Taking it Personally: Individual Differences in the Interpretation of Negative Evaluations

THESIS

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Abstract

Dispositional feedback, regardless of valence, has various negative behavioral consequences. However, what exactly is evaluated in feedback can be ambiguous and result in different interpretations. Until now, individual differences in subjective processing of feedback have been largely unexplored. Are some people more likely to take feedback personally? In this paper, we proposed that one’s interpretation of negative, ambiguous remarks is associated with his or her attachment security, i.e. their internal working models. This hypothesis was tested via survey methodology. In Study 1, participants differed in their interpretations of ambiguous, negative evaluations based on their attachment status. Fearful individuals, those with negative internal working models of both the self and others, were significantly more likely to take feedback personally than secure participants. In Study 2, participants uniformly rated 30 negative adjectives’ descriptiveness for various referents, ruling out individual differences in the perception of default referents for negative remarks void of context. In Study 3, the type of relationship between individuals globally affected participants’ interpretations of ambiguous, negative remarks and participants displayed attachment differences in their interpretation of evaluations from a third- vs. first-person perspective. These results provide initial evidence of attachment-related differences in the likelihood to take negative evaluations personally.
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INTRODUCTION

Imagine you stand in line to order a burrito at a restaurant. After you choose your ingredients, the restaurant worker mumbles, “Gross.” You think to yourself: Wait, what’s gross? Does this person think I’m gross? Am I a gross person? Does my burrito order indicate how gross I am as a person? Or does he just think my burrito is gross? Is my combination of ingredients gross? Is my burrito grossly unhealthy? From this seemingly innocuous interaction, one can garner and internalize self-information, especially if he or she takes the worker’s comment personally. Two people could experience this same interaction and walk away with markedly different interpretations of what the restaurant worker meant.

Misinterpretations are rather commonplace as interactions are riddled with ambiguity. Because we can never know exactly what someone else is thinking, the meaning of their words require at least a minimum amount of deciphering. It is within this ambiguity that various interpretations may arise from the exact same input.

What if someone is more likely to take what the restaurant worker said personally? Systematically interpreting evaluative information in a dispositional way may be harmful. If every evaluative statement were incorporated into the self-system, our self-theories would become rather fluid and entirely dependent on others’ approval. Therefore, analyzing potential individual differences in the interpretation of feedback, specifically negative evaluative remarks in this paper, is vital. Identifying individuals
with an inclination to take negative evaluations personally is an important first step in equipping such individuals with more empowering cognitive mechanisms or mindsets.

*Individual Differences in Event Processing*

As mentioned, events are often ambiguous. The ambiguity of the rationality behind another agent’s actions can result in divergent interpretations. Individual difference research reveals that disparate interpretations of particular events can occur systematically. Importantly, these differences in interpretation can also lead to various behavioral consequences.

Emotional information processing is one example of subjective deciphering. Reading another’s emotion can be ambiguous and is thus viewed through a subjective lens. When perceiving neutral faces, anxiously attached individuals are more likely to view the faces negatively than those non-anxiously attached (Meyer, Pilkonis, & Beevers, 2004). People who feel more uncertainty about their relationships are more likely to view neutral faces as less friendly and rejecting. This bias is present throughout development. Young children with higher trait anxiety are more likely to interpret homophones as threatening than neutral (Hadwin, Frost, French & Richards, 1997). For example, when hearing the word ‘desert/dessert,’ children with higher anxiety are more likely to interpret what they heard as desert, being abandoned, than dessert, a sweet treat. Therefore, one’s level of anxiety is associated with his or her decoding of emotionally laden information.

Similarly, one’s attention and reaction to valenced images differs systematically via attachment security throughout lifespan. This association is present from infancy. Johnson and Chen (2011) document a network of behavioral, biological, and attentional associations during the first year of life. One-year-olds’ behavior in The Strange Situation
correlates with a genetic variation of oxytocin availability, a bias for happy or fearful faces, and an attentional bias for caregiver behavior. Specifically, infants with a particular variation in the oxytocin receptor gene (OXTR) display less sensitivity to threatening stimuli and more surprise at negative social behavior, which may result in their secure attachment behaviors.

Furthermore, adults’ likelihood to pay attention to valenced information differs by insecure attachment category. Insecurely attached adults are less likely to remember threatening words from an emotional stroop task than secure adults (Van Emmichoven, Van Ijzendoorn, De Ruiter, & Broschot, 2003). Avoidant adults show more neural activation in response to negative than positive images, whereas anxiously attached adults show the opposite pattern (Chavis & Kisley, 2012). These differences in motivational attention to particular valenced information may account for, or at least influence, differences in relationship behavior: interpersonal withdrawal for avoidant adults and interpersonal closeness for anxious adults.

Also, individuals who display more of a negativity bias have a higher risk for depression. Adults more likely to produce negative sentences in a sentence-scrambled task exhibit more depressive symptoms 4-6 weeks later (Rude et al., 2002). Patients with major depressive disorder show an attentional bias for angry faces compared to non-clinical participants (Leyman, De Raedt, Schacht, & Koster, 2007). Likewise, depressed patients stare longer at sad faces and are more likely to interpret neutral faces as sad (Gollan, Pane, McCloskey, & Coccaro, 2008).

Additionally, the interpretation of the intentionality behind another’s ambiguous behavior systematically differs and is associated with reactive aggressive behavior. The
hostile attribution bias is the tendency for a person to perceive another’s behavior as hostile or intentional rather than benign or accidental (Dodge & Coie, 1987). For example, if another driver cuts you off on the road, an individual exhibiting the hostile attribution bias is likely to think that the other person intentionally cut him or her off. A meta-analysis conducted by Orobio de Castro et al. (2002) of 41 studies found a significant association between hostile attribution bias and aggressive behavior. Individuals with a tendency to interpret another’s behavior as intentionally hostile are more likely to react aggressively. Similarly, people with a high sensitivity to rejection interpret their partners’ benign behavior as a rejection, which is associated an increase in male violence in relationships (Downey, Feldman, & Ayduk, 2000).

These results converge on the conclusion that individual differences in information processing can have important behavioral implications. Two people can reliably interpret the exact same stimulus (i.e. a face, a word, an interaction, a behavior, etc.) differently and these patterns of interpretations can predict behavioral consequences. Therefore, the identification of individual differences in information processing is necessary in further understanding human behavior.

Feedback

While individual differences in various information processing contexts are documented, subjective processing of feedback is largely unexplored. Feedback can be defined as an agent providing information about one’s performance or understanding (Hattie & Timperley, 2007). Research indicates that feedback is a strong force in learning (Hattie, 2009). Teacher feedback is positively associated with intrinsic motivation of their students (Saeed et al., 2013). Feedback can also improve performance in a variety of
contents: supervisor feedback improves employee’s task performance (Zheng, Diaz, Jing, & Chiaburu 2015); verbal and video feedback can improve exercise and sports performance (Benitez-Santiago, & Miltenberger, 2015; Wack, Crosland, & Miltenberger, 2014); real-time feedback improves driving performance (Aidman, Chadunow, Johnson, & Reece, 2015); mirror visual feedback can improve motor performance (von Rein et al., 2015); etc. fMRI studies reveal that performance feedback activates reward-related areas of the brain throughout development (Druke et. al., 2015). In a variety of contexts, evaluative feedback is an effective tool in positively shaping behavior.

While feedback can be quite powerful, not all feedback is equal (Hattie & Timperley 2007). Meta-analyses reveal that feedback does not always improve performance and can even worsen performance (Kluger, & DeNisi, 1996). Relative to negative feedback, positive feedback is associated with more intrinsic motivation and feelings of competence (Vallerand & Reid, 1988). Over-the-top inflated praise decreases challenge-seeking behavior in children with low self-esteem (Brummelman, Thomaes, de Castro, Overbeek, & Bushman, 2014). Autonomy-supporting feedback is more effective than controlling feedback in increasing athletes’ motivation (Mouratidis, Lens, & Vansteenkiste, 2010). Task-involving feedback is associated with higher levels of interest, performances, and effort compared to ego-involved feedback (Butler, 1987).

Similarly, Carol Dweck and colleagues have explored how the type of feedback administered affects students’ mindset toward learning. Students generally endorse one of two theories of intelligence: fixed or malleable. In fixed mindsets, intelligence is viewed as a fixed trait – one is born with a certain amount of intelligence and nothing can change that. On the other hand, malleable mindsets view intelligence as a more fluid trait,
something that can be cultivated and developed throughout one’s lifetime (Dweck, 1999, 2006). One’s endorsement of a particular mindset is quite important in the face of failure. After failing on a difficult problem set, children with a fixed mindset display a helpless response to that failure: they exhibit deteriorated performance on future sets, persist at the task less, avoid difficult problems in the future, hold more negative expectations, and experience more negative affect than children with growth mindsets (Diener & Dweck, 1978 & 1980). Because children with fixed mindsets are concerned with looking smart and the quality of their performance, they avoid effort and learning opportunities in order to maintain that image (Dweck, 1999, 2006).

Therefore, a child’s mindset about intelligence has profound impacts on their learning behavior. Consequently, Dweck and colleagues varied both the valence (praise or criticism) and the referent (person or non-person) of feedback given to children after an academic performance. Person feedback remarks on children’s personhood or intelligence: “I’m very proud of you,” “You must be smart,” or “I’m disappointed in you.” Non-person feedback comments on children’s effort: “That is/is not the right way to do it,” or “You tried really hard.” Interestingly, valence does not significantly impact children’s behavior: children do not behave differently when they received praise versus criticism. However, the type of feedback children receive is significantly associated with their learning behavior. Compared to those who receive non-person feedback, children who receive person feedback are more likely to view intelligence as a fixed trait and subsequently display the behavioral vulnerabilities associated with a fixed mindset (Cimpian, Arce, Markman, & Dweck, 2007; Kamins & Dweck, 1999; Mueller & Dweck, 1998).
Previous research documents the double-edged sword of feedback. It can both motivate and improve performance and also de-motivate and hinder performance (Hattie & Timperley, 2007). In particular, dispositional feedback is especially detrimental as it can bolster helpless behavior (Dweck, 2006). However, ambiguous feedback is largely unexplored. People may differ in their interpretations of ambiguous feedback. Specifically, are certain individuals more likely to take feedback personally? Because dispositional feedback is associated with negative behavioral outcomes, it is important to explore possible individual differences in the subjective interpretation of feedback. We propose that attachment status may be a lens through which individuals interpret ambiguous evaluative information about themselves.

Attachment and Self-Representations

Attachment theory, a perspective that examines the emotional bond between two people and their subsequent behaviors within that relationship, is a context in which individuals may receive the first and most-significant feedback about themselves (Ainsworth & Bowlby, 1991). Bowlby (1973), who coined the term ‘attachment theory,’ notes:

Each individual builds working models of the world and of himself in it, with the aid of which he perceives events, forecasts the future, and constructs his plans…In the working model of the self that anyone builds a key feature is his notion of how acceptable or unacceptable he himself is in the eyes of his attachment figures.

In this theory, one’s internal working model of the self is formed via the feedback he or she receives from their attachment figure. If an attachment figure is responsive and
caring, one may form a secure ‘model of the world and of himself in it,’ and it is through this secure model he or she will ‘perceive events, forecast the future, and construct plans’ (Ainsworth, 1970; Bowlby, 1973). Conversely, if an attachment figure is rejecting or dismissing, this can lead to the development of an insecure model, through which an individual perceives, forecasts, and constructs a world very different from secure models. Therefore, one’s interpretation and internalization of feedback is pivotal in the development of self-theory, or internal working model, and this schema is used to process information.

Bowlby (1979) notes that attachment security is influential “from cradle to the grave,” recognizing the lifelong impact of one’s attachment status. Hazan and Shaver (1994) extend Bowlby’s theory to the context of adult romantic relationships, noting the similarities between the caregiver-child relationship and the romantic partner relationship. Attachment security is moderately stable from infancy into adulthood, and the attachment system developed in infancy continues to influence behavior, thoughts, and feelings beyond childhood (Fraley, 2002; Fraley & Shaver, 2000). Throughout lifespan, attachment security is generally conceptualized as 4 categories: secure, insecure-anxious/preoccupied, insecure-avoidant/dismissing, and disorganized/fearful (Ainsworth, 1970; Brennan, Clark, & Shaver, 1998; Main & Solomon, 1990).

Bartholomew and Horowitz (1991) proposed a 4-category model of attachment using the intersection between Thoughts of Self (positive or negative) and Thoughts of Others (positive or negative) to determine one’s status (see Figure 1). Thoughts of Self/Others are comparable to Bowlby’s internal working models of the self and others.
According to Bowlby (1973), one’s attachment figure provides information about “whether or not the self is judged to be the sort of person towards whom anyone, …the attachment figure in particular, is likely to respond in a helpful way.” Since Bowlby’s theory, more contemporary research documents the association between attachment security and various self-theories. Insecure children recognize themselves in the mirror-recognition task at a younger age than secure children (Lewis, Brooks-Gunn, & Jaskir, 1985). Secure children view themselves as more competent and accepted by others (Cassidy, 1988). Secure individuals derive self-worth from interpersonal relationships, anxious individuals’ self-worth is contingent on others’ approval, and avoidant individuals derive self-worth from personal competence (Park, Crocker, & Michelson, 2004). Secure and avoidant individuals use more positive self-attributes when describing themselves compared to anxiously attached individuals (Mikulincer, 1995).

Throughout development, attachment differences in various self-theories are evident. One gleans self-relevant information from their attachment figure’s behavior.
Consequently, they may internalize this information and incorporate it into their self-system. As such, we propose that one’s attachment status may be a lens through which he or she interprets ambiguous feedback.

*Current Studies: Attachment and Feedback Interpretation*

The following studies aim to answer the question: Are there individual differences in the interpretation of ambiguous feedback? Specifically, are there systematic differences in the interpretation of negative evaluations depending on attachment security? Are some people more likely to take evaluations personally?

Feedback is inherently evaluative, containing self-relevant information that may be interpreted subjectively. As Dweck and colleagues demonstrate, dispositional feedback can be detrimental to learning and foster helpless behavior. However, the type of feedback (dispositional or non-dispositional) one receives is not always indubitable. Whereas Dweck and colleagues clearly manipulate the type of feedback administered in their studies, more natural evaluations may be quite vague. In particular, the referent, or what exactly is evaluated, can be ambiguous. As the scenario opening this paper highlights, the same evaluation can refer to various subjects. It is within this referent ambiguity that individuals may interpret evaluations through their internal working models. In Bartholomew and Horowitz’s (1991) model of attachment, insecurely attached individuals experience more negative thoughts about themselves and others. This leads to the question: do negative internal working models influence the processing of self-relevant information? Specifically, are insecurely attached individuals more likely to dispositionally process feedback? Because a systematic difference in the subjective
processing of feedback can possibly reinforce negative internal working models, we believe these questions are important to explore.

In this paper, we explore these questions in a series of three studies. In these studies, we control the valence of feedback and singularly focus on negative evaluative remarks. In Study 1, participants’ interpretations of unambiguous and ambiguous negative evaluations are analyzed in light of their attachment category. In Study 2, systematic ratings of participants’ perceptions of negative adjectives’ descriptiveness for various referents are collected and individual differences in these ratings are assessed. In Study 3, relationships and the perspective from which one interprets an evaluation are manipulated to further explore differences in subjective processing of negative evaluations.
For study 1, we hypothesize that insecurely attached individuals are more likely to take feedback personally. That is to say, because of their negative internal working models, they are more likely to interpret ambiguous, negative remarks as referring to a person than secure individuals.

**Method**

**Participants**

One hundred and sixty (84 females) Ohio State University undergraduates participated in this study for Introduction to Psychology course credit.

**Materials**

Experiences in Close Relationships. To assess adult attachment category – *secure, fearful, preoccupied,* and *avoidant* – participants completed the Experiences in Close Relationships Scale [ECR; Appendix A] (Brennan, Clark, & Shaver, 1998). This 36-item scale measured two attachment dimensions: anxiety and avoidance. The 18 anxiety questions assessed security with a romantic partner’s acceptance and availability; the 18 avoidance questions assessed security with being close to a romantic partner (Fraley, Waller, & Brennan, 2000). Both subscales are internally reliable (anxiety: $\alpha=0.947$; avoidance: $\alpha=0.934$) and temporally stable (~86% of variance shared six weeks later).
(Sibley & Liu, 2004). Attachment category was determined by the intersection of the scores on both dimensions (see Figure 2).

![Figure 2. Adult Attachment Categorization.](image)

The Evaluative Interpretation Measure. To assess interpretations of negative evaluations, participants read a story that described the interactions of a boss and an employee over the course of a day. The story included seven scenes in which the boss viewed the employee in action and uttered a single, negative adjective. Participants were then asked to judge whether the boss was referring to (1) the employee (*a person* evaluation) or (2) the action the employee performed or something the employee made (*a non-person* evaluation).

Three of the seven scenes were control items included to measure understanding of the task. In these, the referent of the adjective was explicit. In one scene, the adjective referred unambiguously to a *person*: “You look awful.” In two other scenes, the adjective
referred unambiguously to the non-person – in one it referred to an action: “That was clumsy;” and in the other it referred to a product: “That is ugly.” For these three unambiguous, control scenes, participants were asked to choose between a person and non-person evaluation.

In the remaining four scenes, the referent of the adjective was purposely ambiguous because it was omitted. For example, the boss viewed the employee constructing store decorations haphazardly, with a pile of poorly completed decorations next to him and remarked, “Terrible.” Participants were asked to judge if the boss’ use of the word ‘terrible’ referred to the employee or the employee’s action (i.e., making decorations). In two of the four ambiguous items, participants judged if the boss’ remark referred to the employee or the employee’s actions. In the other two ambiguous items, they judged if the boss’ evaluation referred to the employee or the employee’s product (i.e., the decorations).

For the seven interpretation questions (three unambiguous control items and four ambiguous items), participants judged if an evaluation referred to a person or a non-person.

Ten additional factual probes were spread throughout the story to ensure that participants were paying attention to the story; i.e., questions such as “Who is the boss?” and “Who is the employee?”

In an effort to make it as easy as possible for participants to identify with the employee in the vignette, the employee in the story was male for male participants and female for female participants.

The full vignette and list of questions can be seen in Appendix B.
Procedure

Participants were tested individually in a quiet room in the Psychology Department on The Ohio State University’s campus. Participants completed The Evaluation Interpretation Measure first, followed by the ECR.

Results

Participants included 34 secure, 38 fearful, 51 preoccupied, and 18 avoidant individuals. Results from the two ECR subscales, anxiety \((M=3.7, SD=1.03)\) and avoidance \((M=3.0, SD=0.96)\), reflected population norms (Fraley, 2000).

When participants interpreted the boss’s negative remark as referring to the employee \((a \text{ person interpretation})\), it was coded as a ‘1.’ When participants interpreted the remark as referring to an action or a product \((a \text{ non-personal interpretation})\) it was coded as a ‘0.’

Unambiguous Control Items

All participants correctly interpreted the negative remark ‘You look awful,’ as referring to the employee \((M=1.0, SD=0.00)\). In general, participants’ also avoided attributing the negative remarks aimed unambiguously at the employee’s action or product \((M=0.22, SD=0.25)\) to the employee. This mean is significantly lower than the chance \((50\%)\), \(t(159)=-13.77, p=0.00\). Finally, interpretation of the unambiguous non-person control items did not vary by attachment category, \(F(3, 156)=1.56, p=0.20, \eta^2=0.03\).

Note: The unambiguous, non-person evaluations had a higher number of person interpretations than anticipated \((22\%)\). This will be addressed in Study 1 Discussion.
**Ambiguous Items**

Overall, participants interpreted ambiguous remarks as referring to the person about 32% of the time ($M=0.32$, $SD=0.75$). Preliminary analyses revealed no effects of sex or the type of non-person referent (action vs. product) on participants’ judgments, so these variables are omitted from further analyses.

**The Influence of Attachment Category**

A one-way ANOVA was performed to test the association between different qualities of attachment status (secure, fearful, preoccupied, and avoidant) and participants’ tendency to interpret the boss’ negative remarks as referring directly to the employee rather than the employee’s work. Attachment category significantly predicted participants’ judgments, $F(3,156) = 2.67, p = 0.05$, $\eta^2=0.05$.

Post-hoc contrast analyses showed that this main effect was largely due to the influence of the participants with fearful attachment status – individuals with high levels of both anxiety and avoidance. Compared to secure participants ($M=0.10; SD=0.38$), fearful participants ($M=0.54, SD=0.92$) were significantly more likely to make person interpretations, $p=0.01$, whereas preoccupied participants ($M=0.32; SD=0.82$) and avoidant participants ($M=0.21; SD=0.54$) were not, $p=0.18$ and $p=0.61$ respectively. See Figure 3 (all graphs contain ±1 standard error bars).
Discussion

In Study 1, participants read a story detailing a series of interactions between two people – a boss and an employee. All participants, regardless of their attachment categorization, were able to recognize when the boss made negative remarks that referred unambiguously to the employee. For the most part, participants were also able to recognize when the boss made unambiguous negative remarks about the employee’s behavior.

On the other hand, participants’ interpretation of the boss’ negative evaluations when the referent was ambiguous varied as a function of the participant’s own attachment status. Participants with secure attachment status were the least likely to assume the boss referred to the employee, doing so only about ten percent of the time. On the other hand, participants with high levels of both attachment anxiety and avoidance, who were categorized as fearful on the ECR, were nearly five times as likely as securely attached
individuals to assume the boss referred to the employee. Negativity in internal working models of both the self and others was associated with a higher likelihood to interpret the remarks personally. Participants with either high anxiety or high avoidance, but not both, were somewhere in between.

In general these results support the hypothesis that individuals vary in terms of their default assumptions about the referents of ambiguous, negative evaluations. Although the effect size was relatively small (accounting for only about five percent of the variance), it is all the more impressive considering the context in which it was seen. Participants were only asked to judge the referents of ambiguous remarks that they read about in a relatively impoverished story of unfamiliar characters for whom they had no previous affinity or attachment themselves. Neither were any measures taken to specifically activate the participants’ attachment schemas by stressing them before they performed the experimental task. Furthermore, the stories involved an impersonal boss-employee relationship, rather than a closer, intimate relationship such as family, friend, or romantic partner. Nonetheless, individual differences were found.

Therefore, Study 1 provides initial evidence of individual differences based on attachment security in the interpretation of negative evaluations. Fearful participants were significantly more likely to interpret ambiguous, negative remarks as referring to the person than secure participants. The interaction between higher anxiety and avoidance was associated with the tendency to take negative evaluations personally.

As mentioned previously, the amount of person interpretations (22%) of the unambiguous evaluations of the employee’s behavior was much higher than expected (we anticipated no personal interpretations for scenarios in which the referent is
unambiguously not a person). This may have been a byproduct of the adjective used in one scenario (‘That was clumsy’). ‘That’ is not a person pronoun. However, perhaps the default referent of the adjective ‘clumsy’ is a person. As such, the use of a non-person referent with an adjective that may naturally be more descriptive of a person could have created confusion for participants. Therefore, this elevated person interpretation may be the result of a poor design in the measure. This concern resulted in us systematically assessing the natural descriptiveness of various negative adjectives (Study 2).

In addition, a follow-up study (Study 3) was planned in order to test (1) the generalizability of the result to other adjectives and other relationship contexts and (2) whether invoking the self as the target of the speaker’s negativity would increase the size of the effect.
STUDY 2

In order to identify a sufficiently large set of negative adjectives, we ran Study 2. The goal of Study 2 was binary: (1) to use informant ratings to identify a pool of negative adjectives that can be used appropriately to refer to all three categories of referents: people, actions, and objects; and (2) to explore the possibility of attachment-related differences in individuals’ default interpretations of negative adjectives in the absence of context.

For Study 2, we hypothesize that attachment status will not be associated with participants’ ratings of negative adjectives’ applicability to various referents.

Method

Participants

One hundred and eighty-one (92 females) native English speaking Ohio State University undergraduates participated in this study for Introduction to Psychology course credit. Nineteen additional participants were excluded as non-native English speakers due to the emphasis on knowledge of the English language in this study.

Materials

Negative Adjective Rating Scale. Participants rated 30 negative adjectives for how well each can describe a person, an action, or an object on a 1-5 likert scale. For example, the adjective ‘good’ can be used equally well to describe people, objects, and
actions, but the adjective ‘honorable’ cannot. “John is a good man,” “Her driving is good,” and “The author’s book is good” all sound natural. Honorable can describe a person very well: “Marie is an honorable person.” Honorable can describe some actions better than others: “His sleeping is honorable” sounds odd, but “Tim’s volunteering is honorable” is fine. Honorable does not describe many objects: “His car is honorable” sounds strange.

The full list of adjectives and this scale can be found in Appendix C.

Experiences in Close Relationships. Participants also completed the ECR to measure adult attachment category (Brennan et al., 1998).

Procedure

Participants were tested individually in a quiet room in the Psychology Department on The Ohio State University’s campus. The order of the two measures was counterbalanced.

Results

Participants included 56 secure, 52 fearful, 44 preoccupied, and 29 avoidant individuals. Results from the two ECR subscales, anxiety ($M=3.49; SD=0.99$) and avoidance ($M=2.9; SD=1.03$), reflected population norms (Fraley, 2000).

Ratings for each of the 30 negative adjectives were collected and these results are shown in Appendix D.

Default Referents of Negative Adjectives and Individual Differences

Analyses were performed in order to explore both general trends in the use of negative adjectives and to determine if those uses varied by attachment category.
Preliminary analyses revealed no effects of sex, so this variable is omitted from further analyses. A 3 X 4 repeated measures ANOVA with type of referent as a within-subjects variable (people, action, and object) and attachment category as a between-subjects variable (secure, fearful, preoccupied, and avoidant) was performed on participants’ mean adjective ratings.

A main effect of referent type was found. On average, participants rated the adjectives as most appropriate for use with people ($M=4.36, SD=0.39$), less so for actions ($M=3.97, SD=0.45$), and least so for objects ($M=3.56, SD=0.53$), $F(2,354)=213.62$, $p=0.00$, $\eta^2=0.55$. Post-hoc contrast showed that the ratings for both actions and objects were significantly lower than those for people, both $p’s=0.00$.

Attachment category, on the other hand, did not predict participants’ ratings, $F(3,177) = 0.12$; $p = 0.95$; $\eta^2=0.002$. Regardless of attachment status, all participants rated the appropriateness of use of the negative adjectives similarly (see Figure 4).

Figure 4. Overall Adjective Ratings for Each Attachment Category.
In order to eliminate any individual adjectives for use in Study 3 that show individual differences in their default interpretations despite the overall results, similar 3 x 4 ANOVA’s were performed for each adjective. No individual adjective showed a significant effect of attachment category on adjective ratings. The results of these individual analyses are shown in Appendix E.

Discussion

Study 2 successfully collected systematic ratings of 30 common negative adjectives in how well they can naturally describe three different referents: people, actions, and objects. In general, Study 2 provided three new pieces of information.

First, we confirmed that in general, people judge negative adjectives to be most appropriately used to refer to people and less so, though still appropriately, to actions or objects.

Second, we confirmed that people with insecure attachment status are no different than securely attached individuals in their perceptions of negative adjectives’ descriptiveness. Therefore, the extent to which people with insecure attachment status make person attributions in ambiguous situations is related to their construal of the situation, not the adjective per se. This increases our confidence in the results of Study 1 – the individual differences observed in interpretations of evaluations were not merely a byproduct of adjective selection.

Finally, we collected systematic rating data on individual adjectives to allow us to select adjectives for use in Study 3 that are well-balanced in terms of their default
applications. Adjectives rated similarly across referents will be chosen in order to maintain ambiguity in the meaning of one’s negative evaluation.
STUDY 3

Study 3 was designed to extend the findings of Study 1. In Study 3, we varied situational factors of interpreting someone’s negative remarks. Again, the goal of this study was binary: (1) to test the generalizability of the effect from Study 1 in the context of other relationships and (2) to explore the role of the self in interpreting ambiguous negative remarks by requiring participants to imagine themselves in particular scenarios.

In the context of attachment status, the relationship between two individuals is paramount. In Study 1, participants read about several interactions between a boss and an employee. To extend the findings beyond this particular relationship dynamic, we varied the relationship between the two people interacting to include: friends, romantic partners, family, boss/employee, and strangers.

Additionally, as attachment theory indicates, people can differ in the valence of their internal working models of the self versus their internal working models of others. In Study 1, participants interpreted ambiguous, negative remarks directed towards another person or their behavior. We repeated this ‘other’ perspective to assess if results extend to other relationships. Additionally, we varied the perspective from which participants were asked to interpret negative evaluations by requiring participants to imagine themselves in a scenario and interpret remarks from their own perspective. We varied participants’ perspective of interpretation only in the context of the friend
relationship, because this relationship is particularly salient in college freshmen’s lives, which are the majority of our participants (Swenson, Nordstrom & Hiester, 2008).

For Study 3, we again hypothesize that there will be individual differences in the interpretation of negative evaluations. We expect to replicate results from Study 1, observing insecurely attached participants, especially fearful individuals, more likely to interpret negative evaluations personally than secure participants. We also hypothesize that the relationship between two people will affect participants’ interpretations of the remarks. Finally, we hypothesize that within the same relationship there will be individual differences in third- versus first-person judgments of ambiguous evaluations.

Method

Participants

Two hundred and fifty-six (125 females) native English speaking Ohio State University undergraduates participated in this study for Introduction to Psychology course credit. Twenty-nine additional participants were excluded as non-native English speakers.

Materials

The Evaluative Interpretation Measure – Relationship and Perspective. To assess interpretations of negative evaluations, participants completed a series of 12 items, each of which described an interaction between two characters. The two characters shared one of five possible relationships: friends, romantic partners, family, boss/employee, and strangers. Each relationship was represented in two items, with the exception of friends. The friend relationship was shown in four items – two items were described from the
perspective of another person and two from the perspective of the self (the participant), allowing us to explore the significance and sensitivity of this measure to the self-other distinction.

In each item, similar to Study 1, one character performed an action and the other character remarked with a single negative adjective. For example, “Imagine you invite some friends over for a poker night. After a couple of hours, you are losing pretty badly, so you decide to start cheating by stacking the deck. After a little while, your friend catches you cheating and says, ‘Repulsive.’ Your friend just said, ‘Repulsive.’ Do you think he or she was talking about you or your cheating?” Unlike Study 1, the characters in each item were entirely unique to that scenario.

The negative adjectives chosen for each scenario were selected from the negative adjective ratings collected in Study 2. Of the 30 adjectives rated, the 12 adjectives with the highest average ratings for descriptiveness of people and actions as well as the lowest discrepancy between ratings of descriptiveness of people and actions were selected. These included rotten, terrible, repulsive, awful, revolting, abominable, worthless, dreadful, atrocious, horrible, pitiful, and lousy.

This scale can be seen in Appendix F.

Experiences in Close Relationships. Participants also completed the ECR to measure adult attachment category (Brennan et al., 1998).

Procedure

Participants were tested individually in a quiet room in the Psychology Department on The Ohio State University’s campus. The order of the two measures was counterbalanced.
Results

Participants included 69 secure, 74 fearful, 70 preoccupied, and 43 avoidant individuals. Results from the two ECR subscales, anxiety ($M=3.56; SD=1.00$) and avoidance ($M=3.0; SD=1.05$), reflected population norms (Fraley, 2000).

Responses were scored using the same method as Study 1. When participants interpreted ambiguous remarks as referring to a person, this was coded as a ‘1.’ When participants interpreted ambiguous remarks as referring to the action (non-personally) this was coded as a ‘0.’ Overall, participants made person interpretations 35% of the time ($M=0.35, SD=0.15$), a similar overall percentage of person interpretations as Study 1. Preliminary analyses revealed no effects of sex, so this variable is omitted from further analyses.

The Influence of Relationship Type and Attachment Security

A 5 x 4 repeated measures ANOVA with relationship type as a within-subjects variable (stranger, boss, family, romantic partner, and friend) and attachment category as a between-subjects variable (secure, fearful, preoccupied, and avoidant) was performed on participants’ person interpretations. A moderate effect of relationship type was detected, $F(4,1008) = 76.30, p=0.00, \eta^2=0.23$ (see Figure 5). Post hoc contrast analyses showed that overall participants were more likely to make person interpretations in the context of the impersonal stranger relationships ($M=0.57, SD=0.36$), which is significantly higher than all three of personal relationships [friends ($M=0.19, SD=0.28$), family ($M=0.38, SD=0.30$), and romantic relationships ($M=0.25, SD=0.31$)], all $p$'s
0.00, but not higher than the possibly equally impersonal boss relationship ($M=0.53$, $SD=0.32$), $p=0.19$.

![Graph showing mean person interpretations for different types of relationships]

**Figure 5. Overall Mean Person Interpretations for Each Type of Relationship**

Unlike Study 1, no effect of attachment status was seen, $F(3, 252) = 0.68$, $p=0.57$, $\eta^2=0.01$. All four groups of participants made similar overall levels of person interpretations ($M_{secure}=0.35$, $SD_{secure}=0.17$; $M_{fearful}=0.35$, $SD_{fearful}=0.15$; $M_{preoccupied}=0.37$, $SD_{preoccupied}=0.15$; $M_{avoidant}=0.34$, $SD_{avoidant}=0.14$). Neither was there any interaction between attachment status and relationship, $F(12, 244)=0.85$, $p=0.60$, $\eta^2=0.01$.

Because of the failure of the overall results to replicate Study 1, a separate analysis was conducted on just the boss/employee items as these items most closely paralleled those in Study 1. However, as in the overall analysis, no effect of attachment
category on participants’ person interpretations in the boss/employee relationship was present, $F(3, 252)=0.28, p=0.84, \eta^2=0.003$.

*Self vs. Other*

Given the failure of the new, brief third-person scenarios to replicate the original result in Study 1, the extra self-relevant items were all the more important. In these two extra scenarios, the interactions were described as though the participant him or herself had performed the actions in question.

A 2 x 4 repeated measures ANOVA with perspective as the within-subject variable (*self and other*) and attachment category as the between-subject variable (*secure, fearful, preoccupied, and avoidant*) was thus conducted to assess the influence of attachment status on person interpretations in the context of friendship when the perspective changed from third-person to first-person. Neither attachment status ($F(3, 252)=0.92, p=0.43, \eta^2=0.01$) nor perspective ($F(1, 245)=0.00, p=0.99, \eta^2=0.00$) had a significant influence on its own. However, in this case, a reliable interaction between attachment status and the self/other perspective was seen, $F(3, 252) = 2.95, p=0.03, \eta^2=0.034$. Participants’ person interpretations for themselves and for third-person friends varied markedly as a function of the participants’ own attachment status (see Figure 6).

Follow-up, post-hoc t-tests within each attachment group showed that secure individuals were equally likely to make person interpretations in both the self and other contexts, $t(68)=1.06, p=0.29$, but none of the insecure groups were. The fearful and preoccupied individuals both more likely to interpret an ambiguous negative remark to be about themselves than about someone else, [fearful: $t(73)=-2.83, p=0.03$; preoccupied:
Avoidant individuals showed the opposite pattern, $t(42)=1.86$, $p=0.07$.

A follow-up analysis on just the self-directed items revealed a marginally significant effect of attachment category, $F(3, 252)=2.31$, $p=0.07$, $\eta^2=0.03$. The dimensional analysis of using the continuous variables of anxiety and avoidance as covariates showed that this result was driven by anxiety, $F(1,253)=5.075$, $p=.03$, $\eta^2=0.02$.

Discussion

In Study 3, we attempted to replicate and extend the findings of Study 1 with mixed results. Once again, participants were asked to judge the referent of an ambiguous,
negative remark made by one character during an interaction with another character. This study included scenarios depicting five different types of relationships within which the interactions occurred instead of just a singular relationship (friend, family, romantic partner, boss/employee and stranger). It also included a comparison of participants’ judgments in the context of scenarios in which a character directed an evaluation towards a third-person situation and stories in which a character directed an evaluation towards a first-person situation.

A large effect of relationship type was found on participants’ tendency to interpret negative remarks as referring to the person, rather than the person’s action. Participants were far more likely to make person interpretations in the context of the relatively impersonal relationships (stranger and boss/employee) than the more personal relationships (friend, family, and romantic partner).

However, unlike Study 1, we found no general association between participants’ judgments and their attachment status, not even in the case of the boss/employee relationship as was found in Study 1. This result may be because of a change in methodology from Study 1 to Study 3. One significant shortcoming of The Evaluative Interpretation Measure – Relationship and Perspective was that the brevity of each scenario did not allow participants to get a sense of the quality of the relationship depicted between the characters in the story. Attachment theory centers on the quality of one’s relationship with his or her attachment figure. While we varied the type of relationship in the 12 scenarios, participants did not receive any information about the quality of that relationship. In Study 1, participants read a continuous story about the same characters interacting over the course of a day. The scenarios in Study 3 were quite
brief and thus were rather scarce in information depicting the quality of the relationship between characters. As such, this may account for Study 3’s inability to replicate Study 1 results.

Associations with attachment status were found, however, in the analysis of the items involving stories directed towards participants. In this case, insecurely attached individuals interpreted the negative adjective differently depending on whether it was used in stories about themselves or about a third party. Participants with fearful and preoccupied attachment were more likely to make person interpretations in the stories about themselves than in the third person stories, while participants with avoidant attachment did the reverse. Participants with secure attachment did not distinguish between the two perspectives.

There was a marginal association with attachment status for just the two scenarios directed towards the participants. In these stories, participants were asked to imagine performing some action and then their friend made a negative remark. Observing attachment-related differences here is impressive again, because like Study 1, we did not stress participants out to activate their attachment schemas. Also, we did not indicate which friend, i.e. a close friend, their best friend, the last friend they talked to, etc., nor did we give them any information about the quality of the relationship with said friend. Perhaps participants were able to bring the knowledge of the quality of their own friendships, allowing them to activate their internal working model more than other scenarios.
RESULTS FROM ALL THREE STUDIES CONVERGE ON THE FINDING THAT THERE ARE ATTACHMENT-RELATED DIFFERENCES IN THE INTERPRETATION OF AMBIGUOUS, NEGATIVE EVALUATIONS. STUDY 1 REVEALED INDIVIDUAL DIFFERENCES IN OVERALL PERSON INTERPRETATIONS ACROSS SEVERAL EVALUATIVE INTERACTIONS EMBEDDED IN THE SAME VIGNETTE. SPECIFICALLY, FEARFUL ADULTS (THOSE HIGHER IN ANXIETY AND AVOIDANCE) WERE MORE LIKELY TO INTERPRET AMBIGUOUS REMARKS IN A DISPOSITIONAL WAY COMPARED TO SECURE PARTICIPANTS. PARTICIPANTS SIMILARLY INTERPRETED UNAMBIGUOUS EVALUATIONS. IN THE FACE OF UNCERTAINTY, PARTICIPANTS APPEARED TO Rely ON THEIR INTERNAL WORKING MODEL CONSTRUAL TO SUBJECTIVELY PROCESS AMBIGUOUS, NEGATIVE REMARKS.

SEEKING TO RULE OUT CONFOUNDS IN STUDY 1 AND INCREASE CONFIDENCE IN THE PREVIOUS RESULTS, STUDY 2 ASSESSED PARTICIPANTS’ PERCEPTION OF DEFAULT REFERENTS OF VARIOUS NEGATIVE ADJECTIVES: PEOPLE, ACTIONS, AND OBJECTS. ATTACHMENT STATUS DID NOT PREDICT RATTNINGS OF NEGATIVE ADJECTIVES’ DESCRIPTIVENESS FOR VARIOUS REFERENTS. THEREFORE, THE RESULTS FROM STUDY 1 DO NOT APPEAR TO BE AN ARTIFACT OF LANGUAGE PERCEPTION. ADDITIONALLY, SYSTEMATIC RATINGS WERE COLLECTED FOR 30 DIFFERENT ADJECTIVES IN ORDER TO MORE OBJECTIVELY SELECT AMBIGUOUS ADJECTIVES FOR FUTURE MEASURES.

FInALLY, IN STUDY 3, WE EXTENDED OUR FINDINGS FROM STUDY 1 BY VARYING THE RELATIONSHIPS DEPICTED BETWEEN THE TWO CHARACTERS IN AN EVALUATIVE INTERACTION AND THE PERSPECTIVE FROM WHICH PARTICIPANTS INTERPRETED EVALUATIONS: THIRD-PERSON INTERACTIONS (LIKE STUDY 1) OR FIRST-PERSON INTERACTIONS. RESULTS DID NOT REPLICATE INDIVIDUAL DIFFERENCES
in overall mean person interpretations. However, we propose this may be the result of the paucity of information about the *quality* of the relationship between the two individuals in each interaction. The type of relationship did significantly affect participants’ interpretations overall in that participants appeared to process evaluations differently depending on how personal or impersonal the type of relationship was. Finally, attachment category significantly predicted differences between processing evaluations made from the participant’s perspective versus evaluations made about another’s interaction. Specifically, fearful and preoccupied individuals were more likely to take self-directed evaluations personally than evaluations directed at another. Avoidant participants showed the opposite pattern. Secure participants did not differ between their interpretations of evaluations directed at the self or others. These results highlight the differential processing potential of one’s internal working models.

*Developmental Trajectory*

Results presented here indicate an association between attachment category and differences in the interpretation of ambiguous evaluations. While evidence of this relationship is initially established in these studies, causality is beyond the scope of this paper. Consequently, this begs the question: which causes the other? Bowlby (1973, 1979) proposed that internal working models are developed through one’s relationship with their caregiver. Specifically, individuals garner knowledge about how worthy they are of receiving attention and care and how likely others are to nurture them. From one’s earliest interactions with their attachment figure, they form internal working models of the world and of themselves in it. For example, abused children develop patterns of negative social information processing (Dodge, Bates, & Pettit, 1990). Therefore,
applying this theory to our findings, individuals may learn how to interpret other people’s ambiguous behavior and statements via their internal working models. Via this theory, attachment status develops first and through the development of these schemas, one interprets information about the self and others in a biased way that aligns with their internal working models.

However, more recent literature has revealed that attachment security is not entirely dependent on the responsiveness of one’s caregiver. A meta-analysis assessing caregiver’s sensitivity and attachment security concluded that parenting behavior only accounts for about a third of the variance in attachment security (Wolff & Ijzendoorn, 1997). In addition, biological factors, such as infant’s temperament, have been associated with the quality of relationship between infant and caregiver, subsequently influencing the development of one’s attachment security (Belsky & Rovine, 1987; Goldsmith & Alansky, 1987; van IJzendoorn, & Bakermans-Kranenburg, 2012). Also, oxytocin receptor polymorphisms are associated with non-Caucasian infants’ attachment security (Chen, Barth, Johnson, Gotlib, & Johnson, 2011). Limited twin-studies assessing the genetic contributions to attachment security reveal a modest role of genetic influence on attachment development (Finkel & Matheny, 2000). In addition, various gene-environment interactions on infant attachment have been documented (Gervai, 2009). These results support the differential susceptibility hypothesis, which proposes that children’s sensitivity to caregiver’s responsiveness is moderated by genetic factors (Belsky, Bakermans-Kranenburg, & Van IJzendoorn, 2007).

While parenting effects have been thoroughly explored and established in the development of attachment security, more recent research has also highlighted the role of
child effects in this relationship. Therefore, it is possible that certain children are born with a proclivity to take things personally. That is, they are more likely to interpret the behavior of their caregivers as dispositional information about themselves, and this predisposition could foster the development of their attachment security. As such, perhaps children who have a dispositional processing bias are more likely to develop an insecure attachment to their attachment figure. As mentioned previously, these questions are beyond the scope of this paper, but these results call for future studies to track the developmental trajectory of this association and eventually tease out the causality of dispositional biases and internal working models.

Implications

Previous literature has outlined various negative outcomes of dispositional feedback. Dweck’s (1999, 2006) research indicates that students who receive clear, distinct dispositional feedback, i.e. ‘You are so smart,’ are more likely to endorse fixed mindsets of intelligence, regardless of valence. This endorsement of a fixed mindset is subsequently influential in the students’ behavior after difficult problems sets. Students who received personal feedback were more likely to experience negative affect, helplessness behaviors, avoidance of difficult problems, avoidance of learning opportunities, and less persistence on difficult problems. Therefore, the administration of personal evaluations significantly influenced children’s lay theories of intelligence and consequently affected their learning behavior. While the negative outcomes of unambiguous, dispositional feedback have been documented at a group level, potential individual differences in one’s interpretation of feedback have been largely unexplored.
As displayed in previous literature, people can systematically differ in their interpretation of the exact same input.

Our paper assesses and observes individual differences in the interpretation of ambiguous, negative remarks. Specifically, insecurely attached participants, particularly fearful individuals, were more likely to interpret ambiguous evaluations personally, especially when interpreted from a first-person perspective. While Dweck outlines the negative impact of unambiguous dispositional feedback, we outline the proclivity for certain individuals to interpret ambiguous feedback in this potentially harmful way. Insecurely attached adults’ bias to process ambiguous evaluations more personally than other individuals can result in the perpetuation of negative self-schemas. Dweck highlights the negative outcomes of dispositional feedback, and we identify individuals more likely to interpret ambiguous evaluations through a dispositional lens.

This identification of the association between attachment categorization and taking feedback personally can be influential in the creation of intervention programs that may equip insecurely attached adults with the skill to interpret evaluations through a more objective lens. As mentioned previously, further research is needed in order to illustrate the developmental trajectory of this phenomenon. Do anxiously attached individuals first develop internal working models through which they dispositionally interpret self-relevant information? Or are some babies born with a proclivity for dispositional biases and they consequently develop particular internal working models that reflect this bias? Identifying the path through which this association develops will aide in the production of effective programs that may foster more positive internal
working models in insecurely attached individuals and prevent individuals from taking feedback personally.

Conclusions

Overall, these studies provide initial evidence of individual differences in the interpretation of ambiguous, negative evaluations based on attachment category. Insecurely attached individuals are more likely to take ambiguous evaluations personally when compared to secure participants. This is especially true for fearful and preoccupied individuals when evaluations are directed towards the self than when directed towards others. These differences do not appear to be the byproduct of differences in the perception of negative adjectives’ goodness of fit between certain referents over others. Instead, the negativity present in insecurely attached participants’ internal working models may influence their subjective processing of evaluative information. Further research is needed to assess this association with additional methodologies and in younger populations.

Limitations and Future Directions

Notably this paper focuses only on negative evaluations in order to control the valence of feedback in this initial analysis. In the future, we would like to extend this line of inquiry to both positive and neutral feedback in order to assess the effects of the valence of ambiguous feedback on interpretations. Because the valence of one’s internal working models differs by attachment category, assessing how the valence of ambiguous feedback affects interpretations differentially across attachment categorization is a natural next step.
Additionally, the results of these studies were obtained via surveys administered to college undergraduate freshmen. We purposively chose this methodology because of its advantages in assessing a novel question, i.e. ease of administration, time-efficient, quick access to larger sample size, etc. In this first exploration, our main goal was to assess if the proposed phenomenon was observable. After these studies, we feel this initial evidence is enough to warrant further exploration of this association with more sensitive methodologies. Specifically, in the future, we wish to extend this line of inquiry by assessing these questions with non-verbal methods, i.e. reaction times, eye-tracking, etc. This will allow us to assess this relationship with more sensitive measurements and will increase confidence in these results obtained via questionnaires. These non-verbal methods will also allow us to extend our inquiries to earlier stages in development and consequently assess the developmental trajectory of these results with younger participants.
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Appendix A: Experiences in Close Relationships Scale

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

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<tr>
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<tr>
<td>Disagree Strongly</td>
<td>Neutral</td>
<td>Agree Strongly</td>
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1. I prefer not to show a partner how I feel deep down. 1 2 3 4 5 6 7
2. I worry about being abandoned. 1 2 3 4 5 6 7
3. I am very comfortable being close to romantic partners.* 1 2 3 4 5 6 7
4. I worry a lot about my relationships. 1 2 3 4 5 6 7
5. Just when my partner starts to get close to me I find myself pulling away. 1 2 3 4 5 6 7
6. I worry that romantic partners won’t care about me as much as I care about them. 1 2 3 4 5 6 7
7. I get uncomfortable when a romantic partner wants to be very close. 1 2 3 4 5 6 7
8. I worry a fair amount about losing my partner. 1 2 3 4 5 6 7
9. I don’t feel comfortable opening up to romantic partners. 1 2 3 4 5 6 7
10. I often wish that my partner’s feelings for me were as strong as my feelings for him/her. 1 2 3 4 5 6 7
11. I want to get close to my partner, but I keep pulling back. 1 2 3 4 5 6 7
12. I often want to merge completely with romantic partners, and this sometimes scares them away. 1 2 3 4 5 6 7
13. I am nervous when partners get too close to me. 1 2 3 4 5 6 7
14. I worry about being alone. 1 2 3 4 5 6 7
15. I feel comfortable sharing my private thoughts and feelings with my partner.* 1 2 3 4 5 6 7
16. My desire to be very close sometimes scares people away. 1 2 3 4 5 6 7
17. I try to avoid getting too close to my partner. 1 2 3 4 5 6 7
18. I need a lot of reassurance that I am loved by my 1 2 3 4 5 6 7
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<th>Question</th>
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<tr>
<td>19. I find it relatively easy to get close to my partner.*</td>
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<td>20. Sometimes I feel that I force my partners to show more feeling, more commitment.</td>
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<td>21. I find it difficult to allow myself to depend on romantic partners.</td>
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<td>22. I do not often worry about being abandoned.*</td>
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<td>23. I prefer not to be too close to romantic partners.</td>
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<td>24. If I can’t get my partner to show interest in me, I get upset or angry.</td>
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<td>25. I tell my partners just about everything.*</td>
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<td>26. I find that my partners don’t want to get as close as I would like.</td>
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<td>27. I usually discuss my problems and concerns with my partner.*</td>
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<td>28. When I’m not involved in a relationship, I feel somewhat anxious and insecure.</td>
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<td>29. I feel comfortable depending on romantic partners.*</td>
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<td>30. I get frustrated when my partner is not around as much as I would like.</td>
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<td>31. I don’t mind asking romantic partners for comfort, advice, or help.*</td>
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<td>32. I get frustrated if romantic partners are not available when I need them.</td>
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<td>33. It helps to turn to my romantic partner in times of need.*</td>
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<td>34. When romantic partners disapprove of me, I feel really bad about myself.</td>
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<td>35. I turn to my partner for many things, including comfort and reassurances.*</td>
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<td>36. I resent it when my partner spends time away from me.</td>
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Note: Odd questions assess attachment-related avoidance and even questions assess attachment-related anxiety. Questions marked with a * were reversed coded.
Appendix B: Evaluative Interpretation Measure

The following pages tell a story about two people and ask questions about the information presented. Read the directions below before proceeding.

**Directions:**
- Do not separate any pages from the booklet.
- Read the pages and answer the questions in order.
- Clearly circle only ONE choice for each question.

(Note: each line break represents a new page in the booklet the participants were presented.)

Jonathan and Ashley work at Party World, a store that sells party supplies. Ashley is Jonathan’s boss. Ashley walks into the break room to sit down for a few minutes before the day begins. As she sits, she sees Jonathan wiping down the counters of the break room.

1. Who is cleaning the counter?
   - Jonathan
   - Ashley

2. Who is watching?
   - Jonathan
   - Ashley

When Jonathan finishes cleaning the counter, he begins to brew a pot of coffee.

3. What's he making?
   - Coffee
   - Cookies

4. How's he making it?
   - Baking
   - Brewing

As the pot of coffee starts brewing, Jonathan leans against the counter and rubs his eyes. Ashley remarks, “Gosh, you look awful.”

5. Ashley just said, “You look awful.” Do you think she was talking about
   - Jonathan
   - The coffee?
Jonathan then turns around and begins to pour himself a cup of coffee. He accidentally pours some coffee on the counter. Ashley comments, “That was clumsy.”

6. Ashley just said, “That was clumsy.” Do you think she was talking about Jonathan or the coffee pouring?
   - Jonathan
   - The coffee pouring

Once Jonathan cleans up the mess, he turns to Ashley and asks her if she would like a cup of coffee. She replies, “Yes, please.” Jonathan begins to pour coffee for Ashley and she remarks, “That smells delicious!”

7. Ashley just said, “That smells delicious.” Do you think she was talking about the coffee pouring or the coffee?
   - The coffee pouring
   - Jonathan

A few hours later, Ashley is sitting in the workroom at Party World, folding gift boxes for the store. She already constructed several completed boxes and was just starting a new one when Jonathan walked into the workroom.

8. What is Ashley making?
   - A gift box
   - A poster

9. How is she making the gift boxes?
   - Folding
   - Cutting

Ashley is called out onto the sales floor, so she instructs Jonathan to finish folding the gift box. Jonathan sits down to begin as Ashley leaves.

10. Who is folding now?
    - Ashley
    - Jonathan

Jonathan dislikes making the gift boxes and does not pay close attention to what he is doing. He hurriedly folds the boxes, not always in the correct places. Ashley walks back into the workroom, as Jonathan is folding, and says, “Terrible.”

11. Ashley just said “Terrible.” Do you think she was talking about Jonathan or his folding?
    - Jonathan
    - His folding
Ashley is again called to the sales floor and Jonathan continues to work. He finishes folding the misshapen gift box and places it in the pile, as Ashley walks back into the workroom. She states, “Awful!”

12. Ashley just said “Awful.” Do you think she was talking about Jonathan or his gift box?  
   Jonathan His gift box

Later that day, Ashley is again in the workroom, this time gluing together construction paper to make monkey decorations for the Party World store. Ashley already made a pile of completed decorations.

13. What is Ashley making?  
   Books Decorations

14. How is she making the decorations?  
   Gluing Writing

Ashley needs to go give an employee a lunch break, so she tells Jonathan to finish gluing the monkey decorations. Jonathan sits down and begins to work on the decorations, as Ashley leaves the workroom.

15. Who is gluing now?  
   Ashley Jonathan

Jonathan continues to work on the decorations, putting on too much glue and sloppily placing the pieces together. Ashley walks back into the workroom and comments, “Pathetic!”

16. Ashley just said “pathetic.” Do you think she was talking about Jonathan or his gluing?  
   Jonathan His gluing

Ashley leaves again and Jonathan continues his poor construction of the monkey decoration. Jonathan finally finishes the decoration, that doesn’t quite look like a monkey, and puts it in the pile. Ashley returns and comments, “Lousy!”

17. Ashley just said “Lousy.” Do you think she was talking about Jonathan or his decoration?  
   Jonathan His decoration
Appendix C: Negative Adjective Rating Scale

Instructions:
We want to know if some adjectives are used more often to describe people, to describe objects, or to describe actions.

For example, the word 'good' applies equally well to people, to objects, and to actions. "John is a good man," “Her driving is good,” and “The author’s book is good” all sound okay.

On the other hand, the word 'honorable' applies differently to people, actions, and objects. Honorable can describe a person very well: “Marie is an honorable person” sounds okay. For most actions, honorable sounds weird: "Mom’s sewing is honorable" and “The teacher’s reading is honorable” sound odd. Yet, there are a few actions that could be described by 'honorable': “Tim's volunteering is honorable.” Finally, honorable does not work at all with objects: “His project is honorable” sounds strange.

Please rate each of the following adjectives below according to how well it describes people, it describes objects, and it describes actions. ‘1’ means it doesn’t work at all and ‘5’ means it works well.

Scale:

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<th>3</th>
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<tr>
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<td>Does not work at all</td>
<td>Does not work very well</td>
<td>Neither works nor doesn’t work</td>
<td>Works well</td>
<td>Works very well</td>
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Examples:

Ex1. Good:

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<td>c. Actions</td>
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Ex2. Honorable:

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<td>b. Objects</td>
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<td>1</td>
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<td>5</td>
</tr>
<tr>
<td>c. Actions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</table>
1. **Poor:**
   a. **People**
      1  2  3  4  5
   b. **Objects**
      1  2  3  4  5
   c. **Actions**
      1  2  3  4  5

2. **Bad:**
   a. **People**
      1  2  3  4  5
   b. **Objects**
      1  2  3  4  5
   c. **Actions**
      1  2  3  4  5

3. **Imperfect:**
   a. **People**
      1  2  3  4  5
   b. **Objects**
      1  2  3  4  5
   c. **Actions**
      1  2  3  4  5

4. **Terrible:**
   a. **People**
      1  2  3  4  5
   b. **Objects**
      1  2  3  4  5
   c. **Actions**
      1  2  3  4  5

5. **Inferior:**
   a. **People**
      1  2  3  4  5
   b. **Objects**
      1  2  3  4  5
   c. **Actions**
      1  2  3  4  5

53
6. Stupid:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

7. Inadequate:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

8. Awful:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

9. Insufficient:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

10. Ugly:
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       1  2  3  4  5
    b. Objects
       1  2  3  4  5
    c. Actions
       1  2  3  4  5
11. Horrible:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

12. Heinous:
   a. People
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   b. Objects
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   c. Actions
      1  2  3  4  5

13. Dreadful:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

14. Wretched:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

15. Dumb:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5
16. Deficient:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

17. Unacceptable:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

18. Careless:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

19. Worthless:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

20. Pathetic:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5
21. Faulty:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

22. Rotten:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

23. Flawed:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

24. Unsatisfactory:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

25. Pitiful:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5
26. Repulsive:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

27. Abominable:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

28. Lousy:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

29. Atrocious:
   a. People
      1  2  3  4  5
   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5

30. Revolting:
   a. People
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   b. Objects
      1  2  3  4  5
   c. Actions
      1  2  3  4  5
Appendix D: Mean Negative Adjective Ratings

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Appendix E: One-Way, Repeated-Measure ANOVA for Person, Action, and Object Ratings by Attachment Category for Each Adjective

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Appendix F: Evaluative Interpretation Measure – Relationships and Perspective

Directions:
People use criticism differently. Sometimes criticism is used to critique a person and other times criticism is used to critique the way a person does something. Please read the following 12 scenarios that describe everyday interactions and answer the question accompanying each situation. There are no right or wrong answers.

Scenario 1:
Sam takes the train home from work one evening. During the ride, a teenager pulls out a permanent marker from his bag and begins to write curse words on his seat. As he continues to vandalize the train, Sam looks away and thinks to herself, “Rotten.”

1. Sam just said, “Rotten.” Do you think she was talking about the teenager or his vandalizing?
   The teenager
   His vandalizing

Scenario 2:
Jamie is the manager of a grocery store. Several customers have reported that his employee, Janice, is bagging groceries poorly. He decides to watch Janice that afternoon. As he watches, he observes Janice bagging bread with canned food on top, overstuffing bags, etc. Jamie mutters to himself, “Terrible.”

2. Jamie just said, “Terrible.” Do you think he was talking about Janice or her grocery bagging?
   Janice
   Her grocery bagging

Scenario 3:
Imagine you invite some friends over for a poker night. After a couple of hours, you are losing pretty badly, so you decide to start cheating by stacking the deck. After a little while, your friends catch you cheating and they say, “Repulsive.”

3. Your friends just said, “Repulsive.” Do you think they were talking about you or your cheating?
   You
   Your cheating

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**Scenario 4:**
Avery asks his girlfriend, Marcy, where she was last night. Marcy replies, “Oh, I was at Stephanie’s house all night.” Avery knows Marcy is lying because Stephanie called to talk to Marcy last night. Avery responds, “Awful.”

4. Avery just said, “Awful.” Do you think he was talking about Marcy or her lying?
   - Marcy
   - Her lying

**Scenario 5:**
Riley invites his friend, Steve, to play on his intramural softball team. Steve decides to play outfield. Every time a ball is hit in Steve’s direction, he attempts to catch it with his eyes and his glove closed. Noticing this, Riley remarks, “Revolting.”

5. Riley just said, “Revolting.” Do you think he was talking about Steve or his catching?
   - Steve
   - His catching

**Scenario 6:**
Pat tells her daughter, Jane, she must wash the dishes before she can watch television. Jane hurriedly washes the dishes and runs to the couch to catch her favorite television show. Pat walks into the kitchen, notices food on many dishes, and says to herself, “Abominable.”

6. Pat just said, “Abominable.” Do you think she was talking about Jane or her washing?
   - Jane
   - Her washing

**Scenario 7:**
Taylor receives word that one of his top employees, Brittany, plagiarized her latest report. Upon hearing this news, Taylor investigates and discovers that Brittany has plagiarized several of her reports over the last 6 months. Taylor shakes his head and mutters, “Worthless.”

7. Taylor just said, “Worthless.” Do you think he was talking about Brittany or her plagiarizing?
   - Brittany
   - Her plagiarizing
**Scenario 8:**
Logan goes to the store with her friend, Beth, to pick up a couple of items. In the store, the girls separate to find what they need. Once Logan finishes shopping, she searches for Beth and finds her in the nail polish aisle. As Logan walks down the aisle, she notices Beth putting nail polish into her purse and pockets. Logan’s mouth drops open and she says, “Dreadful.”

8. Logan just said, “Dreadful.” Do you think she was talking about Beth or her stealing?
   - Beth
   - Her stealing

**Scenario 9:**
Morgan is driving to work when a man in a white car cuts her off. At the next intersection, she has to honk for him to go after the light turns green. Once on the highway, Morgan passes the man in white car and mumbles, “Atrocious.”

9. Morgan just said, “Atrocious.” Do you think she was talking about the man or his driving?
   - The man
   - His driving

**Scenario 10:**
Alex wants to play video games with his brother, Jacob. As the two boys are playing, Jacob becomes angry because Alex is much better at the game and keeps winning. After the 5th game, Jacob stands up, kicks Alex in the leg, and walks away. Alex yells, “Horrible.”

10. Alex just said, “Horrible.” Do you think he was talking about Jacob or his kicking?
    - Jacob
    - His kicking

**Scenario 11:**
Peyton receives the credit card bill in the mail today. When she opens it up, she is shocked to see that her husband, Todd, spent $1,000 on golf clubs! As she looks over the bill, she throws her hands in the air and exclaims, “Pitiful!”

11. Peyton just said, “Pitiful.” Do you think she was talking about Todd or his spending?
    - Todd
    - His spending
Scenario 12:
Imagine you decide to cook dinner for yourself and your roommate. You do not enjoy cooking and often do not bother to follow recipes carefully. As you mix together some overcooked pasta and cold meat sauce, your roommate comments, “Lousy.”

12. Your roommate just said, “Lousy.” Do you think (s)he was talking about you or your cooking?

You

Your cooking