

BORDERLINE FEATURES, REJECTION SENSITIVITY, AND ROMANTIC RELATIONSHIPS: A DAILY
DIARY STUDY OF ROMANTIC PARTNERS

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

BORDERLINE FEATURES, REJECTION SENSITIVITY, AND ROMANTIC RELATIONSHIPS: A
DAILY DIARY STUDY OF ROMANTIC PARTNERS

presented by Whitney C. Brown,

a candidate for the degree of doctor of philosophy,

and hereby certify that, in their opinion, it is worthy of acceptance.

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I would like to dedicate this work to my loving family, whose pride and happiness at my accomplishments has been humbling. I also want to dedicate this to the friendships for life I made at Mizzou.

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Abstract

Investigators theorize that those with Borderline Personality Disorder (BPD) have a distinct style of relating to others typified by interpersonal hypersensitivity. How this hypersensitivity manifests in close relationships remains unclear. The current project seeks to refine this characterization of the interpersonal dysfunction domain in BPD through examination of romantic partner conflict and trait rejection sensitivity (RS). In this study, two groups of participants (20 BP trait +, 38 BPD trait -) and their romantic partners (total N=116) carried an electronic diary for one week and reported on daily mood and interpersonal interactions. I found no statistically significant difference in trait RS between B+ participants and B- participants. BPD features measured dimensionally were modestly correlated with RS, however. RS was positively associated with a higher proportion of negative behaviors (e.g. throwing things) to positive behaviors during conflict for individuals in the B+ group, while individuals in the B- group demonstrated a negative association between rejection sensitivity and negative conflict behaviors. Positive behaviors were not associated with trait RS. Partner RS was associated with fewer negative behaviors in actors. Concerns that the romantic partner would end the relationship were associated with both actor and partner reports of conflict, but not with trait RS. Momentary-reported conflict-related negative cognitions were not well-explained by RS or group status. Negative affect and behaviors are perhaps best studied ecologically and interpersonally (e.g., within dyads) if we are to better understand and dysfunctional social processes and personality pathology.

Introduction

Borderline Personality Disorder (BPD) is a serious mental disorder characterized by affective instability, impulsivity, and interpersonal dysfunction (APA, 2013; Trull, Tomko, Brown, & Scheiderer, 2010). Particularly, interpersonal dysfunction is associated with borderline personality features in both clinical and non-clinical samples, and has been investigated in several related lines of research including perceptual biases (e.g. recognition of emotions in interaction partners); Theory of Mind and empathy, social problem solving, interpersonal aggression, lack of cooperation/trust, and trait interpersonal hypersensitivity or rejection sensitivity (Lazarus, Cheavens, Festa, & Rosenthal, 2014). Chen, Cohen, Johnson, Kasen, Sneed, & Crawford (2004) measured change in partner conflict over time and its association with personality disorder diagnoses. The authors found that Cluster B Personality pathology (which includes borderline personality disorder), as compared to other personality disorder diagnoses, was associated with sustained partner conflict from ages 17 to 27. These relations held even after controlling for *Diagnostic and Statistical Manual-IV* Axis-I disorders. Choi-Kain and colleagues (2010) examined interpersonal features of BPD, assessed using the Diagnostic Interviews for Borderlines, Revised, in a sample of BPD female outpatients and comparison outpatients with Axis II disorders over 10 years. They found improvement in interpersonal function occurred at a significantly slower rate in individuals with BPD as compared to Axis II comparison subjects for 5 interpersonal symptoms (fear of abandonment, discomfort with care, recurrent arguments, dependency, and manipulation). The other Axis II group remitted at approximately twice

to three times the rate of the borderline group. These interpersonal features of BPD may be particularly destructive when occurring within close relationships (Links & Stockwell, 2001).

Although these indicators of interpersonal dysfunction have been studied longitudinally and cross-sectionally, in the lab and the real world, they have rarely been studied within the context of the BPD-individual's close relationships. This investigation will examine the extent to which individuals with elevated features of BPD exhibit rejection sensitivity and whether this trait affects interpersonal conflict with a romantic partner in daily life.

Rejection sensitivity is a personality trait leading one to anxiously expect, readily perceive, and over-react to rejection cues in the environment (Downey & Feldman, 1996). Those who are high in rejection sensitivity automatically perceive rejection-relevant information as threatening, especially in ambiguous social situations (Downey, et al., 2004; Berenson et al., 2009). For example, a young woman invites her friend to socialize after work, but is turned down. The woman fears that she is no longer liked by her friend and coworker. Downey and colleagues (1996, 1998) found that trait rejection sensitivity is related to negative perceptions of romantic partners (i.e. viewing the partner as jealous, hostile, and emotionally unsupportive) and to the display of more negative behaviors such as whining, blaming, and denying responsibility for problems in the relationship during discussions of conflict. It may be the case that individuals high in trait rejection sensitivity perceive conflict with close others as another potential opportunity for rejection, rather than a chance to strengthen their relationship or some

other temporary obstacle. These negative cognitions regarding conflict may be associated with rejection sensitivity.

Not all those who are high in rejection sensitivity experience significant interpersonal distress and negative outcomes. Ayduk et al. (2000) found that effective self-regulation moderates the relationship between rejection sensitivity and interpersonal dysfunction such that highly rejection sensitive individuals lacking self-regulation at an early age were more likely to experience interpersonal difficulties such as aggression and peer rejection. Consider the example of a rejection-sensitive individual who experiences emotional distress from a comment made by his romantic partner. If this individual is unable to monitor his behavior and act in accordance with his goal of maintaining his relationship, he may respond with an angry, hurtful comment. A rejection sensitive individual with effective self-regulation skills may feel angry or hurt, but avoid addressing the comment, fearing that any conflict will result in the end of the relationship.

Given the association between BPD and emotional and behavioral dysregulation, these findings suggest that when faced with possible signs of rejection, a person with BPD features may engage in reactive, dysregulated behaviors that his or her companion finds aversive. However, some studies have found an association between BPD and passive, avoidant interpersonal styles (Wright et al., 2013). Thus, an individual with BPD features may withdraw from conflict despite experiencing intense negative affect.

Recent studies have shown a link between BPD and rejection sensitivity. Many of these investigations focus on the association between rejection sensitivity and hostility

or general negative affect. For example, Berenson, Downey, Rafaeli, Coifman, and Paquin (2011) directly tested the link between intense feelings of hostility (rage) and rejection experiences. Individuals with a BPD diagnosis and a group of healthy controls engaged in a laboratory priming task and an electronic diary study period lasting for 21 days. Berenson and colleagues found that the BPD group showed a negative correlation between increased rejection-contingent hostility in daily life and shorter latencies for rejection-primed words in the laboratory. These findings suggest a strong relationship between hostility and rejection-related thoughts; however, it is unclear to what extent these rejection experiences are related to observable rejection events that occur within a close relationship.

While the emerging literature examining the relationship between BPD and rejection sensitivity has been fruitful, there exist several limitations. First it is unclear how those with BPD behave in close relationships, given that they tend to be rejection sensitive, become emotionally reactive in the face of conflict, and have negative cognitions associated with close relationships. Second, when investigators study rejection sensitivity and personality disorder features or diagnoses, they rarely do so within a close relationship, despite the interpersonal nature of these constructs. Rather, individuals are asked to aggregate their experiences over several relationships or their most recent romantic relationship. Third, few studies of rejection sensitivity have been conducted outside of the laboratory. Studying rejection sensitivity prospectively and in daily life would decrease the need for a participant to retrospectively report on multiple relationships or multiple occasions.

Investigations of interpersonally relevant psychological phenomena have been increasingly studied using Ambulatory Assessment. Ambulatory Assessment involves a variety of data collection methodologies, for instance hand-held computers, smart phones, and auditory recorders. Trull and Ebner-Priemer (2013) identified 3 modes of Ambulatory Assessment—self-report, observational, and biological/physiological/behavioral. This investigation utilizes self-report Ambulatory Assessment, which has traditionally been categorized as ecological momentary assessment (EMA; Stone & Shiffman, 1994). In the case of EMA, a signaling device prompts an individual to report on his or her experience directly in his or her environment as it occurs in the moment. I will use the term EMA to describe the methodology used in the current investigation.

There were three goals of the current research. First, I wanted to observe whether there was a relationship between rejection sensitivity and the experience of interpersonal conflict between romantic partners in daily life. The rejection sensitivity literature demonstrates that despite the highly rejection-sensitive person's concern for the status of his or her relationships, he or she behaves in ways that can contribute to the dissolution of these relationships. Rejection sensitivity ultimately begets negative and even rejecting behaviors from close others; this interpersonal process is best studied within a close relationship. Therefore, the current investigation is being conducted within the standard dyadic design (Kenny, Kashy, & Cook, 2006)—two members of a romantic partner dyad are linked to only one other partner in a sample and both members are surveyed on the same variables.

Second, I wanted to identify the cognitive, emotional, and behavioral experience of romantic conflict in daily life. Participants will be studied in their daily environment using EMA, allowing us to describe how mood, behavior, and cognition are associated in daily life in close relationships. Further, these data will be analyzed using the logic of the Actor-Partner Independence Model (APIM; Kenny, 1996). This model can be used to analyze variables of interest that vary both between dyads and within dyads, or *mixed variables*. For example, a particular dyad may be more committed on average than other dyads in the sample. Simultaneously, one member of the dyad may be more committed to the relationship than his partner. This model of dyadic data posits that an individual's characteristics on some independent variable may affect, for example, her partner's relationship satisfaction as well as her own satisfaction. These individuals are distinguishable based on variables such as age, gender, or disability status. In this investigation the distinction of the romantic partners will be based primarily on their recruitment status, which is related to the degree of self-reported borderline personality disorder features.

Lastly, I wanted to determine whether these momentary experiences and relations among constructs were uniquely related to borderline personality pathology. I hypothesize that romantic partner dyads in which one person has higher traits associated with borderline personality disorder (BPD) and control dyads will differ in relationship characteristics, personality characteristics, and expressions of affect and behavior. We sampled university students who varied in their level of borderline

features and their romantic partners and enlisted them to observe their interpersonal emotions, cognitions, and behaviors over one week using EMA.

Given the three goals of this investigation, I hypothesized that participants with borderline personality disorder features will endorse higher trait rejection sensitivity, as has been seen previously in the literature. I also hypothesized that reports of rejection sensitivity will show a moderate, positive association with romantic partner reports of rejection sensitivity. Past research has suggested that similarity in attachment styles is associated with relationship quality. Further, individuals have been shown to prefer a partner similar on attachment, a construct that is related to rejection sensitivity (Strauss, Morry, Kito, 2010; Merikangas, 1982). Lastly, I predicted that actor and partner self-reported rejection sensitivity would be positively associated with self-reported aspects of conflicts with a romantic partner.

Methods

Participants

The participants were undergraduate students from the University of Missouri recruited from an Introduction to Psychology class. These students received course credit for participation. In total, 103 individuals (targets) were recruited. These participants and their 103 romantic partners (partners) were invited to our laboratory to complete pretest measures and participate in a week-long electronic diary study. Sixty-four of these dyads (pairs) were included in the Low Borderline Traits (B-) group, while 39 were included in the High Borderline Traits (B+) group. There were two broad criteria for eligibility. First, students reported on their level of borderline features. Second, they indicated whether they were in an exclusive romantic relationship with a romantic partner currently living in the Columbia, MO area lasting at least 2 months at the time of participation.

Procedures

Students who scored above a cutoff of 37 (B+) on the PAI-BOR and those that scored below a cutoff of 24 (B-), and who were currently in a romantic relationship for at least 2 months were eligible for this study. Research staff contacted students meeting these criteria (target participants). Once contacted, the research staff asked if the target participant was willing to participate in a weeklong electronic diary study of mood and interpersonal relationships. They were further asked if their romantic partner (a) lived in town and (b) would be willing to participate in the study for inclusion into a lottery. If

the target participant indicated interest and the willingness of his or her romantic partner in the study, they were thanked and scheduled for a 1.5-hour lab orientation session.

During this orientation session, the target participant (B+/B-) and his or her romantic partner arrived at the lab. They were told that this was a study of college students' mood and interpersonal behaviors in romantic relationships. After giving consent, the participants filled out self-report items separately. While this occurred, the experimenter loaded the participants' electronic diaries. Next, participants were oriented to the use of an electronic diary (ED; a Palm Zire 31 hand-held computer). The ED was programmed to each subject's typical waking and sleeping times. Between those hours, each ED was programmed to "beep" 6 times per day to survey the participant about mood and interpersonal behaviors. In addition, the participants were instructed to initiate an electronic survey whenever they experienced a negative or positive event with their romantic partner that lasted for at least 5 minutes. Thus, the ED was programmed with a combined time- and event-based assessment schedule. At the end of the orientation session, each dyad was scheduled to return to the lab one week later with their EDs for a data-download session. On days 2 and 5 of the study period, the target participants were called in order to ensure that the ED was functioning optimally and to increase compliance.

After the week of ED use, the dyad returned to the lab to complete questionnaires, download electronic diary data, and be debriefed to the purpose of the study. They separately filled out the same self-report measures, including a debriefing

form asking the participants about their experiences with the electronic diary (e.g. “How much did you and your partner discuss your answers to the survey?” 0—*not at all*, 4—*all the time*). At this time, the data were downloaded from the ED and examined both for negative and positive interpersonal events reported by the couple.

The experimenter attempted to choose an event that was endorsed by both members of the dyad. Specifically, the experimenter examined the data (1) for an event-based electronic diary entry, (2) the day/time of the event, (3) and the description of the event (e.g. “rejection”). Each person was asked more detailed questions about the worst conflict from the past week that she or he reported on the palm pilot (e.g. “How did your partner react to this situation?”). After this they were thanked for their participation and debriefed, being told that the purpose of the study was to understand how the mood and behaviors of couples in “real time” affect negative and positive interactions between the couple.

Compliance to EMA Data & EMA Sample Demographics

Participants carried an electronic diary for one week. This electronic diary was programmed to alarm 6 times per day (random prompts). Each participant was expected to complete a maximum of 42 random prompts over 7 days. For example, a romantic partner dyad beginning the study period on Monday at 11AM would return the next Monday at 11AM. The participants carried the electronic diary for an average of 8.05 days. There was no significant difference between the two groups for length of the study period, $t(114) = .046, p = .963$. The participants were also instructed to complete a prompt for each negative and positive event occurring with one’s partner

(event-based prompts). At the conclusion of the study period, compliance to the diary protocol was examined. Participants were considered compliant if they produced 29 or more assessments, including event-based responses, which corresponds to 70% of an expected 42 prompts over the study period. Thirteen dyads (B-, n=5; B+, n=8) did not provide EMA data due to electronic diary failure or non-compliance of both dyad members. The quality of electronic diary responses was also examined. Electronic diary responses were considered invalid if: (1) survey responses were 15 minutes or less apart, (2) if responses to the complete survey were produced in 30 seconds or less, or (3) if responses to the complete survey exceeded 15 minutes. An additional 32 dyads (B-, n=21; B+, n=11) completed fewer than 29 valid assessments over the study period according to these exclusionary criteria.

The application of these exclusionary rules resulted in 38 low BP-trait (B-) dyads that responded to an average of 78% of random prompts and 20 high BP-trait (B+) dyads that responded to an average of 72.9% of random prompts. Groups did not differ in the number of positive events reported, while the B+ group reported significantly more negative events than the B- group (see Results, page 21). There was no statistically significant difference in the number of assessments that took longer than 15 minutes to complete between B+ dyads ($M = .03$, $SD = .158$) and B- dyads ($M = .12$, $SD = .431$), $t(105.048) = 1.686$, $p = .095$. Further, there was no difference between B- ($M = .71$, $SD = .877$) and B+ ($M = .50$, $SD = .784$) groups for the number of responses that were 30 min or less apart, $t(114) = 1.274$, $p = .205$. Finally, there were no responses in this sample that were completed in less than 31 seconds (B-: $M = 0$, B+: $M = 0$).

The recruited sample (B- = 38; B+ = 20) consisted of predominately Caucasian (B- = 86.8%; B+ = 90%), Catholic (B-: 36.8%; B+: 30%), first year undergraduate students (B- = 60.5%; B+ = 55%). The average age was 20.00 (SD = 2.3) for the B+ group. Their partners were aged 20.75 (SD = 2.8) years on average. The average age was 20.24 (SD = 4.6) for the B- group. Their partners were aged 20.58 (SD = 5.7) months on average. Target participants in the B+ group reported that the length of their relationship was 23.95 (SD = 22.8) months on average. Target participants in the B- group reported that their relationship was a mean of 28.47 (SD = 48.5) months. There were no statistically significant differences between the groups on these demographics. Demographic information about this sample can be found in Table 2.

To review: 206 individuals (39 B+ dyads and 64 B- dyads) completed pre-test self-report data. In total, 58 dyads (20 B+ dyads and 38 B- dyads) completed the study with an average of 5 diary entries per day on 916 study days (B+ n= 313; B-n= 603).

Measures

The following measures were given both before and after the electronic diary period.

Personality Assessment Inventory-Borderline Scale (PAI-BOR; Morey, 1991).

The PAI-BOR is a 24-item questionnaire that assesses diagnostic features associated with BPD. There are four subscales corresponding to BPD features: affective instability (e.g. "My mood can change quite suddenly."), identity problems ("My attitude about myself changes a lot."), negative relationships (e.g., "People once close to me have let me down."), and self-harm, which assesses impulsivity, rather than suicidality (e.g., "I

spend money too easily.”). PAI-BOR items are assessed on a 4-point scale ranging from 0 (false, not at all true) to 3 (very true).

Neuroticism Extraversion Openness-Five Factor Inventory-Revised (NEO-FFI-R; Costa & McCrea, 1992, McCrea & Costa, 2004). The NEO-FFI-R is a 60-item measure of the well-known Five Factor Model of Personality (FFM). For each of the five traits, Neuroticism, Extraversion, Openness To Experience, Agreeableness, and Conscientiousness, 12 items were chosen from the parent measure (NEO-Personality Inventory). The NEO-FFI-R contains 14 revised items taken from the NEO-PI-Revised. These items load primarily onto the Agreeableness factor. The authors found increased reliability, improvement in the factor structure, and equal validity as compared to the NEO-FFI after replacing the 14 items. The NEO-FFI-R shows high correlations with the NEO-FFI ($r = .88-.89$) and good internal consistency ($r = .75 - .82$; McCrae & Costa).

Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II is a 21-item self-report measure assessing depressive symptoms over a period of two weeks. Participants select the number of the item on a four-point Likert scale that best describes how they have been feeling. For instance, the participant is asked to select (1)“I do not feel I am worthless”, “(2) I don’t consider myself as worthwhile and useful as I used to”, “(3) I feel more worthless as compared to other people”, or “(4) I feel utterly worthless” to describe how he or she has felt over the past two weeks.

The Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman, 1996). The RSQ is a measure of the anxious expectation of rejection that gives 18 scenarios depicting situations in which an important request made to a significant other (e.g.,

peers) could potentially be denied. The participant is expected to answer two questions about each of these scenarios. The first question asks about the degree of anxiety about the outcome. Then, the participant is asked about the likelihood that the significant other would respond positively to the request. The RSQ shows high construct validity, high internal reliability ($r = .83$), and high test-retest reliability ($r = .78$; Downey & Feldman, 1996).

Couples Satisfaction Index (CSI; Funk & Rogge, 2007). The CSI is a 32-item self-report measure constructed from existing measures of relationship satisfaction using Item Response Theory. The scale measures overall feelings of relationship satisfaction and dissatisfaction, feelings about one's partner, and agreements and disagreements in the relationship. The cutoff score for distress is 104.5, with lower scores indicating greater distress. The CSI is shown to have high measurement precision ($\alpha = .98$), strong convergent validity, and excellent construct validity.

Electronic Diary Protocol. The ED protocol involves both time- and event-based assessments of mood, interpersonal context, and interpersonal interactions. The following measures can be found in the appendix. ***Time-Based. The Positive and Negative Affect Schedule-Expanded Form (PANAS-X; Watson & Clark, 1994).*** I used 31 items from the PANAS-X to measure positive affect and negative affect broadly. This mood measure has been adapted in previous studies of affective instability in BPD (Trull et al., 2008). **Electronic diary interpersonal events measure (Brown & Trull, unpublished measure).** After answering items about mood, subjects indicate whether they spent time with others since the last prompt, their feelings towards these people

and whether any negative interaction resulted in other behaviors designed to improve mood. The random prompt ends by assessing concern that their romantic partner may want to terminate the relationship. **Event-Based. Electronic diary interpersonal negative and positive event measure (Brown & Trull, unpublished measure).** Subjects initiated an ED survey whenever a significant positive or negative event lasting 5 minutes or longer occurred with their romantic partner. After identifying a negative event, participants were asked to: (1) describe how the negative event took place (e.g., texting), (2) identify what type of negative event occurred (e.g. disappointment), (3) identify what behaviors the participant engaged in during the negative event (e.g. changed the subject), (4) identify what thoughts they had during the negative event (e.g. “This will blow over”), and (5) describe the state of the negative event at that moment (e.g. “We decided to ignore it”). After identifying a positive event, participants were asked to (1) identify what type of event occurred (e.g. solved a problem) and (2) rate the positive interaction on 6 variables (meaningfulness, self- and partner-disclosure, pleasantness, closeness, and helping). After both positive and negative event reports, partners were asked to rate how they felt about the relationship and about their partner. These measures can be found in Appendix A. **Conflict-Related Behaviors (Brown, unpublished measure).** Seventeen behaviors were identified. Participants were asked to check each behavior that applied to the identified conflict. Behaviors were grouped into positive and negative behaviors. Negative behaviors include: *“Gave silent treatment, Blamed, Threatened to end the relationship, Yelled, Changed the subject, Brought up other conflicts, Hit my partner, Threw things at/near my partner, Did*

something else passive, Did something else aggressive, and Did something impulsive to make myself feel better. Positive behaviors include: *Tried to solve the problem by talking, Compromised, and Apologized.* No hypotheses were made about the valence of behaviors: *Defended self, Cried.* **Conflict-Related Cognitions (Brown, unpublished measure).** Eight cognitions were identified. Participants were asked to check each cognition that applied to the identified conflict. Cognitions were grouped into positive and negative cognitions. Negative cognitions include: *“My partner doesn’t understand me, This conflict is terrible, I dislike my partner, I dislike myself, I have to stop this conflict now, and My partner will regret this.”* Positive cognitions were identified. Positive cognitions include: *“My partner and I can solve this, and This will blow over later.”*

Hypotheses

Rejection sensitivity is a likely candidate construct to provide an explanatory link between cognitive, affective, and behavioral indicators of interpersonal dysfunction and borderline personality disorder pathology. The first hypothesis suggests that target participants in the high BP-traits (B+) group will endorse higher levels of trait-rejection sensitivity than the low BP-trait (B-) target participants. I conducted an independent sample t-test in order to determine the extent to which borderline features are related to trait level rejection sensitivity. The second hypothesis suggests further that self-reports of rejection sensitivity will show a moderate, positive association with romantic partner reports of rejection sensitivity. I correlated scores on the rejection sensitivity questionnaire (RSQ) for dyads using a Pearson’s Product Moment Correlation (r ; Kenny, Kashy, & Cook, 2006). A high, positive value would indicate support for this hypothesis.

A near zero value would indicate a lack of relationship for rejection sensitivity scores within dyad, while a negative correlation would indicate dissimilarity within dyads for rejection sensitivity. The third hypothesis states that self-reported rejection sensitivity will be positively associated with daily self-reports of mean negative mood and proportions of negative cognitions and behaviors endorsed during event-based reports of conflict using regression analyses. For example, self-reports of rejection sensitivity will be associated with more negative behaviors (such as yelling) during conflict. These reports of negative emotions, cognitions, and behaviors will be aggregated by study day as outlined in Table 1. Further, I hypothesize that these relations will be stronger for participants in the high BP traits group. Hypothesis 4 builds upon the previous hypotheses, which if supported will suggest that trait levels of rejection sensitivity and borderline personality are associated with interpersonally-related emotion, cognition, behavior, and partner reports of rejection sensitivity in daily life. I hypothesize further that actor self-reports of rejection sensitivity will show a moderate, positive association with romantic-partner reports of rejection sensitivity. Secondly, actor rejection sensitivity will be related to partner reports of conflict-related negative affect, conflict-related behaviors, and conflict-related cognitions. This hypothesis requires use of Hierarchical Linear Modeling (HLM) while using logic of the Actor-Partner Independence Model.

Level two equations (specified below) show the outcome (here, “negative conflict behaviors”) as the dependent variable associated with an intercept (β_{0j}), an actor (β_{1j}) and partner (β_{2j}) effect for rejection sensitivity, gender (β_{3j}), interactions

between gender and actor effects (β_{4j}), gender and partner effects (β_{5j}), an effect for group (β_{6j}), and error (R_{ij}).

Level 2

$$\text{NegBehavior}_{ij} = \beta_{0j} + \beta_{1j}(\text{Actor RSQ}_{ij}) + \beta_{2j}(\text{Partner RSQ}_{ij}) + \beta_{3j}(\text{Gender}_{ij}) + \beta_{4j}(\text{ACTOR*Gender}) + \beta_{5j}(\text{Partner*Gender}_{ij}) + \beta_{6j}(\text{Group}_j) + R_{ij} \quad (1)$$

Level 2 equations show the Level 1 regression coefficients (e.g. β_{1j}) modeled as the dependent variable associated with the intercepts. In the APIM framework, only intercepts are modeled as random (Kenny, Kashy & Cook, 2006).

Level 1

$$\beta_{0j} = \gamma_{00} + U_{0j} \quad (2)$$

$$\beta_{1j} =$$

$$\gamma_{10} \quad (3)$$

$$\beta_{2j} = \gamma_{20} \quad (4)$$

$$\beta_{3j} = \gamma_{30} \quad (5)$$

$$\beta_{4j} = \gamma_{40} \quad (6)$$

$$\beta_{5j} = \gamma_{50} \quad (7)$$

$$\beta_{6j} = \gamma_{60} \quad (8)$$

Results

In total, 58 dyads (20 high BP traits dyads and 38 low BP traits) completed the study with an average of 5 diary entries per day. This sample was included in analysis for hypotheses 3 and 4. For these analyses, the data were aggregated such that the unit of analysis is study-day. There are a total of 916 study days in this sample. The B+ group completed 313 study days while the B- group completed 603 days of assessments. Participants completed an average of 8.05 study days. Hypotheses 1 and 2 utilize the full sample of 103 dyads (64 B- and 39 B+ dyads) for which there is complete self-report data.

These dyads are distinguishable by *recruitment status* (target and partners) and gender (male and female). The following analyses will consider recruitment status as the primary distinguishing factor.

The Association between Rejection Sensitivity and Borderline Features.

I hypothesized that target participants in the high BP-traits (B+) group would endorse higher levels of trait rejection sensitivity than the low BP-trait (B-) target participants. I made no hypotheses about mean differences of partner rejection sensitivity scores. Although trending in the predicted direction, I found that there was no statistically significant difference between B+ targets (M= 4.71, SD= 1.66), and B- targets (M= 4.10, SD= 1.66), in trait rejection sensitivity, $t(101) = 1.843, p = .068$. Despite the lack of statistical differences, borderline personality features appear to be modestly correlated with trait rejection sensitivity. See Table 3. Table 4 includes means,

intercorrelations for romantic partner trait rejection sensitivity and borderline personality features.

The Association between Rejection Sensitivity in Actors and Partners.

I hypothesized that that actor self-reports of rejection sensitivity would show a moderate, positive association with romantic partner reports of rejection sensitivity. Actor and Partner rejection sensitivity were not statistically significantly correlated when actor and partner were defined by recruitment status (target v. partner; $r = -.062$, $p = .523$). When controlling for gender, actor and partner rejection sensitivity remained nonsignificantly related ($r = -.046$, $p = .642$). Despite a lack of statistically significant nonindependence, I continued to consider the dyadic (nested) nature of the data¹.

The Association between Rejection Sensitivity and Romantic Negative Event

Phenomena

Third, I hypothesized that self-reported rejection sensitivity would be positively associated with daily mean negative affect and proportions of negative cognitions and behaviors endorsed during event-based reports of negative events using regression analyses. Further, I predicted that these relations would be of a higher magnitude for the B+ group.

Event-based descriptives.

¹ The nonindependence of the data is considered in the first two hypotheses. If the two scores from the two members of the dyad are more similar to each other than are two scores from individuals who are not from the same dyad, then these data exhibit nonindependence. Data were found to lack non-independence. However, there are several reasons to consider the dyadic nature of the data. It may be the case that actor and partner rejection sensitivity are significantly correlated when actor and partner are designated by gender.

From the 116 individuals included for analysis of electronic diary data, a total of 185 negative event prompts on 39 negative event days and 488 positive events on 81 positive event days were recorded. In order to be included for this analysis, participants had to endorse at least one negative event day across the study period. As stated earlier, each participant indicated his or her behavioral responses to a negative event categorized as a disagreement, disappointment, or rejection (B+ = 24 negative events; B- = 19 negative events). There was a statistically significant difference between groups for the high BP-trait group (M= 2.5, SD= 2.6), such that these individuals as compared to members of a low BP-trait couple (M=1.1, SD = 1.4) reported more negative events, $t(51.767) = -3.267, p = .002$. There was no difference in the number of positive events reported by B+ couples (M= 4.2, SD = 4.0) and B- couples (M= 4.2, SD = 3.9), $t(114) = 0.000, p = 1.00$.

Negative Event Reports.

Participants were asked to indicate when a negative event occurred between them and their romantic partner. Participants indicated how the event took place and what type of negative event occurred. Of the 185 negative events included for analyses, 69% of conflicts occurred in a face-to-face conversation. Nine percent were categorized as telephone calls, and 21.6% of negative events were categorized as occurring via text messaging. The participants then categorized these negative events. Twelve percent of negative events were categorized as *rejection* experiences. *Disagreements* made up 48.6% of negative event reports, while 21.1% were described as *disappointments*. Fifteen percent of events were categorized as *Other*. Five negative events were not

categorized, ostensibly due to participant omission. Regarding negative event-based prompts, four indices were created: negative behaviors, negative cognitions, and negative affect, and daily relationship fears. The creation of each index and its association with rejection sensitivity will be described in turn.

Negative Event Behaviors.

Participants indicated their behavioral responses during the event. Please note that participants were asked at each use of the electronic diary “*Are you completing this prompt because of a recent CONFLICT with your romantic partner?*” (Please see Appendix A for more information.) The participants then indicated “Yes” or “No”. Negative Behaviors included *Blamed, Yelled, Gave Silent Treatment, Threatened to End the Relationship, Hit my Partner, Threw Things at my Partner, Threw Things Elsewhere, Brought up Other Conflicts, Did Something Else Aggressive, Did Something Impulsive to Make Myself Feel Better*. Frequencies, percentages, and means of endorsement can be found in Table 5. The proportion of negative behaviors to all possible behaviors endorsed was used in all following analyses. Only negative event days were included in these analyses (B+ n=24; B- n=17).

Across group, negative event behaviors were statistically significantly related to trait rejection sensitivity ($r = .309, p = .049$), such that individuals with higher trait rejection sensitivity endorsed a higher proportion of negative behaviors to all possible behaviors in conflict with their romantic partners. A positive association was found for individuals in the B+ group ($r = .412, p = .045$). However, for those in the B- group, individuals with higher rejection sensitivity were less likely to endorse engaging in a

higher proportion of negative behaviors during negative events ($r = -.624, p = .007$). It may be the case that high rejection sensitivity individuals in the B- group engaged in increased positive behaviors during conflict (e.g. compromised). However, no association was found between rejection sensitivity and positive behaviors during conflict in the B+ ($r = .117, p = .586$) or the B- group ($r = .127, p = .627$).

Negative Event Cognition.

Participants also indicated cognitions associated with the negative event. Please note that participants were asked at each use of the electronic diary “*Are you completing this prompt because of a recent CONFLICT with your romantic partner?*” (Please see Appendix A for more information.) The participants then indicated “Yes” or “No”. Only negative event days were included in this analysis (B+ $n=24$; B- $n=17$). Participants indicated whether they had a particular thought during the event. Negative cognitions included: *This conflict is terrible, I dislike myself, I dislike my partner, I have to stop this conflict now, and my partner will regret this.* Percentages of endorsement can be found in Table 6. The proportion of negative cognitions endorsed to all possible cognitions was used in all following analyses.

Across group, negative event cognitions were not statistically significantly related to trait rejection sensitivity ($r = -.211, p = .186$). There was no statistically significant relationship between negative cognitions and rejection sensitivity in the B+ group ($r = -.158, p = .461$) or the B- group ($r = -.474, p = .054$).

Negative Event Affect.

Rejection sensitivity scores were correlated with within-day mean negative affect on negative event days. Please note that participants were asked to rate their affect at each random and event-based prompt. In this analysis, negative affect on negative event days was analyzed (B+ n=24; B- n=17). Across group, negative affect during negative events was not statistically significantly related to trait rejection sensitivity ($r = .193, p = .227$). There was no statistically significant relationship between negative affect and rejection sensitivity in the B+ group ($r = .303, p = .150$) or in the B- group ($r = -.137, p = .601$). Group means of negative affect can be found in Table 7.

Relationship Fears.

Participants reported concerns that one's romantic partner will want to end the relationship. Please note that participants were asked at each prompt (random and event-based) "*Have you been concerned that your partner may leave you or end the relationship?*" The participants then indicated "Yes" or "No". Rejection sensitivity scores were correlated with the proportion of daily worry endorsement to the total number of daily electronic diary assessments. All possible study days were included in this analysis (B+ n=309; B- n=556)². Contrary to hypotheses, a higher proportion of relationship fear reports within day was statistically significantly associated with higher rejection sensitivity scores for the B- group ($r = .091, p = .032$), but not for the B+ group ($r = -.025, p = .657$). Group means of momentary relationship fears can be found in Table 8.

² Fifty-one study days were deleted from analysis due to omission of Relationship Fear rating (14 days) and missing pretest data on the Rejection Sensitivity Questionnaire (37 days).

Rejection Sensitivity, Borderline Features, and Negative Event Phenomena in an Actor Partner Interdependence Framework

I hypothesized that trait levels of rejection sensitivity are associated with (1) daily negative affect, (2) behaviors during negative events, (3) cognitions during negative events, and (4) daily relationship fears. The next set of analyses will explore the interpersonal context in which these processes occur. The actor-partner independence model indicates one person as an “actor” and the second “partner”. Here, participants’ levels of rejection sensitivity as well as their romantic partner’s rejection sensitivity will be used to measure the outcome variables listed earlier.

Model building.

Here, I will describe the findings for the full HLM model describing the relations among rejection sensitivity, borderline features, gender, and negative event phenomena. I estimated 5 different models describing the relationship between reactivity to romantic partner negative event and rejection sensitivity. Fixed effects included group, recruitment status (target participant v. romantic partner), gender, trait rejection sensitivity (partner and actor self-report), and interactions effects of group on both rejection sensitivity and recruitment status. The predictors and error structure were finalized using a backwards-stepping procedure. Estimation was done using Residual Estimation Maximum Likelihood (REML) due to the large number of fixed effects to be estimated (Snijders & Bosker, 1999). The parameter estimates, significance levels, and model fit for each null and final model will be presented in table form. Each full model will be described in the text. Model fit details can be found in Appendix C.

Daily negative affect as predicted by rejection sensitivity, negative events, gender, and group status.

This model used the above fixed effects to predict self-reported negative affect aggregated by day (Negative Affect). Also estimated was a random intercept. The final converging model is written as specified in Snijders and Bosker (1999):

$$\text{Negative Affect}_{ij} = \gamma_{00} + \gamma_{10}(\text{recruitment})_{ij} + \gamma_{20}(\text{actor rejection sensitivity})_{ij} + \gamma_{30}(\text{partner rejection sensitivity})_{ij} + \gamma_{40}(\text{partner negative affect})_{ij} + \gamma_{50}(\text{actor reported conflict day})_{ij} + \gamma_{60}(\text{partner reported conflict day})_{ij} + \gamma_{01}(\text{group})_{ij} + U_{0j} + R_{ij} \quad (9)$$

Multilevel model analyses revealed that group, [$\gamma = -.959264$, $SE(\gamma) = .260156$, $t = -3.687$, $p = .000$], actor-reported negative event day, [$\gamma = -2.257837$, $SE(\gamma) = .589077$, $t = -3.833$, $p = .000$], partner-rejection sensitivity [$\gamma = -.344265$, $SE(\gamma) = .049650$, $t = -6.934$, $p = .000$] and partner within-day negative affect [$\gamma = .251198$, $SE(\gamma) = .033500$, $t = 7.498$, $p = .000$] were significantly associated with actor negative affect. Recruitment status, partner-reported negative event, and actor rejection sensitivity were not statistically significantly related to actor negative affect. B- group status is associated with higher negative affect within-day. Lower levels of partner rejection sensitivity and higher partner negative affect are also associated with higher actor negative affect. Lastly, negative event days reported by the actor are associated with decreased daily negative affect, when accounting for all other predictors³. See Table 11 for estimates, standard error, and confidence intervals for all predictors. Group means of negative affect can be found in Table 7. Bivariate correlations among variables in this model can be seen in

³ Results discrepant from the bivariate case are likely due to suppressor effects (Kutner et al.). Please see Table 10 for correlations among all variables.

Table 10. Please see Appendix B for fit indices of all estimated models.

Negative behavior as predicted by rejection sensitivity, negative event, gender, and group status.

This model used the above fixed effects to predict self-reported negative event behaviors aggregated by day. The index *Negbehavior* is defined as the proportion of negative behaviors to all behaviors surveyed. Also estimated was a random intercept.

The final converging model is written as specified in Snijders and Bosker (1999):

$$Negbehavior_{ij} = \gamma_{00} + \gamma_{10}(gender)_{ij} + \gamma_{20}(recruit)_{ij} + \gamma_{30}(actor\ rejection\ sensitivity)_{ij} + \gamma_{40}(partner\ rejection\ sensitivity)_{ij} + \gamma_{50}(partner\ negative\ behavior)_{ij} + \gamma_{60}(actor\ reported\ conflict\ day)_{ij} + \gamma_{70}(partner\ reported\ conflict\ day)_{ij} + \gamma_{01}(group)_{ij} + \gamma_{31}(actor\ rejection\ sensitivity * group)_{ij} + \gamma_{41}(partner\ rejection\ sensitivity * group)_{ij} + U_{0j} + R_{ij} \quad (10)$$

Multilevel model analyses revealed that partner rejection sensitivity [$\gamma = -.011063$, $SE(\gamma) = .004813$, $t = -2.298$, $p = .000$] and partner negative behavior [$\gamma = .694268$, $SE(\gamma) = .144871$, $t = 4.792$, $p = .000$] significantly predicted proportion of actor negative behavior to all possible behaviors. Group, recruitment status, partner- and actor- reported negative event day, and group by rejection sensitivity interactions were non-significantly related to actor negative event behavior. These results suggest that romantic partners' negative behavior during negative events is associated with increased negative behaviors reported by actors. Further, lower partner-reported trait rejection sensitivity is associated with increased proportion of negative behaviors reported by actors. See Table 12 for estimates, standard error, and confidence intervals for all predictors. Please see Appendix B for fit indices of all estimated models.

Negative cognitions as predicted by rejection sensitivity, negative events, gender, and group status.

This model used the above fixed effects to predict self-reported negative cognitions during negative events aggregated by day. The index *NegativeCognitions* is defined as the proportion of negative cognitions to all cognitions surveyed. Also estimated was a random intercept. The final converging model is written as specified in Snijders and Bosker (1999):

$$NegativeCognitions_{ij} = \gamma_{00} + \gamma_{10}(\text{actor rejection sensitivity})_{ij} + \gamma_{20}(\text{partner rejection sensitivity})_{ij} + \gamma_{30}(\text{partner negative cognition})_{ij} + \gamma_{40}(\text{actor reported conflict day})_{ij} + \gamma_{01}(\text{group})_{ij} + U_{0j} + R_{ij} \quad (11)$$

Multilevel model analyses revealed that group status [$\gamma = -.059724$, $SE(\gamma) = .133989$, $t = -.446$, $p = .659$], partner-reported negative event day, [$\gamma = -.162799$, $SE(\gamma) = .158765$, $t = -1.025$, $p = .313$], actor rejection sensitivity [$\gamma = -.071972$, $SE(\gamma) = .051308$, $t = -1.403$, $p = .170$], partner rejection sensitivity [$\gamma = -.015238$, $SE(\gamma) = .049235$, $t = -.310$, $p = .759$], and partner-reported negative thinking [$\gamma = -.079941$, $SE(\gamma) = .272922$, $t = .293$, $p = .771$] were non-significantly associated with actor negative cognitions. A null model using the intercept only to predict negative cognitions demonstrated a superior model fit than the model above [$\gamma = .136012$, $SE(\gamma) = .059837$, $t = -2.273$, $p = .029$]. Neither actor nor partner rejection sensitivity is associated with negativistic thinking during conflict. However, in the bivariate case, negative event-related cognitions are statistically significantly associated with negative event-related behaviors ($r = .404 - .593$; See Table 9). See Table 13 for estimates, standard error, and confidence intervals for all predictors. Please see Appendix B for fit indices of all estimated models.

Relationship fears as predicted by rejection sensitivity, negative events, gender, and group status.

This model used the above fixed effects to predict self-reported relationship fears aggregated by day. The index *RelFear* is defined as the proportion of daily worry endorsement to the total number of daily electronic diary assessments. Also estimated was a random intercept. The final converging model is written as specified in Snijders and Bosker (1999):

$$RelFear_{ij} = \gamma_{00} + \gamma_{10}(gender)_{ij} + \gamma_{20}(recruit)_{ij} + \gamma_{30}(\text{actor rejection sensitivity})_{ij} + \gamma_{40}(\text{partner rejection sensitivity})_{ij} + \gamma_{50}(\text{partner negative affect})_{ij} + \gamma_{60}(\text{actor reported conflict day})_{ij} + \gamma_{70}(\text{partner reported conflict day})_{ij} + \gamma_{01}(\text{group})_{ij} + \gamma_{31}(\text{actor rejection sensitivity} * \text{group})_{ij} + \gamma_{41}(\text{partner rejection sensitivity} * \text{group})_{ij} + U_{0j} + R_{ij} \quad (12)$$

Multilevel model analyses revealed that partner-reported negative event day [$\gamma = -.004006$, $SE(\gamma) = .000476$, $t = -8.417$, $p = .000$], actor-reported negative event day, [$\gamma = -.001106$, $SE(\gamma) = .000488$, $t = 2.266$, $p = .024$], and partner within day relationship fears [$\gamma = .117854$, $SE(\gamma) = .035208$, $t = 3.347$, $p = .001$] significantly predicted actor relationship fears. Gender, recruitment status, group status, actor- and partner-reported rejection sensitivity was non-significantly related to actor relationship fears. These results suggest that the occurrence of negative events was significantly associated with the proportion of endorsed relationship fears for actors and partners rather than trait rejection sensitivity⁴. See Table 14 for estimates, standard error, and confidence intervals for all predictors. Please see Appendix B for fit indices of all estimated models.

⁴ Results discrepant from the bivariate case are likely due to suppressor effects (Kutner et al.). Please see Table 10 for correlations among all variables.

Discussion

Navigating conflict within a romantic relationship is likely to bring up difficult emotions, result in conflict-related behavior, and highlight relationship insecurities. For individuals with personality problems, this very common experience may be particularly stressful. The goal of the current research was to observe whether there was a relationship between rejection sensitivity, borderline personality disorder features and the experience of interpersonal conflict between romantic partners in daily life.

I hypothesized that participants with increased borderline personality disorder features would endorse higher trait rejection sensitivity, as has been seen previously in the literature. I found that there was no statistically significant difference in trait rejection sensitivity between participants sampled with elevated BPD features and participants sampled with low BPD features. Though no difference between groups was found, borderline personality features measured dimensionally were modestly correlated with trait rejection sensitivity in the total sample.

I also hypothesized that actor paper-pencil self-reports of rejection sensitivity would show a moderate, positive association with romantic partner reports of rejection sensitivity. Actor and partner rejection sensitivity scores were not statistically significantly associated when actor and partner were designated by recruitment status (i.e., target participants and their partners), rather than gender. Actor and partner rejection sensitivity remained nonsignificantly correlated when gender, a second distinguishing variable (Kashy, Kenny, Cook, 2006), was controlled for.

Next, I predicted that self-reported rejection sensitivity would be positively associated with momentary, self-reported aspects of negative interpersonal interactions with a romantic partner. I further predicted that partner rejection sensitivity would also have an effect on actors' EMA reports of emotion, behavior, thoughts, and worries about the relationship. I found differing effects of rejection sensitivity on these phenomena both aggregated over the weeklong study period and measured across time, interpersonally (i.e., accounting for romantic partner attributes).

Negative Event Behavior

Rejection sensitivity was positively associated with a higher proportion of negative behaviors, such as throwing things, to positive behaviors during conflict for individuals in the high borderline features group. This association between negative behaviors and rejection sensitivity is consistent with previous findings that rejection sensitive individuals are unable to inhibit negative behaviors when experiencing conflict with a romantic partner. It may be the case that difficulty regulating one's emotions or behavior contributed to the association between group and negative conflict behaviors. Borderline personality disorder has been associated with both impulsivity and emotional dysregulation (Chapman, Leung, & Lynch, 2008; Trull, Tomko, Brown, & Scheiderer, 2010; Sebastian, Jacob, Lieb, Tuscher, 2013). However, considerable heterogeneity has been found in borderline personality disorder in general and in the interpersonal behaviors observed in BPD individuals (Russell et al. 2007; Wright et al. 2013). For example, Wright et al. found empirically derived interpersonal-styles associated with intrusive, vindictive, avoidant, nonassertive, and exploitable interpersonal problems in

individuals with BPD. It may be the case that individuals with BPD features who are avoidant, nonassertive, or exploitable are more likely to withdraw and behave passively in conflict situations.

Individuals in the low borderline features dyads demonstrated a negative association between rejection sensitivity and negative conflict behaviors. When measured interpersonally, using EMA, partner trait-rejection sensitivity and negative conflict behaviors were statistically significantly associated with actor-reported negative conflict behavior. Partner rejection sensitivity was associated with fewer negative behaviors in actors. Why would this occur?

Much previous research suggests that rejection sensitivity elicits withdrawal and dissatisfaction, if not negative behaviors in our interaction partners (Downey et al. 1998). Despite these corrosive dynamics, rejection sensitive individuals are able to remain in relationships, though these may be of lower quality. Therefore, partners seem to find ways of coping with the presumed difficulties of having a rejection sensitive romantic partner. Lemay and Dudley (2011) hypothesize that partners struggle to maintain feelings of relationship security in their rejection sensitive romantic partners. How do they disconfirm their partner's expectations of rejection? The authors hypothesize that individuals become aware of their partner's interpersonal insecurities and further become vigilant about upsetting the partner. This harm-avoidance goal results in individuals becoming highly accurate at noting their significant other's insecurities. However, it is unclear whether these interactions are adaptive throughout the relationship.

Individuals may be able to inhibit negative behaviors to avoid potentially upsetting their rejection sensitive romantic partner. However, in this sample, partner rejection sensitivity was not associated with greater positive behaviors, suggesting that partners may engage in avoidance or withdrawal during or following conflict. Individuals with rejection sensitive partners may withdraw to avoid further conflict, to decrease a romantic partner's negative behavior, or to regulate their own negative affect. Unfortunately, this withdrawal may instead result in greater negative affect, increased conflict, or decreased relationship satisfaction (King & DeLongis, 2014)

Negative Affect and Negative Events

Rejection sensitivity was unrelated to negative affect aggregated across the study period. When measured interpersonally and across time, group, partner-rejection sensitivity, partner-negative affect, and actor-reported conflict day were statistically significantly associated with actor-reported negative affect. Most notably, in the bivariate case, partner rejection sensitivity was associated with negative affect reported by actors. Much previous research has demonstrated that the behaviors of high rejection sensitivity partners are experienced as highly aversive (Downey & Feldman, 1996; Downey, Freitas, Michaelis, & Khouri, 1998). This experience may result in actors' increased attempts to regulate daily negative affect, particularly in non-clinical samples. It may also be the case that these high rejection sensitive partners tend to seek out partners who experience lower negative affect.

Worries regarding the relationship

Rejection sensitivity was unrelated to worries that one's romantic partner would end the relationship aggregated both across the study period and interpersonally, across time. However, when measuring this relationship accounting for partner effects as well as nesting across time, I found evidence that on negative event days reported by partners, relationship fears increased. Partner relationship fears were also positively associated with actor relationship fears.

Negative Event-Related Cognition

I found that when aggregated over one week and when taking both study day and interpersonal relations into account, negative cognitions were not associated with rejection sensitivity, partner cognitions, partner perception of negative event, group, gender, or recruitment status.

Conflict-related negative cognitions may not be associated with partner rejection sensitivity due to cognitions being more internal phenomena. However, I found a non-hypothesized association between negative-event related cognition and negative event-related behaviors between actors and partners. It may be the case that my momentary assessment captures cognitions regarding the event and not thoughts or beliefs about one's romantic partner, resulting in a lack of interpersonal associations for cognitions and rejection sensitivity.

Additionally, it may be the case that other personality variables are associated with thought patterns during conflict. For example, individuals high in trait Neuroticism may view the conflict as "proof" of damage to the relationship. Individuals low in trait Agreeableness may be more likely to think that their interaction partner is disrespecting

them in some manner and believe that it is necessary to retaliate. Alternatively, negative cognitions may be associated with current mood disorder. Negative thought patterns have been long associated with depression (Gotlib & Joorman, 2010). Biases in attention and memory that have been empirically demonstrated in depression may lead to inflexible and automatic appraisals regarding relationship conflict. Further, major depressive disorder is associated with difficulty in interpersonal interaction, largely characterized by excessive-reassurance seeking and being unable to be soothed by this reassurance (Hames, Hagan, & Joiner, 2013). Future analyses will explore five-factor personality traits and current depression scores and their relations to conflict-related cognition.

Clinical Implications

The findings discussed above also have implications for treatment of and assessment for marital and individual therapies. Treatment of marital distress such as behavioral couple therapy, Emotion-Focused Couple Therapy, and Integrative Behavioral Couple Therapy (Jacobson & Christensen 1996); typically include an assessment of the couples' history, reintroduction of pleasant couple events, and practice in communication and problem solving skills to use when conflicts arise (Snyder, Castellani, Whisman, 2006). Participants in the B+ group with higher trait rejection sensitivity endorsed a higher proportion of negative behaviors to all possible behaviors in conflict with their romantic partners. Individuals with BPD features and trait rejection sensitivity in couple's treatment may require assistance not only in the introduction of positive behaviors, but also in reduction of potentially aversive behaviors that increase the

severity of conflict, such as yelling, introducing past conflicts, or threatening to end the relationship. Individuals who are rejection sensitive, but do not exhibit BPD features such as impulsivity may need assistance only in the introduction of positive, assertive behaviors during conflict, such as increased compromise or awareness of relationship goals. These kinds of behavioral deficits may also be targeted for interventions in individual therapy in which interpersonal problems result from borderline personality disorder, rejection sensitivity, or both.

Limitations and Future Research

Though interpersonal correlations were observed among negative affect, negative behavior during conflicts, and relationship fears, many of these associations were non-significant for rejection sensitivity. Limitations of this study may shed light on these non-significant findings.

Rejection sensitivity may not have been well measured in this population. The first reason may be restriction of range in the responses to the Rejection Sensitivity Questionnaire (RSQ; Downey & Feldman). The RSQ measures the extent to which respondents will expect a request to be denied by a significant interpersonal other (e.g. 'You ask your friend to do you a big favor.')

and how much they would worry about the outcome. However, several of these scenarios may have been anachronistic and thus not applicable to the current sample of undergraduates (e.g. "You go to a party and notice someone on the other side of the room, and then you ask them to dance.") For example, Twenge and Foster (2010) posits that narcissistic personality traits have increased among American college students, which may suggest that many of these

individuals would not find any such situation distressing, thus producing mostly low scores on the RSQ.

Second, this sample suffered from some degree of non-compliance. Thirteen romantic partner dyads were excluded from analysis of daily data due to missing data from non-compliance or data failure. Thirty-two dyads were then excluded from analyses following data cleaning, reducing the sample nearly by half. Therefore, some group differences may not have been observed due to lack of power. Future analyses will determine the extent to which non-compliance can be explained by any of measured variables (Graham, 2009), including personality, age, gender, recruitment status, and group.

Some of the lack of associations here may also have been associated with the time frame over which I chose to study these phenomena. One week may be a too limited time period to observe these experiences. Many participants reported several positive experiences within one week, however the average number of conflicts reported was just over 1 for both groups. This finding means that several participants did not experience any conflict situations (or chose to not report on these experiences). Though participants were required to be living in the same geographical area, approximately 80 percent of participants were not cohabitating. It may be that those participants not endorsing conflict did not spend enough time together in order to have these conflict experiences. Future research may combine intensive longitudinal data with more traditional longitudinal designs in order to better sample and observe low base rate behaviors across time. This kind of design would also lend itself to observing one

individual in several relationships across time. For example, an investigator may be able to determine whether rejection-sensitive individuals engaging in negative conflict-behaviors occurs over several interaction partners or only with romantic partners. Event-based reports require the participant to remain aware of constructs of interest to the investigator and to choose to report on these experiences. Future analyses will investigate the extent of the participants' awareness of and perceived compliance with the event-based prompts during the study period.

Rejection sensitivity was originally described by Downey and Feldman (1996) as a personality trait affecting close relationships. This personality trait has proved useful to explain maladaptive interpersonal processes in psychopathology, particularly borderline personality disorder. In this investigation, trait rejection sensitivity was moderately related to borderline features. Future research will need to determine whether rejection sensitivity is unique related to personality pathology or if rejection sensitivity is one indicator of interpersonal dysfunction cross-cutting several types of psychopathology.

This investigation found relations among both self-reported and romantic-partner reported conflict, negative behaviors during conflict, negative affect, and worries that one's significant other would end the relationship. These relations were measured ecologically as these individuals behaved in their daily lives. More research is needed in order to determine how rejection sensitivity may interact with other key interpersonal variables (e.g. trust, interpersonal aggression) to affect the functioning of those with borderline personality disorder.

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Table 1

Hypothesis 3 DV	Aggregation of DV
More negative behaviors (e.g. blaming) during negative events	Proportion of negative behaviors = frequency of negative behavior endorsement during conflict/total number of EMA negative event reports
More negative cognitions (e.g. "I don't like myself.") during negative events	Proportion of negative cognitions = frequency of negative behavior endorsement during negative event/total number of EMA negative event reports
More frequent concerns or worries that the relationship will end or the partner will leave him/her.	Proportion of relationship worries = frequency of worry endorsement/number of electronic diary assessments

Table 2

Sample Characteristics

	<u>Low BP Traits</u> (n = 38)		<u>High BP Traits</u> (n=20)	
	Actor	Partner	Actor	Partner
Age	20.24 (4.6)	20.58 (5.7)	20.00 (2.3)	20.75 (2.8)
Ethnicity				
African-American	2.6%	2.6%	0%	0%
Asian American	0%	2.6%	0%	5%
Caucasian	86.8%	92.1%	90%	80%
Hispanic	5.3%	2.6%	5%	5%
Other	2.6%	2.6%	5%	5%
Religion				
Catholic	36.8%	36.8%	30%	30%
Jewish	0%	2.6%	0%	5%
Protestant	28.9%	23.7%	15%	20%
Buddhist	2.6%	0%	5%	0%
None	15.8%	15.8%	25%	30%
Other	13.2%	21.1%	25%	15%
Academic Year				
Freshman	60.5%	57.9%	55%	40%
Sophomore	18.4%	15.8%	10%	25%
Junior	15.8%	13.2%	0%	10%
Senior	2.6%	5.3%	20%	10%
Other	2.6%	7.9%	5%	25%
Living Arrangement				
Residence Hall	52.6%	34.2%	50%	50%
Greek House	0%	7.9%	5%	0%
Off-Campus w/o Parents	44.7%	47.4%	45%	50%
Off-Campus w/ Parents	2.6%	7.9%	0%	0%
Other	2.6%	0%	0%	0%
Previously Hospitalized	2.6%	2.6%	10%	5%
Any Outpatient Psychotherapy	13.2%	13.2%	35%	25%
Relationship Status				
Dating	86.8%	84.2%	70%	80%
Cohabiting	7.9%	5.3%	25%	15%
Married	7.9%	7.9%	5%	5%
Length of Relationship	28.47 (48.5)	27.8 (47.6)	23.95(22.8)	22.75 (21.6)

Table 3

Summary of Intercorrelations, Means, and Standard Deviations of Target Participants for the Scores on the RSQ and PAI-BOR as a function of Group

Measure	1	2	3	4	M	SD
1. PAI-BOR PRE	--	.304	.850***	.182	38.92	10.03
2. RSQ PRE	.207	--	.244	.567**	4.67	1.66
3. PAI-BOR POST	.634***	.352**	--	.156	36.37	12.04
4. RSQ POST	.049	.778***	.291*	--	4.34	1.59
M	17.91	4.10	16.14	3.23		
SD	7.25	1.64	7.76	2.16		

Note: Intercorrelations for B+ actors (pretest n= 39; posttest n= 37) are presented above the diagonal, while intercorrelations for the B- actors (pretest n= 64; posttest n= 63) are below the diagonal. Means and Standard Deviations for B+ actors are presented in the vertical columns, and means and standard deviations for the B- actors are presented in the horizontal rows. For all scales, higher scores indicate more extreme responding in the direction of the construct assessed. *** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$. PAI-BOR = Personality Assessment Inventory-Borderline Scale; RSQ = Rejection Sensitivity Questionnaire; POST = post test; PRE = pretest.

Table 4

Summary of Intercorrelations, Means, and Standard Deviations of Romantic Partners for the Scores on the RSQ and PAI-BOR as a function of Group

Measure	1	2	3	4	M	SD
1. PAI-BOR PRE	--	.348	.910**	.486*	27.69	11.18
2. RSQ PRE	.240	--	.432	.873**	4.67	2.02
3. PAI-BOR POST	.906***	.224	--	.461*	25.94	10.81
4. RSQ POST	.433***	.571**	.324**	--	4.56	2.33
M	25.68	4.63	23.60	3.42		
SD	12.27	1.94	11.66	1.94		

Note: Intercorrelations for B+ romantic partners (pretest n= 39; posttest n= 37) are presented above the diagonal, while intercorrelations for the B- romantic partners (pretest n= 59; posttest n= 63) are below the diagonal. Means and Standard Deviations for B+ partners are presented in the vertical columns, and means and standard deviations for the B- partners are presented in the horizontal rows. For all scales, higher scores indicate more extreme responding in the direction of the construct assessed. *** $p \leq .001$ ** $p \leq .01$; * $p \leq .05$; PAI-BOR = Personality Assessment Inventory-Borderline Scale; RSQ = Rejection Sensitivity Questionnaire; POST = post test; PRE = pretest.

Table 5

Frequency, Percentages, Means, and Standard Deviation of Endorsed Behaviors During Negative events

Behavior	High BP Traits (n=102 events)		Low BP Traits (n=83 events)	
	Count (%)	Mean (SD)	Count (%)	Mean (SD)
Solved Problem By Talking*	34 (33.3)	.33 (.474)	41 (49.4)	.49 (.503)
Blamed	15 (14.7)	.15 (.356)	14 (16.9)	.17(.377)
Yelled	14 (13.7)	.14 (.346)	12 (14.5)	.14 (.354)
Changed the Subject*	21 (20.6)	.21 (.406)	7 (8.4)	.08 (.280)
Gave Silent Treatment	25 (24.5)	.25 (.432)	18 (21.7)	.22 (.415)
Defended Self	36 (35.3)	.35 (.480)	26 (31.3)	.31 (.467)
Threatened to End Relationship	11 (5.9)	.03 (.170)	8 (9.6)	.1 (.297)
Compromised	5 (4.9)	.05 (.217)	8 (9.6)	.1 (.297)
Apologized	34 (33.3)	.33 (.474)	33 (39.8)	.4 (.492)
Threw things at/near Partner	0 (0)	0 (0)	1 (1.2)	.01 (.110)
Threw things Elsewhere	1 (1.0)	.01 (.099)	2 (2.4)	.02 (.154)
Acted Impulsively	2 (2.0)	.02 (.139)	3 (3.6)	.04 (.188)
Tried Solving Some Other Way	29 (28.4)	.28 (.453)	27 (32.5)	.33 (.471)
Cried	22 (21.6)	.22 (.413)	11(13.3)	.13 (.341)
Brought up other Conflicts***	25 (17.8)	.25 (.432)	8 (9.6)	.1 (.297)
Did Something Else Aggressive	2 (2.0)	.02 (.139)	6 (7.2)	.07 (.261)
Did Something Else Passive	31 (30.4)	.30 (.462)	26 (31.3)	.31 (.467)
Hit my Partner	1 (1.0)	.01 (.009)	0 (0)	0 (0)

Note: N = 185 negative events total. Count = number of endorsed events, % = percentage of endorsed negative events, Mean = average of all negative event reports*** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$

Table 6

Frequency, Percentages, Means, and Standard Deviation of Endorsed Cognitions During Negative events

<i>Cognition</i>	<u>High BP Traits</u> (n=102 events)		<u>Low BP Traits</u> (n=83 events)	
	<i>Count (%)</i>	<i>Mean (SD)</i>	<i>Count (%)</i>	<i>Mean (SD)</i>
My Partner Doesn't Understand Me	65 (63.7)	.64 (.483)	49 (59.0)	.59 (.495)
This Conflict is Terrible	26 (25.5)	.25 (.438)	21 (25.3)	.25 (.437)
I Dislike Myself	18 (17.6)	.18 (.383)	12 (14.5)	.14 (.354)
I Dislike My Partner	13 (12.7)	.13 (.335)	13 (15.7)	.16 (.366)
This Will Blow Over Later	59 (57.8)	.58 (.496)	36 (.496)	.43 (.499)
I Have to Stop this Conflict Now	23 (22.5)	.23 (.420)	26 (31.3)	.31 (.467)
My Partner Will Regret This	21 (20.6)	1 (0)	19 (22.9)	1 (0)
My Partner and I Can Solve This	33 (32.4)	.32 (.470)	31 (37.3)	.37 (.487)

Note: N = 185 negative events total. Count = number of endorsed events, % = percentage of endorsed negative events, Mean = average of all negative event reports. Means are not significantly different.

Table 7

Daily Mean Negative Affect by Group

	<u>Daily Grand Mean</u> (N = 916 days)	<u>Positive Event Days</u> (n = 91 days)	<u>Negative Event Days</u> (n = 43 days)
High BP Traits	1.39 (.414)	1.28 (.250)	1.67 (.514)
Low BP Traits	1.28 (.337)	1.27 (.345)	1.47 (.464)

Note: Means are not significantly different.

Table 8

Daily Mean of Relationship Fears by Group

Group	<u>Daily Grand Mean</u>	<u>Positive Event Days</u>	<u>Negative Event Days</u>
High BP Traits	(n = 309 days) .0008 (.0036)	(n = 28 days) .0005 (.0019)	(n = 21 days) .0017 (.0048)
Low BP Traits	(n = 593 days) .0003 (.0026)	(n = 53 days) .0012 (.0063)	(n = 18 days) .0003 (.0014)

Note: Scores were made by summing ratings of Relationship Fears (0, 1) to create a daily score. Ratings were then re-scored as proportions of affirmative responses to number of electronic diary assessments completed. Fourteen days were missing valid reports of relationship fears. Means are not significantly different.

Table 9

Intercorrelations Among Key Variables On Actor-Reported Negative Event Days

Variable	1	2	3	4	5	6	7	8	9	10
1. Recruit	1									
2. RSQ_A	-.142	1								
3. RSQ_P	.207	.087	1							
4. GenderA	.071	.387*	.004	1						
5. Group	.099	.255	-.021	.037	1					
6. NegativeEventP	-.170	-.317*	-.417**	-.181	-.331*	1				
7. NegbhxP	.022	-.032	.132	-.201	-.043	.107	1			
8. NegbhxA	-.075	.309*	-.280	.184	.280	.004	.508**	1		
9. NegcogP	-.154	.266	-.252	.142	.033	.237	.482**	.593**	1	
10. NegcogA	.227	-.211	-.035	-.020	.039	-.062	.404**	.480**	.033	1

Note: N = 41 for RSQ; N = 43 for all other variables. *** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$ P= partner; A = Actor; Negbhx = Negative Event Behavior; Negcog = Negative event-Related Negative Cognition; Recruit = Recruitment Status. .

Table 10

Intercorrelations Among Key Variables Including All Study Days

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Recruit	1										
2. RSQ_A	-.091**	1									
3. RSQ_P	.091**	.689**	1								
4. Gender_A	.142**	-.053	.054	1							
5. Group	-.001	.204**	.202**	.004	1						
6. NEP	-.042	-.024	-.026	-.063	.095**	1					
7. NEA	.035	-.022	-.027	.068*	.101**	.321**	1				
8. WorryP	.065	-.018	.028	.009	.091**	.060	.228**	1			
9. NA_A	-.025	.042	-.118**	-.007	.149**	.064	.158**	.138**	1		
10. NA_P	.024	-.119**	.043	.010	.156**	.144**	.066*	.221**	.219**	1	
11. WorryA	-.076*	.031	-.018	-.016	.085*	.229**	.041	.115**	.225**	.138**	1

Note: N = 916; *** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$; P= partner; A = Actor; NA = Negative Affect; NE= Negative Event; Worry = Worry Partner Will Want to End Relationship; Recruit = Recruitment Status.

Table 11 Hierarchical Linear Model of Daily Negative Affect Predicted by Actor and Partner Trait Rejection Sensitivity

Variable	Null Model			Full Model		
	Estimate	SE	95% CI	Estimate	SE	95% CI
Fixed Effect						
Intercept	13.187****	2.624	8.044 - 18.329	12.542****	.916	10.745 - 14.340
Recruit	--	--	--	-.291	.243	-.768 - .186
Group	--	--	--	-.959****	.260	-1.469 - -.449
Actor RSQ	--	--	--	.287	.050	.189 - .385
Partner RSQ	--	--	--	-.344****	.050	-.442 - -.247
Partner NA	--	--	--	.251****	.033	.185 - .317
Actor Conflict Day	--	--	--	-2.258****	.589	-3.414 - -1.101
Partner Conflict Day	--	--	--	.549	.600	-.628 - 1.727
Random effect						
Level 2 Variance τ	13.735****	.674	12.476 - 15.121	11.931****	.585	10.838 - 13.134
Intercept	0	0		0	0	
Model fit-2 log-likelihood		4542.184				4475.146

Note: **** $p \leq .0001$; RSQ = Rejection Sensitivity Questionnaire, NA = Negative Affect, Recruit = Recruitment Status.

Table 12 Hierarchical Linear Model of Daily Negative Conflict Behavior Predicted by Actor and Partner Trait Rejection Sensitivity

Variable	Null Model			Full Model		
	Estimate	SE	95% CI	Estimate	SE	95% CI
Fixed Effect						
Intercept	.022****	.005	.011 - .033	.041	.033	-.026 - .108
Recruit	--	--	--	-.005	.009	-.025 - .014
Gender	--	--	--	-.006	.011	-.028 - .016
Group	--	--	--	-.015	.040	-.097 - .067
Actor RSQ	--	--	--	.007	.004	-.002 - .016
Partner RSQ	--	--	--	-.011*	.005	-.021 - -.001
Partner BHX	--	--	--	.694***	.145	.398 - .990
Partner Conflict Day	--	--	--	-.004	.009	.024 - .016
Group X Actor RSQ	--	--	--	.008	.009	-.026 - .023
Group X Partner RSQ	--	--	--	.007	.007	-.007 - .009
Random effect						
Level 2 Variance τ	.001****	.0002	.0007- .002	.0006****	.00015	.0003 - .0010
Intercept	0	0		0	0	
Model fit-2 log-likelihood		-146.634			-112.483	

Note: **** $p \leq .0001$; *** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$. RSQ = Rejection Sensitivity Questionnaire, Recruit = Recruitment Status.

Table 13 Hierarchical Linear Model of Daily Negative Conflict Cognitions Predicted by Actor and Partner Trait Rejection Sensitivity

Variable	Null Model			Full Model		
	Estimate	SE	95% CI	Estimate	SE	95% CI
Fixed Effect						
Intercept	.136*	.060	.015 - .257	.599	.432	-2.700 - 3.89
Group	--	--	--	-.060	.134	-.332 - .213
Actor RSQ	--	--	--	-.072	.051	-.176 - .032
Partner RSQ	--	--	--	-.015	.049	-.115 - .085
Partner Cognition	--	--	--	.079	.280	-.475 - .635
Partner Conflict Day	--	--	--	-.163	.159	-.486 - .160
Random effect						
Level 2 Variance τ	.140****	.032	.089 - .219	.148****	.036	.091 - .240
Intercept	0	0		.074036	4843165.08	0
Model fit-2 log-likelihood		36.692			47.522	

Note: **** $p \leq .0001$; *** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$. RSQ = Rejection Sensitivity Questionnaire, Recruit = Recruitment Status.

Table 14 Hierarchical Linear Model of Daily Relationship Fears Predicted by Actor and Partner Trait Rejection Sensitivity

Variable	Null Model			Full Model		
	Estimate	SE	95% CI	Estimate	SE	95% CI
Fixed Effect						
Intercept	.0004***	.0001	.0002- .0006	.003	.003	-.002 - .009
Recruit	--	--	--	.0003	.0002	.00005 - .0007
Group	--	--	--	-.001	.0004	-.001 - .0002
Gender	--	--	--	.00003	.0002	-.0004 - .0003
Actor RSQ	--	--	--	.00006	.00007	.00007 - .0001
Partner RSQ	--	--	--	-.00008	.00007	-.0002 - .00006
Actor Conflict Day	--	--	--	.001***	.0005	.0001 - .002
Partner Conflict Day	--	--	--	-.004*	.0005	-.005 - -.003
Partner Fears	--	--	--	.118****	.035	.049 - .189
Actor RSQ*Group	--	--	--	.00001	.0001	-.0002- .0002
Partner RSQ*Group	--	--	--	.0001	.0001	-.0001- .0002
Random effect						
Level 2 Variance τ ****	.000007	.00000004	000006 - .000008	.000007	.0000003	.000006 - .000007
Intercept	0		0	.000009	1024	0
Model fit-2 log-likelihood		-7354.413				-7300.654

Note: **** $p \leq .0001$; *** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$; RSQ = Rejection Sensitivity Questionnaire, Recruit = Recruitment Status.

Appendix A

Annotated Bibliography

Barone, L., Fossati, A., Guiducci, V. (2011). Attachment mental states and inferred pathways of development in borderline personality disorder: a study using the Adult Attachment Interview. *Attachment and Human Development, 13*, 451-469.

Barone and colleagues argue that attachment theory is the best way to study Borderline Personality Disorder (BPD) developmentally, contributing to understanding of this disorder, which impacts not only individuals with the disorder and their families, but also mental health and prison settings. So far, the study of attachment in BPD has been heterogeneous, and few clear findings have been replicated—individuals with BPD are generally insecurely attached, particularly of a preoccupied or unresolved type. In this investigation, it is unclear how Axis I, BPD individuals on a wait-list for psychological treatment were subcategorized into Axis I comorbidities (MDD, SUD, AUD, and ED) and given the Adult Attachment Interview.

BPD individuals with mood/anxiety disorder comorbidities were more likely to be categorized as enmeshed-preoccupied insecure attachment styles, while those in the SUD/AUD/ED categories were most likely to have a dismissive style of insecure attachment. Secure attachment styles were rare, ranging from 7% to 20% in the subgroups. The authors suggest that increased dismissiveness was found in these disorders due to the function of the disorder being to turn attention away from emotion states, rather than toward them in mood disorders. Differences were found about how the subgroups described their relationships with parents; however it was unclear how those findings could be explained. Further, this difference was not related to current relationships with others or the parents. Further research using this attachment interview must be related to current behavior and relationship patterns, rather than merely being used to categorize retrospective reports of parenting.

Berenson, K. R., Downey, G., Rafaeli, E., Coifman, K. G., & Paquin, N. L. (2011). The rejection-rage contingency in borderline personality disorder. *Journal of Abnormal Psychology, 120*, 681-690.

Using a clinical sample, Berenson and colleagues directly tested the link between intense feelings of hostility (“rage”) and rejection experiences. Individuals with BPD exhibit interpersonal hypersensitivity and, therefore, should show this rejection-rage contingency both in the laboratory and in the real-world. Individuals with a BPD diagnosis and a group of healthy controls engaged in a laboratory task and an electronic diary study period lasting for 21 days.

In the lab, BPD and HC participants engaged in a priming task. Participants read neutral- (e.g. *map*), rage- (e.g. *revenge*), negative- (e.g. *pity*), or rejection- (e.g. *abandon*) themed words appearing on a computer screen into a microphone. They were instructed to ignore any other words or stimuli flashing above or below the screen. The time from the onset of the target word presentation and the participant's pronunciation was recorded by voice-activated software. The authors found that the BPD group responded significantly faster to rejection-primed rage words, given that neither neutral primes nor negative primes produced this result, providing experimental data supporting a bidirectional cognitive link between rage and rejection thoughts in BPD.

On electronic diaries, participants were asked to indicate their current feelings of rejection and rage. For rejection the participants were asked the extent to which they endorsed rejection-related cognitions or rage-related emotions "RIGHT NOW" (e.g. "I am abandoned"; "enraged at someone") on a 5-point scale. The BPD group reported significantly larger momentary increases in rage feelings. However, when individual-level mean rejection experiences were taken into account, diagnoses were not related to mean level of rage feelings.

Lastly, the authors found a negative correlation between increased rejection-contingent rage feelings and shorter latencies for identifying rejection-primed words in the laboratory. Future research needs to compare this rejection-rage relationship in two clinical samples and using diary data in close relationship partners. With this data, it is unclear to what extent these rejection experiences are related to observable rejection events.

Boldero, J. M., Hulbert, C. A., Bloom, L., Cooper, J. Gilbert, F., Mooney, J. L., & Sailinger, J. (2009). Rejection sensitivity and negative self-beliefs as mediators of associations between the number of borderline personality disorder features and self-reported attachment. *Personality and Mental Health*, 3, 248-262.

Using non-clinical samples in two studies, the hypothesis that rejection sensitivity and negative self-views mediate the relationship between attachment styles and BPD features was tested. BPD features were measured using the Borderline Personality Disorder Questionnaire, which contains 80 true/false format questions related to the 9 DSM-IV-TR BPD criteria. After controlling for neuroticism, the authors found that rejection sensitivity only partially mediated the relationship between anxious and avoidant attachment styles and BPD features in study 1. In study 2, the authors also measured the extent to which participants felt that certain negative attributes (e.g. "lazy") described them. These ratings were used to operationalize negative self-beliefs, which are hypothesized to be related to attachment concerns. Study 2 mediation analyses found that rejection sensitivity and negative self-beliefs partially mediated the relationship between attachment and BPD features. However the relationship between avoidant attachment styles and BPD features was fully mediated by rejection sensitivity and negative self-beliefs. The results are consistent with an attachment-based model of

BPD that highlights the role of internal working models of self and others as antecedents of the sensitivity to rejection seen in many with BPD. This investigation also provides some evidence that attachment may be an important predictor of BPD symptomatology over and above rejection sensitivity. However, it is still unclear how these attachment styles translate specifically to interpersonal problems.

Campbell, L., Simpson, J. A., Boldry, J., Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology, 88*, 510-531.

The authors note that some individuals experience a great deal of turmoil in their relationships, such that daily ups and downs are seen as potential “signs” of good or bad relationship prognosis. One individual-difference variable that may explain this difference in experience involves attachment styles. In study one, romantic partner dyads participated in a 14-day paper-diary study. Campbell and colleagues hypothesized (and found) that individuals who are anxiously attached perceived greater daily conflict and conflict escalation in their relationships. They felt that conflict topics escalated beyond the original topic, were more hurtful, and would have more negative consequences for the relationship. Their partners agreed. However, the amount of conflict the anxious individuals reported was greater than that expected by the partner reports. Lastly high (v. low) anxiously attached individuals reported that positive behaviors during conflict did not assuage hurt feelings. Third, anxiously attached individuals’ perceptions of conflict were related to less confident feelings about the future of the relationship, perceived lower self- and partner satisfaction in the relationship. This perception of the partner was also lower than the partner’s report of satisfaction, especially if they perceived greater conflict.

In the second study, these same couples participated in videotaped conflict resolution interactions. Two main effects for gender and attachment found that both women and anxiously attached individuals were perceived as more often overreacting to and escalating during a conflict situation. Next, more anxiously attached individuals and their partners were observed to be more distressed during conflict situations, they also self-reported more distress. Lastly, similar to study 1, more anxious partners reported greater distress, regardless of observer rated-positive behavior. However, less anxiously attached actors were less distressed with higher observer-rated positive behaviors from the partner. Anxiously attached individuals may have a myopic “here-and-now” focus related to their tendency to believe that their relationships are constantly in flux, mistrusting close others.

Chen, H., Cohen, P., Johnson, J. G., Kasen, S., Sneed, J. R., Crawford, T. N. (2004). Adolescent personality disorders and conflict with romantic partners during the transition to adulthood. *Journal of Personality Disorders, 18*, 507-525.

Noting that the preponderance of DSM-IV personality disorder criteria are

related to interpersonal functioning and that difficult childhood experiences are associated with features of personality disorder, Chen and colleagues measured change in partner conflict over time and its association with personality disorder diagnoses. Specifically, the authors hypothesize that partner conflict will increase between ages 17 and 27. Secondly, this relationship would differ by clusters of personality disorder. Cluster B disorders (Borderline, Narcissistic, Histrionic, and Antisocial PD) are characterized by affective dysregulation and impulsive behaviors. However Cluster A (Paranoid, Schizoid, and Schizotypal PD) and Cluster C (Dependent, Avoidant, and Obsessive-Compulsive PD) disorders may be characterized by avoidance of romantic partner conflict due either to a low-perceived need for intimacy or discomfort with conflict. Longitudinal study involved interviewing a community sample of individuals at a mean age of 16. They were followed up by telephone and completed a detailed "life chart" covering changes in residence, career, marriage, illnesses, etc. PD participants had a partner in 67% of the months during the 10-year period. They also reported mild-to moderate levels of conflict over all during these relationships.

Partner conflict of participants with PD increased from ages 17 to 23 (while no PD saw a decrease between the ages of 19 to 24, a slight increase after this age, returning to lowered conflict). Cluster B PD was associated with sustained partner conflict. These findings held after controlling for current Axis I disorder. The authors suggest that early intervention in PDs (particularly BPD) may help to decrease the interpersonal impact of the disorder, given that creating and maintaining romantic relationships is a key developmental task of adolescence and emerging adulthood.

Choi-Kain, L. W., Zanarini, M. C., Frankenburg, F. R., Fitzmaurice, G. M., Reich, D. B. (2010). A longitudinal study of the 10-year course of interpersonal features in borderline personality disorder. *Journal of Personality Disorders, 24*, 365-376.

The interpersonal criteria and associated BPD features (e.g. feelings of depression while alone) have not been well studied. Following investigations such as the McLean Study of Adult Development, Choi-Kain and colleagues examined interpersonal features of BPD, assessed using the Diagnostic Interviews for Borderlines, Revised, in a sample of BPD female outpatients and comparison outpatients with Axis II disorders over 10 years. The authors found that the BPD group showed a significantly slower time-to-remission than Axis II comparison subjects for 5 interpersonal symptoms (fear of abandonment, discomfort with care, recurrent arguments, dependency, and manipulation). The Axis II group remitted at approximately twice to three times the rate of the borderline group. 50% of BPD subjects endorsing 16 of quick-to-remit symptoms at baseline first achieved a remission of these symptoms sometime before the four-year follow-up. Examples of these 16 symptoms which remit more quickly include recurrent breakups, demandingness, entitlement, countertransference problems with staff or therapists, active efforts to avoid abandonment, and fear of abandonment. Fifty percent of those BPD subjects initially exhibiting features of active care taking, discomfort with care, and dependency at baseline first achieved a remission of these symptoms sometime

between the four and six year follow-up. The last interpersonal feature to remit in 50% of those BPD subjects initially exhibiting it was affective dysphoria (i.e., anxiety, depression, anger, or emptiness) when alone. Clearly, the interpersonal criteria, and associated problems in relationships show different patterns of course and may be particularly relevant in romantic relationships.

DeWall, C. N., Twenge, J. M., Koole, S. L., Baumeister, R. F., Marquez, A., & Reid, M. W. (2011). Automatic emotional regulation after social exclusion: Turning to positivity. *Emotion, 11*, 623-636.

The authors conducted eight studies to add to the literature on social exclusion. There have been mixed findings regarding emotional reactions to rejection or social exclusion. Prolonged ostracism experiences have been associated with strong emotional responses. However, acute exclusion produced in the lab typically results in self-reported emotional detachment. Therefore, both explicit and implicit emotional responses need to be considered when measuring responses to rejection. The authors hypothesized that acute exclusion causes an automatic emotion regulation response in which people become highly attuned to positive emotional information. If this is the case, then this behavior should be seen in psychologically healthy individuals, and not those experiencing elevated depressive symptoms or other kinds of psychopathology.

DeWall used various paradigms designed to induce feelings of rejection (e.g. imagining a future alone, receiving feedback on a personality questionnaire suggesting a future alone, imagining a demanding and critical relationship) and subsequently measure accessibility of positive emotional information (e.g. lexical judgment tasks, and a word stem completion task). Healthy individuals were primarily the subjects of this research, though experiments 5 through 8 showed that individuals with more depressive symptoms or low-self esteem do not show this orienting toward positive emotions and stimuli post-exclusion or perceptions of loneliness. Currently it is unclear whether lacking this bias would be specific to any kind of psychopathology. It is also unclear whether this bias is lost prior to or as a result of the onset of any psychopathology. The authors show the importance of automatic emotion regulation strategies.

Downey, G., Mougios, V., Ayduk, O., London, B. E., & Shoda, Y. (2004). Rejection sensitivity and the defensive motivational system: Insights from the startle response to rejection cues. *Psychological Science, 15*, 668-673.

According to theories of emotion and motivation, the defensive motivational system is activated in the presence of negatively valenced and highly arousing stimuli in order to organize human behavior away from this

aversive and threatening information (e.g. fight or flight response). When the DMS is activated responses are amplified. According to Downey's theory, Individuals high on the trait of rejection sensitivity view potential rejection as extremely threatening and tend to perceive rejection cues in ambiguous situations. This study on rejection sensitivity and defensive arousal used a novel paradigm. With pilot data, Downey and colleagues obtained ratings of artwork by for different artists, categorizing them on dimensions of interest and arousal. Further they were categorized into four groups, negative, positive, acceptance, and rejection. Individuals high and low in rejection sensitivity viewed these works of art while their startle response was initiated acoustically by a 50-millisecond burst of white noise. The authors found that individuals high on rejection sensitivity showed a heightened eye-blink response upon hearing a loud noise while viewing rejection- (but not general negative-) themed art. Individuals low on rejection sensitivity did not show this tendency. The authors suggest that this is evidence that rejection sensitivity elicits the defensive motivational system, potentially explaining why those high on rejection sensitivity readily perceive rejection in their environment and may over-react to these situations.

Jovev, M., Chanen, A., Green, M., Cotton, S., Proffitt, T., Coltheart, M., & Jackson, H. (2011). Emotional sensitivity in youth with borderline personality pathology. *Psychiatry Research, 187*, 234-240.

There is a growing literature relevant to facial perception and recognition in borderline personality disorder. Those with BPD have been found variously to show increased sensitivity, lower accuracy, and impaired recognition for emotional faces. These perceptual and attentional differences may relate to interpersonal hypersensitivity and dysfunction in those with the disorder or significant BPD features. In this study, youth (ages 15 to 24) with BPD features (three or more DSM-IV BPD features) as measured by Diagnostic Interview for DSM-IV Personality Disorders (DIPD; Zanarini et al., 1996) were recruited along with a control group without significant BPD or Antisocial Personality Disorder features. These participants were given the Facial Morph task, which shows a face changing from neutral valence to some emotional state (happy, sad, surprise, angry, fearful, disgust). The participants indicated how confident of their characterization, happy, threatened, calm, and in control they felt upon viewing the face. The authors measured both sensitivity and impulsivity of participant responses. Sensitivity was defined as the ability to recognize emotion at lower levels of intensity, while impulsivity was operationalized as the tendency to respond early and incorrectly to the task. Jovev and colleagues did not find a heightened sensitivity to facial expression of emotions in this task contrary to the theories of Marsha Linehan (Linehan, 1993; Crowell et al. 2009). However, a strength of this paper is that youth with BPD and BPD features were used. It could be the case that this hypersensitivity to emotional

expression develops later in the course of the disorder.

Pearson, K. A., Watkins, E. R., Mullan, E. G. (2011). Rejection sensitivity prospectively predicts increased rumination. *Behaviour Research and Therapy*, 49, 597-605.

This study prospectively examines the relations among submissive interpersonal styles (i.e. overly-accommodating, self-sacrificing, and non-assertive individuals; Pearson et al., 2010), rumination, and rejection sensitivity, it may be that submissive interpersonal styles and rejection sensitivity predict rumination or vice versa. Previous work has demonstrated that individuals high in rejection sensitivity and fears of abandonment or rejection show increased rumination following a rejection or other interpersonal loss (e.g. romantic breakup). Three groups of individuals (currently, previously, and never depressed individuals) completed self-report measures of rumination, depression, interpersonal problems, rejection sensitivity, and excessive reassurance seeking. Depression was assessed for using the SCID and afterward participants completed these self-report measures afterwards and a second time. The authors' hypotheses were partially confirmed. Rejection sensitivity (but not submissive personality styles) was predictive of rumination 6 months later while controlling for depression, gender, and baseline rumination. While it is important to demonstrate the relationship between rumination and rejection sensitivity, this study is limited by its measurement of variables using only two time points.

Lemay, E.P. & Clark, M. S. (2008). "Walking on eggshells": How expressing relationship insecurities perpetuates them. *Journal of Personality and Social Psychology*, 95, 420-441.

Lemay and Clark explore a potentially normative process in relationships. Individuals who are insecure about the status of their relationships typically express these concerns. The knowledge or belief that one has done this often may lead to cognitions igniting general relationship insecurity (e.g. "I'm not sure if he really likes me."). These beliefs cause the individual to believe that the partner views him or her as especially vulnerable and insecure; as a result the individual has trouble trusting positive communication of regard (e.g. "I'm glad you came over!"), which Lemay and Clark term *authenticity doubts*. These authenticity doubts lead to an increased expression of insecurity that resulted in the authenticity doubts to start.

Lemay and Clark posit that these relations occur even in individuals who do not have a trait-like disposition to insecurity (rejection sensitivity), and control for self-esteem in the following studies, given that self-esteem is related to rejection sensitivity.

In study one, participants read prototypical descriptions of a secure and insecure individual. They rated aspects of this person and how others would respond to this person using Likert scales. Participants indicated that insecure individuals would be avoided by others, and less often, supported (through reassurance). Further, 45%

percent of individuals indicated that others would behave cautiously toward such a person. Studies 2 and 3 demonstrate that individuals low in self-esteem and high in attachment anxiety believe that they are viewed by close others as vulnerable. This belief (independent of self-esteem and attachment) was predictive of authenticity doubts. Authenticity doubts were further found to be related to perceived rejection above and beyond self-esteem. Next, friendship dyads were explored in study 4. Here, the partners' actual care and regard was measured along with the target's perceptions of the partners' care and regard. In this study, authenticity doubts predicted insecurity regarding the partner's care and regard. This insecurity then was associated with derogation of and reduced care for the partner. These relations were found using path analysis, while controlling for the partners' reported care and regard for the target participant. Lastly, similar findings were replicated in a study experimentally inducing authenticity doubts.

Given that those with BPD have significant fears of abandonment and frantic efforts to avoid abandonment, which may include aversive behaviors, individuals with BPD may also hold significant authenticity doubts regarding close others. While this is a more severe version of the initial insecurities described by Lemay and Clark, this cycle may help to describe how fear of abandonment, frantic efforts to avoid abandonment, and hostility affect interpersonal relationships in BPD.

Lemay Jr., E. P. & Dudley, K. L. (2011). Caution: Fragile! Regulating the interpersonal security of chronically insecure partners. *Journal of Personality and Social Psychology*, *100*, 681-702.

In this investigation, Lemay and Dudley turn their perspective from the insecure partner (Lemay & Clark, 2008) to the presumably secure partner who is forced to "walk on eggshells". Despite the presumed negative effects of having an insecure romantic partner, these kinds of relationships persist. Therefore, partners must find some way of coping with this difficulty. The authors test a model they term interpersonal insecurity compensation; that is, the partner must actively attempt to obtain harmony with an insecure individual. Partners, in this description, are individuals who detect and respond to insecurity or rejection sensitivity. Targets are individuals who have chronic or momentary insecurity. The authors posit that partners struggle to maintain feelings of relationship security in the target. How do partners disconfirm expectations of rejection and regulate security? The authors hypothesize that partners become aware of target's interpersonal insecurities and further become vigilant about upsetting the target. This harm-avoidance goal is then chronically activated and partners become highly accurate at noting the target's insecurities. Further, this goal may be prioritized over other goals (e.g. asserting oneself v. letting the target have his "own way"). Lemay and Dudley further predict that exaggerating affections should bolster the interpersonal security of chronically insecure targets. This differs from the above investigation, which rested on the assumption that targets would not trust the exaggerated affections of romantic partners. The authors predict, however, that this cycle would result in decreased

satisfaction for partners. The third study in this article was done with romantic partner dyads (while the first and second were conducted in friendship pairs and triads).

Study 3 found that partners accurately detect targets' chronic insecurity about acceptance (as measured by attachment anxiety, low self-esteem, and proneness for hurt feelings). This detection of insecurity in turn predicted partners' vigilance about upsetting targets across daily interactions. Lastly, this chronic vigilance predicted romantic partners' exaggerations of affection across daily interactions. Simply, vigilance mediated the association between targets' interpersonal sensitivity and partners' affective exaggeration. These paths were fully mediated (e.g. partners' perceptions of insecurity indirectly predicted partners' exaggerate affection through effects on vigilance). Exaggerated affections appeared to be effective in increasing targets' perceived care and positive regard when that target was high in attachment anxiety. Paper diary reports of exaggerated affect predicted partners' reduced satisfaction. The previous day's exaggerated affect was associated with decreased daily insecurity in those participants who self-reported chronic insecurities. Interestingly, these effects were not explained by Coyne (1976)'s reassurance seeking construct. Interpersonal processes (not merely intrapersonal processes) seem to help to combat individuals' interpersonal hypersensitivity. Currently, however, it is still unclear what partners do in order to combat targets' insecurities.

Limberg, A., Barnow, S., Freyberger, H. J., Hamm, A. O. (2011). Emotional vulnerability in borderline personality disorder is cue specific and modulated by traumatization. *Biological Psychiatry*, 69, 574-582.

The literature investigating emotional reactivity using physiological methods in BPD individuals is mixed. The authors measured several aspects of arousal while participants with BPD diagnoses and healthy controls read different narratives or scripts. Nine scripts were unpleasant, 9 were pleasant, and 3 were neutral in valence. The unpleasant scripts involving themes of trauma or survival threat, rejection, and abandonment. Lastly, 3 personally relevant, aversive scripts were developed for each participant. PTSD comorbidity was also assessed. The authors hypothesized that the emotional reactivity of BPD individuals is rejection or abandonment-cue specific; further the reactivity of the BPD participants may be moderated by the severity of trauma and comorbid BPD. One day later, participants read the generated scripts aloud and then were instructed to imagine these for 12 seconds. Lastly, participants rated their mood and the vividness of their imagery. Twelve times during this experimental period, a white noise blast of 50 millisecond duration. The BPD patients rated all the scripts more unpleasantly and as more arousing than the healthy controls. Probes presented during imagery of abandonment and rejection scripts elicited significantly potentiated startle magnitudes relative to probes presented during neutral contents in BPD patients but not in healthy controls. Heart rate also increased in the BPD group during imagery of abandonment/rejection scripts, but not survival threat, while the healthy controls showed the opposite pattern. Lastly, BPD individuals with a comorbid PTSD diagnosis

showed reduced startle response magnitude during imagery that did not manifest during a baseline test of arousal. Therefore, it was not due to overall reduced sensitivity of the startle response system. Increases in heart rate, however, were stronger for BPD patients with severe PTSD relative to those without PTSD. PTSD comorbidity may be an important factor in reactivity to interpersonal problems.

Milulincer, M. & Shaver, P. R. (2005). Attachment theory and emotions in close relationships: Exploring the attachment-related dynamics of emotional reactions to relational events. *Personal Relationships, 12*, 149-168.

This theory-based review article outlines the ways in which secure, anxious, and avoidantly-attached individuals may react emotionally to their partner. The authors categorize these relational events into six types: positive partner behaviors, negative partner behaviors, relationship-relevant distress, relationship-irrelevant distress, relationship-relevant happiness, and partner relationship-irrelevant happiness. Literature reviewed suggests that securely attached individuals are able to react simply with joy and gratitude to partner positive behaviors and emotional displays. Anxiously attached individuals react with ambivalent emotions to positive events (e.g. happiness for partner, but fear of separation for positive events) given that anxiously attached individuals seek out relationships, but fear that they will be separated from their partners, feel insufficiently supported during conflict, and have negative feelings toward the self. Avoidantly attached individuals tend to react to emotional events by withdrawing, denying need for support, and with diffuse hostility and resentment. Mikulincer and Shaver suggest that future research focus on responses not only to negative behaviors and events, but also how attachment styles are related to positive interpersonal experiences. Further, they emphasize a dyadic perspective, measuring the attachment styles and responses of both actor and partner. Lastly they acknowledge that though individuals may have typical attachment styles, attachment-related behavior may vary from relationship to relationship.

Riggs, S. A.; Cusimano, A. M.; Benson, K. M. (2011). Childhood emotional abuse and attachment processes in the dyadic adjustment of dating couples. *Journal of Counseling Psychology, 58*, 126-138.

In an effort to improve understanding of the mechanisms that link early maltreatment to later outcomes, this study investigated the mediation effects of adult attachment processes on the association between childhood emotional abuse and later romantic relationships among heterosexual couples. College students and their dating partners (N = 310; 155 couples) completed the Childhood Trauma Questionnaire, Experiences in Close Relationship Scale, and Dyadic Adjustment Scale. Using the Actor–Partner Interdependence Model (Kenny, Kashy, & Cook, 2006), multilevel modeling results indicated that memories of childhood emotional abuse reported by both

students and their partners were significantly associated with attachment strategies, as well as romantic relationship quality. Findings supported hypothesized mediation effects of attachment anxiety and avoidance.

Sandford, K. & Grace, A. J. (2011). Emotion and underlying concerns during couples' conflict: An investigation of within-person change. *Personal Relationships, 18*, 96-109.

Using an undergraduate sample of individuals in a romantic relationship lasting at least 2 weeks, the authors studied both actor and perceived-partner emotion during conflicts that occurred during a 2-week study period. Emotional responses both as experienced by the actor and perceived by the partner were categorized as hard (e.g. anger), flat, (e.g. bored), or soft emotion (e.g. sad, hurt).

The authors found that participants have perceived threat concerns (i.e. partner is demanding or critical) when they observe an increase in partner hard emotion and they perceive the partner as neglectful. Threat is also observed when there is an increase in partner flat emotion or a decrease in partner soft emotion. Interesting patterns were observed for soft emotion. Partner soft emotion was associated with decreased concerns over neglect whereas self-soft emotion was associated with increased concerns over neglect. The relations between relationship concerns and flat emotion were unclear.

There were several limitations of the current study. The respondents were predominantly female, retrospectively assessed, and the romantic partner was not assessed. Future research must better utilize the dyadic perspective using real world, real time data.

This investigation highlights the importance of considering different aspects of negative emotion (e.g. anger v. sadness) and assessing the relationship concerns of both members in a dyad. Secondly, the kind of emotions that one expresses during a conflict may be partially explained by a. the concerns he or she has in the current context and by the kinds of concerns he or she may typically have.

Sassler, S. (2010). Partnering across the life course: Sex, relationships, and mate selection. *Journal of Marriage and Family, 72*, 557-575.

The author writes a review of the heterosexual partner formation literature. Learning how to be in a romantic relationship is a normative developmental task--the length of this period has increased in the past 20 years, extending to those from 18 to 25 years of age, a developmental time period called *emerging adulthood*.

Methodological advances in this literature include the increased production of longitudinal panel designs looking at individuals in adolescence through adulthood. Sassler states; however, that non-traditional partnering behaviors leading to marriage or cohabitation are under-surveyed and that more samples of older adults must be studied. Research in partnering across the lifespan, though differing in ultimate goals

and strategies (e.g. avoiding unprotected sex by early-twenty somethings, increased internet dating in individuals with later-in-life marriage expectations), should include surveying similar questions regarding the pattern and progression of partnering behavior, including sexual behaviors and cohabitation. Sassler discusses theoretical advances outside of psychology (e.g. social exchange theory in sociology), though she does mention attachment theory as used by “family scholars”. Future research, according to Sassler, must investigate variation in partnering by race, social class and gender, how early components of a relationship shape subsequent transitions, and the effect of parental status on partnering.

Stepp, S. D., Hallquist, M. N., Morse, J. Q., Pilkonis, P. A. (2011). Multimethod investigation of interpersonal functioning in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment, 2*, 175-192

The authors compare the validity of different assessment methods for interpersonal dysfunction using psychiatric patients with BPD, another personality disorder (OPD), and Axis I psychopathology only. The sample was largely, white, female, high school educated, and financially deprived. The BPD group showed higher interpersonal dysfunction across multiple methods, which included self-reports and informant-reports using the Inventory of Interpersonal Problems filled out by the self and up to 3 significant others (spouses or close friends, typically), clinical-ratings of interpersonally-related BPD features, electronic diaries (i.e. interval rating of social interaction 2 times per day), and social cognitions (i.e., social judgment task). Six months later, self-report and electronic diary ratings were the best predictors of distress and social functioning, demonstrating high clinical utility and potential research tools for future investigation into interpersonal problems and BPD.

Strauss, C., Morry, M. M., Kito, K. (2010). Attachment styles and relationship quality: Actual, perceived, and ideal partner matching. *Personal Relationships, 19*, 14-36.

The authors examine how attachment style matching might relate to relationship quality. There are currently three models of this relation that show support in the literature, *similarity* (e.g. individuals with anxious attachment styles prefer partners who are anxiously attached), *complementary* (individuals with anxious attachment styles prefer partners who are avoidantly attached and *secure* (individuals prefer securely attached individuals over insecurely attached individuals). Relationship quality includes such facets as trust, satisfaction, perceived partner supportiveness, and feeling understood/validated. While trust, satisfaction, and supportiveness have been associated in the literature with having secure romantic partners, validation has not been studied in the literature. The authors hypothesize that this facet of relationship quality may be closely related with partner similarity. These hypotheses were tested by asking participants about (a): an ideal romantic partner and (b): their current romantic partner. Lastly, the authors predicted that attachment style similarity would be

positively correlated with relationship quality. For studies 1 and 2, the authors found the most support for the similarity and security hypotheses. The complementary hypotheses held for individuals high in avoidance (but not attachment anxiety), such that those individuals have ideal and actual partners who are higher in attachment anxiety. Individuals with attachment anxiety perceive, but do not want, a partner high in avoidance. Further, mediation analyses showed that self-ratings of attachment predicted ideal ratings, which in turn predicted perceived partner ratings. Lastly, the authors found support for the security and similarity models of attachment-matching in a dyadic study. Individuals preferred individuals who were similar to the self on attachment, while accounting for the partner's actual self-report of attachment. Further, individuals perceived their partners as more securely attached than they. Last, self-actual partner similarity was not that important for relationship outcomes; ideal-perceived partner similarity did predict higher relationship quality. This occurred even when both the actor's and the partner's self-rated attachment styles were included in the model. However, this relation did not hold for similarity in avoidance attachments and items related to trust.

The above findings indicate that participants' perceptions are not necessarily an accurate reflection of their partners' attachment dimensions. Ideal-perceived partner similarity also predicted a number of relationship outcomes even when controlling for actual similarity and for the actor's and partner's self-ratings. Their findings indicate that perceptions are important to one's relationship. This finding has implications for the study of conflict within romantic relationships—if perceptions are at least as important as actual similarity, the perceptions that individuals have of each other when encountering conflict should be measured as well. The authors suggest that future research must focus on avoidant individuals more closely (as they may more rarely be in romantic relationships) and that a longitudinal focus is necessary to determine whether the relationship between relationship quality and attachment is bidirectional and which is the proverbial chicken and egg.

Wei, M., Vogel, D. L., Ku, T., Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology, 52*, 14-24.

This investigation sought to clarify the relationship between attachment and distress. Here, the researchers extrapolate attachment anxiety and avoidance to all kinds of coping behaviors (i.e. not just coping with interpersonal problems) and affect regulation in particular. For instance, they review literature suggesting that anxiously attached individuals, who tend to fear rejection and/or abandonment, are more emotionally reactive and will cope with distress by amplifying or making their distress more visible to others (in order to receive support). This study determines whether affect regulation strategies mediate the relationship between attachment dimensions and interpersonal problems. Wei and colleagues hypothesized that attachment anxiety would be related to negative mood and interpersonal problems as mediated by

emotional reactivity (and not emotional cutoff). Participants were undergraduate students, all constructs were measured using self-report. The authors found support through their hypotheses using a structural equation modeling framework. Individuals who were anxiously attached experienced negative mood as mediated through emotional reactivity. The relationship between attachment and interpersonal problems was partially mediated by emotional reactivity. This finding gives some tentative support to the idea that interpersonal problems are directly related to affective instability in BPD.

Appendix B

EMA interpersonal life events and experiences measures

PANAS-X (5-point scale)

1=very slightly or not at all
2=a little
3=moderately
4=quite a bit
5=extremely

Negative Affect:

irritable, afraid
ashamed, jittery
distressed, upset
guilty, scared
nervous, hostile

Positive Affect:

active, alert
attentive, strong
determine, proud
enthusiastic, interested
excited, inspired

Since the last beep I answered, I have spent time with:

my significant	other my parent
my boss	my sibling
my co-worker	my child
my roommate	other family member
my friend:	other romantic partner
best friend	
close friend	
acquaintance	

LIFE EVENTS/EXPERIENCES

Since the last beep I answered, I have had a DISAGREEMENT with:

other my parent	
my boss	my sibling
my co-worker	my child
my roommate	other family member
my friend:	other romantic partner
best friend	
close friend	
acquaintance	

How angry are you with this person?

1	2	3	4	5
Not at all	moderately	somewhat	quite a bit	extremely

What kind of disagreement was this?

Misunderstanding
Verbal

What is the current state of this disagreement?

Ongoing
Resolved

Physical

Being worked out

Since the last beep I answered, I have felt REJECTED by: (let participant indicate the number)

my significant

other my parent

my boss

my sibling

my co-worker

my child

my roommate

other family member

my friend:

other romantic partner

best friend

close friend

acquaintance

How angry are you with this person?

1

2

3

4

5

Not at all

moderately

somewhat

quite a bit

extremely

Since the last beep I answered, I was DISSAPOINTED or LET DOWN by:

my significant

other my parent

my boss

my sibling

my co-worker

my child

my roommate

other family member

my friend:

other romantic partner

best friend

close friend

acquaintance

How angry are you with this person?

1

2

3

4

5

Not at all

moderately

somewhat

quite a bit

extremely

If interaction negative (i.e. felt let down, disagreement, rejection):

After this interaction, I found it difficult to do other important things (e.g. homework, errands, pay bills). Y N

After this interaction I did not want to interact with others: Y N

Since the last beep I answered, I was HELPED OR SUPPORTED by: (let participant indicate the number)

my significant
my boss
my co-worker
my roommate
my friend:
 best friend
 close friend
 acquaintance

other my parent
my sibling
my child
other family member
other romantic partner

How positively do you feel about this person?

1 2 3 4 5
Not at all moderately somewhat quite a bit extremely

Since the last beep I answered, I was COMPLIMENTED by: (let participant indicate the number)

my significant
my boss
my co-worker
my roommate
my friend:
 best friend
 close friend
 acquaintance

other my parent
my sibling
my child
other family member
other romantic partner

How positively do you feel about this person?

1 2 3 4 5
Not at all moderately somewhat quite a bit extremely

Have you been concerned that your partner may leave you or end the relationship? YES
NO

CONFLICT ASSESSMENT

Are you completing this prompt because of a recent CONFLICT with your romantic partner? Y N

What was this event?
Conversation(s)
Phone Call
Email

How was this event conflictual or negative?
Disagreement
Rejection
Disappointment

Text

Other

Did you consume any alcohol before, during, or after this interaction? *Check all that apply.*

_____ Before _____ During _____ After

How did you react to this conflict? Check all that apply.

Tried to solve the problem by talking	Gave silent treatment
Blamed	Threatened to end the relationship
Yelled	Defended self
Changed the subject	Compromised
Cried	Apologized
Brought up other conflicts	Hit my partner
Threw things at/near my partner	Did something else passive
Did something else aggressive	Tried to solve it some other way
Did something impulsive to make myself feel better	

What were you thinking during the conflict?

My partner doesn't understand me	This conflict is terrible
My partner and I can solve this	I dislike my partner
I dislike myself	I have to stop this conflict now
This will blow over later	My partner will regret this

What is the current state of this conflict?

It is ongoing	Resolved
We decided to ignore it	We haven't acknowledged it
My partner doesn't know I'm upset	

How do you feel about your partner?

0	1	2	3	4	5
(extremely negatively)					(extremely positively)

How do you feel about your relationship right now?

0	1	2	3	4	5
(extremely bad)					(extremely good)

POSITIVE ASSESSMENT

Are you completing this prompt because of a recent POSITIVE EVENT with your romantic partner?

Y N

What was this event?

Conversation(s)
Phone Call
Email/Other internet
Text

How was this event positive?

Leisure Activity
Solved a Problem
Other

How meaningful or intimate was this event?

superficial 1 2 3 4 5 meaningful

I disclosed my personal thoughts and feeling

very little 1 2 3 4 5 a great deal

Other(s) disclosed their personal thoughts and feelings

very little 1 2 3 4 5 a great deal

How pleasant was the interaction?

1 2 3 4 5
not at all a little moderately very extremely
pleasant pleasant pleasant pleasant pleasant

Degree of closeness
in the interaction

1 2 3 4 5
none a little moderate quite a bit a lot

Other helped/supported me
in the interaction

1 2 3 4 5
not at all a little somewhat quite a bit very
much

How do you feel about your partner?

(extremely negatively)

0 1 2 3 4

(extremely positively)

5

How do you feel about your relationship right now?

(extremely bad)

0 1 2 3 4

(extremely good)

5

Appendix C

HLM Model Building

Presented in the main body are the final models. Below are tables representing the models run using SPSS 22 Mixed Models in order to arrive at the solution described in the method section.

Table A Negative Affect Predicted by Rejection Sensitivity and Conflict

Model	#Parameters	-2LL	AIC	BIC
Rejection Sensitivity X Group	13	4478.861	4482.861	4492.302
Remove Interaction	11	4475.576	4479.576	4489.021
Remove Gender	10	4475.146	4479.146	4488.593
Remove Recruit	9	4475.586	4479.586	4489.036
Null Model	3	4542.184	4546.184	4555.629

Table B Negative Behavior Predicted by Rejection Sensitivity and Conflict

Model	#Parameters	-2LL	AIC	BIC
Rejection Sensitivity X Group[#]	12	-112.483	-108.483	-105.748
Recruitment X Gender [#]	11	-120.895	-116.895	-114.093
Remove Interaction [#]	10	-126.981	-122.981	-120.113
Remove Recruit [#]	9	-134.758	-130.758	-127.826
Remove Gender [#]	8	-140.176	-136.176	-133.183
Null Model [#]	3	-146.634	-142.634	-139.358

Table C Negative Cognition Predicted by Rejection Sensitivity and Conflict

Model	#Parameters	-2LL	AIC	BIC
Rejection Sensitivity X Group	11	-60.600	-56.600	-53.797
Recruitment X Group	12	-67.317	-63.317	-60.449
Remove Interaction	9	-71.663	-67.663	-64.732
Remove Gender [#]	8	-75.923	-71.923	-68.930
Remove Recruit [#]	7	-81.663	-77.663	-74.610
Null Model [#]	3	-107.368	-103.368	-100.093

Table D Worry Partner Will Leave Predicted by Rejection Sensitivity and Conflict

Model	#Parameters	-2LL	AIC	BIC
Rejection Sensitivity X Group	13	-7300.654	-7296.654	-7287.260
Recruitment X Gender	13	-7312.620	-7312.620	-7299.226
Remove Interaction [#]	11	-7333.973	-7329.973	-7320.574
Remove Gender [#]	10	-7349.215	-7345.215	-7335.814
Remove Recruit [#]	9	-7361.533	-7357.533	-7348.129
Null Model [#]	3	-7354.413	-7350.413	-7340.995

VITA

Whitney Brown was born in West Lafayette, Indiana on August 19, 1985. After finishing high school at the Academy of Saint Elizabeth in Convent Station, New Jersey in 2003, she went to Colgate University to complete her undergraduate studies emphasizing psychology and English literature. She received her M.A. in clinical psychology from the University of Missouri in 2010. She completed her clinical internship at the Veteran's Affairs Healthcare System in Ann Arbor, Michigan. There she primarily worked with Veterans in recovery from PTSD and substance dependence. She will receive her Ph.D. in clinical psychology from the University of Missouri in December 2014.