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Effects of Verbal and Nonverbal Communication of Affection on Avoidantly Attached
Partners' Emotions and Message Receptiveness

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### Abstract

Research on adult attachment in romantic relationships has focused on the negative outcomes that avoidantly attached individuals face. The present research uses observational research methods to determine if there are specific ways of communicating affection that might help avoidantly attached people reap similar levels of rewards from affectionate communication as those who are more secure. We combined three samples (N<sub>total</sub> = 260 couples, 560 participants) who took turns describing a time they felt strong love for their partner, and coded their expressions for cues of verbal affection (i.e., emotion-laden words) and nonverbal affection (i.e., behavioral expressiveness). Higher levels of the speaker's nonverbal affection were associated with stronger positive emotion and behavioral receptiveness (i.e., appearing engaged) for listeners higher in attachment avoidance. Altogether, we provide evidence that avoidantly attached individuals may experience positive outcomes from affectionate exchanges when the communication style is tailored to their unique needs.

Keywords: attachment; romantic relationships; communication; emotion in relationships; intimacy

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Individuals who are avoidantly attached, or eschew intimacy and closeness, typically respond to intimacy with lower receptiveness and positive emotion (Hicks & Diamond, 2008) as well as more negative emotion (Mikulincer & Nachshon, 1991). Thus, an important question is how people can effectively express affection to an avoidantly attached individual. In the present research, we aim to understand if affection expressed through nonverbal and/or verbal cues can lead to positive responses among avoidantly attached individuals for whom intimacy is often difficult to achieve. We thought it possible that expressions of verbal affection might be particularly important for avoidantly attached individuals because they provide direct and overt expressions of a partner's feelings, and suggest that their partner can be trusted in times of need. On the other hand, nonverbal affection— possibly a more covert signal of a partner's reliability—might specifically prevent avoidantly attached individuals' fears of intimacy from being activated.

Using observational research methods to examine partner conversations about love, we expand on the growing body of work on buffering attachment avoidance (see review by Simpson & Overall, 2014) in three main ways. First, whereas past work in the dyadic communication literature has mostly focused on attachment avoidance in distress situations such as conflict (Overall, Simpson, & Struthers, 2013) or social support (Collins & Feeney, 2004), our work is some of the first to examine how a speaker's affectionate messages can be most effectively communicated to avoidantly attached listeners. Second, the small body of work conducted on positive conversations (e.g., capitalization; Gosnell & Gable, 2013) has primarily focused on providing responsive support to the speaker as

opposed to tailoring affectionate messages to the listener. Finally, we move beyond simply understanding the *degree* of intimacy-laden cues that avoidantly attached individuals desire (Stanton, Campbell, & Pink, 2017) and explore the *type* of affection that addresses their unique needs (i.e., enhanced evidence of the partner's trustworthiness) to impact emotions and behavioral receptiveness during couple interactions.

# **Attachment Avoidance and Reduced Intimacy-Related Outcomes**

Because avoidantly attached individuals often perceive close others as untrustworthy, unreliable and uncaring (Hazan & Shaver, 1987), they often make efforts to prevent intimacy from developing and are less able to experience the positive outcomes of their partners' affectionate behavior. At a behavioral level, one way in which avoidantly attached individuals prevent intimacy from occurring is by exhibiting less receptiveness in response to positive social stimuli relative to less avoidant individuals. We define receptiveness as a behavioral demonstration of approval, engagement and warmth in response to social stimuli. Avoidantly attached individuals exert high levels of control over their positive emotions such as by concealing positive emotions from their partner (Feeney, 1999), Furthermore, individuals high relative to low in attachment avoidance are less responsive to their partner, even when their partner is discussing positive events (Shallcross, Howland, Bemis, Simpson, & Frazier, 2011). Avoidants' suppression of their behavioral responses may be problematic because failure to engage with their partners' affectionate gestures may prevent avoidantly attached individuals from experiencing the full emotional benefit of these expressions.

Indeed, in addition to displaying reductions in behavioral positivity, avoidantly attached individuals also exhibit disruptions in their affective responses to intimacy-

related cues, such as low levels of positive emotions and high levels of negative emotions. For example, in a gratitude induction task in which people were asked to recall a time that their relationship partner engaged in a kind behavior, relative to more secure individuals, avoidantly attached individuals were more likely to recall negative experiences involving threats and distrust, as well as less happiness and love (Mikulincer & Shaver, 2005). Even during intensely emotionally-laden situations, such as spouses' reunion after long periods of separation, avoidantly attached individuals demonstrated dampened positive emotions and higher degrees of conflict relative to those who were more securely attached (Medway, Davis, Cafferty, & Chappell, 1995). Taken together, avoidantly attached individuals appear to struggle to achieve positive behavioral and affective outcomes in response to intimacy-related cues.

# Partner Buffering of Attachment Avoidance

Because avoidantly attached individuals have unique needs (i.e., they need enhanced evidence of the partner's trustworthiness), perhaps affection is best communicated in tailored ways in order for them to display behavioral receptiveness and experience more positive and less negative emotions. Recent findings on partner buffering, or reducing the negative outcomes associated with attachment avoidance, suggest that relationship strategies that address an individual's unique needs are more effective at helping romantic partners achieve positive relationship outcomes (Simpson & Overall, 2014).

While much of the initial buffering research has focused on reducing negative outcomes in times of conflict (e.g. Farrell, Simpson, Overall, & Shallcross, 2016; Overall et al., 2013), recent research suggests that it is also important to communicate to avoidantly

Although intimacy-laden cues tend to promote personal and relationship well-being for avoidantly attached individuals (Stanton et al., 2017), it remains unclear which *types* of cues are likely to have these effects. Given that affection can be expressed through both verbal and nonverbal channels (Andersen, Guerrero, & Jones, 2006), we examined the influence of verbal and nonverbal expressions of affection on the reactions of romantic partners to such expressions. To capture the wide variety of verbal and nonverbal affectionate behaviors demonstrated by couples in the present research, we developed our

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own coding scheme. We took an iterative approach to developing the codes, in which we first drew upon the literature on observational coding of couples in affectionate contexts (e.g. Roberts & Greenberg, 2002; Tucker & Anders, 1998) and selected the codes that we saw present in our sample. We then developed our own codes for the remainder of the themes that we observed in the sample that were not developed in previous literature. Although we did not have a priori predictions as to whether one or both of the channels (verbal and nonverbal) would be particularly beneficial, below we highlight the theoretical rationale for why each channel may or may not buffer the negative personal and relational outcomes of avoidantly attached individuals in affectionate situations.

Verbal statements of affection include words and phrases such as "I love you" or "I like you" (Floyd, 2018). People often communicate affection through verbal channels when they wish to be overt and unambiguous about the state of their relationship (i.e., that their relationship is characterized by love; Floyd, 1997). Because avoidantly attached individuals tend to respond to clear, unwavering cues that their partner cares about them (Girme et al., 2015), verbal statements may help avoidantly attached individuals to accept the veracity of their partners' affections. However, it is also possible that communicating affection through verbal channels may backfire for avoidantly attached listeners. Verbal channels relative to nonverbal channels are more likely to include deceptive communication in pursuit of goals such as to pressure a recipient into heightened levels of relationship commitment (Booth-Butterfield, & Trotta, 1994). Because avoidantly attached individuals resist intimacy, especially when it is not autonomously chosen (Mikulincer & Shaver, 2007), any doubts about the sincerity of their partner's affections may prevent avoidantly attached individuals from realizing the full personal and relational benefits of the expression.

We refer to nonverbal signals of intimacy as nonverbal affection, which represent the degree to which a person is an engaged and active participant in a social interaction (Coker & Burgoon, 1987). Nonverbal affection cues include a wide range of behaviors including smiling, forward leans, head nods, and animated voice and gestures (Andersen, Guerrero, & Jones, 2006). Nonverbal affection may be particularly beneficial for avoidantly attached individuals because its perceived genuineness and relatively indirect style of communication may ameliorate their difficulties with trust and tendency to eschew closeness. Nonverbal affection cues are thought to be particularly genuine signals of affection because they arise spontaneously and are consistent across multiple channels (e.g., vocal animation, facial expressions), making the speaker's affectionate signal more reliable (Andersen, Guerrero, & Jones, 2006). Thus, nonverbal affection cues may target avoidantly attached individuals' difficulties with trust (Mikulincer & Shaver, 2007) by providing converging evidence of their partners' affections. At the same time, nonverbal affection cues (compared to verbal ones), while powerful, are relatively indirect forms of emotional expression, and there are a wide variety of interpretations for these behaviors. For example, some cues of nonverbal affection (e.g., being vocally and facially animated). could express love, liking, or simply joy. Thus, this relatively indirect form of communication may prevent avoidantly attached individuals' fears of closeness from being activated, while still providing the benefits of affectionate communication. On the other hand, there may be reasons why nonverbal affection cues may not buffer the poor personal and relational outcomes of avoidantly attached individuals. Because nonverbal affection cues are relatively indirect, avoidantly attached individuals may not correctly infer that their partner's behavior is indeed affectionate. Avoidantly attached individuals typically

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ignore signs of closeness and intimacy (Mikulincer & Shaver, 2007), and thus nonverbal affection signals may not be communicating affection clearly enough for these individuals to reap the benefits.

### **Overview of the Present Research**

The primary aim of the current investigation is to understand how affection can be most effectively communicated to avoidantly attached individuals so that they receive their partners' messages of love. We used observational research methods in the context of affectionate communication to examine which speaker behaviors were most strongly associated with positive outcomes for avoidantly attached listeners across two North American countries (United States and Canada). After assessing attachment style, we video recorded couples discussing a time the speaker felt strong love for the listener and measured self-reports of both couple members' positive and negative emotions after the conversation. Trained coders made ratings on the speaker's verbal and nonverbal cues of affection for the listener, as well as how well the listener appeared to receive these cues. We then used these codes to predict how verbal and nonverbal cues of affection mapped onto avoidantly attached listeners' receptiveness to these messages, as well as their selfreported positive and negative emotions.

#### Methods

# **Participants**

**Sample 1.** We recruited 100 couples (200 participants) from undergraduate psychology courses and community sources (Kijiji.com, Craigslist.org, Facebook groups and campus flyers) in a large Canadian city. Participants either received one course credit or \$20 CAD. Of the 100 couples, 90 were heterosexual, eight were lesbian, and two were gay

male couples. The age of participants ranged from 18-47 years (M=21.97, SD=4.99). Couples were dating for a minimum of less than one month and a maximum of seven years (M=17.92 months, SD=16.96 months). Roughly a quarter (25.5%) of couples reported living together.

**Sample 2.** We recruited 124 couples (248 participants) from the same institution and the surrounding community as Study 1 using identical advertising procedures. Participants received \$20 to complete the study. Of the 124 couples, 118 were heterosexual and six were lesbian. Ages ranged from 18-46 years (M=21.70 years, SD=4.19 years). Couples were together for a minimum of two months and a maximum of 10 years (M=24.66 months, SD=22.07 months). Almost a third (29.8%) of couples lived together at the time of study.

**Sample 3.** We recruited 80 couples (160 participants) from the San Francisco Bay Area by flyers posted throughout the area and online via Craigslist.org. Of the 80 couples, 75 were heterosexual, four were lesbian and one was a gay male couple. The couples had been dating for a minimum of six months and a maximum of 30 years (*M*=29.21 months; *SD*=43.40 months). Participants ranged in age from 18 to 60 years (*M*=23.84, *SD*=6.37). In addition, 48% of the couples were cohabitating. We compensated all participants \$20 USD for participating in the study. The data from Sample 3 were part of a larger study on couple communication (citation blinded for review).

# **Procedure**

In all samples, we invited couples to come into the lab and first asked them to complete background questionnaires followed by videotaped conversations. All participants provided informed consent to be videotaped. Specifically, we instructed

couples to describe a time they "felt a lot of love for their partner and how they expressed it" (citation blinded for review). The listener was not given specific instructions, and thus was able to react freely. Each partner had the opportunity to be in the role of the "speaker" and the role of the "listener." The order of speech was determined by a random number generator (Studies 1 and 2) or a coin toss (Study 3). The mean length of the conversation was 2 minutes, 7 seconds (*SD*=1 minute, 46 seconds), with a range of 15 seconds to 17 minutes, 30 seconds. Following each conversation, both members of the couple provided ratings of their positive and negative emotions.

# **Measures**

**Background measures.** Participants provided responses to basic demographic information (i.e., gender, age, relationship duration).

Attachment. In Samples 1 and 2, adult attachment was measured using the Experiences in Close-Relationships-Revised questionnaire (ECR-R; Fraley, Waller, & Brennan, 2000). Participants answered questions assessing attachment anxiety (e.g., "I'm afraid that I will lose my partner's love", 18 items,  $\alpha$ =.91, M=2.85, SD=.98) and avoidance (e.g., "I prefer not to be too close to romantic partners",  $\alpha$ =.91, 18 items, M=2.31, SD=.83), on a 7-point scale (1=strongly disagree to 7=strongly agree), with higher scores reflecting greater attachment anxiety and avoidance. In Sample 3, participants completed the Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998), with questions about attachment anxiety (e.g., "I worry that others won't care about me as much as I care about them", 18 items,  $\alpha$  = .89, M=2.81, SD=.58), and avoidance (e.g., "I am nervous when another person gets too close to me",  $\alpha$ =.90, 18 items, M=2.03, SD=.57) on a 5-point

scale (1=strongly disagree to 5=strongly agree). Scores on the ECR and ECR-R were standardized before combining to ensure values were comparable for analysis.

Relationship satisfaction. Relationship satisfaction was assessed with five items such as "Our relationship makes me happy" (Rusbult, Martz, & Agnew, 1998). In Samples 1 and 2, participants responded to these items on a 9-point scale (1=strongly disagree to 9 = strongly agree;  $\alpha$ =.86, M=7.63, SD=1.17), whereas in Sample 3, they made ratings on a 7-point scale (1=strongly disagree to 7=strongly agree;  $\alpha$ =.88, M=6.13, SD=0.93). Scores on this measure across samples were standardized before combining to ensure the values were comparable for analysis.

Self-reported emotions. Participants rated their emotions at the beginning of the lab session before the conversations (baseline), and immediately after each love conversation. Based on prior research (citation blinded for review) participants rated the extent to which they experienced six positive emotion triplets (happy/pleased/joyful, affectionate/loving/caring, proud/good about self, compassionate/sympathetic, grateful/appreciative, cared about/loved/connected) and five negative emotions (anxious/nervous, lonely/isolated, angry/irritated/hostile, contempt/disgust with partner, disappointed/let down) on a 7-point scale (1=not at all to 7=a lot). The scales were reliable for both positive ( $\alpha$ =.84, M=5.33, SD=.97) and negative emotions ( $\alpha$ =.82, M=1.65, SD=.87) before the conversation (baseline), as well as positive ( $\alpha$ =.92, M=6.11, SD=.90) and negative emotions ( $\alpha$ =.79, M=1.18, SD=.47) after the conversation.

**Coding conversation behaviors.** A team of four to six undergraduate coders who were blind to the study's research questions independently provided ratings of the videotaped speaker and listener behaviors. We included codes from previous research on

couples' conversations that included elements of verbal or nonverbal communication of affection or resistance to affectionate expression (Roberts & Greenberg, 2002; Tucker & Anders, 1998). We added additional codes (e.g., authenticity and engagement) that we felt had specific attachment relevance and emerged from watching videos of the couples' interactions during the lab task (See Table 1 for code sources). We adopted Shapiro and Gottman's (2004) approach to coding, which is a blend of the physical features and cultural informants approach. The physical features approach provides descriptions and exemplars of features to look for that are associated with that code. The cultural informants approach allows the coder to bring in their subjective experience to decode the participant's behavior in the broader context of the conversation and couple dynamic. This integrated approach allows researchers to design codes that combine objective and subjective cues in order to attain reliability while maintaining greater ecological validity.

Although we were primarily interested in the global assessment of the speaker's verbal and nonverbal communication of affection, we designed specific verbal and nonverbal speaker codes to allow for the possibility that individual types of behaviors may not necessarily load together, and thus have a unique effect on the listeners' responses. We subsequently performed an exploratory factor analysis (detailed below). The *verbal affection* speaker codes designed to capture the verbal depth of the message included: (1) communicating emotional content (ICC=.79), (2) authenticity of words (ICC=.71), (3) deflecting communication of affectionate words (reverse coded, ICC=.85), (4) communicating feelings of security (ICC=.72). The *nonverbal affection* speaker codes designed to capture the extent to which an individual is an engaged and active participant in a social interaction included: (1) engagement (ICC=.83), (2) enjoyment (ICC=.79), (3)

expressiveness (ICC=.79), (4) tension (reverse coded, ICC=.79), (5) coldness (reverse coded, ICC=.83), and (6) looking "in love" (ICC=.79). The listener *receptiveness* codes were intended to capture the listeners' behavioral acceptance of the message included: (1) withdrawal (ICC=.90), (2) coldness (ICC=.70) and (3) looking loved (ICC=.86). See Table 1 for full description of speaker and listener codes presented to the coders to make their ratings.

We assembled a total of three undergraduate coder groups and assigned each group to make ratings for one of the three samples. We provided all coders with a detailed coding scheme and coders attended four to six 2-hour intensive training sessions to ensure interrater reliability. Coders rated all questions with the following metric: 1-2=low, 3-5=moderate, 6-7=high and were asked to keep in mind the frequency, intensity and duration of each behavior (Overall et al., 2013). In the initial session, the first author provided in-depth instructions to the coders to describe each of the behaviors present in each category. After the verbal descriptions, the first author provided video examples to the coders to demonstrate high, medium, and low levels of each of the categories. The session concluded with the coders making independent ratings of six videos (three speakers and three listeners) to practice the coding scheme. After each video, all members revealed their ratings and were asked to discuss their rationale for making their selections. The first author confirmed correctly identified behavior and re-directed incorrect responses. We gave coders practice homework assignments and the coding team met for three additional follow-up sessions to ensure reliability of each category. After reliability in the training session was achieved at an intraclass correlation of .70 or higher (the benchmark for "very good" reliability; Mitchell, 1979), coders individually completed

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ratings for all videos within the sample, which were averaged together. Ratings were made for every 30-second conversation segment for both the speaker and the listener categories.

# **Exploratory Factor Analysis**

Once all coding was complete, we combined the data from all three samples to increase statistical power. We then conducted an Exploratory Factor Analysis (EFA) on the speaker and listener behaviors in order to assess how the codes loaded together (See Table 2 for factor analysis). We opted to perform one factor analysis on both the speaker and listener codes, because there were insufficient listener codes to perform a separate factor analysis. We performed the EFA with the maximum likelihood extraction method and promax rotation in order to achieve simple structure and assume correlations among the factors. We retained items with a factor loading of .50 or higher (Comrey & Lee, 1992; Costello & Osborne, 2005) and dropped items with cross loadings above .40.

Results of the EFA yielded a three-factor solution of speaker and listener behaviors, which explained 66.38% of the variance. We labeled the first factor *speaker nonverbal affection*, which included the codes "engagement", "enjoyment", "expressiveness", and "in love". We labeled the second factor *speaker verbal affection*, which comprised the codes "emotion", "authenticity", and "deflection" (reverse coded). We labeled the third factor *listener receptiveness*, which is comprised of "love", "withdrawal" (reverse coded) and "cold" (reverse coded). We dropped the speaker tension, cold and security codes due to failure to meet the minimum loading requirement.

### Results

Effects of Fluctuations in Speaker Verbal Affection and Nonverbal Affection for Avoidantly Attached Listeners' Behavioral Receptiveness: Within-Person Analyses

Our first set of analyses examined whether speaking partners were able to attenuate avoidant listeners' low levels of behavioral receptiveness through the use of affectionate communication. We tested this idea by analyzing the repeated measures of the speaker's verbal and nonverbal affection and the listeners' receptiveness at each 30-s interval to examine if increases in the speaker's affectionate communication were associated with increases in the listeners' displays of receptiveness across the conversation. These analyses examine how fluctuations within the listeners' receptiveness correspond with fluctuations in their speaking partner's verbal (M within-person SD=.31, range of within-person SD=0-1.04) and nonverbal affection (M within-person SD=.15, range of within-person SD=0-.76). We analyzed the data with multilevel modeling (linear mixed model function) in SPSS 26. We tested a two-level cross model with random intercepts in which persons are nested within dyads, and person and conversation segments are crossed to account for the fact that both partners were in the conversation at the same time (Kenny, Kashy, & Cook, 2006). To capture the unique within-person variance, we person-centered our level-1 speaker communication styles (e.g., within-person fluctuations in speaker verbal and nonverbal affection) and controlled for between-person variance with the level-2 aggregated communication patterns (e.g., speaker verbal affection and nonverbal affection over the course of each speaker's entire conversation), which we grand mean centered. We also grand mean centred the attachment variables. We were primarily interested in testing whether attachment avoidance was associated with lower levels of behavioral

receptiveness, and whether within-person fluctuations in speaker communication patterns attenuated these effects. As such, we examined the main effects of attachment avoidance, as well as the cross-level interactions between attachment avoidance and speaker verbal affection and between attachment avoidance and speaker nonverbal affection predicting listener receptiveness. To control for the effects of attachment insecurities more broadly, we also entered the main effects and cross-level interactions between attachment anxiety and speaker verbal affection, and between speaker anxiety and nonverbal affection simultaneously into the model. To prevent the within and between person variance from becoming conflated, we also entered the same-level interactions between the aggregated speaker communication styles (i.e., verbal affection and nonverbal affection) and listener attachment styles (i.e., avoidance and anxiety) simultaneously into the model. Finally, because we joined multiple datasets for the present research, we followed the recommendations of Curran and Hussong (2009) and conducted fixed-effects Integrative Data Analysis (IDA), in which sample was effects coded and entered as a fixed effect. To control for sample, we created two different effects codes. For the first effects code, the three different samples were coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. For the second effects code, the three samples were coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

**Verbal affection.** As shown in Table 3, higher scores on attachment avoidance were associated with less listener receptiveness. There was a negative effect of speaker verbal affection on listener receptiveness, suggesting that the more a speaker elaborates on their affectionate feelings, the less receptive the listener was in the conversation. There was no speaker verbal affection by listener avoidance interaction, indicating that speaker verbal

affection had similar effects in eliciting behavioral receptiveness in highly avoidant relative to less avoidant listeners.

**Nonverbal affection.** In moments when speakers were rated by outside observers as being higher (relative to lower) in nonverbal affection, listeners were seen as more receptive in the conversation during those same moments. However, most critically and as shown in Figure 1A, the speaker nonverbal affection by listener avoidance interaction was significant, suggesting that the effect of avoidance on listener receptiveness in any particular moment depended on the degree of nonverbal affection their speaking partner appeared to enact at that time. Simple slopes analyses revealed that in moments when speakers were low in nonverbal affection (1 SD below their own mean), listeners high in attachment avoidance were coded as less receptive by outside observers relative to those low in attachment avoidance, b=-.06, SE=.01 t(1972)=-4.01, p<.001. However, in moments when speakers displayed high levels of nonverbal affection (1 SD above their own mean), the negative effect of listener avoidance on receptiveness was weakened, such that the slope dropped to marginal significance, b=-.03, SE=.01, t(2021)=-1.84, p=.07. Analyzing the simple slopes the other way, in moments when speakers were higher (relative to lower) in nonverbal affection, listeners were significantly more likely to be receptive at that time regardless of whether they were low, b=.26, SE=.04, t(2031)=6.18, p<.001, or high in attachment avoidance b=.38, SE=.04, t(2040)=9.12, p<.001.

Effects of Speaker Verbal affection and Nonverbal affection for Avoidantly Attached Listeners' Behavioral and Emotional Reactions: Between-Person Analyses

Next, we tested our buffering predictions at the between-person level by aggregating speaker verbal affection and nonverbal affection, as well as listener

receptiveness, across the entire conversation. Thus, the benchmark for testing the effectiveness of the speakers' high levels of verbal affection and nonverbal affection is the amount of receptiveness exhibited by listeners high relative to low in attachment avoidance. We also used the speakers' aggregate verbal affection and nonverbal affection to predict (avoidant) listeners' positive and negative emotions at the end of the conversation, which was assessed at a single timepoint post-discussion and could be analyzed only at the between-person level.

Using the linear mixed model function in SPSS 26, we conducted three separate two-level multilevel models (to account for the interdependence between couple members) in which we predicted the 1) listeners' receptiveness, 2) positive emotions and 3) negative emotions from the listeners' avoidance, the speaker's average verbal affection and nonverbal affection across the conversation and the interactions between the speakers' verbal affection and listener avoidance as well as the speakers' nonverbal affection and the listeners' attachment avoidance. We also included the main effects and interactions between the listeners' attachment anxiety and the aggregates of speaker verbal affection and nonverbal affection to control for the effects of attachment insecurity more broadly. We grand-mean centered all predictors.

Verbal affection and avoidant listeners' behavioral receptiveness. As already demonstrated and shown in Table 3, higher listener attachment avoidance was associated with less behavioral receptiveness. Speaker verbal affection was unrelated to the listeners' level of behavioral receptiveness, regardless of the listeners' level of attachment avoidance. These results indicate that speaker verbal affection has a similar effect on the listening

partner's receptiveness in the conversation for those low and high in attachment avoidance.

Verbal affection and avoidant listeners' positive emotions. As shown in Table 4, the higher a participant scored on attachment avoidance, the lower their ratings on post-conversation positive emotions. There was no main effect of speaker verbal affection on listener positive emotions, and no evidence of a speaker verbal affection by listener avoidance interaction. Thus, speaker verbal affection was not associated with heightened positive emotions for those low or high in attachment avoidance.

Verbal affection and avoidant listeners' negative emotions. As shown in Table 5, avoidantly attached individuals reported significantly more negative emotions after their partners' expression of affection relative to those low in attachment avoidance. The more verbal affection the speaker expressed, the less negative emotions the listener reported. Nevertheless, there was no speaker verbal affection by listener avoidance interaction. This finding suggests that although verbal affection did not fully buffer the effect of attachment avoidance on negative emotions, verbal affection was still associated with lower negative emotions for all participants on average, regardless of attachment avoidance.

Nonverbal affection and avoidant listeners' behavioral receptiveness.

Furthermore, when speakers demonstrated more (vs. less) nonverbal affection, listeners were more receptive during the conversation. However, and as shown in Figure 1B, a significant speaker nonverbal affection by listener avoidance interaction revealed that this effect was moderated by speaker nonverbal affection.

Simple slopes analyses indicated that when speakers were low in nonverbal affection, listeners high in attachment avoidance were coded as less receptive by outside

observers, b=-.10, SE=.03 t(486)=-3.58, p<.001, but when speakers displayed high levels of nonverbal affection, listeners high in attachment avoidance were seen as just as receptive as less avoidantly attached individuals, b=.01, SE=.03, t(483)= 0.16, p=.88. In addition, when speakers demonstrated high (relative to low) levels of nonverbal affection during the conversation, listeners were significantly more receptive regardless of whether they were low, b=.26, SE=.06, t(470)=4.13, p<.001, or high in attachment avoidance, b=.48, SE=.06, t(449)=7.37, p<.001.

Nonverbal affection and avoidant listeners' positive emotions. Speakers who were high levels of nonverbal affection had listening partners who reported more positive emotions relative to those speakers who were low in nonverbal affection. In addition, and as shown in Figure 1C, there was a significant speaker nonverbal affection by listener avoidance interaction, indicating that avoidantly attached listeners' positive emotions depended on the level of nonverbal affection their speaking partner demonstrated during the conversation.

Simple slopes analyses revealed that when speakers were coded as low in nonverbal affection, highly avoidant listeners reported significantly less positive emotions than less avoidant listeners, b=-.24, SE=.06, t(492)=-4.24 p<.001. However, highly avoidant listeners reported similarly high levels of positive emotions as less avoidant listeners when the speaker high levels of nonverbal affection, b=-.08, SE=.07, t(500)=-1.21, p=.23. Analyzing the simple slopes another way, highly avoidant listeners reported significantly more positive emotions when speakers were rated as high relative to low in nonverbal affection, b=.41, SE=.14, t(513)=2.97, p=.003. However, listeners low in attachment avoidance

reported similar levels of positive emotions when speakers were rated as high versus low in nonverbal affection, b=.07, SE=.13, t(513)=0.49, p=.62.

Nonverbal affection and avoidant listeners' negative emotions. There was no main effect of speaker nonverbal affection on negative emotions, nor a speaker nonverbal affection by listener avoidance interaction, suggesting that levels of speaker nonverbal affection were equally ineffective at keeping listener negative emotions low, regardless of listeners' levels of attachment avoidance.

# Ruling Out Alternative Explanations and Providing Evidence for Generalizability

We next sought to rule out potential alternative explanations for the buffering effect of speaker nonverbal affection for avoidantly attached listeners. First, we sought to ensure that the effects of speaker nonverbal affection for avoidantly attached individuals were not due to pre-existing differences in relationship satisfaction. The results held at conventional or marginal significance when controlling for the baseline relationship satisfaction of the speaker (.18 $\geq$  all  $bs \geq$  .06, .02  $\leq$  all  $ps \leq$  .06) and the listener (.24 $\geq$  all  $bs \geq$  .08, .03  $\leq$  all  $ps \leq$ .08). Second, it was also possible that our effects could be attributed to participants experiencing a high degree of positive emotions prior to arriving in the lab, rather than to the behavioral patterns during the conversation. The results also held when controlling for the listeners' baseline positive emotions with one exception. The speaker nonverbal affection by listener avoidance interaction dropped below (marginal) significance for listener positive emotion when controlling for the listeners' baseline positive emotion, b=.12, SE=.09, t(491)=1.37, p=.17, though the pattern remained the same as demonstrated in Figure 1C. Third, we reasoned that some individuals may demonstrate heightened receptiveness and positive emotions not due to any speaking style in particular, but

because they spent more time on the intimacy-inducing task. The results remained the same at conventional or marginal significance when controlling for the length of the conversation ( $.16 \ge \text{all } bs \ge .08$ ,  $.03 \le \text{all } ps \le .10$ ). Finally, we aimed to rule out the possibility that the speaker nonverbal affection by listener avoidance interaction may be observed due to differing communication patterns by couples at varying relationship length. Controlling for relationship length did not change the observed effects ( $.17 \ge \text{all } bs \ge .06$ ,  $.02 \le \text{all } ps \le .08$ ).

We then examined several moderators to test the generalizability of our effects. In separate models, we tested if the effects of speaker nonverbal affection for avoidantly attached listeners were moderated by verbal affection, gender, relationship length, age, the order in which participants spoke or listened, and the sample from which participants were drawn. Out of the 21 possible three-way interactions, 4 were marginally or conventionally significant. However, none of the interactions appeared across all three outcome variables for which we obtained the nonverbal affection by avoidance interaction, suggesting these variables do not reliably alter the aforementioned results. See Supplemental Materials for the full set of moderation analyses.

# **Discussion**

In the current investigation, we examined the specific types of affectionate communication behaviors that evoke positive outcomes in avoidantly attached listeners. Through coding and factor analyzing the conversations, we identified two distinct clusters of behaviors through which speakers can communicate affection to their partner: verbal and nonverbal affection. Nonverbal affection was associated with a number of positive outcomes in general. Listeners high in attachment avoidance showed particular benefits

when speakers demonstrated greater nonverbal affection and were more negatively affected by low use of nonverbal affection relative to less avoidantly attached listeners. At high levels of speaker nonverbal affection, avoidantly attached listeners reported positive emotion and listener receptiveness that were equally high as listeners low in attachment avoidance. At low levels of speaker nonverbal affection, highly avoidant listeners reported significantly less positive emotion and receptiveness relative to those who were low in attachment avoidance. Thus, in comparison to those lower in attachment avoidance, highly avoidant listeners were more sensitive to the relative degree of nonverbal affection cues.

Although avoidantly attached individuals generally reported positive outcomes in response to speaker nonverbal affection cues, one exception was in their reports of negative emotion. Speaker nonverbal affection was not associated with low listener negative emotion for all participants on average, and this pattern did not differ for individuals high in attachment avoidance. As such, speaker nonverbal affection was not associated with negative emotions for individuals either high or low in attachment avoidance (although levels of negative emotions were relatively low for all participants in our Samples). Instead, speaker verbal affection was associated with low levels of negative emotions. Although high levels of speaker verbal affection were associated with low negative emotions on average, verbal affection did not fully buffer avoidantly attached individuals' negative emotions. However, we did not see evidence of verbal affection being (positively) associated with other desirable outcomes.

# Theoretical Mechanisms for Avoidant Responses to Nonverbal Affection Cues

The reasons why avoidantly individuals responded most strongly to different affectionate cues may well be related to their negative working models of others. Speaker

nonverbal affection may have been particularly beneficial for avoidant listeners because avoidantly attached individuals' interpersonal skepticism may require reliable signals of love to challenge their negative working models of others. That is, because individuals high in attachment avoidance believe that others are untrustworthy (Pistole, 1994), they may need sufficiently strong cues that others are reliable in order for them to let their guard down. Indeed, behavioral expressions are typically interpreted as the most trustworthy form of communication, particularly when there is an incongruence between behavioral and verbal messages (Gupta, 2013). As such, nonverbal affection may evoke positive reactions in avoidantly attached individuals because it is most likely to be a genuine signal of affection. Thus, nonverbal affection cues may be sufficiently strong to overcome avoidantly attached individuals' barriers and challenge their negative working models of others.

Another potential explanation for the benefits of communicating love to avoidantly attached individuals with high levels of nonverbal affection is that such behaviors are a comparatively more indirect form of communication than verbally sharing one's feelings. Such off-record communication may be less likely to activate the attachment system than direct verbal expressions. Indeed, the communication literature suggests that behavioral cues are more ambiguous than verbal messages (Le Poire, Duggan, Shepard, & Burgoon, 2002). Thus, avoidantly attached individuals may be able to enjoy the benefits of nonverbal affectionate communication, without needing to explicitly acknowledge the level of intimacy these types of behaviors convey.

# Contributions to Literature on the Buffering of Attachment Avoidance

The present research makes a novel contribution to the literature on the buffering of attachment avoidance. This study is one of the first to specifically focus on effective strategies for communicating affection to avoidantly attached individuals. While there is a small body of research on how to tailor communication styles to insecurely attached individuals, most of it has focused on communication during more negative relationship issues such as conflict and asking a partner to change (Overall et al., 2013; Simpson et al., 2007). The studies that have examined more positive aspects of communication in relationships have focused on the impact of self-disclosing positive information about the self (e.g., Gable, Reis, Impett, & Asher, 2004; Hicks & Diamond, 2008), however, these studies have focused more on the benefits of these processes to the discloser rather than how the message can be most effectively communicated to the listener.

This study also provides novel insights into attachment theory by identifying the specific affectionate cues to which insecurely attached individuals may respond most strongly. For example, the present research is one of few studies showing how highly avoidant individuals can respond to intimacy cues at levels similar to individuals low in attachment avoidance (Park et al., 2019; Stanton et al., 2017). While previous research has demonstrated that intimacy-related cues may broadly be associated with positive outcomes for avoidantly attached individuals, our research has identified which specific *types* of intimacy-laden cues may be necessary to achieve this effect, with nonverbal associated with particularly strong outcomes

# Methodological Strengths, Limitations, and Future Directions

A major methodological strength of this work is its reliance on observational research methods to capture how best to communicate affection in a large sample of real-time couple interactions. Indeed, observational research provides an opportunity for naturalistic indicators of relationship behavior (Roberts & Greenberg, 2002). Furthermore, coded conversation behaviors by neutral third-party observers provide a less biased account of communication patterns than self-report measures of affectionate behaviors. Relatively few studies have utilized this technique to examine dyadic interactions, especially in affectionate exchanges (Roberts & Greenberg, 2002). Using observational approaches to studying individual differences in the receipt of affectionate cues can provide insight into which strategies may be most likely to evoke positive outcomes for those for whom intimacy and connection are difficult to achieve.

Although the observational approach to examining romantic relationships is a notable strength of the work, as with any study, there are some limitations to address. The first is that because this research is correlational, we cannot determine the direction of causality. Although it is possible that tailoring levels of nonverbal affection may have benefits for avoidantly attached individuals, it may also be the case that "happier" avoidants lead partners to feel more comfortable openly communicating love. However, because many of the patterns held when controlling for baseline emotions and relationship quality, we believe the former interpretation is more viable.

Second, because the research design was observational rather than experimental in nature, we cannot ascertain whether deliberate and intentional use of the communication patterns would have a positive impact on the listeners' emotions. It is possible that the

effects of nonverbal affection are only beneficial to the listener when they spontaneously arise in the conversation versus when partners are instructed to implement these strategies. Similarly, it is possible that the pattern of effects emerged because verbal affection was explicitly directed in our instructions to the participants, whereas nonverbal affection was not. Thus, because verbal affection was a necessary component of the task, avoidantly attached individuals may have been suspicious of its authenticity, thus undermining its potential impact on the listener. As such, if participants were directed to be nonverbally affectionate or enthusiastic with their partner, the effects of each communication style on avoidantly attached individuals' outcomes may differ.

As a future direction, researchers could utilize an experimental design to explicitly coach people to use verbal affection and nonverbal affection techniques with their partners to examine if there is a causal impact of these communication patterns on the recipient's positive relational outcomes. Indeed, knowing if certain patterns cause positive reactions in avoidantly attached individuals would inform whether verbal affection and nonverbal affection can be recommended to partners of avoidantly attached individuals as strategies to communicate feelings of love.

Relatedly, this research would benefit from examining the role of verbal affection and nonverbal affection in communicating love to avoidantly individuals over time.

Although avoidant individuals responded positively to messages of nonverbal affection in the lab, it is possible that they could either become indifferent to—or overwhelmed by—such communication when used more chronically. Longitudinal data would strengthen the argument that verbal affection and nonverbal affection patterns are effective love communication strategies, and are needed before we can make confident

recommendations regarding the application of these techniques to everyday relationship functioning.

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Finally, another avenue for future research is to examine the mechanisms behind the unique benefits of nonverbal affection for avoidantly attached individuals. We have proposed that avoidantly attached individuals respond particularly well to nonverbal affection cues because these types of cues signal their partners' reliability, trustworthiness, and willingness to care for their needs. Future research could more directly test these as mechanisms that drive avoidantly attached individuals' well-being.

# **Conclusion**

We have demonstrated in the present research that avoidantly attached individuals can benefit from affectionate exchanges with their romantic partners. However, those benefits may be somewhat conditional on how that affection is communicated. While partners' nonverbal affection cues allow avoidantly attached individuals to experience positive behaviors to the same degree as those low in attachment avoidance, they may still also benefit from verbal affection to limited degrees, at least to keep negative emotions low. Ultimately, tailored approaches to meeting avoidantly attached individuals' unique needs (i.e., providing enhanced evidence of their partner's trustworthiness) may allow them to lower their defenses and experience connection with more confidence in their partners' affections, ideally leading to long term reductions in attachment avoidance.

### **Footnote**

<sup>1</sup> Coders also made ratings on the speaker code "caring" (ICC=.44) and the listener code "tension" (ICC=.52). However, these items were not included in our Exploratory Factor Analysis due to failure to reach adequate inter-rater reliability.



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Table 1

Descriptions and Reliability of Speaker and Listener Codes

Code	Description of Code	Modelled After	Intraclass Correlation
	Nonverbal Affection (Speaker)		
In Love	How "in love" the speaker looked with the listener, including warm smiles, baby voices, glistening eyes, head cocked to the side.	"Surge Love" (Roberts & Greenberg, 2002)	.79
Engagement	How engaged the speaker looked with the listener, including maintenance of eye contact, body orientation pointed toward the partner, touch or trying to involve the partner in the conversation.	Code designed for the present research	.83
Enjoyment	How much the speaker looked as if they were enjoying the conversation, including use of humor and laughter.	"Enjoyment" (Tucker & Anders, 1998)	.79
Expressiveness	How behaviorally expressive the speaker appeared, including shifts in body language, use of gestures, facial expressions, and fluctuations in vocal pitch.	"Expressiveness" (Tucker & Anders, 1998)	.79
Tension <sup>a</sup>	How tense the speaker appeared in the interaction, including fidgeting, awkward/strained voice or facial features, nervous laughter, difficulty knowing what to say, and frequently shifting posture or gaze.	"Tenseness" (Tucker & Anders, 1998)	.72
_	Verbal Affection (Speaker)		
Emotional Content	How freely the speaker discussed their emotions surrounding their disclosure, above and beyond factual descriptions of the event.	"Vulnerable Disclosure" (Roberts & Greenberg, 2002)	.79
Authenticity	How authentic the speaker appeared to be when communicating their emotions for the partner. Expressions are sincere and earnest (rather than unserious or sarcastic).	Code designed for the present research	.71

Deflecting	How much the speaker deflected the conversation away from the moment they felt love. The speaker may stray	"General Sharing" (Roberts & Greenberg, 2002)	.85
Security <sup>a</sup>	from the task and discuss other topics.  How much the speaker focused on the partner's impact on the <i>self</i> during the conversation. The speaker may discuss how the partner makes them feel, or how they are cared for or supported by the partner.	"Feelings of security, comfort and trust" (Roberts & Greenberg, 2002)	.72
Cold <sup>a</sup>	How cold the speaker appeared to be in the conversation. The extent to which the speaker is defensive, closed off, uses a harsh tone of voice or communicates lack of respect for the partner. This can take the form of insults, blame, sarcasm, or hostile humor.	"Contempt" (Roberts & Greenberg, 2002)	.83
	Receptiveness (Listener)		
Love	How loved the listener looked in the interaction. Includes indicators such as warm smiles, baby voices, glistening eyes, head cocked to the side.	"Surge Love" (Roberts & Greenberg, 2002)	.86
Withdrawal	How withdrawn the listener appeared with the speaker. The listener does not appear to accept the speaker's message, may turn their head or body away from the speaker and avoid eye contact.	"Withdrawal" (Overall, Simpson & Struthers, 2013)	.90
Cold	How cold the listener appeared to be in the conversation.  The listener does not convey sensitivity to the message the speaker was trying to convey, responds in a short, harsh or sarcastic way, or uses insults or hostile humor.	"Contempt" (Roberts & Greenberg, 2002)	.70

Note: a item excluded due to low communality on factor analysis

COMMUNICATING AFFECTION TO AVOIDATLY ATTACHED PARTNERS

Table 2 Factor Loadings for Speaker and Listener Codes (Combined Sample)

Codes	Nonverbal Affection (Speaker)	Verbal Affection (Speaker)	Receptiveness (Listener)
Emotion (Speaker)	05	.84	.04
Expressiveness (Speaker)	.70	.16	.15
Enjoyment (Speaker)	.82	11	02
In Love (Speaker)	.67	.21	19
Authenticity (Speaker)	.29	.70	.06
Engagement (Speaker)	.81	14	02
Tension (Speaker)	38	.07	.02
Deflection (Speaker, reverse coded)	.38	70	.16
Security (Speaker)	.06	.45	.09
Cold (Speaker, reverse coded)	07	18	.33
Love (Listener)	.21	05	66
Withdrawal (Listener, reverse coded)	.08	.07	.72
Cold (Listener, reverse coded)	.05	.01	.64

*Note.* Bolded items were retained for analysis.

Table 3

Speaker Nonverbal Affection and Verbal Affection Predicting Listener Receptiveness (Combined Sample)

COMMUNICATING AFFECTION TO AVOIDATLY ATTACHED PARTNERS

			Within-Per	son Ana	lyses		Bet	ween-Per	son Ana	lyses
	b	SE	t	r	95% CI	b	SE	t	r	95% CI
Listener Avoidance	-0.04	0.01	-3.37***	0.08	[-0.07, -0.02]	-0.05	0.02	-2.31*	0.10	[-0.09, -0.01]
Listener Anxiety	-0.02	0.01	-1.98*	0.05	[-0.05, -0.01]	-0.02	0.02	-1.10	0.05	[-0.06, 0.02]
Speaker Nonverbal Affection	0.32	0.03	10.84***	0.24	[0.26, 0.38]	0.37	0.04	8.27***	0.39	[0.28, 0.46]
Speaker Verbal Affection	-0.05	0.02	-3.45***	0.09	[-0.08, -0.02]	0.02	0.04	0.39	0.02	[-0.07, 0.10]
Sample Effects Code 1	0.17	0.05	3.72***	0.25	[0.08, 0.26]	-0.07	0.03	-2.46*	0.18	[-0.13, -0.01]
Sample Effects Code 2	-0.06	0.04	-1.46	0.10	[-0.15, 0.02]	0.05	0.03	1.77†	0.13	[-0.01, 0.10]
Speaker Nonverbal Affection x Listener Avoidance	0.06	0.03	2.14*	0.05	[0.01, 0.12]	0.11	0.05	2.42*	0.11	[0.02, 0.20]
Speaker Nonverbal Affection x Listener Anxiety	0.01	0.03	0.23	0.005	[-0.06, 0.07]	-0.02	0.05	-0.32	0.01	[-0.11, 0.08]
Speaker Verbal Affection x Listener Avoidance	-0.02	0.02	-1.30	0.03	[-0.06, 0.01]	0.01	0.04	0.15	0.01	[-0.07, 0.09]
Speaker Verbal Affection x Listener Anxiety	0.02	0.02	0.93	0.02	[-0.02, 0.05]	0.01	0.04	0.33	0.02	[-0.07, 0.10]

*Note:* Effect sizes were computed using Rosenthal and Rosnow's (2007) formula:  $r = \sqrt{(t^2/t^2 + df)}$ . CI = Confidence Interval. † p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 4

Speaker Nonverbal Affection and Verbal Affection Predicting Listener Positive Emotions (Combined Sample)

	Between-Person Analyses					
	b	SE	t	r	95% CI	
Listener Avoidance	-0.16	0.04	-3.76***	0.17	[-0.25, -0.08]	
Listener Anxiety	-0.15	0.04	-3.45***	0.15	[-0.23, -0.06]	
Speaker Nonverbal Affection	0.24	0.10	2.46*	0.11	[0.05, 0.42]	
Speaker Verbal Affection	0.08	0.09	0.88	0.04	[-0.10, 0.26]	
Sample Effects Code 1	0.18	0.07	2.59*	0.15	[0.04, 0.31]	
Sample Effects Code 2	0.22	0.06	3.49***	0.20	[0.10, 0.35]	
Speaker Nonverbal affection x Listener Avoidance	0.17	0.09	1.81 <sup>†</sup>	0.08	[-0.01, 0.36]	
Speaker Nonverbal affection x Listener Anxiety	-0.12	0.10	-1.20	0.05	[-0.31, 0.08]	
Speaker Verbal affection x Listener Avoidance	-0.05	0.08	-0.57	0.02	[-0.21, 0.12]	
Speaker Verbal affection x Listener Anxiety	0.18	0.09	1.97*	0.09	[0.01, 0.36]	

*Note:* Effect sizes were computed using Rosenthal and Rosnow's (2007) formula:  $r = \sqrt{(t^2/t^2 + df)}$ . CI = Confidence Interval. † p < .10, \* p < .05, \*\*p < .01, \*\*\* p < .001.

COMMUNICATING AFFECTION TO AVOIDATLY ATTACHED PARTNERS

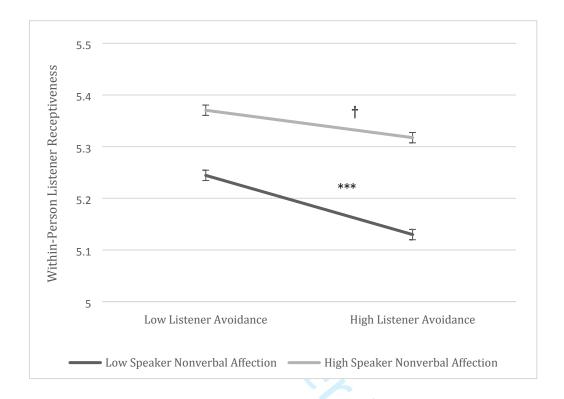
Table 5 Speaker Nonverbal Affection and Verbal Affection Predicting Listener Negative Emotions (Combined Sample)

<u>-</u>					
		Betwe	een-person a	analyses	
	b	SE	t	r	95% CI
Listener Avoidance	0.06	0.02	2.57*	0.11	[0.01, 0.11]
Listener Anxiety	0.13	0.02	5.64***	0.24	[0.09, 0.18]
Speaker Nonverbal Affection	-0.02	0.05	-0.33	0.02	[-0.11, 0.08]
Speaker Verbal Affection	-0.14	0.05	-2.89**	0.14	[-0.23, -0.04]
Sample Effects Code 1	0.02	0.03	0.69	0.04	[-0.04, 0.09]
Sample Effects Code 2	0.04	0.03	1.38	0.08	[-0.02, 0.10]
Speaker Nonverbal Affection x Listener Avoidance	0.02	0.05	0.39	0.02	[-0.08, 0.12]
Speaker Nonverbal Affection x Listener Anxiety	-0.04	0.05	-0.68	0.03	[-0.14, 0.07]
Speaker Verbal Affection x Listener Avoidance	-0.08	0.05	-1.67	0.07	[-0.17, 0.01]
Speaker Verbal Affection x Listener Anxiety	-0.07	0.05	-1.45	0.06	[-0.17, 0.03]

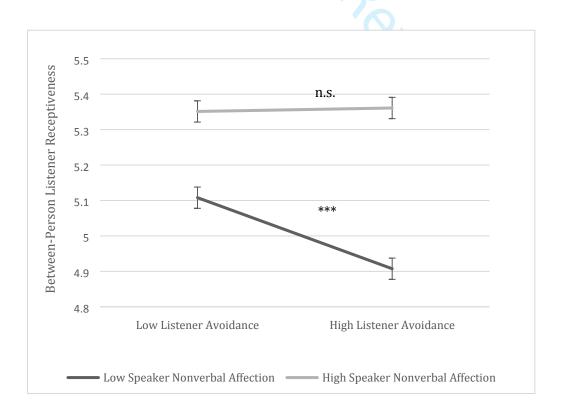
*Note:* Effect sizes were computed using Rosenthal and Rosnow's (2007) formula:  $r = \sqrt{(t^2/t^2 + df)}$ . CI = Confidence Interval. † p< .10, \*p < .05, \*\*p < .01, \*\*\*p < .001.

# COMMUNICATING AFFECTION TO AVOIDATLY ATTACHED PARTNERS

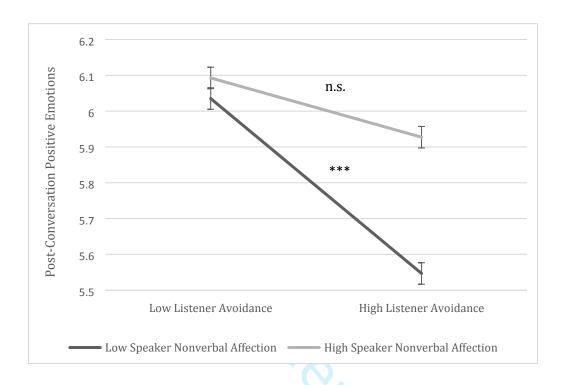
A.



B.



C.



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Figure 1. Speaker Nonverbal affection by Listener Avoidance Interactions Predicting Within (1A)- and Between (1B)-Person Listener Receptiveness, and Post-Conversation Positive Emotions (1C) for the Combined Sample.

*Note*: n.s. = p > .10,  $\dagger = .10 > p > .01$ , \* = p < .05, \*\* = p < .01, \*\*\* = p < .001

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### Appendix A

List of Papers in Which the Data from Sample 3 Also Appear

Data presented in Sample 3 of the present research also appears in the following papers: blinded for review (2014); blinded for review (2012); blinded for review (2010), blinded for review (2012); blinded for review (2014); blinded for review (2013); blinded for review (2013); blinded for review (2019); blinded for review (2019); blinded for review (2019); blinded for review (2019).



Table S1

Moderations by Listener Verbal Affection Predicting (Level 1) Listener Receptiveness (Combined Sample)

	Within-Person Analyses			
	b	SE	t	
Listener Avoidance	-0.06	.01	-4.35***	
Listener Anxiety	-0.03	.01	-2.40*	
Speaker Nonverbal Affection (Level 1)	0.34	.03	11.55***	
Speaker Verbal Affection (Level 1)	-0.05	.01	-3.64***	
Speaker Nonverbal Affection (Level 2)	-0.24	.04	-6.09***	
Speaker Verbal Affection (Level 2)	0.05	.03	1.57	
Sample Effects Code 1	0.18	.04	3.96***	
Sample Effects Code 2	-0.05	.04	-1.28	
Speaker Nonverbal Affection (Level 1) x Listener Avoidance	0.07	.03	2.41*	
Speaker Nonverbal Affection (Level 1) x Listener Anxiety	0.02	.03	0.71	
Speaker Verbal Affection (Level 1) x Listener Avoidance	-0.02	.02	-1.08	
Speaker Verbal Affection (Level 1) x Listener Anxiety	0.02	.02	1.04	
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.06	.03	1.70†	

Speaker Non	verbal Affection (Level 2) x Listener Anxiety	-0.05	.03	-1.73†
Speaker Ver	bal Affection (Level 2) x Listener Avoidance	-0.01	.02	-0.43
Speaker Ve	erbal Affection (Level 2) x Listener Anxiety	-0.90	.03	-3.05**
Speaker Nor	nverbal Affection (Level 1) x Speaker Verbal Affection (Level 1)	0.19	.05	3.46***
Speaker Nor	nverbal Affection (Level 2) x Speaker Verbal Affection (Level 2)	0.17	.05	3.34***
•	Nonverbal Affection (Level 1) x Listener ace x Speaker Verbal Affection (Level 1)	-0.02	.06	-0.25
•	verbal Affection (Level 1) x Listener Anxiety Speaker Verbal Affection (Level 1)	0.12	.05	2.44*
•	Nonverbal Affection (Level 2) x Listener ace x Speaker Verbal Affection (Level 2)	0.16	.05	3.35***
•	verbal Affection (Level 2) x Listener Anxiety Speaker Verbal Affection (Level 2)	0.11	.06	1.92†

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S2

Moderations by Listener Verbal Affection Predicting (Level 2) Listener Receptiveness (Combined Sample)

	Between-Person Analyses			
_	b	SE	t	
Listener Avoidance	-0.05	.02	-2.16*	
Listener Anxiety	-0.03	.02	-1.48	
Speaker Nonverbal Affection (Level 2)	0.42	.04	9.42***	
Speaker Verbal Affection (Level 2)	0.03	.04	0.67	
Sample Effects Code 1	-0.07	.03	-2.37*	
Sample Effects Code 2	0.05	.03	1.82†	
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.10	.05	2.07*	
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.01	.05	-0.16	
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.01	.04	-0.29	
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.02	.04	0.47	
Speaker Nonverbal Affection (Level 2) x Speaker Verbal Affection (Level 2)	0.09	.06	1.47	

Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Speaker Verbal Affection (Level 2)	-0.05	.06	-0.82
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Speaker Verbal Affection (Level 2)	0.29	.08	3.80***

Note: p < .10, \*\*p < .05, \*\*p < .01, \*\*\*\* p < .001. Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S3

Moderations by Listener Verbal Affection Predicting (Level 2) Listener Positive Emotions

	Between-Person Analyses			
_	b	SE	t	
Listener Avoidance	-0.17	.04	-3.79***	
Listener Anxiety	-0.15	.04	-3.42***	
Speaker Nonverbal Affection (Level 2)	0.25	.10	2.53*	
Speaker Verbal Affection (Level 2)	0.09	.10	0.96	
Sample Effects Code 1	0.18	.07	2.59**	
Sample Effects Code 2	0.22	.06	3.46***	
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.17	.10	1.80†	
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.13	.10	-1.28	
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.03	.09	-0.40	
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.17	.09	1.81†	
Speaker Nonverbal Affection (Level 2) x Speaker Verbal Affection (Level 2)	0.03	.14	0.23	
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Speaker Verbal Affection (Level 2)	0.08	.14	0.56	

Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Speaker Verbal Affection (Level 2)

0.05

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0.32

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

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Table S4

Moderations by Listener Gender Predicting (Level 1) Listener Receptiveness (Combined Sample)

	Within-Person Analyses		
_	b	SE	t
Listener Avoidance	-0.05	.01	-4.09***
Listener Anxiety	-0.02	.01	-1.42
Speaker Nonverbal Affection (Level 1)	0.33	.03	10.95***
Speaker Verbal Affection (Level 1)	-0.05	.02	-3.26**
Speaker Nonverbal Affection (Level 2)	-0.24	.04	-6.40***
Speaker Verbal Affection (Level 2)	0.08	.03	2.41*
Gender (Effects Code)	-0.02	.01	-2.58**
Sample Effects Code 1	0.16	.04	3.70***
Sample Effects Code 2	-0.06	.04	-1.55
Speaker Nonverbal Affection (Level 1) x Listener Avoidance	0.08	.03	2.56*
Speaker Nonverbal Affection (Level 1) x Listener Anxiety	<-0.01	.03	-0.12
Speaker Verbal Affection (Level 1) x Listener Avoidance	-0.03	.02	-1.43
Speaker Verbal Affection (Level 1) x Listener Anxiety	0.02	.02	0.93
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.06	.03	1.94†

Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.02	.03	-0.67
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.01	.02	-0.40
Speaker Verbal Affection (Level 2) x Listener Anxiety	-0.08	.03	-2.93**
Speaker Nonverbal Affection (Level 1) x Gender (Effects Code)	0.05	.03	1.55
Speaker Verbal Affection (Level 1) x Gender (Effects Code)	-0.03	.02	-1.98*
Speaker Nonverbal Affection (Level 2) x Gender (Effects Code)	0.07	.03	2.65**
Speaker Verbal Affection (Level 2) x Gender (Effects Code)	0.06	.02	3.07**
Listener Avoidance x Gender (Effects Code)	-0.03	.01	-3.19**
Listener Anxiety x Gender (Effects Code)	0.03	.01	2.25*
Speaker Nonverbal Affection (Level 1) x Listener Avoidance x Gender (Effects Code)	-0.05	.03	-1.66†
Speaker Nonverbal Affection (Level 1) x Listener Anxiety x Gender (Effects Code)	0.02	.03	0.57
Speaker Verbal Affection (Level 1) x Listener Avoidance x Gender (Effects Code)	-0.04	.02	-2.22*
Speaker Verbal Affection (Level 1) x Listener Anxiety x Gender (Effects Code)	0.01	.02	0.53
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Gender (Effects Code)	0.16	.03	5.66***
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Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Gender (Effects Code)	-0.07	.04	-1.86†
Speaker Verbal Affection (Level 2) x Listener Avoidance x Gender (Effects Code)	<-0.01	.02	-0.05
Speaker Verbal Affection (Level 2) x Listener Anxiety x Gender (Effects Code)	0.03	.03	1.27

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

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Table S5

Moderations by Listener Gender Predicting (Level 2) Listener Receptiveness (Combined Sample)

	Between-Person Analyses		
	b	SE	t
Listener Avoidance	-0.11	.05	-2.15*
Listener Anxiety	0.03	.05	0.56
Speaker Nonverbal Affection (Level 2)	0.59	.09	6.59***
Speaker Verbal Affection (Level 2)	-0.04	.08	-0.56
Gender (Effects Code)	0.08	.04	2.09*
Sample Effects Code 1	-0.09	.03	-3.03**
Sample Effects Code 2	0.01	.03	0.48
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.21	.09	2.32*
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.17	.10	-1.71†
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.06	.07	-0.84
Speaker Verbal Affection (Level 2) x Listener Anxiety	-0.02	.09	-0.20
Speaker Nonverbal Affection (Level 2) x Gender (Effects Code)	-0.18	.06	-2.87**
Speaker Verbal Affection (Level 2) x Gender (Effects Code)	0.05	.05	1.00

Listener Avoidance x Gender (Effects Code)	0.05	.03	1.37
Listener Anxiety x Gender (Effects Code)	-0.04	.03	-1.28
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Gender (Effects Code)	-0.10	.06	-1.63
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Gender (Effects Code)	0.14	.06	2.22*
Speaker Verbal Affection (Level 2) x Listener Avoidance x Gender (Effects Code)	0.03	.06	0.48
Speaker Verbal Affection (Level 2) x Listener Anxiety x Gender (Effects Code)	0.03	.06	0.55

Note:  $\dagger p < .10$ , \* p < .05, \*\*p < .01, \*\*\* p < .001. Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S6

Moderations by Listener Gender Predicting (Level 2) Listener Positive Emotions (Combined Sample)

	Between-Person Analyses		
	b	SE	t
Listener Avoidance	-0.26	.11	-2.44*
Listener Anxiety	-0.06	.10	-0.57
Speaker Nonverbal Affection (Level 2)	-0.02	.20	-0.12
Speaker Verbal Affection (Level 2)	0.10	.17	0.60
Gender (Effects Code)	-0.03	.07	-0.42
Sample Effects Code 1	0.16	.07	2.19*
Sample Effects Code 2	0.24	.07	3.40***
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.27	.19	1.43
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.19	.21	-0.91
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.35	.16	-2.25*
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.09	.20	0.44
Speaker Nonverbal Affection (Level 2) x Gender (Effects Code)	0.19	.13	1.47
Speaker Verbal Affection (Level 2) x Gender (Effects Code)	0.01	.11	0.08

Listener Avoidance x Gender (Effects Code)	0.05	.07	0.77
Listener Anxiety x Gender (Effects Code)	-0.06	.07	-0.90
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Gender (Effects Code)	-0.07	.13	-0.52
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Gender (Effects Code)	0.04	.13	0.29
Speaker Verbal Affection (Level 2) x Listener Avoidance x Gender (Effects Code)	0.27	.12	2.19*
Speaker Verbal Affection (Level 2) x Listener Anxiety x Gender (Effects Code)	0.06	.13	0.47

Note:  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S7

Moderations by Relationship Length Predicting (Level 1) Listener Receptiveness (Combined Sample)

	Within-Person Analyses		
_	b	SE	t
Listener Avoidance	-0.05	.01	-3.80***
Listener Anxiety	-0.01	.01	-1.17
Speaker Nonverbal Affection (Level 1)	0.33	.03	10.69***
Speaker Verbal Affection (Level 1)	-0.06	.02	-3.75***
Speaker Nonverbal Affection (Level 2)	-0.27	.04	-7.09***
Speaker Verbal Affection (Level 2)	0.06	.03	1.92†
Relationship Length	<-0.01	<.01	-0.57
Sample Effects Code 1	0.16	.05	3.60***
Sample Effects Code 2	-0.06	.04	-1.45
Speaker Nonverbal Affection (Level 1) x Listener Avoidance	0.06	.03	1.89†
Speaker Nonverbal Affection (Level 1) x Listener Anxiety	0.01	.03	0.34
Speaker Verbal Affection (Level 1) x Listener Avoidance	-0.04	.02	-1.92†
Speaker Verbal Affection (Level 1) x Listener Anxiety	0.01	.02	0.58

Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.02	.03	0.67
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.03	.03	-0.86
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.02	.02	-0.64
Speaker Verbal Affection (Level 2) x Listener Anxiety	-0.08	.03	-3.07**
Speaker Nonverbal Affection (Level 1) x Relationship Length	<0.01	<.01	0.16
Speaker Verbal Affection (Level 1) x Relationship Length	<-0.01	<.01	-3.15**
Speaker Nonverbal Affection (Level 2) x Relationship Length	<0.01	<.01	4.02***
Speaker Verbal Affection (Level 2) x Relationship Length	<-0.01	<.01	-3.48***
Listener Avoidance x Relationship Length	< 0.01	<.01	0.14
Listener Anxiety x Relationship Length	< 0.01	<.01	2.27*
Speaker Nonverbal Affection (Level 1) x Listener Avoidance x Relationship Length	<0.01	<.01	0.19
Speaker Nonverbal Affection (Level 1) x Listener Anxiety x Relationship Length	<0.01	<.01	0.18
Speaker Verbal Affection (Level 1) x Listener Avoidance x Relationship Length	<-0.01	<.01	-2.29*
Speaker Verbal Affection (Level 1) x Listener Anxiety x Relationship Length	<-0.01	<.01	-1.25

Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Relationship Length	<-0.01	<.01	-0.61
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Relationship Length	<0.01	<.01	0.25
Speaker Verbal Affection (Level 2) x Listener Avoidance x Relationship Length	<-0.01	<.01	-1.48
Speaker Verbal Affection (Level 2) x Listener Anxiety x Relationship Length	<-0.01	<.01	-2.68**

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

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Table S8

Moderations by Relationship Length Predicting (Level 2) Listener Receptiveness (Combined Sample)

	Between-Person Analyses		
	b	SE	t
Listener Avoidance	-0.05	.02	-2.23*
Listener Anxiety	-0.03	.02	-1.49
Speaker Nonverbal Affection (Level 2)	0.37	.04	8.30***
Speaker Verbal Affection (Level 2)	.04	.04	1.01
Relationship Length	<-0.01	<.01	-1.37
Sample Effects Code 1	-0.09	.03	-3.08**
Sample Effects Code 2	0.04	.03	1.56
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.06	.05	1.21
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	0.02	.05	0.41
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.01	.04	-0.33
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.01	.04	0.33
Speaker Nonverbal Affection (Level 2) x Relationship Length	<0.01	<.01	2.38*
Speaker Verbal Affection (Level 2) x Relationship Length	<-0.01	<.01	-0.20

Listener Avoidance x Relationship Length	<0.01	<.01	0.49
Listener Anxiety x Relationship Length	< 0.01	<.01	1.61
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Relationship Length	<0.01	<.01	1.63
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Relationship Length	<-0.01	<.01	-0.85
Speaker Verbal Affection (Level 2) x Listener Avoidance x Relationship Length	<-0.01	<.01	-1.12
Speaker Verbal Affection (Level 2) x Listener Anxiety x Relationship Length	<-0.01	<.01	-2.99**

Note: p < .10, p < .05, p < .01, p <

Table S9

Moderations by Relationship Length Predicting (Level 2) Listener Positive Emotions (Combined Sample)

	Between-Person Analyses		
	b	SE	t
Listener Avoidance	-0.15	.04	-3.56***
Listener Anxiety	-0.15	.04	-3.54***
Speaker Nonverbal Affection (Level 2)	0.23	.10	2.32*
Speaker Verbal Affection (Level 2)	0.09	.09	0.98
Relationship Length	<-0.01	<.01	-0.69
Sample Effects Code 1	0.16	.07	2.24*
Sample Effects Code 2	0.22	.06	3.50***
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.22	.10	2.26*
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.11	.10	-1.10
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.06	.08	-0.73
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.15	.09	1.62
Speaker Nonverbal Affection (Level 2) x Relationship Length	<-0.01	<.01	-0.69
Speaker Verbal Affection (Level 2) x Relationship Length	<0.01	<.01	0.72

Listener Avoidance x Relationship Length	<0.01	<.01	1.16
Listener Anxiety x Relationship Length	<-0.01	<.01	-2.03*
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Relationship Length	0.01	<.01	1.81†
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Relationship Length	0.01	<.01	1.97*
Speaker Verbal Affection (Level 2) x Listener Avoidance x Relationship Length	-0.01	<.01	-1.17
Speaker Verbal Affection (Level 2) x Listener Anxiety x Relationship Length	<0.01	<.01	0.70

*Note:* + p < .10, \* p < .05, \*\*p < .01, \*\*\*p < .001. Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S10

Moderations by Listener Age (Level 1) Predicting Listener Receptiveness (Combined Sample)

	Within-Person Analyses		
	b	SE	t
Listener Avoidance	-0.07	.01	-5.23***
Listener Anxiety	<-0.01	.01	-0.15
Speaker Nonverbal Affection (Level 1)	0.33	.03	10.95***
Speaker Verbal Affection (Level 1)	-0.06	.02	-3.61***
Speaker Nonverbal Affection (Level 2)	-0.29	.04	-7.73***
Speaker Verbal Affection (Level 2)	0.09	.03	2.69**
Listener Age	<0.01	<.01	-1.02
Sample Effects Code 1	0.16	.04	3.69***
Sample Effects Code 2	-0.08	.04	-1.78†
Speaker Nonverbal Affection (Level 1) x Listener Avoidance	0.06	.03	1.89†
Speaker Nonverbal Affection (Level 1) x Listener Anxiety	<0.01	.03	-0.11
Speaker Verbal Affection (Level 1) x Listener Avoidance	-0.02	.02	-1.20
Speaker Verbal Affection (Level 1) x Listener Anxiety	0.01	.02	0.79

Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.03	.03	1.02
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.05	.03	-1.58
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.01	.02	-0.37
Speaker Verbal Affection (Level 2) x Listener Anxiety	-0.10	.03	-3.78***
Speaker Nonverbal Affection (Level 1) x Listener Age	< 0.01	.01	0.07
Speaker Verbal Affection (Level 1) x Listener Age	-0.01	<.01	-1.55
Speaker Nonverbal Affection (Level 2) x Listener Age	0.01	.01	2.07*
Speaker Verbal Affection (Level 2) x Listener Age	-0.02	.01	-3.39***
Listener Avoidance x Listener Age	-0.01	<.01	1.75†
Listener Anxiety x Listener Age	0.01	<.01	2.09*
Speaker Nonverbal Affection (Level 1) x Listener Avoidance x Listener Age	0.01	.01	0.78
Speaker Nonverbal Affection (Level 1) x Listener Anxiety x Listener Age	-0.01	.01	-0.93
Speaker Verbal Affection (Level 1) x Listener Avoidance x Listener Age	-0.01	<.01	-1.53
Speaker Verbal Affection (Level 1) x Listener Anxiety x Listener Age	<-0.01	<.01	-1.43
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Listener Age	0.03	.01	2.81**

Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Listener Age	-0.02	.01	-2.04*
Speaker Verbal Affection (Level 2) x Listener Avoidance x Listener Age	<0.01	.01	0.03
Speaker Verbal Affection (Level 2) x Listener Anxiety x Listener Age	0.02	.01	3.43***

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

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Table S11

Moderations by Listener Age (Level 2) Predicting Listener Receptiveness (Combined Sample)

	Between-Person Analyses		
	b	SE	t
Listener Avoidance	-0.07	.02	-3.26**
Listener Anxiety	-0.02	.02	-0.99
Speaker Nonverbal Affection (Level 2)	0.33	.04	7.42***
Speaker Verbal Affection (Level 2)	0.03	.04	0.80
Listener Age	< 0.01	<.01	0.79
Sample Effects Code 1	-0.08	.03	-3.01**
Sample Effects Code 2	0.04	.03	1.34
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.10	.05	2.19*
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.02	.05	-0.37
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.02	.04	-0.60
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.04	.05	0.85
Speaker Nonverbal Affection (Level 2) x Listener Age	0.01	.01	1.20
Speaker Verbal Affection (Level 2) x Listener Age	0.01	.01	0.91
Listener Avoidance x Listener Age	-0.01	<.01	-1.69†

Listener Anxiety x Listener Age	0.01	<.01	2.93**
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Listener Age	0.03	.01	2.81**
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Listener Age	-0.03	.01	-3.07**
Speaker Verbal Affection (Level 2) x Listener Avoidance x Listener Age	-0.01	.01	-0.75
Speaker Verbal Affection (Level 2) x Listener Anxiety x Listener Age	0.02	.01	2.21*

*Note:* † p < .10, \* p < .05, \*\*p < .01, \*\*\* p < .001. Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S12

Moderations by Listener Age (Level 2) Predicting Listener Positive Emotions (Combined Sample)

	Between-Person Analyses		
	b	SE	t
Listener Avoidance	-0.19	.04	-4.23***
Listener Anxiety	-0.13	.04	-2.95**
Speaker Nonverbal Affection (Level 2)	0.24	.10	2.43*
Speaker Verbal Affection (Level 2)	0.08	.09	0.90
Listener Age	0.01	.01	0.93
Sample Effects Code 1	0.18	.07	2.61**
Sample Effects Code 2	0.24	.06	3.64***
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.16	.10	1.70†
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.13	.10	-1.30
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.03	.09	-0.30
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.14	.10	1.49
Speaker Nonverbal Affection (Level 2) x Listener Age	-0.03	.01	-1.95†
Speaker Verbal Affection (Level 2) x Listener Age	0.02	.02	1.03
Listener Avoidance x Listener Age	< 0.01	.01	0.36

1	
2	
3	
4	
5	
6	
0	
/	
8	
9	
1	0
1	1
1	2
1	3
1	4
1	
1	
1	7
1	8
1	9
2	0
2	1
2	2
2	2
2	3
	4
2	5
2	6
	7
2	8
	9
3	0
3	1
3	2
3	3
3	
3	5
2	6
3	7
	8
	9
	0
4	1
4	2
	4
	5
4	6

Listener Anxiety x Listener Age	< 0.01	.01	0.17
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Listener Age	0.05	.02	1.99*
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Listener Age	<-0.01	.02	-0.05
Speaker Verbal Affection (Level 2) x Listener Avoidance x Listener Age	-0.03	.02	-2.11*
Speaker Verbal Affection (Level 2) x Listener Anxiety x Listener Age	0.01	.02	0.62

Note:  $\dagger p < .10$ , \* p < .05, \*\*p < .01, \*\*\* p < .001. Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S13

Moderations by Speaker/Listener Order (Level 1) Predicting Listener Receptiveness (Combined Sample)

		Within-Person Analys	es
	b	SE	t
Listener Avoidance	-0.04	.01	-2.87**
Listener Anxiety	-0.01	.01	-1.12
Speaker Nonverbal Affection (Level 1)	0.33	.03	11.08***
Speaker Verbal Affection (Level 1)	-0.05	.01	-3.57***
Speaker Nonverbal Affection (Level 2)	-0.31	.04	-8.18***
Speaker Verbal Affection (Level 2)	0.03	.03	0.93
Speaker/Listener Order	-0.02	.01	-1.90†
Sample Effects Code 1	0.18	.05	3.89***
Sample Effects Code 2	-0.06	.04	-1.30
Speaker Nonverbal Affection (Level 1) x Listener Avoidance	0.06	.03	1.98*
Speaker Nonverbal Affection (Level 1) x Listener Anxiety	0.01	.03	0.27
Speaker Verbal Affection (Level 1) x Listener Avoidance	-0.02	.02	-1.08
Speaker Verbal Affection (Level 1) x Listener Anxiety	0.02	.02	0.97
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.01	.03	0.25

	Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.02	.03	-0.52
	Speaker Verbal Affection (Level 2) x Listener Avoidance	<0.01	.02	0.10
	Speaker Verbal Affection (Level 2) x Listener Anxiety	-0.06	.03	-2.29*
	Speaker Nonverbal Affection (Level 1) x Speaker/Listener Order	-0.05	.03	-1.65†
	Speaker Verbal Affection (Level 1) x Speaker/Listener Order	0.02	.02	1.14
	Speaker Nonverbal Affection (Level 2) x Speaker/Listener Order	0.03	.03	1.09
	Speaker Verbal Affection (Level 2) x Speaker/Listener Order	-0.02	.02	-1.25
	Listener Avoidance x Speaker/Listener Order	-0.06	.01	-5.54***
	Listener Anxiety x Speaker/Listener Order	0.05	.01	4.24***
	Speaker Nonverbal Affection (Level 1) x Listener Avoidance x Speaker/Listener Order	-0.05	.03	-1.52
	Speaker Nonverbal Affection (Level 1) x Listener Anxiety x Speaker/Listener Order	0.06	.03	1.88†
	Speaker Verbal Affection (Level 1) x Listener Avoidance x Speaker/Listener Order	0.03	.02	1.75†
	Speaker Verbal Affection (Level 1) x Listener Anxiety x Speaker/Listener Order	-0.02	.02	-0.97
- 1				

Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Speaker/Listener Order	0.01	.03	0.20
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Speaker/Listener Order	0.01	.03	0.18
Speaker Verbal Affection (Level 2) x Listener Avoidance x Speaker/Listener Order	0.02	.03	0.77
Speaker Verbal Affection (Level 2) x Listener Anxiety x Speaker/Listener Order	0.08	.03	2.80**

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S14

Moderations by Speaker/Listener Order (Level 2) Predicting Listener Receptiveness (Combined Sample)

	1	Between-Person Analys	res
	b	SE	t
Listener Avoidance	-0.04	.02	-2.15*
Listener Anxiety	-0.02	.02	-1.07
Speaker Nonverbal Affection (Level 2)	0.36	.05	7.94***
Speaker Verbal Affection (Level 2)	0.01	.04	0.29
Speaker/Listener Order	<0.01	.02	0.17
Sample Effects Code 1	-0.07	.03	-2.41*
Sample Effects Code 2	0.05	.03	1.69†
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.11	.05	2.37*
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.02	.05	-0.47
Speaker Verbal Affection (Level 2) x Listener Avoidance	0.01	.04	0.23
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.02	.04	0.47
Speaker Nonverbal Affection (Level 2) x Speaker/Listener Order	0.01	.04	0.29
Speaker Verbal Affection (Level 2) x Speaker/Listener Order	0.04	.04	1.03

Listener Avoidance x Speaker/Listener Order	-0.02	.02	-0.85
Listener Anxiety x Speaker/Listener Order	0.02	.02	0.92
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Speaker/Listener Order	-0.05	.05	-1.18
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Speaker/Listener Order	0.07	.05	1.56
Speaker Verbal Affection (Level 2) x Listener Avoidance x Speaker/Listener Order	0.06	.04	1.44
Speaker Verbal Affection (Level 2) x Listener Anxiety x Speaker/Listener Order	-0.03	.04	-0.64

Note: p < .10, p < .05, p < .01, p <

Table S15

Moderations by Speaker/Listener Order (Level 2) Predicting Listener Positive Emotions (Combined Sample)

	В	etween-Person Analy.	ses
	b	SE	t
Listener Avoidance	-0.16	.04	-3.65***
Listener Anxiety	-0.16	.04	-3.60***
Speaker Nonverbal Affection (Level 2)	0.23	.10	2.33*
Speaker Verbal Affection (Level 2)	0.08	.09	0.89
Speaker/Listener Order	-0.03	.04	-0.85
Sample Effects Code 1	0.16	.07	2.37*
Sample Effects Code 2	0.22	.06	3.39***
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.16	.10	1.64
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.13	.10	-1.31
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.02	.09	-0.25
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.17	.09	1.82†
Speaker Nonverbal Affection (Level 2) x Speaker/Listener Order	-0.17	.09	-1.92†
Speaker Verbal Affection (Level 2) x Speaker/Listener Order	-0.04	.07	-0. 53

Listener Avoidance x Speaker/Listener Order	< 0.01	.04	0.08
Listener Anxiety x Speaker/Listener Order	0.01	.04	0.13
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Speaker/Listener Order	0.01	.10	0.16
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Speaker/Listener Order	0.06	.10	0.64
Speaker Verbal Affection (Level 2) x Listener Avoidance x Speaker/Listener Order	0.05	.09	0.51
Speaker Verbal Affection (Level 2) x Listener Anxiety x Speaker/Listener Order	-0.14	.09	-1.52

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S16

Moderations by Sample (Level 1) Predicting Listener Receptiveness (Combined Sample)

		Within-Person Analys	es
	b	SE	t
Listener Avoidance	-0.11	.02	-6.95***
Listener Anxiety	-0.01	.01	-0.80
Speaker Nonverbal Affection (Level 1)	0.37	.03	12.41***
Speaker Verbal Affection (Level 1)	-0.05	.02	-3.53***
Speaker Nonverbal Affection (Level 2)	-0.29	.04	-7.58***
Speaker Verbal Affection (Level 2)	0.06	.03	1.78†
Sample Effects Code 1	0.19	.05	3.75***
Sample Effects Code 2	-0.05	.05	-1.16
Speaker Nonverbal Affection (Level 1) x Listener Avoidance	0.02	.03	0.52
Speaker Nonverbal Affection (Level 1) x Listener Anxiety	0.05	.03	1.60
Speaker Verbal Affection (Level 1) x Listener Avoidance	-0.01	.02	-0.72
Speaker Verbal Affection (Level 1) x Listener Anxiety	0.01	.02	0.36
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	-0.01	.03	-0.33

Speaker Nonverbal Affection (Level 2) x Listener Anxiety	0.04	.03	1.11
Speaker Verbal Affection (Level 2) x Listener Avoidance	0.10	.03	3.06**
Speaker Verbal Affection (Level 2) x Listener Anxiety	-0.16	.03	-5.20***
Speaker Nonverbal Affection (Level 1) x Sample Effects Code 1	-0.25	.04	-6.05***
Speaker Nonverbal Affection (Level 1) x Sample Effects Code 2	0.04	.04	0.90
Speaker Verbal Affection (Level 1) x Sample Effects Code 1	0.11	.02	5.25***
Speaker Verbal Affection (Level 1) x Sample Effects Code 2	-0.07	.02	-3.35***
Speaker Nonverbal Affection (Level 2) x Sample Effects Code 1	-0.33	.05	-6.07***
Speaker Nonverbal Affection (Level 2) x Sample Effects Code 2	0.41	.06	7.37***
Speaker Verbal Affection (Level 2) x Sample Effects Code 1	0.19	.05	3.89***
Speaker Verbal Affection (Level 2) x Sample Effects Code 2	-0.10	.04	-2.25*
Listener Avoidance x Effects Code 1	-0.09	.02	-3.87***
Listener Avoidance x Effects Code 2	0.02	.02	1.21
Listener Anxiety x Effects Code 1	0.02	.02	1.03
Listener Anxiety x Effects Code 2	0.03	.02	1.66†
Speaker Nonverbal Affection (Level 1) x Listener Avoidance x Effects Code 1	-0.03	.04	-0.64
Speaker Nonverbal Affection (Level 1) x Listener Anxiety x Effects Code 1	0.14	.05	2.96**

Speaker Verbal Affection (Level 1) x Listener Avoidance x Effects Code 1	<-0.01	.03	-0.13
Speaker Verbal Affection (Level 1) x Listener Anxiety x Effects Code 1	0.06	.02	2.30*
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Effects Code 1	0.10	.05	2.10*
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Effects Code 1	0.15	.05	2.84**
Speaker Verbal Affection (Level 2) x Listener Avoidance x Effects Code 1	<-0.01	.06	-0.02
Speaker Verbal Affection (Level 2) x Listener Anxiety x Effects Code 1	-0.06	.04	-1.24
Speaker Nonverbal Affection (Level 1) x Listener Avoidance x Effects Code 2	-0.04	.04	-0.97
Speaker Nonverbal Affection (Level 1) x Listener Anxiety x Effects Code 2	-0.14	.04	-3.22**
Speaker Verbal Affection (Level 1) x Listener Avoidance x Effects Code 2	0.05	.03	1.99*

Speaker Verbal Affection (Level 1) x Listener Anxiety x Effects Code 2	-0.03	.02	-1.37
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Effects Code 2	-0.12	.05	-2.39*
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Effects Code 2	-0.10	.05	-2.10*
Speaker Verbal Affection (Level 2) x Listener Avoidance x Effects Code 2	0.16	.04	3.70***
Speaker Verbal Affection (Level 2) x Listener Anxiety x Effects Code 2	-0.02	.04	-0.36

*Note:*  $\dagger p < .10$ ,  $\ast p < .05$ ,  $\ast \ast p < .01$ ,  $\ast \ast \ast p < .001$ . Sample effects code 1 coded as follows: Sample 1 = 1, Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S17

Moderations by Sample (Level 2) Predicting Listener Receptiveness (Combined Sample)

	E	Between-Person Analys	ses
	b	SE	t
Listener Avoidance	-0.06	.02	-2.65**
Listener Anxiety	-0.04	.02	-1.86†
Speaker Nonverbal Affection (Level 2)	0.44	.05	9.16***
Speaker Verbal Affection (Level 2)	-0.03	.05	-0.70
Sample Effects Code 1	-0.06	.03	-1.90†
Sample Effects Code 2	0.05	.03	1.76†
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.10	.05	1.91†
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	<0.01	.06	0.02
Speaker Verbal Affection (Level 2) x Listener Avoidance	-0.02	.05	-0.41
Speaker Verbal Affection (Level 2) x Listener Anxiety	-0.02	.05	-0.34
Speaker Nonverbal Affection (Level 2) x Sample Effects Code 1	-0.14	.06	-2.33*
Speaker Nonverbal Affection (Level 2) x Sample Effects Code 2	0.02	.08	0.28
Speaker Verbal Affection (Level 2) x Sample Effects Code 1	0.14	.06	2.51*
Speaker Verbal Affection (Level 2) x Sample Effects Code 2	-0.09	.07	-1.22

Listener Avoidance x Sample Effects Code 1	0.01	.03	0.39
Listener Avoidance x Sample Effects Code 2	0.04	.03	1.41
Listener Anxiety x Sample Effects Code 1	-0.05	.03	-1.63
Listener Anxiety x Sample Effects Code 2	0.03	.03	1.14
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 1	-0.05	.07	-0.76
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 1	0.15	.07	2.18*
Speaker Verbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 1	-0.04	.07	-0.58
Speaker Verbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 1	0.20	.07	3.00**
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 2	<-0.01	.08	-0.05
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 2	-0.02	.09	-0.19
Speaker Verbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 2	0.12	.08	1.51

Speaker Verbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 2

-0.11

.08

-1.44

... Sample effectiollows: Sample 1 = . *Note:*  $\uparrow p < .10$ ,  $\uparrow p < .05$ ,  $\uparrow p < .01$ ,  $\uparrow p < .01$ ,  $\uparrow p < .01$ . Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

Table S18

Moderations by Sample (Level 2) Predicting Listener Positive Emotions (Combined Sample)

	E	Between-Person Analys	ses
	b	SE	t
Listener Avoidance	-0.22	.05	-4.15***
Listener Anxiety	-0.17	.05	-3.38***
Speaker Nonverbal Affection (Level 2)	0.26	.11	2.42*
Speaker Verbal Affection (Level 2)	0.09	.10	0.93
Sample Effects Code 1	0.22	.07	2.98**
Sample Effects Code 2	0.20	.07	2.79**
Speaker Nonverbal Affection (Level 2) x Listener Avoidance	0.21	.11	1.89†
Speaker Nonverbal Affection (Level 2) x Listener Anxiety	-0.06	.12	-0.53
Speaker Verbal Affection (Level 2) x Listener Avoidance	0.02	.11	0.14
Speaker Verbal Affection (Level 2) x Listener Anxiety	0.12	.11	1.14
Speaker Nonverbal Affection (Level 2) x Sample Effects Code 1	-0.04	.13	-0.28
Speaker Nonverbal Affection (Level 2) x Sample Effects Code 2	0.16	.16	0.95
Speaker Verbal Affection (Level 2) x Sample Effects Code 1	-0.04	.13	-0.31
Speaker Verbal Affection (Level 2) x Sample Effects Code 2	0.18	.16	1.16

Listener Avoidance x Sample Effects Code 1	0.05	.07	0.72	
Listener Avoidance x Sample Effects Code 2	< 0.01	.07	0.04	
Listener Anxiety x Sample Effects Code 1	-0.17	.07	-2.49*	
Listener Anxiety x Sample Effects Code 2	0.15	.06	2.40*	
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 1	0.01	.14	0.07	
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 1	0.08	.14	0.56	
Speaker Verbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 1	-0.13	.14	-0.99	
Speaker Verbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 1	0.27	.14	1.92†	
Speaker Nonverbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 2	-0.27	.18	-1.52	
Speaker Nonverbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 2	-0.27	.19	-1.42	
Speaker Verbal Affection (Level 2) x Listener Avoidance x Sample Effects Code 2	0.51	.17	2.99**	

Speaker Verbal Affection (Level 2) x Listener Anxiety x Sample Effects Code 2

-0.18

.17

-1.07

Sample effe, nows: Sample 1 = < *Note:*  $\uparrow p < .10$ ,  $\uparrow p < .05$ ,  $\uparrow p < .01$ ,  $\uparrow p < .01$ ,  $\uparrow p < .01$ . Sample 2 = 0 and Sample 3 = -1. Sample effects code 1 was coded as follows: Sample 1 = 0, Sample 2 = 1, Sample 3 = -1.

#### Study Overview

We invited couples to come to the lab, where they were instructed to fill out baseline questionnaires of basic demographic information, attachment, current emotions, and relationship satisfaction, as well as several other measures not relevant to the present research. Then, we asked one member of the couple to discuss a time they felt love for their partner and how they expressed it. Both members of the couple filled out the emotion rating scale after the conversation was complete. Next, the second member of the couple was asked to discuss a moment they felt love for their partner and how they expressed it. Both members of the couple filled out the emotion rating scale once again. The order in which the members of the couple were designated the speaker and listener role was randomly assigned.



Demographic Information (Samples 1, 2 and 3)

1. Approximately how many months have you been in your current romantic relationship?

\_\_\_\_ (fill in the blank)

2. Do you live together?

Yes / No

3.What is your age?

\_\_\_\_ (fill in the blank)

4. What is your gender?

Male / female / prefer not to say

5. What is your current relationship status?

Casually dating
Open relationship
Exclusively dating
Engaged
Common-law
Married
Single

#### Attachment

In samples 1 and 2, we measured attachment with the Experiences in Close Relationships-Revised (ECR-R; Fraley, Waller, & Brennan, 2000) and in sample 3 we measured attachment with the Experiences in Close Relationships (ECR; Brennan, Clark & Shaver, 1998).

# Experiences in Close Relationships-Revised (administered in Samples 1 and 2)

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

1	2	3	4	5	6	7
Disagree	Disagree	Disagree	Neutral/mixed	Agree	Agree	Agree
strongly		slightly		slightly		strongly

- 1. I find it easy to depend on romantic partners.
- 2. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
- 3. I usually discuss my problems and concerns with my partner.
- 4. I worry a lot about my relationships.
- 5. I get uncomfortable when a romantic partner wants to be very close.
- 6. I often worry that my partner doesn't really love me.
- 7. I tell my partner just about everything.
- 8. My desire to be very close sometimes scares people away.
- 9. I am very comfortable being close to romantic partners.
- 10. My romantic partner makes me doubt myself.
- 11. I talk things over with my partner.
- 12. It helps to turn to my romantic partner in times of need.
- 13. When my partner is out of sight, I worry that he or she might become interested in someone else.
- 14. I am nervous when partners get too close to me.
- 15. I prefer not to show a partner how I feel deep down.
- 16. It's not difficult for me to get close to my partner.
- 17. I worry that romantic partners won't care about me as much as I care about them.
- 18. I rarely worry about my partner leaving me.
- 19. I feel comfortable sharing my private thoughts and feelings with my partner
- 20. I find that my partner(s) don't want to get as close as I would like.
- 21. My partner really understands me and my needs.
- 22. I'm afraid that I will lose my partner's love.
- 23. I don't feel comfortable opening up to romantic partners.
- 24. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
- 25. I prefer not to be too close to romantic partners.
- 26. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
- 27. Sometimes romantic partners change their feelings about me for no apparent reason.

- 28. I find it relatively easy to get close to my partner.
- 29. I often worry that my partner will not want to stay with me.
- 30. I worry that I won't measure up to other people.
- 31. My partner only seems to notice me when I'm angry.
- 32. I find it difficult to allow myself to depend on romantic partners.
- 33. I do not often worry about being abandoned.
- 34. It makes me mad that I don't get the affection and support I need from my partner.
- 35. I feel comfortable depending on romantic partners.
- 36. It's easy for me to be affectionate with my partner.



### **Experiences in Close Relationships (administered in Sample 3)**

The following statement concern how you generally feel in close relationships (e.g., with romantic partners, close friends, or family members). Respond to each statement by indicating how much you agree or disagree with it. Write the numbers in the space provided, using the following rating scale:

1	2	3	4	5	6	7
Disagree	Disagree	Disagree	Neutral/mixed	Agree	Agree	Agree
strongly		slightly		slightly		strongly

- 1. I prefer not to show others how I feel deep down.
- 2. I worry about being rejected or abandoned.
- 3. I am very comfortable being close to other people.
- 4. I worry a lot about my relationships.
- 5. Just when someone starts to get close to me I find myself pulling away.
- 6. I worry that others won't care about me as much as I care about them.
- 7. I get uncomfortable when someone wants to be very close to me.
- 8. I worry a fair amount about losing close relationship partners.
- 9. I don't feel comfortable opening up to others.
- 10. I often wish that close relationship partners' feelings for me were as strong as my feelings for them.
- 11. I want to get close to others, but I keep pulling back.
- 12. I want to get very close to others, and this sometimes scares them away.
- 13. I am nervous when another person gets too close to me.
- 14. I worry about being alone.
- 15. I feel comfortable sharing my private thoughts and feelings with others.
- 16. My desire to be very close sometimes scares people away.
- 17. I try to avoid getting too close to others.
- 18. I need a lot of reassurance that close relationship partners really care about me.
- 19. I find it relatively easy to get close to others.
- 20. Sometimes I feel that I try to force others to show more feeling, more commitment to our relationship than they otherwise would.
- 21. I find it difficult to allow myself to depend on close relationship partners.
- 22. I do not often worry about being abandoned.
- 23. I prefer not to be too close to others.
- 24. If I can't get a relationship partner to show interest in me, I get upset or angry.
- 25. I tell my close relationship partners just about everything.
- 26. I find that my partners don't want to get as close as I would like.
- 27. I usually discuss my problems and concerns with close others.
- 28. When I don't have close others around. I feel somewhat anxious and insecure.
- 29. I feel comfortable depending on others.
- 30. I get frustrated if relationship partners are not available when I need them.

- 31. I don't mind asking close others for comfort, advice, or help.
- 32. I get frustrated if relationship partners are not available when I need them.
- 33. It helps to turn to close others in times of need.
- 34. When other people disapprove of me, I feel really bad about myself.
- 35. I turn to close relationship partners for many things, including comfort and reassurance.
- 36. I resent it when my relationship partners spend time away from me.



### Baseline Emotion Rating Scale (Samples 1, 2 and 3)

Please rate the extent to which you are feeling the following emotions **RIGHT NOW**.

1	2	3	4	5	6	7
Not at all			Neutral			A lot

happy/please/joyful affectionate/loving/caring proud/good about self compassionate/sympathetic grateful/appreciative cared about/loved/connected

1	2	3	4	5	6	7
Not at all			Neutral			A little bit
anxious/ner lonely/isola angry/irrita contempt/d disappointe put down/re	ted ted/hostile isgust with p d/let down	artner				

### **Relationship Satisfaction**

Relationship satisfaction was measured with the Investment Model Scale (Rusbult, Martz, & Agnew, 1998). In samples 1 and 2 participants responded to these items on a 9-point scale and in sample 3 participants responded to these same items on a 7-point scale.

### Samples 1 and 2:

1	2	3	4	5	6	7	8	9
Disagree		Disagree		Agree		Agree		Agree
Completely				somewhat				completely

### Sample 3

1	2	3	4	5	6	7
Disagree			Agree			Agree
completely			somewhat			completely

- 1. I feel satisfied with our relationship.
- 2. My relationship is much better than others' relationships.
- 3. My relationship is close to ideal.
- 4. Our relationship makes me very happy.
- 5. Our relationship does a good job of fulfilling my needs for intimacy, companionship, etc.

## Part 1 of Love Conversation Task

## Samples 1 and 2

Once the baseline measures were complete, a Research Assistant guided the couple to a video recorded room in the lab. The Research Assistant read the following script:

"Alright, we are ready for the next part of the study, the conversation portion. If you just want to follow me and have a seat. I know the recorder can be unnerving but try your best to ignore it. First I'm going to have you, (gesture towards person 1), be the speaker, and you (gesture to person 2) will be the listener. So, I'm going to ask you to talk about "a time in your life when you felt a lot of love for your partner (gesture to partner) and how you expressed it." When you are finished with your conversation, please come out and get me and then you will get a chance to switch turns so that your partner will get a chance to speak. Any questions?"

When participants finished the conversation and went to get the Research Assistant, the Research Assistant responded:

"Great, I'll have you return to your computer to independently fill in a <u>brief questionnaire</u> and then we will come back to have the second conversation."

### Sample 3

Once the baseline measures were complete, a Research Assistant guided the couple to a recording room and hooked up to physiological equipment (not used in the current study). The Research Assistant was given the following script:

"Now that you are all hooked up to the equipment, I want to tell you about the next phase of the study. We will ask the two of you to participate in six short conversations. Each of these conversations will last four minutes. We really hope that these discussions can be interactions, so feel free to respond to anything that your partner is saying as he/she is saying it, so that your conversation is more like a typical interaction that you would have outside of this room. After each conversation, you will be asked to report on the emotions that you are feeling, and what you think your partner is feeling. At any point, please let me know if you have any questions. I will be in the other room communicating via intercom, and I can hear anything you say so feel free to ask me questions at any time."

Four of the conversation were a part of a broader study on couple interactions on a time of sacrifice and personal distress and are not relevant to the current investigation so they are not detailed here. The Research Assistant scripts for the love conversation were as follows:

"For our next set of conversations, we are going to have you take turns talking about a time in your life when you felt a lot of love for your partner and how you expressed it. These should be times when you felt a great deal of love for your partner."

"On PAGE 9 in the packet in front of you, we would like you to take a moment to write about the time in your life when you felt a lot of love for your partner. After that, you will take turns talking with your partner about your experience."

(Give the participants two minutes.)

"OK. We are going to have \_\_\_\_\_ go first. Please discuss the time when you felt a lot of love for your partner and how you expressed it. You may begin now."

(Stop the participants after 4 minutes.)

"OK, that's great. Thanks very much. Please fill out the questions on PAGE 10 in the packet in front of you. Please place this page in the folder in front of you after you are finished."

### Post-Conversation #1 Emotion Rating Scale (Samples 1, 2 and 3)

Please rate the extent to which **you** experienced the following emotions during the discussion.

1	2	3	4	5	6	7
Not at all			Neutral			A lot

happy/please/joyful
affectionate/loving/caring
proud/good about self
compassionate/sympathetic
grateful/appreciative
cared about/loved/connected

1	2	3	4	5	6	7
Not at all			Neutral			A little bit

anxious/nervous lonely/isolated angry/irritated/hostile contempt/disgust with partner disappointed/let down put down/rejected

### Part 2 of Love Conversation Task

## Samples 1 and 2

After participants rated their emotions, the members of the couple switched roles to be the speaker or listener. The Research Assistant Read the following script:

"For this conversation you (gesture to person 2) will be in the role of the speaker. The topic is the same as before, so please talk about "a time in your life when you felt a lot of love for your partner and how you expressed it." When you are finished with your conversation, please come out and get me. "

After participants were finished having the conversation the Research Assistant said:

"Great, you can go back to your computer and fill in the same questionnaire as before. Please let me know when you are finished this questionnaire."

### Sample 3

After participants rated their emotions, the members of the couple switched roles to be the speaker or listener. The Research Assistant Read the following script:

"OK. Now, you're going to switch roles. We'd like \_\_\_\_\_ to begin discussing the times when you especially felt love for your partner. You may begin now."

(Stop the participants after 4 minutes.)

"OK, that's great. Thanks very much. Please fill out the questions on PAGE 11 in the packet in front of you. Please place this page in the folder in front of you after you are finished."

### Post- Conversation #2 Emotion Rating Scale (Samples 1, 2 and 3)

Please rate the extent to which **you** experienced the following emotions during the discussion.

1	2	3	4	5	6	7
Not at all			Neutral			A lot

happy/please/joyful affectionate/loving/caring proud/good about self compassionate/sympathetic grateful/appreciative cared about/loved/connected

1	2	3	4	5	6	7
Not at all			Neutral			A little bit

anxious/nervous lonely/isolated angry/irritated/hostile contempt/disgust with partner disappointed/let down put down/rejected