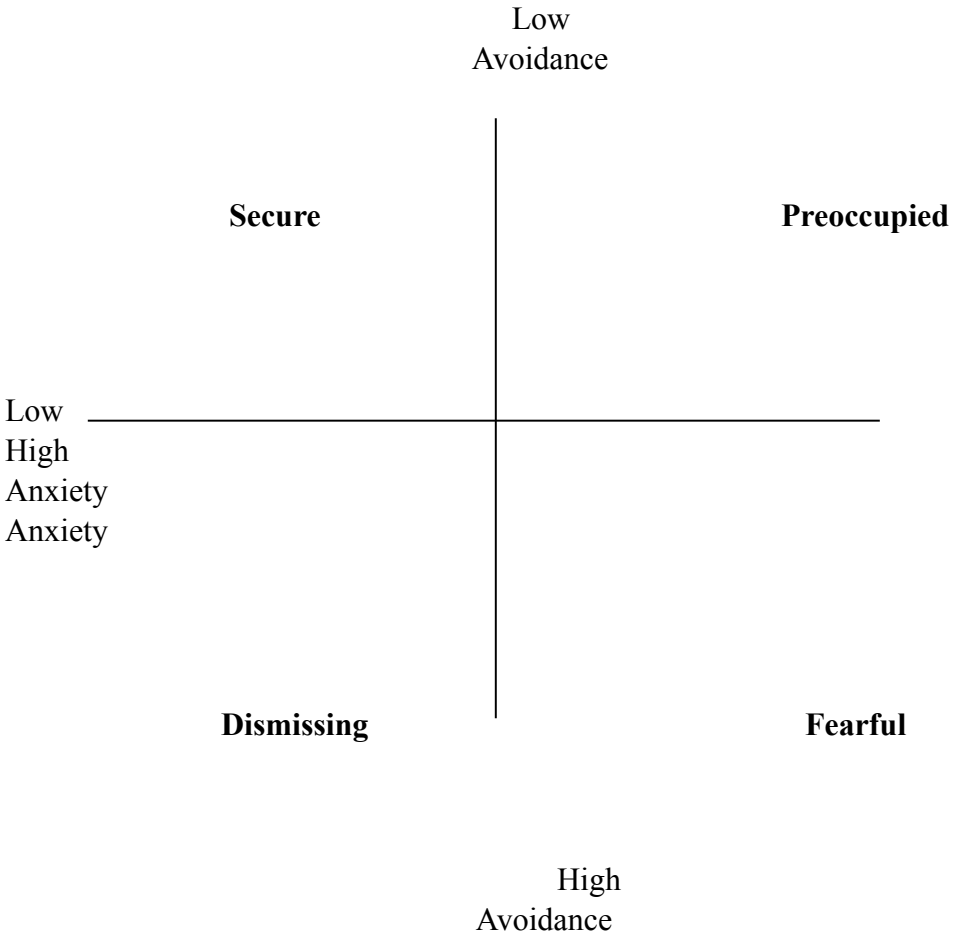


Figure 2. Moderated Mediation Model

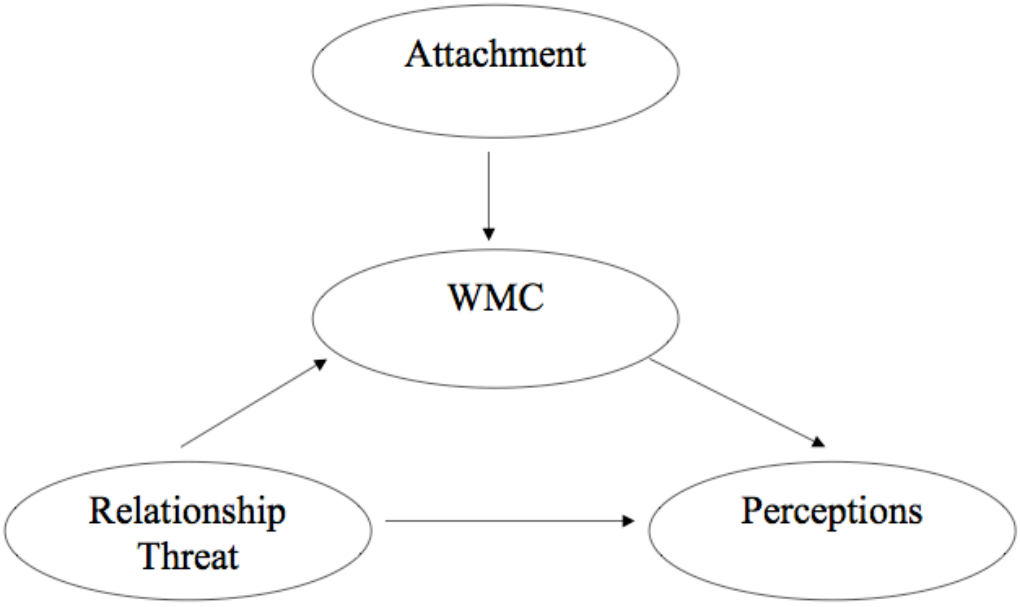
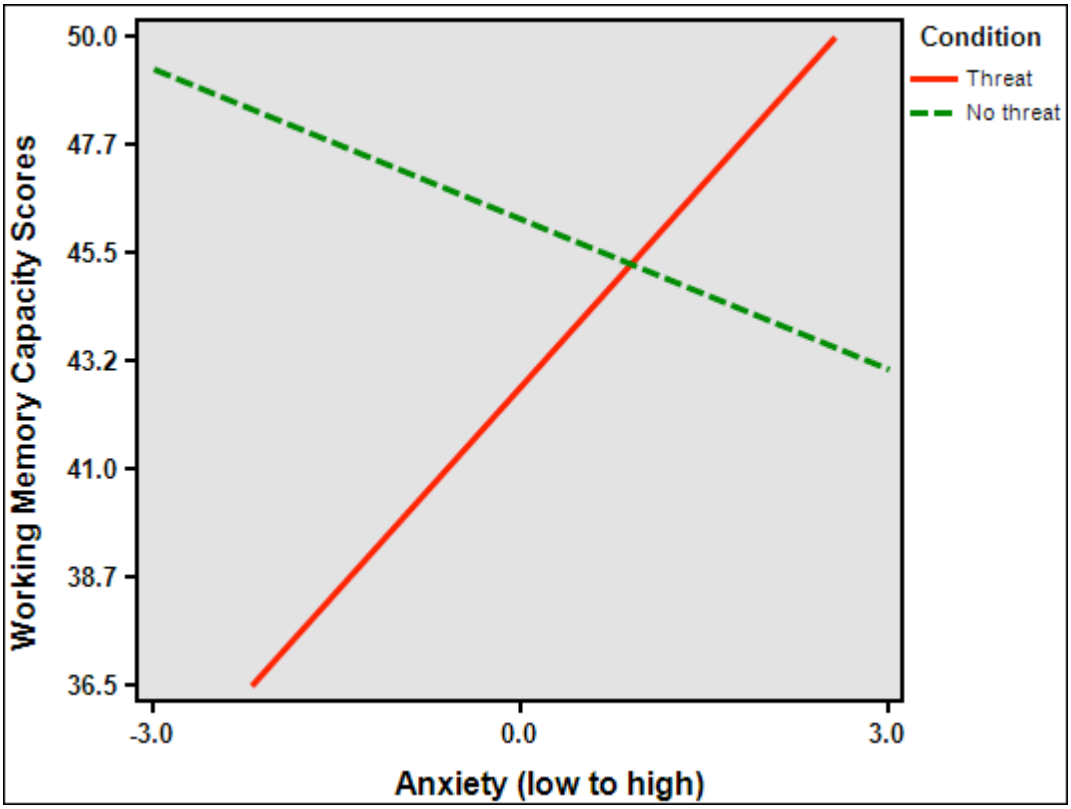
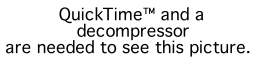


Figure 3. Attachment Anxiety and Condition as Predictors of Working Memory



Capacity

Figure 4. Gender as a Predictor of Closed-Ended Global Perceptions



APPENDIX A

Secret Selves

This is the ***only*** portion of the study where you are permitted to write information down. When you have finished, please turn the paper over and follow the directions on the back. The information you provide is confidential and will never be associated with your name.

This part of the experiment examines people's feelings and behaviors in romantic relationships. Sometimes people have sides to themselves that they would rather their partner not see. We're interested in people's secret selves because partners eventually discover one another's more negative sides and conflicts could develop as a result.

Please spend the next 5-10 minutes completing ***three*** of the following five statements:

1. In terms of my personal habits or behaviors, I try to keep my partner from seeing…

2. In terms of my personal preferences or opinions, I try to keep my partner from seeing…

3. In terms of my personality characteristics, I try to keep my partner from seeing…

4. In terms of my private thoughts, I try to keep my partner from seeing…

5. In terms of my past, I try to keep my partner from seeing…

When you have completed this task, please open the “Inquisit” tab at the bottom of the screen. You may now complete this portion of the study. If you have any questions, feel free to ask the research assistant in the main room. When you are finished, please read the next set of instructions below.

When you have completed the second task, please open the “Survey Monkey” tab at the bottom of the screen. You may now complete this portion of the study. When you are finished, please let the research assistant in the main room know.

Thank you for your participation!

APPENDIX B

Life Event Inventory (LEI)

This is the ***only*** portion of the study where you are permitted to write information down. When you have finished, please turn the paper over and follow the directions on the back. The information you provide is confidential and will never be associated with your name.

We are collecting a sample of students' personal experiences to use in constructing stimulus materials for a study that is to be run next semester. The Life Event Inventory that we are developing will assess the different experiences that people have in their lives. In order to develop this inventory, we are collecting a variety of life events that college students have experienced. We would like you to help us out by describing an event in your own recent past. Before starting, I want to remind you that all of your reports are completely anonymous and confidential, and the experience that you write about will NEVER be associated with you in any way. So please be sure NOT to write your name in your story. Please read the instructions to follow and begin working on this task. If you have any questions at any point, please do not hesitate to ask the experimenter.

Please think about the last few months. Think about a typical day in your life. Try to remember all of the things that you do in a typical day and write about them here. Describe your day in as much detail as you can. You'll be asked to reflect more on your typical day later in the experiment.

When you have completed this task, please open the “Inquisit” tab at the bottom of the screen. You may now complete this portion of the study. If you have any questions, feel free to ask the research assistant in the main room. When you are finished, please read the next set of instructions below.

When you have completed the second task, please open the “Survey Monkey” tab at the bottom of the screen. You may now complete this portion of the study. When you are finished, please let the research assistant in the main room know.

Thank you for your participation!

APPENDIX C

Working Memory Task Instructions

Instructions adapted from Schmader and Johns (2003).

This test will be administered on a computer. In this task, participants will evaluate mathematical equations while simultaneously trying to remember words. The equations begin with the multiplication or division of two integers (e.g., 9 x 6). The product of this operation is then added to, or subtracted from, another positive integer. The answer for the entire operation is included in the expression, and the participant is asked to evaluate whether the equation is correct or incorrect (e.g., Is [9 x 6] – 4 = 50?). A letter is presented after each mathematical equation and at the end of a series of equation/letter combination trials (e.g., a set) participants are asked to recall as many of the letters from the preceding series as possible. The math equations are merely meant to engage participants in a certain amount of cognitive processing. Working memory capacity is indexed as the number of words that participants recall correctly from each equation/letter set.

The task will include 72 equations (36 correct and 36 incorrect) and 72 letters.

This part of the experiment examines your cognitive ability. Please evaluate the correctness of the equations provided quickly and accurately while also remembering the words that appear for later recall.

Equations and letters will be presented in random order within each set, but equations and words will be assigned to the same set for each test.

If you believe an equation is *correct*, please press *1*. If you believe an equation is *incorrect*, please press *2*.

After recording their evaluation on the keyboard, participants will be presented with a to-be-remembered letter for 2 seconds.

After presentation of all equation/letter combinations in a set, participants will be prompted to recall all of the letters in that set. Each set will be separated by the prompt "next set", which will be displayed for 3 seconds. The computer program will record the letters recalled, participants' correct and incorrect responses to the equations, and the time spent on each equation.

APPENDIX D

Perceptions of Partner and Relationship

Here we are interested in how you perceive your romantic partner. Please write whatever comes to mind in response to the following questions:

"What do you think of your romantic partner?"

"What kind of person is he or she?"

APPENDIX E

The Revision of Rosenberg Self-Esteem Questionnaire

(R-RSQ; Rosenberg, 1965)

Below is a list of statements dealing with general feelings about your partner. If you ***strongly agree***, circle **SA**. If you ***agree*** with the statement, circle **A**. If you ***disagree***, circle **D**. If you ***strongly disagree***, circle **SD.**

1. I feel that my romantic partner is a person of worth, at least on an equal plane with others.
   SA ***A*** ***D*** ***SD***

2. I feel that my romantic partner has a number of good qualities.
   SA ***A*** ***D*** ***SD***

3. All in all, I am inclined to feel that my romantic partner is a failure.
   SA ***A*** ***D*** ***SD***

4. My romantic partner is able to do things as well as most other people.
   SA ***A*** ***D*** ***SD***

5. My romantic partner does not have much to be proud of.
   SA ***A*** ***D*** ***SD***

6. I feel positively about my romantic partner.
   SA ***A*** ***D*** ***SD***

7. On the whole, I am satisfied with my romantic partner.
   SA ***A*** ***D*** ***SD***

8. I wish I could have more respect for my romantic partner.
   SA ***A*** ***D*** ***SD***

9. I certainly feel my romantic partner is useless at times.
   SA ***A*** ***D*** ***SD***

10. At times I think my romantic partner is no good at all.
    SA ***A*** ***D*** ***SD***

APPENDIX F

Partner-Attributes Questionnaire

(SAQ; Swann, De La Ronde, & Hixon, 1994)

This questionnaire has to do with your attitudes about your romantic partner. For the first ten items below, you should rate your romantic partner relative to other people of his or her same gender who are near his or her own age by using the following scale:

A	B	C	D	E	F	G	H	I	J
Bottom 5%	lower 10%	lower 20%	lower 30%	lower 50%	upper 50%	upper 30%	upper 20%	upper 10%	upper 5%

An example of the way the scale works is as follows: if one of the traits that follows were "height", a woman who is just below average height would choose "e" for this question, whereas a woman who is taller than 80% (but not taller than 90%) of women her age would mark "H", indicating that she is in the top 20% on this dimension.

1. intellectual ability ____

2. social skills/ social competence____

3. artistic and/or musical ability ____

4. athletic ability ____

5. physical attractiveness ____

Now rate how certain you are of your romantic partner's standing on each of the above traits (you may choose any letter):

A	B	C	D	E	F	G	H	I
Not at all certain				moderately certain			extremely certain	

6. intellectual ability ____

7. social skills/ social competence____

8. artistic and/or musical ability ____

9. athletic ability ____

10. physical attractiveness ____

Now rate how personally important each of these domains is to your romantic partner (you may choose any letter):

A	B	C	D	E	F	G	H	I
Not at all important to me			moderately important to me					extremely important to me

11. intellectual ability ____

12. social skills/ social competence____

13. artistic and/or musical ability ____

14. athletic ability ____

15. physical attractiveness ____

Now rate your romantic partner relative to your "ideal romantic partner" (you may choose any letter):

A	B	C	D	E	F	G	H	I
Very short of my ideal self			somewhat like and somewhat unlike my ideal self					very much like my ideal self

16. intellectual ability ____

17. social skills/ social competence____

18. artistic and/or musical ability ____

19. athletic ability ____

20. physical attractiveness ____

Now, how would someone else rate your romantic partner compared with other people of his or her age on each of these:

A	B	C	D	E	F	G	H	I	J
Bottom 5%	lower 10%	lower 20%	lower 30%	lower 50%	upper 50%	upper 30%	upper 20%	upper 10%	upper 5%

21. intellectual ability ____

22. social skills/ social competence____

23. artistic and/or musical ability ____

24. athletic ability ____

25. physical attractiveness ____

Now, rank these areas in order of how much your romantic partner would desire feedback from you on his or her ability in the following areas. Please match the area with the number that best describes the order which he or she would desire. Use the 1 to 10 scale provided. Use each number only once.

1	2	3	4	5	6	7	8	9	10
most like to have discussed in report									least like to have discussed in report

26. intellectual ability ____

27. social skills/ social competence____

28. artistic and/or musical ability ____

29. athletic ability ____

30. physical attractiveness ____

APPENDIX G

Positive Affect and Negative Affect Schedule

(PANAS-X; Watson, Clark, & Tellegen, 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way **right now**, that is, at the present moment. Use the following scale to record your answers.

1	2	3	4	5
Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

_____interested	_____irritable
_____distressed	_____alert
_____excited	_____ashamed
_____upset	_____inspired
_____strong	_____nervous
_____guilty	_____determined
_____scared	_____attentive
_____hostile	_____jittery
_____enthusiastic	_____active
_____proud	_____afraid

APPENDIX H

Spielberger's State-Trait Anxiety Inventory
(STAI; Spielberger, Gorusch, & Lushene, 1970)

Instructions: Please answer the items below in terms of how you are feeling **right now, at this moment.**

1. I feel calm.

1	2	3	4
Almost never	Sometimes	Often	Almost always

2. I feel secure.

1	2	3	4
Almost never	Sometimes	Often	Almost always

3. I am tense.

1	2	3	4
Almost never	Sometimes	Often	Almost always

4. I am regretful.

1	2	3	4
Almost never	Sometimes	Often	Almost always

5. I feel at east.

1	2	3	4
Almost never	Sometimes	Often	Almost always

6. I feel upset.

1	2	3	4
Almost never	Sometimes	Often	Almost always

7. I am presently worrying over possible misfortunes.

1	2	3	4
Almost never	Sometimes	Often	Almost always

8. I feel rested.

1	2	3	4
Almost never	Sometimes	Often	Almost always

9. I feel anxious.

1	2	3	4
Almost never	Sometimes	Often	Almost always

(STAI continued)

10. I feel comfortable.

1	2	3	4
Almost never	Sometimes	Often	Almost always

11. I feel self-confident.

1	2	3	4
Almost never	Sometimes	Often	Almost always

12. I feel nervous.

1	2	3	4
Almost never	Sometimes	Often	Almost always

13. I am jittery.

1	2	3	4
Almost never	Sometimes	Often	Almost always

14. I feel “high strung.”

1	2	3	4
Almost never	Sometimes	Often	Almost always

15. I am relaxed.

1	2	3	4
Almost never	Sometimes	Often	Almost always

16. I feel content.

1	2	3	4
Almost never	Sometimes	Often	Almost always

17. I am worried.

1	2	3	4
Almost never	Sometimes	Often	Almost always

18. I feel over-excited and rattled.

1	2	3	4
Almost never	Sometimes	Often	Almost always

19. I feel joyful.

1	2	3	4
Almost never	Sometimes	Often	Almost always

(STAI continued)

20. I feel pleasant.

1	2	3	4
Almost never	Sometimes	Often	Almost always

Instructions: Please answer the remaining items in terms of how you **generally feel**.

1. I feel pleasant.

1	2	3	4
Almost never	Sometimes	Often	Almost always

2. I feel nervous and restless.

1	2	3	4
Almost never	Sometimes	Often	Almost always

3. I feel satisfied with myself.

1	2	3	4
Almost never	Sometimes	Often	Almost always

4. I wish I could be as happy as others seem to be.

1	2	3	4
Almost never	Sometimes	Often	Almost always

5. I feel like a failure.

1	2	3	4
Almost never	Sometimes	Often	Almost always

6. I feel rested.

1	2	3	4
Almost never	Sometimes	Often	Almost always

7. I am “calm, cool, and collected.”

1	2	3	4
Almost never	Sometimes	Often	Almost always

8. I feel that difficulties are piling up so that I cannot overcome them.

1	2	3	4
Almost never	Sometimes	Often	Almost always

(STAI continued)

9. I worry too much over something that really doesn't matter.

1	2	3	4
Almost never	Sometimes	Often	Almost always

10. I am happy.

1	2	3	4
Almost never	Sometimes	Often	Almost always

11. I have disturbing thoughts.

1	2	3	4
Almost never	Sometimes	Often	Almost always

12. I lack self-confidence.

1	2	3	4
Almost never	Sometimes	Often	Almost always

13. I feel secure.

1	2	3	4
Almost never	Sometimes	Often	Almost always

14. I make decisions easily.

1	2	3	4
Almost never	Sometimes	Often	Almost always

15. I feel inadequate.

1	2	3	4
Almost never	Sometimes	Often	Almost always

16. I am content.

1	2	3	4
Almost never	Sometimes	Often	Almost always

17. Some unimportant thought runs through my mind and bothers me.

1	2	3	4
Almost never	Sometimes	Often	Almost always

18. I take disappointments so keenly that I can't put them out of my mind.

1	2	3	4
Almost never	Sometimes	Often	Almost always

(STAI continued)

19. I am a steady person.

1	2	3	4
Almost never	Sometimes	Often	Almost always

20. I get in a state of tension or turmoil as I think over my recent concerns and interests.

1	2	3	4
Almost never	Sometimes	Often	Almost always

APPENDIX I

The Experiences in Close Relationships Short-Scale Form

(ECR-S; Wei, Russel, Mallinchkrodt, & Vogel, 2007)

Instructions: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Mark your answer using the following rating scale.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

1. It helps to turn to my romantic partner in times of need.
2. I need a lot of reassurance that I am loved by my partner.
3. I want to get close to my partner, but I keep pulling back.
4. I find that my partner(s) don't want to get as close as I would like.
5. I turn to my partner for many things, including comfort and reassurance.
6. My desire to be very close sometimes scares people away.
7. I try to avoid getting too close to my partner.
8. I do not often worry about being abandoned.
9. I usually discuss my problems and concerns with my partner.
10. I get frustrated if romantic partners are not available when I need them.
11. I am nervous when partners get too close to me.
12. I worry that romantic partners won't care about me as much as I care about them.

APPENDIX J

The Experiences in Close Relationships Questionnaire

(ECR; Brennan, Clark, & Shaver, 1998)

Generic Instructions: The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement by [web: clicking a circle] [paper: circling a number] to indicate how much you agree or disagree with the statement

1. I prefer not to show a partner how I feel deep down.
2. I worry about being abandoned.
3. I am very comfortable being close to romantic partners.
4. I worry a lot about my relationships.
5. Just when my partner starts to get close to me I find myself pulling away.
6. I worry that romantic partners wont care about me as much as I care about them.
7. I get uncomfortable when a romantic partner wants to be very close.
8. I worry a fair amount about losing my partner.
9. I don't feel comfortable opening up to romantic partners.
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
11. I want to get close to my partner, but I keep pulling back.
12. I often want to merge completely with romantic partners, and this sometimes scares them away.
13. I am nervous when partners get too close to me.
14. I worry about being alone.
15. I feel comfortable sharing my private thoughts and feelings with my partner.
16. My desire to be very close sometimes scares people away.
17. I try to avoid getting too close to my partner.
18. I need a lot of reassurance that I am loved by my partner.
19. I find it relatively easy to get close to my partner.
20. Sometimes I feel that I force my partners to show more feeling, more commitment.
21. I find it difficult to allow myself to depend on romantic partners.
22. I do not often worry about being abandoned.
23. I prefer not to be too close to romantic partners.
24. If I can't get my partner to show interest in me, I get upset or angry.
25. I tell my partner just about everything.
26. I find that my partner(s) don't want to get as close as I would like.

ECR (continued)

27. I usually discuss my problems and concerns with my partner.
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
29. I feel comfortable depending on romantic partners.
30. I get frustrated when my partner is not around as much as I would like.
31. I don't mind asking romantic partners for comfort, advice, or help.
32. I get frustrated if romantic partners are not available when I need them.
33. It helps to turn to my romantic partner in times of need.
34. When romantic partners disapprove of me, I feel really bad about myself.
35. I turn to my partner for many things, including comfort and reassurance.
36. I resent it when my partner spends time away from me.

APPENDIX K

The Rejection Sensitivity Short 8-item scale

(RSS; Downey & Feldman, 1996)

Each of the items below describes things college students sometimes ask of other people. Please imagine that you are in each situation. You will be asked to answer the following questions:

1. How concerned or anxious would you be about how the other person would respond?

2. How do you think the other person would be likely to respond?

1. You ask your parents for help in deciding what programs to apply to.

How concerned or anxious would you be over whether or not your parents would want to help you?	very unconcerned 1	2	3	4	5	very concerned 6
I would expect that they would want to help me.	very unlikely 1	2	3	4	5	very likely 6

2. You approach a close friend to talk after doing or saying something that seriously upset him/her.

How concerned or anxious would you be over whether or not your friend would want to talk with you?	very unconcerned 1	2	3	4	5	very concerned 6
I would expect that he/she would want to talk with me to try to work things out.	very unlikely 1	2	3	4	5	very likely 6

3. After graduation, you can't find a job and ask your parents if you can live at home for a while.

How concerned or anxious would you be over whether or not your parents would want you to come home?	very unconcerned 1	2	3	4	5	very concerned 6
I would expect I would be welcome at home.	very unlikely 1	2	3	4	5	very likely 6

4. You call your boyfriend/girlfriend after a bitter argument and tell him/her you want to see him/her.

How concerned or anxious would you be over whether or not your boyfriend/girlfriend would want to see you?	very unconcerned 1	2	3	4	5	very concerned 6

(RSS continued)

I would expect that he/she would want to see me. very unlikely very likely
1 2 3 4 5 6

5. You ask your parents to come to an occasion important to you.

How concerned or anxious would you be over whether or not your parents would want to come? very unconcerned very concerned
1 2 3 4 5 6

I would expect that my parents would want to come. very unlikely very likely
1 2 3 4 5 6

6. You ask a friend to do you a big favor.

How concerned or anxious would you be over whether or not your friend would do this favor? very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would willingly do this favor for me. very unlikely very likely
1 2 3 4 5 6

7. You ask your boyfriend/girlfriend if he/she really loves you.

How concerned or anxious would you be over whether or not your boyfriend/girlfriend would say yes? very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would answer yes sincerely. very unlikely very likely
1 2 3 4 5 6

8. You go to a party and notice someone on the other side of the room and then you ask them to dance.

How concerned or anxious would you be over whether or not the person would want to dance with you? very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would want to dance with me. very unlikely very likely
1 2 3 4 5 6

APPENDIX L

International Personality Item Pool – Neuroticism

(IPIP; Goldberg, 1999) http://ipip.ori.org/

On the following pages, there are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes ***you***. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale.

Response Options

1: Very Inaccurate
2: Moderately Inaccurate
3: Neither Inaccurate nor Accurate
4: Moderately Accurate
5: Very Accurate

Have frequent mood swings.
Worry about things.
Am very pleased with myself.
Fear for the worst.
Seldom feel blue.
Remain calm under pressure.
Dislike myself.
Rarely get irritated.
Am not easily bothered by things.
Feel threatened easily.
Seldom get mad.
Often feel blue.
Get stressed out easily.
Rarely lose my composure.
Am relaxed most of the time.
Am filled with doubts about things.
Feel comfortable with myself.
Am often down in the dumps.
Am not easily frustrated.
Panic easily.

APPENDIX M

Demographic Information

Your responses to the following questions are voluntary and you may choose not to provide responses for specific questions, or for all questions. Students will be reminded of this information on each screen.

What is your gender?

Female
Male
Choose not to respond

What is your age?

_____
Choose not to respond

What is your race?

_____
Choose not to respond

What is your ethnicity?

_____
Choose not to respond

What is your major? If you do not currently have a major you may indicate which major you are most interested in pursuing.

_____
Choose not to respond

Are you currently in a romantic relationship?

Yes
No
Choose not to respond

(Demographics continued)

If yes, are you involved in a long-distance relationship?

Yes
No
Choose not to respond

What is the length of your longest relationship, if any?

3 months or less
4 – 6 months
7 – 9 months
10 months – 1 year
1– 1.5 years
1.5– 2 years
2 – 5 years
More than 5 years
Choose not to respond

How do you identify yourself?

Heterosexual
Homosexual
Bisexual
Choose not to respond

Are your parents divorced?

Yes
No
Choose not to respond

Do you have any brothers?

Yes
No
Choose not to respond

Do you have any sisters?

Yes
No
Choose not to respond

(Demographics continued)

Do you consider yourself to be religious?

- Yes
- No
- Choose not to respond

What is your current age?

- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 25+
- Choose not to respond

Are you an undergraduate or a graduate student?

- Undergraduate
- Graduate
- Choose not to respond

If undergraduate, what is your class standing?

- Freshman
- Sophomore
- Junior
- Senior

Is English your first language?

- Yes
- No
- Choose not to respond

(Demographics continued)

Are you left-handed or right-handed?

Left-handed
Right-handed
Choose not to respond

1. What do you think this study was about?

2. Did you have any difficulty understanding the instructions? If so, please describe the difficulty.

3. Did you have any difficulty with any of the tasks today? If so, please describe the difficulty.

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