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ATTITUDES TOWARD INTIMATE BEHAVIORS VARY WITH CONTEXT, BEHAVIOR TYPE, AND ATTACHMENT AVOIDANCE.

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Abstract

Close relationships are associated with myriad benefits for human functioning. Intimate behaviors (e.g., physical affection, self-disclosure) are critical for establishing closeness, and people who enact intimate behaviors more frequently also tend to experience greater positive affect and subjective well-being. People vary in how much they desire and enact intimate behaviors in their relationships, and persons who are relatively high in attachment avoidance—reluctance to rely on close others for support and comfort—tend to report less desire for and less frequent enactment of intimate behaviors than do persons who are relatively lower in attachment avoidance. If highly avoidant persons' negative attitudes toward intimate behaviors are an impediment to their enactment of, and eventual benefitting from, intimate behaviors in their close relationships, it is important to examine *when* their attitudes will be more favorable than usual. I tested the hypothesis that greater attachment avoidance would be associated with less favorable attitudes toward intimate behaviors generally (H1). I also hypothesized that, among highly avoidant persons in particular, attitudes toward intimate behaviors would be relatively more favorable in relaxing contexts than they are in stressful contexts (H2). I observed consistent support for Hypothesis 1 in a study of single people (Study 1) and a study of people in romantic relationships (Study 2). Although I did not observe direct support for Hypothesis 2, I observed that people generally report more favorable attitudes toward intimate behaviors in relaxing contexts compared to stressful contexts and that attitudes toward intimate behaviors vary depending on both attachment avoidance *and* attachment anxiety. I also observed that attachment-related variations in attitudes toward intimate vary according to the type of intimate behaviors being evaluated.

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by

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Close relationships are beneficial for optimal personal functioning (Holt-Lunstad et al., 2017). In particular, intimate behaviors such as physical affection and soliciting self-disclosures can enhance closeness (Debrot et al., 2013; Laurenceau et al., 1998; Reis & Shaver, 1988) and are associated with greater relationship well-being and greater psychological well-being (Debrot et al., 2013; Emery et al., 2018; Jakubiak & Feeney, 2019). Despite the benefits of intimate behaviors, people vary in their attitudes toward and their willingness to enact these behaviors, even in their romantic relationships (Emery et al., 2018; Jakubiak et al., 2021). Attachment theory (Bowlby, 1969; Hazan & Shaver, 1994) provides a framework for understanding the personal and situational factors that contribute to variations in attitudes toward intimate behaviors.

Attachment theory proposes that people who have experienced consistent unresponsiveness from others develop attachment avoidance—a self-protective tendency to avoid dependence and intimacy (Fraley et al., 2006; Hazan & Shaver, 1994). Indeed, people with relatively high levels of attachment avoidance engage in less physical affection (Debrot et al., 2021) and self-disclosure (Emery et al., 2018), which prevents them from reaping the benefits of those behaviors. However, such prototypical attachment responses (e.g., emotional distancing) may shape perception most in stressful situations, when the attachment system is theorized to become active (Hazan & Shaver, 1994). If it is the case that stressors activate the attachment system more than non-stressful situations do, people high in attachment avoidance (i.e., "highly avoidant" people) may be particularly uncomfortable with intimacy in stressor contexts. Accordingly, I predict that highly avoidant persons will report unfavorable attitudes toward

intimate behaviors in general, but highly avoidant persons' attitudes will be *relatively* more favorable in contexts that are non-threatening than they are in threatening contexts. If these hypotheses hold true, then future research may be able to design interventions that take advantage of context-related differences in highly avoidant persons' attitudes toward intimate behaviors to promote acceptance of and engagement in intimate behaviors.

What is Intimacy?

The definition of "intimacy" is broad and depends on the context of its usage. When describing a relationship between two people, we may use the word "intimate" to denote that a relationship is especially close (Parks & Floyd, 1996). "Intimacy" can also be used to describe the process by which relationship partners become closer (Reis & Shaver, 1988). Further, the behaviors used to make a relationship closer can be labeled "intimate behaviors" to distinguish them from behaviors that do not promote closeness (Prager & Roberts, 2004). The varying definitions and applications of intimacy (e.g., Parks & Floyd, 1996; Reis & Shaver, 1988) might suggest that intimacy is too broad or ill-defined to warrant serious study. However, linguistic limitations in the study of intimacy do not devalue scholarship on this topic. Instead, these limitations suggest that the closeness of a relationship, the process in which a relationship becomes close, and the behaviors used to promote closeness are best understood when considered in tandem. Although the current research focuses on *intimate behaviors*, considering other perspectives that emphasize the qualities of intimate relationships or the process in which relationships become intimate can help us to understand what behaviors are prototypically intimate.

Although "intimacy" is often used synonymously with interpersonal "closeness" in relationship science, evidence suggests that closeness is a pre-cursor to intimacy in relationships.

When studying college students' conceptualizations of closeness in friendships, Parks and Floyd (1996) found that their participants defined close friendships as those that involve disclosure of personal thoughts and feelings, explicit communication of closeness, cooperation and support provision, and shared interests and characteristics. However, a relationship is not close just because it has these features. Parks and Floyd (1996) observed that students tended to define their friendships as "intimate" only when those relationships were sufficiently long, involved frequent admissions of closeness, and when both partners understood and refrained from judging one another. In other words, a relationship is intimate when it is long-lasting, when partners acknowledge and communicate to each other how close their relationship is, and when partners have come to trust that they can share their personal experiences without fear of negative judgment. How, though, do relationships become intimate?

Reis and Shaver (1988) posited that intimacy develops when an interaction with one's relationship partner leaves them feeling understood, validated, and cared for—they must perceive their partner as "responsive." Specifically, when (a) one partner discloses self-revealing information, (b) the recipient of the disclosure is responsive, and (c) the discloser perceives their partner as responsive, intimacy develops. Inherent in this process is the idea that, depending on how responsive one perceives their partner to be, some interactions are more intimate than others. According to Prager and Roberts (2004), the relative intimacy of an interaction is determined by how self-revealing one's behavior is, how intense the "positive involvement" (e.g., eye contact, smiles, affectionate behavior) is, and how much the interaction results in shared understandings between interaction partners. Both perspectives propose that relationships will become more intimate to the extent to which partners' revelations of information about their

private experiences are met with positive responses from the other partner. Stated plainly: To promote intimacy in a relationship, partners must engage in intimacy-promoting behaviors.

Self-disclosure is one, but certainly not the only, intimacy-promoting behavior. Another perspective on intimate interactions, derived from attachment theory and put forth by Collins and Feeney (2004), suggests that both self-disclosures and physical affection are key behaviors in promoting intimacy. Physical affection, also termed physical intimacy due to its prevalence in intimate relationships and ability to foster intimacy, includes behaviors such as hugging, kissing, and physical closeness.

Intimate Behaviors and Their Benefits

The function of self-disclosure and physical affection to promote the perception of intimacy in a relationship has been demonstrated empirically. In a series of event-contingent diary studies, Laurenceau and colleagues (1998) sought to test Reis and Shaver's (1988) proposition that people rate their interactions with others as intimate to the extent that they self-disclose and perceive their partners as responsive to their self-disclosures. Across two studies, the authors observed that college students' own disclosures to their interaction partners (not necessarily close others) were positively associated with both their ratings of how intimate the interaction was and how responsive they perceived their partner to be (Laurenceau et al., 1998). Moreover, Laurenceau and colleagues also observed that perceived partner responsiveness partially mediated the associations between one's own disclosures and their perceptions of their interaction as intimate. This report suggests that people tend to feel more understood, accepted, and cared for by others as they engage in greater self-disclosure.

In research focused specifically on romantic couples, self-disclosure and its associated behaviors were also correlated with increases in perceived relationship intimacy in addition to

other relationship benefits. For example, during discussions of moments where one partner was hurt by someone outside of their romantic relationship or by their own romantic partner, self-disclosure and empathic responses to disclosures predicted greater feelings of intimacy (Mitchell et al., 2008). Specifically, Mitchell and colleagues (2008) found that men reported greater feelings of intimacy when they self-disclosed more to their female partners on average; women, however, reported greater feelings of intimacy when their male partners provided more empathic responses to disclosures on average. Although Mitchell and colleagues' observations differed for male and female romantic partners, their work suggests that how much one self-discloses and how much their partner *solicits* self-disclosures during an interaction can promote intimacy.

Additional evidence suggests that even simple attempts to solicit self-disclosures from one's partner can influence a discloser's perceptions of their relationship. For instance, Cortes and Wood (2019) assessed whether the simple act of asking, "How was your day," could influence relationship perceptions among people who report low trust in their own romantic partner (low-trust persons). When presented with vignettes about interactions between a hypothetical romantic couple, low-trust persons perceived the focal character as more caring when that character asked (vs. didn't ask) how their partner's day was (Cortes & Wood, 2019 Study 3). When Cortes and Wood manipulated how frequently participants thought their own partner asked about their day, low-trust persons in the "frequent asking" condition felt more cared for by their romantic partner than did low-trust persons in the "infrequent asking" condition (Study 4). These results suggest that soliciting self-disclosures can convey one partner's desire to grow closer to and understand the other partner when relationship partners have "more room to grow" closer. Thus, self-disclosure is not only theoretically intimacy-promoting and advantageous for relationships; empirical evidence confirms this proposition.

Physical affection also promotes intimacy and confers broad benefits for individuals and their relationships. Empirical evidence supports Collins and Feeney's (2004) theoretical claim that physical affection from a relationship partner can lead recipients of physical affection to feel more secure in their relationship in turn promoting increased feelings of intimacy. Specifically, Jakubiak and Feeney (2016) observed that (compared to people in the no-touch control conditions) people who received (real or imagined) affectionate touch experienced greater felt security and cognitive accessibility of security-related words. These security-related words included *cared for* and *loved*, consistent with the conceptualization of an intimate relationship. Related work demonstrated that daily physical affection (provided to and received from one's partner) was correlated with greater perceived intimacy at later measurement occasions (Debrot et al., 2013). Importantly, in this report, intimacy was defined as feeling cared for and understood by one's partner—two key components of perceived partner responsiveness—and as perceptions of relationship closeness and security.

Physical affection in relationships not only promotes intimacy, but it also has personal and relational benefits. For example, positive correlations between receipt of physical affection and recipients' next-day positive affect were mediated by greater self-reported feelings of intimacy toward their romantic partner (Debrot et al., 2013), and greater engagement in physical affection predicts greater overall subjective well-being (Debrot et al., 2021). Jakubiak and Feeney (2019) also demonstrated that physical affection is beneficial when romantic partners experience conflict or discuss personal stressors. For instance, participants who were randomly assigned to hold hands before and during a relationship conflict discussion (the touch condition) engaged in more constructive behaviors, reported less stress, and were rated by observers as less stressed during the discussion compared to couples assigned not to touch (Jakubiak & Feeney,

2019). Additional experiments demonstrated that even imagined physical affection (vs. no imagined physical affection) promotes greater felt security and lower stress following hypothetical relationship conflicts (Jakubiak & Feeney, 2019). Physical affection also increased self-reported cognitive interdependence, another indicator of relational intimacy (e.g., Agnew et al., 2004; Aron et al., 2004; Rusbult et al., 2004), and increases in cognitive interdependence mediated the associations between physical affection and enhanced well-being (Experiments 2a & 2b; Jakubiak & Feeney, 2019).

In sum, both self-disclosure and physical affection are associated with increased intimacy among relationship partners as well as indicators of relational and personal well-being. Based on these findings, one might expect all people to frequently and willingly enact intimate behaviors in their relationships. After all, if intimate behaviors can quell negative affect, promote constructive conflict management, and instill a sense of security in relationship partners, why would one resist self-disclosure or physical affection from a romantic partner? In reality, many people prefer to avoid these types of intimate interactions (Brennan et al., 1998), and may not experience the benefits of intimate behaviors as a result. Although many factors could lead one to resist intimate interactions in their relationships, I look to attachment theory in the current research because it provides a framework for understanding why people generally desire and benefit from intimacy (normative model of attachment), as well as why intimacy-aversion exists (individual differences in attachment orientations). Further, this comprehensive framework offers insight into how attitudes toward intimate behaviors may vary across situations in those who generally resist intimacy.

A Normative Drive for Intimacy and Individual Differences in Attitudes Toward Intimacy

Attachment theory posits that all people are instinctually motivated to develop and maintain intimate relationships because maintaining these relationships confers survival benefits (Bowlby, 1969). From "cradle to grave," close relationships provide protection, comfort, and assistance. This "normative" desire to connect is driven by an attachment behavioral system that prompts people to seek proximity to close others (i.e., parents, friends, romantic partners) when they are distressed (e.g., when scared or stressed). Attention, comfort, and support from the attachment figure (the person to whom they seek proximity) mitigates distress and simultaneously strengthens the bond between the person and their attachment figure. Accordingly, intimate behaviors are critical for stress-regulation: People may disclose their troubles to their attachment figures, and their attachment figures may use physical affection as one means to soothe or comfort them. In other words, an attachment theoretical perspective suggests that people should freely and comfortably engage in intimate behaviors (i.e., self-disclosure and physical affection) with close relationship partners that provide them with a sense of comfort and support.

Although attachment theory posits that people naturally desire intimate relationships and intimate interactions, it also describes the attachment system as adaptable to a person's relational context. Specifically, attachment theory states that people develop expectations and beliefs about the likelihood that other people will be responsive to them based on the quality of their past interactions with close others. These expectations and beliefs are stored cognitively in internal working models of relationships that guide motivation and behavior (Baldwin, 2007; Bowlby, 1969). When close others (i.e., attachment figures) are consistently available and supportive, people develop attachment security, characterized by confidence that one's attachment figure will support them when needed. People who are securely attached are comfortable with intimacy,

perhaps because they learned that self-disclosures prompt attachment figures to use intimate behaviors (e.g., physical affection) to effectively regulate their distress. If, instead, an attachment figure is only occasionally available and responsive or is consistently unavailable and unresponsive, people develop insecure working models of relationships. They learn to (adaptively) alter their expectations and behaviors to obtain any responsiveness (if possible) or protect themselves from continual rejection (if obtaining responsiveness is not possible).

If caregivers are inconsistently available or responsive, people develop a form of attachment insecurity called attachment anxiety. People high in attachment anxiety are concerned about their ability to solicit responsiveness (given caregiver inconsistency) so they cope with stressors through hyperactivation: through greater-than-usual proximity-seeking and expressions of distress (Hazan & Shaver, 1994). People high in attachment anxiety crave intimacy because it serves as reassurance that their attachment figure is available and willing to be responsive. In contrast, people whose attachment figures are consistently unavailable or unsupportive learn to expect that current (and future) attachment figures cannot be relied upon for support. As a result, they suppress the proximity-seeking function of the attachment system and cope with stressors independently. They develop a form of attachment insecurity called attachment avoidance (the focus of the current investigation), a self-protective tendency to avoid self-disclosure and comfort-seeking, based on expectations that others will not be responsive and supportive (Hazan & Shaver, 1994).

As a self-protective mechanism, people high in attachment avoidance suppress their drive for intimacy, demonstrated by evidence that highly avoidant people generally engage in less self-disclosure (e.g., Emery et al., 2018) and physical affection (e.g., Debrot et al., 2021) compared to less avoidant persons. An attachment theoretical perspective would suggest that deactivation of

the attachment system is adaptive for highly avoidant people because it assumes that engaging in self-disclosure and seeking physical affection have historically led to negative consequences for highly avoidant persons (e.g., attempts to connect with others were rebuffed or ignored). Attachment avoidance adaptively prevents people from continually seeking support from unsupportive attachment figures (Hazan & Shaver, 1994). However, when current or future attachment figures are (or desire to be) more supportive than previous attachment figures were, highly avoidant persons' self-protective strategies can outlast their usefulness and become self-destructive. In these cases, the tendency to avoid intimate behaviors can prevent highly avoidant persons from reaping the personal and relational benefits of those very behaviors.

Highly avoidant persons' self-protective strategies may be counterproductive because avoiding intimacy can reinforce beliefs that the social environment is unsupportive, even when this is no longer true. Expectations (e.g., that others are unreliable) that are repeatedly reinforced facilitate attention to expectation-congruent stimuli and recall of expectation-congruent memories (i.e., "construct accessibility"; see Bargh et al., 2012 for a review). Increased accessibility then leads those expectations to become the lens through which one interprets the actions of others. Thus, highly avoidant persons may expect others to be unresponsive by default—even in new relationships with responsive, supportive partners—and might act in accordance with those expectations by disclosing less and resisting physical affection. In fact, some evidence demonstrates that highly avoidant persons tend to trust their partners less and self-disclose less often, and in turn receive less social feedback (information that validates or counters one's existing beliefs) from relationship partners (Emery et al., 2018).

Intimacy-aversion also deprives highly avoidant persons of the personal and relational benefits of intimate behaviors like the previously discussed stress-buffering, comfort and

security-promoting, and conflict management benefits of affectionate touch (Debrot et al., 2013; Jakubiak & Feeney, 2019). Although highly avoidant people report less desire to engage in intimate interactions and tend to avoid intimacy, evidence suggests that they still benefit from intimate behaviors when they engage in intimate interactions. In one experiment in which couples were randomly assigned to (a) discuss intimate topics and perform gentle stretching exercises with their partner (intimacy-promotion condition) or to (b) discuss non-intimate topics with one's partner and stretch in a different room from their partner (control condition), highly avoidant persons benefited in the intimacy-promotion condition compared to the control (Stanton et al., 2017). Highly avoidant persons in the intimacy promotion condition reported significantly greater increases in relationship quality from baseline to post-manipulation and significantly lower attachment avoidance approximately forty days after the manipulation than avoidant persons in the control condition. Other research also demonstrated that one's reported level of attachment avoidance does not attenuate the positive associations between daily physical affection and relationship and personal well-being (Carmichael et al., 2021; Debrot et al., 2021).

Although intimate behaviors can benefit highly avoidant persons, highly avoidant persons can only benefit *if* they choose to enact those behaviors. This is problematic because not only do highly avoidant persons engage in intimate behaviors to a lesser degree than persons who are relatively low in avoidance (e.g., Debrot et al., 2021; Emery et al., 2018), highly avoidant persons also desire and like some intimate behaviors to a lesser degree than persons who are relatively low in avoidance (Fuentes, 2020; Jakubiak et al., 2021). Herein lies the fundamental issue with which the current research is concerned: Under what conditions will highly avoidant persons experience less resistance to intimate behaviors in their relationships so that they will be willing to engage in intimacy and reap intimacy's benefits?

Context Effects on Attitudes Toward Intimate Behaviors

On its surface, the literature on attachment avoidance and intimate behaviors suggests that highly avoidant people are entirely unwilling to enact intimate behaviors in their relationships. However, this conclusion is unwarranted for two reasons. First, highly avoidant persons *do* enact intimate behaviors in their relationships, just to a lesser degree than do people who report relatively lower attachment avoidance (Debrot et al., 2021; Emery et al., 2018). Second, attachment avoidance is often studied in contexts where one's attachment orientation (i.e., one's general tendency to experience attachment anxiety and avoidance in close relationships) might be most influential: Contexts that imply some degree of stress, like stressor discussions or behavior change discussions. Attachment theory assumes that the attachment system is activated in response to stressors, and it states that attachment avoidance inhibits "normative" attachment functions (e.g., proximity and support seeking) in those settings (Bowlby, 1969; Hazan & Shaver, 1994). It follows, then, that stressful situations are likely to trigger prototypical avoidant responses (e.g., emotional distancing, affect suppression) more so than non-stressful situations.

The idea that context moderates the influence of personal knowledge (i.e., beliefs, expectations) on attitudes has also been put forth in Mischel and Shoda's (1995) theory of the Cognitive-Affective Personality System. This theory posits that contextual features interact with pre-existing knowledge structures and prompt individuals to perceive and respond to their social environment according to salient stimuli in their environment. In fact, the interactive effect of context and attachment insecurity on cognition has previously been observed in experimental research. Although highly avoidant persons tend to suppress negative attachment-relevant memories under typical, low mental-burden conditions, they recall distressing attachment-

relevant memories more easily when under cognitive load (Kohn et al., 2012). Because the cognitive burden of stressful situations may be greater than that of non-stressful situations, highly avoidant people may be required to regulate their emotions with more effort than is required when relaxed. Kohn and colleagues' (2012) research thus suggests that stress could prompt highly avoidant persons to rely on heuristics when interpreting others' behaviors due to the increase in cognitive accessibility of highly avoidant persons' expectations that others will be unresponsive. Therefore, I expect that the affective features of a context (i.e., the presence of stress) shape highly avoidant persons' perceptions of intimate behaviors.

Taken together, these theoretical perspectives suggest that people high in attachment avoidance may report *relatively* more positive attitudes toward intimate behaviors in non-stressful contexts than they would in stressful contexts. These relatively low-threat or relaxing contexts (e.g., relaxing moments with one's partner) may therefore be a natural starting point from which highly avoidant people can attempt intimate interactions with relationship partners and potentially benefit from intimacy. According to Collins and Feeney's (2004) perspective on intimacy-development, intimate behaviors are important during attachment relevant situations (e.g., stressful situations) *and* in times of minimal stress. Specifically, Collins and Feeney (2004) proposed that everyday interactions with a relationship partner help one "forecast" their partner's availability when threats arise. This means that risking intimacy in everyday experiences with one's partner (e.g., receiving physical affection or self-disclosing) could allow people to assess their partners' responsiveness and, after repeated positive interactions, internalize the expectation that their partner will be available and responsive when stressors are present. If intimate behaviors are more acceptable in relaxation contexts than in stressor contexts, then intimate behaviors enacted in relaxation contexts may lead to decreased attachment avoidance over time.

Although contextual features may lessen negative attitudes toward intimate behaviors, differences between contexts are unlikely to completely diminish the influence of attachment avoidance on attitudes toward intimate behaviors. Previous reviews of the literature on attachment (in)security and information processing (Dykas & Cassidy, 2011) suggest that highly avoidant persons' negative interpersonal bias leads highly avoidant persons to attend less to cues that counter their schemas (vs. schema-confirming cues). The logic behind some social-cognitive approaches to personality (e.g., Mischel & Shoda, 1995) might also suggest that highly avoidant persons' tendencies to experience greater-than-average negative affect (e.g., Debrot et al., 2021; Stanton et al., 2017, Study 1) would motivate them to *seek out* and *construe* stimuli as confirmation of their negative affect and expectations. Given the possibility that highly avoidant persons' attitudes toward intimate behaviors might be more favorable, or equally as unfavorable, in different contexts, I sought to examine how attachment avoidance shapes attitudes toward intimate behaviors and how those attitudes differ *between* contexts. Specifically, I expect to observe that people who report higher attachment avoidance will report less favorable attitudes toward intimate behaviors than people with lower attachment avoidance. Critically, I also propose that highly avoidant persons' attitudes toward intimate behaviors will be *relatively* more positive in relaxation contexts than in stressor contexts.

Conceptualization of Attitudes toward Intimate Behaviors

Though there are myriad methods of assessing attitudes toward intimate behaviors, the current research examines context and attachment avoidance's associations with people's *liking* of intimate behaviors, the *perceived responsiveness* of intimate behaviors, and people's *discomfort* with intimate behaviors. Liking is a general evaluation of how favorable a person perceives the target of evaluation (e.g., an object, another human, a situation) to be. Liking of

intimate behaviors is useful as an outcome because it does not assume a specific extraneous cause. Someone can like intimate behaviors because those behaviors make them feel safe, because those behaviors convey a romantic partner's positive regard, or for other reasons. As such, liking of intimate behaviors is an informative outcome because it allows for further theorizing as to the potential explanatory mechanisms for *why* people like intimate behaviors. In the same vein, if I observe that liking varies between contexts, future research can then consider whether and how different mechanisms contribute to liking in one context but not another.

Theory and empirical evidence motivate consideration of the perceived responsiveness of behaviors (i.e., how understanding, validating, and caring the behaviors are perceived to be) as an additional outcome of interest (Reis & Shaver, 1988). Since attachment theoretical perspectives assume that highly avoidant persons expect close others to be unresponsive (e.g., Bowlby, 1969; Hazan & Shaver, 1994) and extant theories of intimacy-development posit that feeling cared for and understood are key to promoting relationship closeness and intimacy (e.g., Reis & Shaver, 1988; Prager & Roberts, 2004), I sought to examine how the perceived responsiveness of intimate behaviors vary between contexts. I decided to examine perceived responsiveness as an outcome rather than a predictor because, although some perspectives suggest that the perception of one's partner as responsive is a precursor to intimacy (e.g., Reis & Shaver, 1988), individual differences in attachment insecurity and context effects might affect how responsive intimate behaviors are perceived to be.

The primary goal of attachment theory-based interventions might be to change perceptions of *partners* rather than behaviors, but one's perception of another person's *actions* influence the characteristics the perceiver attributes to the actor (e.g., Todorov & Uleman, 2002). Therefore, highly avoidant persons may generally perceive their partner as responsive to the

extent that the partner's behaviors are perceived as responsive. If behaviors are perceived as more responsive in one context than they are in another context, highly avoidant persons may perceive their partner as more or less responsive in different contexts as well. Moreover, people may like intimate behaviors to the extent that they feel understood and cared for in response to the behaviors in question.

Lastly, comfort with intimate behaviors is also a prime target for intervention because reduced discomfort with intimate behaviors may translate to less resistance to enacting or accepting intimate behaviors. Previous research demonstrated that greater attachment avoidance is associated with less positive feelings toward physically affectionate behaviors (Chopik et al., 2014) and with less desire for physical affection (Jakubiak et al., 2021). Discomfort with communicating one's feelings is also a defining feature of attachment avoidance according to some measures (e.g., Fraley et al., 2006). Such observations may explain why attachment avoidance is associated with less self-disclosure and engagement in physical affection (Debrot et al., 2021; Emery et al., 2014). Accordingly, if highly avoidant persons' discomfort with intimate behaviors is lower in a certain context, decreased discomfort might promote engagement in intimate behaviors in that context.

Samples of Relevance

Research on or related to attachment insecurity and attitudes toward intimate behaviors often relies on the use of samples of people in romantic relationships ("partnered" people) or samples with mixed relationship status (i.e., containing partnered and unpartnered people) without explicit regard to how the observed results may differentially apply to highly avoidant persons who are partnered versus unpartnered. While researchers may omit discussion of differences between singles and partnered people because of adult attachment research's original

focus on romantic relationship dynamics (Hazan & Shaver, 1994) or because their hypotheses do not seem directly relevant to participants' current relationship statuses, sample composition influences (a) variation in the variables of interest and statistical power, (b) the methods and analyses required to test hypotheses, and (c) the interpretation of observations.

Why Does the Sample Matter?

In my own previous research (e.g., Fuentes, 2020), I have observed that different operationalizations of attachment insecurity yield different response distributions in attachment variables. Previously, I observed that trait attachment avoidance and anxiety tended to be more normally distributed than relationship-specific (RS) attachment avoidance and anxiety were, with most respondents' mean RS avoidance and anxiety scores falling between 1.00 and 2.5 (on a seven-point scale) and very few observations at the high end of the scale. Heavily skewed data can undermine statistical power and hinder researchers' ability to distinguish between true null effects or spurious observations caused by skewed response distributions. One way to overcome the issues present with the use of RS attachment measures is to focus on trait attachment insecurity, but the appropriateness of a given measure (i.e., a trait or RS attachment measure) depends on the relationship statuses of a sample's participants, the aims of a study, and the methods a study employs to test hypotheses.

For both a sample of partnered persons and a sample of unpartnered persons, measures of trait attachment insecurity are appropriate when testing how, for example, attachment avoidance is generally associated with attitudes toward intimate behaviors in general (i.e., when the person enacting the behaviors is unspecified). Trait attachment orientations are appropriate for these aims because trait attachment orientations are somewhat of a simple, aggregate index of one's attachments to many relationship partners (e.g., friends, family, romantic partners; Sibley &

Overall, 2008); trait attachment orientations represent generalized beliefs about whether others can be relied on for comfort and support. But trait attachment measures are less appropriate when researchers aim to examine attitudes toward intimate behaviors enacted by a specific type of relationship partner (e.g., romantic partner, best friend) or by a specific person because participants may vary in how they interpret and respond to trait attachment measures. Moreover, the sample's relationship status can influence how participants respond to items and how researchers interpret their observations.

An unpartnered person, for instance, may draw upon their attachments to their parents, friends, and ex-romantic partners when evaluating intimate behaviors whereas a partnered person may rely primarily on their attachment to their current romantic partner to evaluate intimate behaviors. If researchers rely on measures of RS attachment insecurity or aim to examine associations between attachment avoidance and behaviors enacted by a specific romantic partner, they must only recruit partnered participants since unpartnered persons would lack a relevant relationship to reference when answering items.

Which Sample is Best?

There are advantages to examining my research questions in a sample of partnered participants and a sample of unpartnered participants. Given the novelty of this area of research and the benefit of research conducted with partnered and unpartnered participants, I cannot state that one sample would more useful than the other. Instead, I can design separate studies for partnered and unpartnered people that tests the same questions but that are modified to be sample-appropriate. By maintaining a high degree of similarity between each study's methods, I can make broad comparisons between studies while maximizing the information that is unique to each study. On one hand, a study of how unpartnered people's trait attachment avoidance (i.e.,

reluctance to rely on close others in general) is associated with their evaluations of intimate behaviors enacted by a hypothetical partner, I can draw conclusions about how unpartnered persons' perceptions of close relationship partners in general is correlated with their predictions about how they will evaluate intimate behaviors in future relationships. Such conclusions expand on previous research demonstrating that people base their expectations of the trustworthiness of a new person (i.e., a potential friend) on their prior beliefs about established relationship partners (Feeney et al., 2008).

If, on the other hand, the study of partnered people examined how reluctance to rely on one's current romantic partner for comfort (relationship-specific attachment avoidance) is correlated with their evaluations of behaviors enacted by their current romantic partner, I can draw conclusions about how insecurity in a real, current relationship can influence perceptions of intimate behaviors in that relationship. Then, my observations can inform our understanding of *when* relationship-strengthening interventions might be most effective for highly avoidant persons. Moreover, the observed pattern of results for each study can inform inferences about how insecurity derived from multiple, different relationships may influence beliefs about intimate behaviors and potentially hinder the process of creating an intimate bond with a new romantic partner (in unpartnered people). Likewise, the specific observations in the study of partnered persons can lead to inferences about how relationship-specific attachment insecurity may undermine the intimacy-maintenance process in established relationships.

Given the advantages of a sample of unpartnered people and a sample of partnered people, the current research examines (a) how unpartnered people's attachment avoidance with close others in general is associated with their attitudes toward intimate behaviors enacted by a *hypothetical* romantic partner, (b) how partnered people's relationship-specific avoidance is

associated with their attitudes toward intimate behaviors enacted by their current relationship partner, and (c) how unpartnered people and partnered people believe their attitudes toward intimate behaviors differ in a stressor context and a relaxation context.

Hypotheses & Additional Considerations

In both studies, I hypothesize that greater attachment avoidance will be associated with lower liking of intimate behaviors (H1a), with lower perceived responsiveness of intimate behaviors (H1b), and with greater discomfort with intimate behaviors (H1c). However, I also predict an interaction between context and attachment avoidance such that, despite the negative attitudes associated with attachment avoidance, highly avoidant persons will report *relatively* greater liking (H2a), *relatively* greater perceived responsiveness (H2b), and *relatively* lower discomfort (H2c) in the relaxation context than in the stressor context.

I tested my hypotheses in models that either controlled for attachment anxiety—a preoccupation with potential abandonment by close others—or that allowed for interactions between attachment avoidance and attachment anxiety. Attachment anxiety and avoidance are often correlated at $r = .30$ or higher, and theory suggests that the behaviors of highly avoidant persons vary depending on whether the persons in question are low in attachment anxiety (i.e., the avoidant attachment profile) or high in attachment anxiety (i.e., the fearful/disorganized attachment profile). Thus, in testing each type of model, I can observe both attachment dimensions' independent and interactive associations with attitudes toward intimate behaviors.

Study 1

In Study 1, I recruited persons who were not in romantic relationships to test the idea that highly avoidant persons would report more favorable attitudes toward intimate behaviors in relaxation contexts than in stressor contexts. Given that these participants were not in romantic

relationships at the time of the study, they evaluated intimate behaviors enacted by a hypothetical romantic partner in hypothetical stressor and relaxation contexts. Additionally, to ensure that participants drew on their experiences in their close relationships in general, I operationalized attachment insecurity at the level of trait attachment avoidance and anxiety given previous empirical evidence that trait attachment orientations are a higher-level representation that is based on experiences in multiple relationships (i.e., people form generalized relationship expectations and beliefs by extrapolating from experiences in previously-established relationships; Sibley & Overall, 2008).

Method

All study procedures, including recruitment criteria and analysis plan, were pre-registered before data collection (osf.io/du5ej/).

Participants & Procedure

For Study 1, I solicited participants from two sources: Prolific.co (Prolific) and the Syracuse University SONA research participation pool. I posted research solicitations on the Prolific and SONA platforms for a study about "people's attitudes about different behaviors in a variety of situations and how differences in attitudes are associated with relationship beliefs" (see Appendix A). Potential participants were eligible for this study if they were between 18 and 60 years-old and if their relationship status was, "single," "widowed," "divorced," "never married," or "rather not say." I aimed to recruit 250 participants in total—with 150 participants coming from Prolific and 100 participants from SONA. Due to the lack of agreed upon and accessible methods of estimating power in complex within-persons studies that use categorical and continuous variables (i.e., as in mixed effects models), feasibility was a primary decision in determining the sample size. However, as explained in the data analytic strategy, I attempted to

maximize statistical power by preserving the large number of observations provided by participants.

Because SONA participants were not required to complete the survey immediately upon signing-up, and some SONA participants never completed the study before the deadline, I posted 120 total SONA time slots to participate. My final sample consisted of 254 participants: 150 participants from Prolific and 104 participants from SONA. Participants' mean self-reported age was 26.93 years (*SD* = 11.32 years). Slightly more than half of the participants in Study 1 reported their gender as female (55.5%), and most participants reported their race/ethnicity as White (64.3%). Moreover, slightly more than half of the participants reported having previously been in a romantic relationship (53.9%) and most reported having never been married (93.7%). For ease of comparison between Studies 1 and 2, I present the full sample characteristics for Study 1 and Study 2 in Table 1.

Participants who signed-up to participate in the study were directed to an online survey hosted on the Qualtrics platform (see Appendix B for consent materials). In addition to demographic items and items about participants' trait attachment anxiety and avoidance, the survey asked participants to evaluate six intimate behaviors that a potential romantic partner might enact. For potential exploratory analyses, participants first evaluated the intimate behaviors with no specific context in mind, and the order in which they evaluated each behavior was randomized in the Qualtrics survey. Participants then evaluated those same behaviors in a stressor context and in a relaxation context; the survey randomly assigned participants to complete either the stressor context or relaxation context first and also randomized the order of the intimate behavior items within each context. Descriptive statistics, reliability indices, and zero-order correlations for key study variables are presented in Table 2.

Measures

Demographics. Participants first responded to items about their age, gender identity, and relationship status (see Appendix C). Participants who indicated that their relationship status was anything other than "single," "widowed," "divorced," "never married," or "rather not say" were considered ineligible and were unable to progress further in the survey. Eligible participants who did not select the "divorced" option were asked if they had ever been divorced from a previous spouse/marital partner; eligible participants who selected "single," "never married," or "rather not say" were asked if they had ever been in a "committed romantic relationship (i.e., an 'official' romantic relationship)." I collected these data for potential exploratory analyses.

Trait Attachment Orientations. Participants completed a version of the Experiences in Close Relationships-Relationship Structures scale (Fraley et al., 2006) meant to assess their attachment anxiety and avoidance in their relationships with "close others (i.e., the people who are important to [them]).[1]" In this scale, six items assessed attachment avoidance ("I prefer not to show close others how I feel deep down.") and three items assessed attachment anxiety ("I'm afraid that close others may abandon me."). Participants indicated how much they agreed with each item using a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*). All items in this measure are presented in Appendix D.

General Evaluations of Intimate Behaviors. For this section, the survey instructed participants to provide their opinions of different behaviors that a hypothetical romantic partner ("like someone you are dating") might do when with the participant. The survey then randomly presented participants with a scenario (e.g., "Imagine you are with your romantic partner, and

[1] This modified scale differed from the original version in its focus on close relationships in general as opposed the original scale which focused on attachment insecurity in a specific relationship. The modified scale was thus more appropriate given the sample I recruited for Study 1. This use of the ECR-RS is consistent with Fraley's advice about assessing trait attachment with the ECR-RS.

they give you a hug") with a bold-faced and yellow-highlighted intimate behavior in the scenario and asked participants two questions about the focal behavior: (1) how intimate do you think this behavior is and (2) how comfortable are you with this behavior? Participants responded to each question with a seven-point scale (1 = *not intimate at all*, 7 = *as intimate as can be*; 1 = *very Uncomfortable*, 7 = *very comfortable*). The survey repeated this procedure until it presented participants with questions for all six of the intimate behaviors (e.g., giving the participant a hug, asking the participant what they are thinking about) scenarios and their associated questions (see Appendix E). At the end of this block, the survey informed participants that the next portions of the survey would require them to recall certain situations and evaluate the intimate behaviors in those specific situations (see Appendix F). Table 3 contains descriptive statistics for the intimacy and comfort ratings of the intimate behaviors. These descriptive statistics confirm that all six intimate behaviors were generally perceived as more than moderately intimate.

Stressor Context. If the survey assigned participants to complete the stressor context first, participants read the following prompt to set the context for the upcoming items: "People often experience stress in their lives. They may lose their job, have money troubles, get sick, or get injured." The survey then instructed participants to think back to a relatively recent, personally stressful event and to describe that experience in the accompanying text-input box (see Appendix G). On the next page of the survey, participants read: "Next, please evaluate several things a romantic partner might do **when you are stressed.**"

As in the "General Evaluations of Intimate Behaviors" section, the survey randomly assigned the order in which participants would evaluate each of the six intimate behaviors and presented participants with a scenario to introduce each focal behavior (e.g., "Imagine that when you are stressed out and talking to your romantic partner, they move close to you, lean in, and

give you a hug."). To be consistent with the general evaluations section, the focal behaviors were presented in bold-faced, yellow-highlighted font. To ensure that participants evaluated the intimate behaviors as they would when under stress, the phrase "when you are stressed out" was presented in bold-faced font.

After reading the scenario, participants were instructed to indicate how much they would *like* their hypothetical romantic partner's behavior (e.g., "If a romantic partner **gave me a hug when I'm stressed out**, I would...") using a seven-point scale (1 = *dislike it very much*, 7 = *like it very much*). Next, participants read a sentence stem with the focal behavior (e.g., "If a romantic partner **gave me a hug when I'm stressed out**...") and indicated how true three counter-balanced items were: (1) I would feel **cared for**, (2) I would feel **understood**, (3) I would feel **Uncomfortable** (bolded to ensure attention to negative wording). Perceived responsiveness of each behavior was assessed with the items about feeling cared for and understood. Discomfort with each behavior was assessed with the item about feeling uncomfortable. Participants responded to each item with a seven-point scale (1 = *not true at all*, 7 = *completely true*). The survey repeated this procedure until participants evaluated each of the six intimate behaviors in the stressor context. For each of the six focal intimate behaviors, I created a composite *perceived responsiveness* variable by averaging participants' responses to the items about feeling cared for and understood (two items per behavior). Appendix H contains the instructions and items for the stressor context, listed in the order they were programmed (i.e., not counter-balanced or randomized). I present descriptive statistics of participants' ratings for each of the focal intimate behaviors in the general context, the stressor context, and the relaxation context in Table 3.

Relaxation Context. The procedure for the relaxation context mirrored that of the stressor context, but it emphasized that participants should evaluate the behaviors in a non-stressful situation. The context prompt for this section stated: "People often spend time alone with their romantic partner to watch movies, cook, or hang-out with each other" (see Appendix I). The survey then instructed participants to think back to a relatively recent experience they had where they were relaxed with someone they are close to and to describe that experience in the accompanying text-input box. On the next page of the survey, participants read: "Next, please evaluate several things a romantic partner might do **when you are relaxing together.**"

For the intimate behavior evaluation items in the relaxation context, I modified the text in the behavior introduction scenarios to match the context (e.g., "Imagine that **when you are relaxing** and talking to your romantic partner, they move close to you, lean in, and **give you a hug**," "if a romantic partner **gave me a hug when we're relaxing together**, I would..."). As in the stressor context, participants reported their liking of, the perceived responsiveness of, and their discomfort with each of the six focal intimate behaviors. Appendix J contains the instructions and items for the stressor context, listed in the order they were programmed (i.e., not counter-balanced or randomized).

Final Items. Upon completing both the stressor and relaxation context sections of the survey, the survey informed participants that they were approaching the end of the survey and would finish after providing additional information about themselves. In this section, participants indicated their race/ethnicity and completed three items to be used as control variables in exploratory analyses (see Appendix K). First, participants responded to the item, "How true is the following statement? My skin is sensitive to the touch (i.e., I feel uncomfortable when wearing clothes made of scratchy fabrics or when other things touch my skin)" with a five-point

scale (1 = *not true at all*, 5 = *very true*). Next, participants responded to two items about their experiences with physical or sexual assault: "Have you ever been physically assaulted (e.g., being attacked, beat up, hit repeatedly)" and "Have you ever been sexually assaulted or had any significantly uncomfortable sexual experiences?" For both items, participants could respond with "yes," "no," or "I prefer not to say." These data were collected to be used as covariates in future exploratory analyses but were not used in the analyses described here.

Debriefing. Finally, participants read the debriefing statement (Appendix L) and were instructed to click through to the end of the survey to ensure their responses were recorded and that they would receive credit.

Data Analytic Strategy.

General Data Structure & Variable Coding. All data were formatted and analyzed in R Studio (see Appendix M for list of packages). Due to the multilevel nature of these data, I formatted the data to spread each participant's responses across 12 rows. The same six unique items (three physically affectionate behaviors and three self-disclosure solicitations) were repeated in two contexts (stress, relaxation), resulting in 12 rows of data. Responses to the intimate behavior items in the stressor context were in the first six rows, and responses to the same items in the relaxation context were in the next six rows. See Appendix N for a visual example of the data format.

To appropriately distinguish the 12 responses provided by each participant, the data contained a participant ID variable, an *item* variable that specifies which of the six unique behaviors was assessed (e.g., a hug, asking follow-up questions), a *context* variable (-0.5 = stressor context, 0.5 = relaxation context), and a *behavior type* variable (-0.5 = physical affection, 0.5 = self-disclosure). I standardized the continuous variables in this dataset, including

predictor variables (trait attachment anxiety and trait attachment avoidance) and outcome variables (liking of intimate behaviors, perceived responsiveness of intimate behaviors, and discomfort with intimate behaviors). Because I standardized the attachment insecurity and outcome variables in these analyses, the models' estimated parameters can be interpreted similarly to the Cohen's *d* effect size measure.

Fixed Effects for the Confirmatory and Exploratory Analyses. For each outcome (e.g., liking, discomfort), I tested a set of confirmatory multilevel linear models and a set of exploratory multilevel linear models. Example R code for these analyses is presented in Appendix O. The confirmatory model contained fixed effect terms for trait attachment anxiety, trait attachment avoidance, context, and behavior type, as well as all interactions between trait attachment avoidance, context, and behavior type. Although my research questions primarily focus on the fixed effects of trait attachment avoidance and context, I included the fixed effect of attachment anxiety to account for the covariation between attachment anxiety and avoidance. Specifically, since attachment anxiety and avoidance are typically correlated at a level of approximately $r = .30$, the true independent association between attachment avoidance and a given outcome may be masked due to avoidance's covariation with attachment anxiety. Although I did not hypothesize associations between behavior type and the outcomes of interest, I included main effects and interactions with behavior type because it is possible that liking could differ between physical affection and self-disclosure forms of intimacy.

The exploratory models, however, contain the same fixed effect terms for trait attachment anxiety, trait attachment avoidance, context, and behavior type, as well as all interactions between these variables except for the four-way interaction term.[2] In other words, rather than

[2] I omitted this interaction term to conserve statistical power and to aid in interpreting the models' results.

simply accounting for the covariation between attachment anxiety and avoidance by including attachment anxiety as a covariate, this exploratory model allowed me to examine how the effects of interest (e.g., trait attachment avoidance, context) vary at different levels of both attachment anxiety and attachment avoidance. This nuance is important given recent discussions in relationships research about the need to distinguish between highly avoidant persons who are also high or low in attachment anxiety in adult attachment research (Park et al., 2019). Because each person is likely to experience some degree of both attachment anxiety and avoidance, omission of this interaction term may lead me to give an incomplete interpretation of my observations. For instance, in the confirmatory model (which I will refer to as the "trait attachment *covariate* model"), I might conclude that greater attachment avoidance is associated with less liking of intimate behaviors, but in the exploratory model (the "trait attachment *interaction* model") may demonstrate that greater attachment avoidance is associated with less liking only (or especially) for persons who also report low levels of attachment anxiety.

Random Effects for the Confirmatory and Exploratory Analyses. The previously described fixed effect terms can estimate, for example, the strength of the association between trait attachment avoidance and an outcome (e.g., liking) or the average difference in outcome scores between contexts or behavior types. Fixed effect terms, however, do not account for violations of the assumption of independent observations present due to obtaining multiple responses from each participant and for each item. To model dependencies in the data and to estimate the variance attributable to potential participant-level or item-level idiosyncrasies, I added random effect terms to my trait attachment covariate and trait attachment interaction models.

As a starting point for the random effect structure of my trait attachment covariate and trait attachment interaction models, I added by-person and by-item random intercepts. A by-person random intercept is useful because one participant's responses are more similar to each other than they are to another participant's responses, and this random intercept allows the model to estimate the variance that is attributable to participant idiosyncrasies. Likewise, a by-item random intercept is useful because the responses that correspond to a specific intimate behavior item (e.g., giving a hug) are likely to be more similar to each other than they would be to the responses for a different intimate behavior item (e.g., asking follow-up questions). The by-item random intercept also allows the model to estimate how much variation is attributable to between-item differences. This basic random effect structure (see Figure 1 for a diagram) accounts for participant and item-level dependencies and allows for the estimation of random intercepts, but the complexity of my data requires that I add further to the random effect structure.

A model with only random intercepts assumes that the association between one variable (e.g., context) and the outcome of interest will be equivalent across participants and/or across items. To allow for the possibility that participants may be differentially impacted by the type of behavior they rated (physically affectionate behaviors vs. self-disclosure solicitations) however, I included a by-person random slope for behavior type. This random slope models the possibility that one participant could report liking physically affectionate behaviors much more than they like self-disclosure solicitations whereas another person may not differentiate by behavior type, and the random slope estimates how much variance is attributable to these between-person differences. I also included a by-person random slope for context (stressor vs. relaxation) because context might affect each participant differently. I also included a by-person random

slope for the interaction between context and behavior type. Moreover, since responses to each item may vary due to the context in which the item was presented, I included a by-item random slope for context. A diagram of this complex random effects structure is depicted in Figure 2.

One issue that occasionally arises in the testing of multilevel linear models is the failure of a model to converge, which often occurs when the specified model is more complex than necessary to describe the data. I addressed model convergence issues systematically by removing the most extraneous random effect terms to reduce random effect structure complexity, testing for model convergence, and reducing the random effect structure further if model convergence issues persist. Specifically, if the model as planned failed to converge, I removed the by-participant random slope for the interaction between context and behavior type. If model convergence issues persisted, I removed the following random effect terms in the order they are listed: the by-item random slope for context, the by-participant random slope for behavior type, and the by-participant random slope for context.

Strategy for Decomposition of Interactions. The assumption underlying my hypotheses is that support for my hypotheses (e.g., that highly avoidant persons will report greater liking of intimate behaviors in relaxation contexts than in stressor contexts) is supplied by significant interactions between trait attachment avoidance and context. Moreover, the interaction terms between trait attachment anxiety and avoidance in the exploratory models imply potential differences in the effects of context at different levels of trait attachment anxiety and avoidance. To determine whether my hypotheses are supported and to observe attachment-related variation in outcomes, I must decompose these interactions.

When I decompose a two-way interaction between the context variable and trait attachment avoidance, I tested the effect of context at one *SD* above and below the standardized

mean of trait attachment avoidance. In doing so, I also calculated the region of significance for the effect of context (i.e., the ranges of attachment avoidance at which the effect of context reaches significance). To facilitate interpretability of these calculations however, I reported the region of significance with the unstandardized trait attachment avoidance variable. I then described the results of simple slopes analyses to examine the strength of the association between trait attachment avoidance and a given outcome in each of the contexts.

When I decomposed a three-way interaction between context and the two trait attachment variables, I tested the effect of context at one *SD* above and below the standardized mean of trait attachment avoidance and at one *SD* above and below the standardized mean of trait attachment anxiety. To aid in interpreting these interactions according with the language of attachment research—in which theoretical premises are discussed in terms of the four attachment archetypes—I presented the results of these interactions as "the effect of context for each attachment profile." Specifically, I tested the effect of context for participants who fit the avoidant attachment profile (-1 *SD* trait attachment anxiety, +1 *SD* trait attachment avoidance); the secure attachment profile (-1 *SD* trait attachment anxiety, -1 *SD* trait attachment avoidance); the anxious attachment profile (+1 *SD* trait attachment anxiety, -1 *SD* trait attachment avoidance); and the fearful attachment profile (+1 *SD* trait attachment anxiety, +1 *SD* trait attachment avoidance).

As with the two-way interactions, I also calculated the region of significance with the unstandardized trait attachment variables. When describing the results for the avoidant and secure profiles, I calculated the region of significance at low levels of trait attachment anxiety (-1 *SD*) to determine the ranges of trait attachment avoidance at which the effect of context reaches significance. Then, for the anxious and fearful profiles, I calculated the region of significance at

high levels of trait attachment anxiety (+1 *SD*). After describing the simple effects at low levels of trait attachment anxiety, I then described the results of simple slopes analyses to examine the strength of the association between trait attachment avoidance and a given outcome in each of the contexts at low levels of attachment anxiety. After describing the simple effects at high levels of trait attachment anxiety, I then described the results of simple slopes analyses to examine the strength of the association between trait attachment avoidance and a given outcome in each of the contexts at high levels of attachment anxiety.

Finally, given that I included interactions with behavior type in the trait attachment covariate and trait attachment interaction models, it was possible that I would observe significant interactions between trait attachment avoidance, context, and behavior type. In these cases, I test the association between context and the outcome at high and low values of trait attachment avoidance when rating *either* physically affectionate behaviors *or* self-disclosure solicitations. First, I described the simple effects of context on ratings of physically affectionate behaviors at high and low values of trait attachment avoidance and calculated the region of significance with the unstandardized trait attachment avoidance variable. Then, I described the simple effects of context on ratings of self-disclosure solicitations at high and low values of trait attachment avoidance and calculated the region of significance with the unstandardized trait attachment avoidance variable.

Results

For each of the models described below, I follow the guidance for reporting the results of multilevel linear models provided by Brown (2021). I first presented model fit indices from comparisons of multilevel linear models that contain only random effects (the random effect only models) and models that contain the full fixed and random effects (the full models; see Appendix

D for example R script). Then, I provided an interpretation of the estimated parameters of the full model.

Trait Attachment Covariate Model: Liking

The fixed and random effects for each of the trait attachment covariate models are presented in Table 4. The planned model comparisons indicated that the full trait attachment covariate model fit the data better than the reduced, random effect only model, $\chi^2(8) = 62.60$, $p < .001$.

I hypothesized that greater trait attachment avoidance would be associated with lower liking of intimate behaviors (H1a) and that highly avoidant persons would report relatively greater liking in the relaxation context than in the stressor context (H2a). In this model, I observed a significant main effect of trait attachment avoidance—supporting H1a—and a significant main effect of context. On average, people who reported greater trait attachment avoidance also reported significantly lower liking of intimate behaviors. Moreover, people reported significantly higher liking of intimate behaviors in the relaxation context than in the stressor context on average. In other words, compared to people who reported lower levels of trait attachment avoidance, people who reported higher levels of trait attachment avoidance liked intimate behaviors less. Since I did not observe a significant interaction between trait attachment avoidance and context, it appears that the association between trait attachment avoidance and liking of intimate behaviors is relatively similar in the stressor and relaxation contexts. Although I failed to observe direct support for H2a, the independent main effect of context suggests people generally (including highly avoidant persons *and* persons low in attachment avoidance) reported relatively greater liking of intimate behaviors in the relaxation context.

Trait Attachment Covariate Model: Perceived Responsiveness

The planned model comparison indicated that the full trait attachment covariate model fit the data better than the reduced, random effect only model, $\chi^2(8) = 64.40$, $p < .001$. See Table 4 for the fixed and random effects.

I hypothesized that greater trait attachment avoidance would be associated with lower perceived responsiveness of intimate behaviors (H1b) and that highly avoidant persons would report relatively greater perceived responsiveness in the relaxation context than in the stressor context (H2b). In this model, I observed significant main effects of trait attachment avoidance and trait attachment anxiety. Supporting H1b, on average, people who reported greater trait attachment avoidance also perceived intimate behaviors as less responsive (i.e., they reported that these behaviors would make them feel less cared for and understood), and people who reported greater trait attachment anxiety also perceived intimate behaviors as more responsive. These main effects were qualified by a significant interaction between context and trait attachment avoidance predicting perceived responsiveness (Figure 3).

How is context associated with perceived responsiveness at high or low att. avoidance? When I tested the slope of context at high and low trait attachment avoidance, I observed that the slope of context's direction nearly reversed at different levels of trait attachment avoidance. On average, perceived responsiveness was not significantly different from one context to another for people with high levels of attachment avoidance (B =-.04, p = .46) or low levels of attachment avoidance (B =.09, p = .13). Calculations of the region of significance with the unstandardized variables indicated that the effect of context reaches significance at values of trait attachment avoidance lower than 0.39, which is below the range of observed values. Additional simple slopes analyses indicated that greater trait attachment avoidance is

associated with lower liking in the stressor context (B =-.31, p < .01) and the relaxation context (B =-.38, p < .01).

Trait Attachment Covariate Model: Discomfort

The planned model comparisons indicated that the full trait attachment covariate model fit the data better than the reduced, random effect only model, χ^2 (8) = 45.67, p < .001. See Table 4 for the fixed and random effects.

I hypothesized that greater trait attachment avoidance would be associated with greater discomfort with intimate behaviors (H1c) and that highly avoidant persons would report relatively lower discomfort in the relaxation context than in the stressor context (H2c). In this model, I observed significant main effects of trait attachment avoidance, of context, and of behavior type. Supporting H1c, I observed that, on average, people who reported greater trait attachment avoidance also reported greater discomfort with intimate behaviors. On average, people reported less discomfort with intimate behaviors in the relaxation context than in the stressor context and people reported greater discomfort with intimate behaviors when rating self-disclosure solicitations than when rating physically affectionate behaviors. I did not observe support for H2c in this model due to the lack of a significant interaction between avoidance and context in this model. However, the independent main effect of context on discomfort suggests that unpartnered people generally feel less discomfort with intimate behaviors in the relaxation context than in the stressor context.

Overall, the results of the confirmatory trait attachment covariate models suggest that unpartnered people generally believed that they would like and feel more comfortable with intimate behaviors when they are feeling relaxed than when under stress. Although the lack of significant interactions to qualify the results of the liking and discomfort models suggests that the

average unpartnered person tends to approve of intimate behaviors more when relaxing than when stressed, unpartnered persons who are more reluctant to rely on others (i.e., highly avoidant persons) generally believed they would have less positive attitudes toward intimate behaviors.

Trait Attachment Interaction Model: Liking

In the previous models, I controlled for trait attachment anxiety when estimating the models' parameters. In the models described below however, I included interactions with trait attachment anxiety. This approach allows for more nuance in estimating the additive and interactive associations between the attachment variables, the context and behavior type variables, and each outcome. The fixed and random effects of these models are presented in Table 5. The planned model comparisons indicated that the full trait attachment interaction model fit the data better than the reduced, random effect only model, χ^2 (14) = 73.82, $p < .001$.

I observed significant main effects of trait attachment anxiety, trait attachment avoidance, context, and behavior type. As with the covariate model predicting liking, I observed support for H1a: People who reported greater trait attachment avoidance also reported lower liking of intimate behaviors on average. Likewise, I observed that people reported significantly higher liking of intimate behaviors in the relaxation context than in the stressor context on average. In contrast to the covariate model, I observed significant main effects of trait attachment anxiety and behavior type in the interaction model predicting liking. On average, people who reported greater trait attachment anxiety also reported greater liking of intimate behaviors and people reported lower liking of self-disclosure solicitations than of physically affectionate behaviors. These main effects were qualified by multiple interactions: I observed a significant interaction between trait attachment anxiety and avoidance; a significant interaction between trait attachment anxiety and behavior type; a marginally significant interaction between trait

attachment avoidance and behavior type; and a significant higher-order interaction between trait attachment anxiety, trait attachment avoidance, and context.

Attachment orientation-related variations in liking. First, I decomposed the interaction between attachment anxiety and attachment avoidance (Figure 4) to examine how variations in attachment insecurity are associated with liking of intimate behaviors. When I tested the slope of trait attachment avoidance at high (+1 SD) and low (-1 SD) values of trait attachment anxiety, I observed that the negative association between attachment avoidance and liking weakened at higher values of attachment anxiety. On average, trait attachment avoidance was associated with lower liking of intimate behaviors at high values of trait attachment anxiety (B = -0.19, p <.01) and at low values of attachment anxiety (B = -0.33, p <.01). Calculations of the region of significance indicated that the association between trait attachment avoidance and liking of intimate behaviors reaches significance at values of attachment anxiety below 6.76.

When I tested the slope of trait attachment anxiety at high and low values of trait attachment avoidance, I observed that the association between trait attachment anxiety and liking of intimate behaviors became stronger and more positive at higher values of trait attachment avoidance. Trait attachment anxiety was associated with greater liking of intimate behaviors at high values of attachment avoidance (B = 0.15, p = .01) but not at low values of attachment avoidance (B = 0.01, p = .79). Calculations of the region of significance indicate that the association between trait attachment anxiety and liking of intimate behaviors reaches significance at values of trait attachment avoidance greater than 3.16.

Variations between behavior types and levels of trait attachment anxiety. Next, I decomposed the interaction between attachment anxiety and behavior type (Figure 5) to examine how attachment anxiety moderated the association between behavior type and liking. When I

tested the slope of behavior type at high and low values of trait attachment anxiety, I observed that the negative association between behavior type and liking weakened at higher values of trait attachment anxiety. Whereas, on average, behavior type was not significantly associated with liking of intimate behaviors at high values of trait attachment anxiety (B = -0.26, p = .12), behavior type was significantly associated with lower liking of intimate behaviors at low values of trait attachment anxiety (B = -0.46, p = .02). Calculations of the region of significance indicate that the association between behavior type and liking reaches significance at values of trait attachment anxiety less than 5.22.

When I tested the slope of trait attachment anxiety for each level of behavior type, however, I observed that trait attachment anxiety was only significantly associated with liking of *self-disclosure solicitations*. On average, greater attachment anxiety was not associated with liking of physically affectionate behaviors (B = 0.04, p = .45), but greater attachment anxiety was associated with greater liking of self-disclosure solicitations (B = 0.13, p = .01). Trait attachment anxiety is associated with greater liking of intimate behaviors on average, but Figure 5 illustrates that this main effect is due to the positive correlation between trait attachment anxiety and liking of self-disclosure solicitations and a ceiling effect for liking of physical affection.

Context-related variations in liking for each attachment profile. Finally, I decomposed the higher-order interaction between trait attachment anxiety, trait attachment avoidance, and context (Figure 6) to examine context-related variations in liking for people who fit each of the prototypical attachment profiles (e.g., the avoidant profile, the anxious profile). When I tested the slope of context for participants who fit the avoidant and secure attachment profiles, I observed that liking varied from one context to the next. On average, liking of intimate

behaviors was significantly higher in the relaxation context than in the stressor context for participants who fit the avoidant attachment profile (B =.20, p = .05) and for participants who fit the secure attachment profile (B =.17, p = .05). Calculations of the region of significance indicate that, at low levels of attachment anxiety, the effect of context on liking reaches significance at values of attachment avoidance between 1.64 and 6.48.

When I tested the slope of context for participants who fit the anxious and fearful attachment profiles, I observed context differences only for participants who fit the anxious attachment profile. On average, liking of intimate behaviors was significantly higher in the relaxation context than in the stressor context for participants who fit the anxious attachment profile (B =.29, p = .01) but not for participants who fit the fearful attachment profile (B =.06, p = .49). Calculations of the region of significance indicate that, at high levels of attachment anxiety, the effect of context on liking reaches significance at values of attachment avoidance lower than 3.57.

This model supported H1a in that I observed a negative association between attachment avoidance and liking, but I did not observe direct support for the hypothesized interaction between context and avoidance in this model. Instead, I observed that only highly avoidant persons who also reported low levels of attachment anxiety reported relatively greater liking of intimate behaviors in the relaxation context than the stressor context.

Trait Attachment Interaction Model: Perceived Responsiveness

The planned model comparison indicated that the full anxiety interaction model fit the data better than the reduced, random effect only model, χ^2 (14) = 79.12, p < .001. See Table 5 for the fixed and random effects.

I observed a significant main effect of trait attachment avoidance and a significant main effect of trait attachment anxiety. As with the trait attachment covariate model, people who reported greater trait attachment avoidance also reported lower perceived responsiveness of intimate behaviors on average (supporting H1b) and people who reported greater trait attachment anxiety also reported greater perceived responsiveness on average. These main effects were qualified by a significant interaction between trait attachment anxiety and avoidance; a marginally significant interaction between trait attachment avoidance and context; a significant interaction between both attachment variables and context; and a marginally significant interaction between trait attachment anxiety, behavior type, and context.

Attachment orientation-related variations in perceived responsiveness. To better understand how attachment insecurity is associated with the perceived responsiveness of intimate behaviors for people who fit each attachment profile, I first decomposed the interaction between attachment anxiety and avoidance predicting perceived responsiveness. When I tested the slope of trait attachment avoidance at high and low values of trait attachment anxiety (Figure 7), I observed that the negative association between trait attachment avoidance and perceived responsiveness weakened at higher values of trait attachment anxiety. On average, greater trait attachment avoidance was associated with lower perceived responsiveness at high values of trait attachment anxiety (B = -0.25, p <.01) and at low values of trait attachment anxiety (B = -0.43, p <.01) although the latter association was more negative than the former. Calculations of the region of significance indicate that the association between trait attachment avoidance and perceived responsiveness reaches significance at values of trait attachment anxiety greater than 7.02—outside the range of possible values of trait attachment anxiety.

When I tested the slope of trait attachment anxiety at high and low values of trait attachment avoidance, I observed that the positive association between trait attachment anxiety and perceived responsiveness also weakened at higher values of trait attachment avoidance. On average, greater trait attachment anxiety was not associated with perceived responsiveness at high values of trait attachment avoidance ($B = 0.00$, $p = .97$), but greater trait attachment anxiety was associated with greater perceived responsiveness at low values of trait attachment avoidance ($B = 0.19$, $p < .01$). Calculations of the region of significance indicate that the association between trait attachment anxiety and perceived responsiveness reaches significance at values of trait attachment avoidance greater than 3.12.

Overall, it appears that trait attachment avoidance and anxiety temper each other. As illustrated by the slope for highly avoidant persons in Figure 7, participants who fit the avoidant attachment profile reported that they would perceive a romantic partner's intimate behaviors as less responsive than would participants who fit the fearful/disorganized profile. Whereas the slope of trait attachment anxiety remained positive and stable at low values of trait attachment avoidance, the slope of trait attachment anxiety became more positive at high values of trait attachment avoidance. In other words, participants who fit the secure and anxious attachment profiles did not differ perceived responsiveness, but participants who fit the fearful attachment profile perceived intimate behaviors as more responsive than did participants who fit the avoidant profile. Moreover, it appears that participants who fit the avoidant profile reported the lowest levels of perceived responsiveness.

Context-related variations in perceived responsiveness for each attachment profile. Next, to examine how context is associated with variations in perceived responsiveness for each attachment profile, I decomposed the higher order interaction between trait attachment anxiety,

trait attachment avoidance, and context (Figure 8).When I tested the slope of context on perceived responsiveness for participants who fit the avoidant and secure attachment profiles, I observed no significant difference in perceived responsiveness for the stressor or relaxation context for participants who fit the avoidant attachment profile (B =.07, p = .44) or the secure attachment profile (B =.06, p = .39). I could not calculate the region of significance: I failed to determine the range of trait attachment avoidance where the effect of context reaches significance at low values of attachment anxiety. I also observed that, whereas participants who fit the anxious attachment profile reported greater perceived responsiveness in the relaxation context than in the stressor context (B =.18, p = .05), participants who fit the fearful attachment profile reported relatively similar levels of perceived responsiveness in both contexts (B =-.10, p = .14). Calculations of the region of significance at high levels of trait attachment anxiety illustrated that the effect of context becomes significant at values of attachment avoidance lower than 2.04 and higher than 4.95.

This model supported H1b in that I observed a negative association between attachment avoidance and perceived responsiveness, but I observed neither direct nor indirect support for my hypothesis that highly avoidant persons would report greater perceived responsiveness in the relaxation context than in the stressor context. Instead, I observed that the perceived responsiveness of intimate behaviors was relatively greater in the relaxation context than the stressor context only for participants who reported both high levels of attachment anxiety and low levels of attachment avoidance. In other words, whereas context had no significant effect on the perceived responsiveness of intimate behaviors for most unpartnered people, unpartnered people who are concerned with potential abandonment in close relationships but who are not

reluctant to rely on others believed their perceptions of responsiveness would differ between contexts.

Trait Attachment Interaction Model: Discomfort

The planned model comparisons indicated that the full trait attachment interaction model fit the data better than the reduced, random effect only model, χ^2 (14) = 57.46, $p < .001$. See Table 5 for the fixed and random effects.

I observed a significant main effect of trait attachment avoidance, of context, and of behavior type. On average and supporting H1c, I observed that participants who reported greater trait attachment avoidance also reported greater discomfort with intimate behaviors. On average, participants reported less discomfort with intimate behaviors in the relaxation context than in the stressor context, and participants reported greater discomfort with self-disclosure solicitations than with physically affectionate behaviors on average. These main effects suggest that, compared to unpartnered persons who reported low attachment avoidance, highly avoidant unpartnered persons believed they would generally feel more discomfort with a romantic partner's intimate behaviors. Moreover, unpartnered persons may generally feel less discomfort with intimate behaviors in relatively non-stressful situations and feel less discomfort when a romantic partner is physically affectionate rather than inquisitive. These main effects were qualified, however, by a significant interaction between trait attachment anxiety, trait attachment avoidance, and context and a significant interaction between trait attachment anxiety, context, and behavior type.

Interaction between context, behavior type, & trait attachment anxiety.

How is behavior type associated with discomfort in each context at high and low attachment anxiety? Next, I examined how discomfort in *each context* varies between behavior

types for participants who reported high or low attachment anxiety (Figure 9). When I estimated the slope of behavior type on discomfort with intimate behaviors in the *stressor context* for participants who reported low or high attachment anxiety, I observed that the association between behavior type and discomfort with intimate behaviors weakened at higher values of trait attachment anxiety. On average, in the stressor context, participants did not significantly differ in discomfort with physical affection or self-disclosure solicitations at high values of trait attachment anxiety ($B = 0.06$, $p = .62$) or at low values of trait attachment anxiety ($B = 0.24$, $p = .08$) although the latter correlation approached conventional levels of statistical significance. Calculations of the region of significance indicated that the slope of behavior type on discomfort in the stressor context reaches significance at values of trait attachment anxiety below 2.32. Although the slope of behavior type did not reach significance at low values of trait attachment anxiety, it appears that participants who reported lower attachment anxiety believed they would be more uncomfortable with self-disclosure solicitations than did participants who reported higher attachment anxiety.

When I estimated the slope of behavior type on discomfort with intimate behaviors in the *relaxation context* for participants who reported low or high attachment anxiety, I observed that the association between behavior type and discomfort strengthened at higher values of trait attachment anxiety. On average, participants reported greater discomfort with self-disclosures than physical affection at high values of trait attachment anxiety ($B = 0.24$, $p < .01$) and at low values of trait attachment anxiety ($B = 0.19$, $p = .02$). Calculations of the region of significance indicated that the slope of behavior type on discomfort on discomfort in the relaxation context reaches significance at values of trait attachment anxiety between 1.23 and 8.94—in other words,

the slope of behavior type was significant at almost all possible ranges of trait attachment anxiety.

How does discomfort with each behavior vary between contexts at high and low attachment anxiety? First, I examined how discomfort with *each type* of intimate behavior varies between contexts for participants who reported low or high trait attachment anxiety (Figure 9). When I tested the slope of context on discomfort with *physical affection* at high and low values of trait attachment anxiety, I observed that people high and low in trait attachment anxiety reported less discomfort with physical affection in the relaxation context than in the stressor context. On average, at high levels of trait attachment anxiety, participants reported significantly lower discomfort with physical affection in relaxation contexts than in stressor contexts (B = -0.23, p = .04). Similarly, at low levels of trait attachment anxiety, participants reported lower discomfort with physical affection in relaxation contexts than in stressor contexts on average (B = -0.21, p = .05). Calculations of the region of significance indicated that the association between context and discomfort with physical affection reaches significance at values of trait attachment anxiety between 1.43 and 7.18.

When I tested the slope of context and discomfort with *self-disclosure solicitations* at high and low values of trait attachment anxiety, I observed evidence that discomfort with self-disclosure solicitations varied between contexts for participants who reported lower trait attachment anxiety. On average, discomfort with self-disclosure solicitations did not differ significantly across contexts for participants high in trait attachment anxiety (B = -.05, p = .61), but discomfort with self-disclosure solicitations was significantly lower in relaxation contexts than stressor contexts for participants low in trait attachment anxiety on average (B = -.26, p = .02). Calculations of the region of significance indicate that the association between context and

discomfort with self-disclosure solicitations reaches significance at values of trait attachment anxiety lower than 3.71. As illustrated in Figure 9, greater trait attachment anxiety is generally correlated with greater discomfort with intimate behaviors, except when evaluating self-disclosure solicitations in the stressor context. In this instance, there was a null association between trait attachment anxiety and discomfort with self-disclosure solicitations in the stressor context.

My observations from testing the interaction between context, trait attachment anxiety, and behavior type suggest that unpartnered persons generally believed that they would feel more discomfort with intimate behaviors when stressed rather than when relaxing with a romantic partner. The specific associations between trait attachment anxiety and discomfort depend on the behavior being evaluated however. For unpartnered participants who reported low levels of attachment anxiety, discomfort with self-disclosure solicitations was higher than was discomfort with physical affection, but that difference was not present at high levels of attachment anxiety.

Interaction between context & trait attachment avoidance & anxiety.

Context effects for each attachment profile. When I tested the effect of context on discomfort with intimate behaviors for participants who fit the avoidant and secure attachment profiles (Figure 10), I observed context differences only for participants who fit the avoidant attachment profile. On average, participants who fit the avoidant attachment profile reported significantly less discomfort with intimate behaviors in relaxation contexts than in stressor contexts (B =-.33, $p < .01$), but participants who fit the secure attachment profile reported relatively similar levels of discomfort in both contexts on average (B =-.14, $p = .10$). Calculations of the region of significance at low levels of attachment anxiety suggest that the

effect of context on discomfort reaches significance at values of attachment avoidance higher than 2.12.

In contrast, when I tested the slope of context for participants who fit the anxious and fearful attachment profiles, I observed no context differences in discomfort. On average, discomfort with intimate behaviors was relatively similar across both contexts for participants who fit the anxious attachment profile (B =-.18, p = .07) and for participants who fit the fearful attachment profile (B =-.09, p = .26). Calculations of the region of significance at high levels of attachment anxiety failed to determine the range of values of attachment avoidance in which the effect of context reaches significance. Regarding discomfort with intimate behaviors, context is associated with more favorable attitudes only for those high in attachment avoidance and low in attachment anxiety.

Overall, the results of the trait interaction model provided interesting insights into how discomfort with intimate behaviors varies as a function of attachment orientations, context, and the behavior being evaluated. Generally, unpartnered persons who reported greater attachment avoidance believed they would feel more discomfort with intimate behaviors, but highly avoidant persons (who also reported low attachment anxiety) reported lower discomfort in the relaxation context than in the stressor context. For these "avoidantly attached" singles, intimate behaviors may be more tolerable in relaxing or more mundane situations. The interaction between context, behavior type, and trait attachment anxiety suggests that, compared to participants who reported lower attachment anxiety, unpartnered participants who were more concerned with potential abandonment (i.e., "anxiously attached" participants) did not discriminate between self-disclosure solicitations and physical affection in stressor contexts to the same extent.

Although I did not test the highest-order interaction possible between the fixed effects in this model, the interactions I observed suggest that participants high in attachment anxiety and low in attachment avoidance may feel less discomfort with self-disclosure solicitations in stressor contexts. Consider the figure demonstrating context effects at different values of trait attachment avoidance and anxiety (Figure 10). In that figure, it appears that participants who fit the avoidant and fearful attachment profiles reported similar levels of discomfort with intimate behaviors. However, participants who fit the fearful profile appeared to distinguish less between contexts than participants who fit the anxious attachment profile did. The greater discrimination evidenced by the anxious attachment profile may indicate that participants who fit the anxious profile feel less discomfort with self-disclosure solicitations in the stressor context than in the relaxation context. If so, then the non-significant, near reversal of the slope of trait attachment anxiety predicting discomfort with self-disclosure solicitations might have been significant had I included attachment avoidance in that interaction term.

Discussion

In Study 1, I tested associations between trait attachment avoidance and attitudes toward intimate behaviors in a sample of unpartnered persons. In doing so, I presented unpartnered persons with scenarios in which a hypothetical partner enacted physically affectionate behaviors and solicited self-disclosure (a) when dealing with a personal stressor in the presence of a romantic partner and (b) when relaxing together with a romantic partner. I hypothesized that greater trait attachment avoidance would be associated with lower liking of intimate behaviors, lower perceived responsiveness, and greater discomfort with intimate behaviors, and I hypothesized that highly avoidant persons would report *relatively* greater liking of intimate

behaviors, *relatively* greater perceived responsiveness, and *relatively* lower discomfort with intimate behaviors in the relaxation contexts than in the stressor contexts.

How are Attachment Avoidance, Context, and Behavior Type Associated with Attitudes Toward Intimate Behaviors?

I observed consistent, direct support for my hypothesis that attachment avoidance is associated with less favorable attitudes toward intimate behaviors in both the trait attachment covariate and trait attachment interaction models. As hypothesized, compared to less avoidant participants, unpartnered participants who reported greater reluctance to rely on others (i.e., highly avoidant participants) believed they would like intimate behaviors less, would perceive intimate behaviors as less responsive, and would feel more discomfort with intimate behaviors. In other words, people who tend to be reluctant to rely on close others have less favorable attitudes toward intimate behaviors—behaviors that facilitate closeness in relationships. Despite consistent evidence for my first hypotheses, I only observed the hypothesized interaction between context and attachment avoidance once. In the single instance that I observed this context-by-avoidance interaction, the simple effects analyses did not support the hypothesis that highly avoidant persons' attitudes toward intimate behaviors would be relatively more favorable in the relaxation context than in the stressor context. Instead, and as explained later on, highly avoidant participants' attitudes toward intimate behaviors were only relatively more favorable in the relaxation context (vs the stressor context) if highly avoidant participants also reported lower-than-average attachment anxiety.

In addition to the main effects of attachment avoidance, I observed main effects of behavior type and context in most of my analyses. These main effects in the liking and discomfort models suggest that participants generally thought they would like intimate behaviors

more or feel more comfortable with intimate behaviors when relaxing with a hypothetical romantic partner than when coping with a stressor in the presence of a romantic partner. However, there was considerable variation in how participants reacted to the different contexts and behavior types. I noticed that, despite the significance of the fixed effects of context and behavior type in the liking and discomfort models, the *SD* of the by-participant random slopes for context and behavior type ranged from .45 to .65. Using the trait interaction model for liking as an example, the size of the *SD* for context suggests that participants' slopes for context deviated from the mean slope (i.e., the fixed effect of context) by .65 standardized units—more than triple the size of the fixed effect. The amount of variation I observed in the associations between context or behavior type and each outcome suggest caution in interpreting the main effects of context and behavior type. Specifically, based on fixed effects alone, I would be unable to definitively state whether *most participants* reported more favorable attitudes in the relaxation context than in the stressor context (or more favorable attitudes toward physical affection than toward self-disclosure solicitations) or if the fixed effect estimates are artifacts of *some participants* having reacted differently to each context or behavior type.

To better understand how participants reacted to each context and behavior type, I took advantage of an underrated benefit of multilevel linear modeling: Each model estimated the slopes of context and of behavior type for each unique participant. In R Studio, I retrieved the participants' slopes for context and behavior type and calculated the proportion of participants whose slopes were in the same direction as the fixed effects of context and behavior type. In the liking and discomfort models, I observed that approximately one-fourth to one-fifth of participants' slopes for context and behavior type were in the opposite direction of the fixed effects for context and behavior type. Thus, in these models, it appears that *most* participants

reported more favorable attitudes in the relaxation context than in the stressor context, but other people had more favorable attitudes in the stressor context than in the relaxation context. Although examining the random effects helped clarify the overall pattern of effects for context and behavior type, the random effects did not convey *who* reacted differently in each context and to each type of intimate behavior.

How do Attachment Avoidance and Anxiety Interact to Predict Attitudes Toward Intimate Behaviors?

I gained insight into whose attitudes toward intimate behaviors varied as a function of context and the type of behavior being evaluated by testing additional exploratory models (i.e., the trait attachment interaction models). These exploratory models went beyond the confirmatory trait attachment covariate models by allowing me to examine how variations in participants' trait attachment avoidance *and* anxiety are associated with attitudes toward intimate behaviors. Because I tested interactions with and between both attachment variables, I observed evidence that my hypotheses about interactions between attachment avoidance and context lacked potentially necessary nuance. Generally, attachment avoidance was associated with less favorable attitudes toward intimate behaviors, but the strength of these correlations varied at high and low values of trait attachment anxiety. The trends illustrated in the figures that correspond to the trait attachment interaction models suggest a hierarchy of attitude positivity between the four prototypical attachment profiles: Attitudes were most positive among participants who fit the secure attachment profile, followed by those who fit the anxious attachment profile, those who fit the fearful attachment profile, and those who fit the avoidant attachment profile, respectively. Moreover, the associations between context or behavior type and attitudes toward intimate behaviors differed for each attachment profile and for each attitude outcome.

The most pertinent examples of context and outcome-related differences for each profile come from the trait attachment interaction models predicting liking and discomfort with intimate behaviors. I observed *indirect* support for the idea that highly avoidant persons would report relatively more favorable attitudes when relaxed (vs. stressed) in that, when highly avoidant participants also reported lower levels of attachment anxiety, participants' liking scores and discomfort scores were more favorable in the relaxation context than in the stressor context. Although people who are more reluctant to rely on close others and who are less concerned about potential abandonment (i.e., the avoidant attachment profile) often demonstrated the least favorable attitudes toward intimate behaviors, their attitudes were amenable to affective features of the context. It might be the case that unpartnered persons who fit the avoidant profile appeared to tolerate intimate behaviors more when relaxed than when stressed because the self-regulatory demands of a stressor increase avoidantly attached persons' attention to or reliance on avoidant schemas or expectations of others. For unpartnered avoidantly attached persons, the relatively low liking of intimate behaviors and relatively high discomfort with intimate behaviors might reflect that the prospect of engaging in intimate behaviors with a romantic partner is somewhat threatening regardless of context. Liking scores and discomfort scores may have been more unfavorable in the stressor context because, compared to a relaxation context, interacting with a romantic partner while coping with stressors may involve more negative expectation-congruent stimuli or environmental cues. Since discomfort with relying on others is a defining feature of attachment avoidance in some measures (e.g., ECR-RS; Fraley et al., 2006) and discomfort was lower in the relaxation context, the fact that liking was also higher in the relaxation context for these participants suggests that avoidantly attached people may tolerate or be more willing to

engage with intimacy-promotion interventions that focus on non-stressful interactions with romantic partners.

Although my focus was primarily on highly avoidant participants, I also observed various context-related differences for participants who fit the secure and anxious attachment profiles. Interestingly, although greater attachment anxiety was associated with greater liking and greater discomfort with intimate behaviors, participants who fit the secure and anxious attachment profiles both reported greater liking of intimate behaviors in the relaxation context than in the stressor context on average and to report equivalent levels of (dis)comfort across contexts. These observations are somewhat paradoxical. If, as attachment research often assumes, stress prompts the attachment system to motivate people to seek comfort and closeness, then both securely attached and anxiously attached persons' responses to context differences should have reflected the motivational component of the attachment system (i.e., greater liking and less discomfort in the stressor context than the relaxation context). There are numerous explanations for my observations.

The most contentious explanation is that adult attachment researchers are wrong about the motivational role of stress in promoting proximity-seeking in adults. However, this explanation is limited by the possibility that participants' liking and discomfort scores reflected, to some degree, how participants generally felt about the idea of relaxing with a partner or coping with stressors. This explanation still does not explain why attitudes differed between contexts instead of "canceling out"; even if a stressor context is less desirable than a relaxation context, receiving comfort and care when stressed (vs. relaxed) should be more impactful and situation appropriate. Since I do not currently have the means to separate attitudes toward the

situations from attitudes toward the intimate behaviors, it may be worthwhile for future research to test this explanation.

Another, less-threatening explanation for the observed effects of context is that anxiously attached persons exist in a relatively elevated state of *perceived* threat compared to securely attached persons and the attachment system becomes overwhelmed in the face of actual threats (i.e., stress). Support for this explanation could come from my observations that attachment anxiety was positively correlated with liking and that the strength of the association between context and liking was greater for the anxious attachment profile than for the secure attachment profile. This explanation is undermined by the interaction between trait attachment anxiety and behavior type predicting liking however, as well as the fact that people who fit the secure attachment profile still reported greater liking in the stressor context.

Liking of physical affection was relatively static across different levels of attachment anxiety, but participants who reported higher attachment anxiety distinguished less (i.e., reported equivalent levels of liking) between physical affection and self-disclosure solicitations than did participants who reported low attachment anxiety. Similarly, the direction of the association between trait attachment anxiety and discomfort with self-disclosure solicitations nearly reversed in the stressor context. For the elevated threat explanation to be true, greater attachment anxiety should consistently be associated with greater liking of and lower discomfort with *both* types of intimate behaviors in general *as well as* lower liking and greater discomfort in the stressor context than in the relaxation context. Moreover, since the securely attached participants should represent normative attachment system functioning to some degree, the elevated threat explanation would require securely attached participants to like receiving intimate behaviors more in the stressor context than in the relaxation context.

Interestingly, when evaluating how cared for and understood they would feel if a partner enacted intimate behaviors (i.e., when evaluating perceived responsiveness), participants who fit the secure attachment profile did not believe that context would change how responsive they perceived intimate behaviors to be. In contrast, unpartnered persons who fit the anxious attachment profile believed they would perceive intimate behaviors as more responsive in the relaxation context than in the stressor context. Thus, not only do "anxiously attached" persons like intimate behaviors more in the relative absence of stress than when stressed, they perceive intimate behaviors as more responsive in low-stress situations as well.

Moreover, despite liking and perceiving intimate behaviors as more responsive in the relaxation context than in the stressor context, I observed only marginally less discomfort with intimate behaviors in the relaxation context (vs. stressor context) for participants who fit the anxious attachment profile. To me, these observations seem counterintuitive. If stress prompts people to seek comfort and support as adult attachment research often assumes, then intimate behaviors enacted during a stressor context (vs. a relaxation context) should be more meaningful because the partner's enactment of intimate behaviors are directly relevant to the recipients' experiences of distress—the partner is actively attempting to comfort the recipient of the intimate behaviors. Should it not be the case that people who are the most concerned with whether close others will be available to provide comfort and care (i.e., the anxious attachment profile) feel most cared for and understood in the situations in which comfort and care are both needed by the anxiously attached person *and* given by one's romantic partner (as in the current study's hypothetical stressors)?

Study 1 Limitations & Future Directions

The use of a relatively complex multilevel linear model to analyze data from a within-participant study provided valuable information regarding the associations between attitudes toward intimate behaviors and attachment insecurity, context, and behavior type. However, the previously stated conclusions and interpretations should be interpreted in light of potential concerns with statistical power. When choosing the fixed effect terms to include in the exploratory models, I took a relatively liberal approach to maximize the information I could gather from these data and included most interaction terms. I refrained from testing additional sets of predictors (e.g., demographic variables, the highest-order interaction term) because, although I assessed trait attachment insecurity among unpartnered persons to ensure greater variability in the attachment variables, participants most often reported low endorsement of the attachment avoidance and anxiety items. On one hand, the limited number of observations at the high ends of the attachment avoidance or anxiety scales might suggest that my analyses lacked the power needed to observe support for my interaction hypotheses. On the other hand, the distributions of values of attachment avoidance and anxiety suggest that my observations for participants high in either attachment dimension may not hold in a more well-powered study. It is also possible, however, that a more well-powered study would provide stronger support for my hypotheses and my peripheral observations.

Another potential (and unanticipated) limitation of this study was that approximately 41% of participants had not been previously partnered. The participants who lacked experience in romantic relationships may have struggled to accurately respond to the items in this study because they lack experience to help them gauge their attitudes toward intimate behaviors. Additionally, compared to participants who had previously been in a romantic relationship, participants without romantic experience may have relied more on experiences in familial or

platonic relationships when responding to the attachment insecurity items. In contrast, previously partnered participants may have based their responses on current or past romantic relationships as well as familial and platonic relationships when responding to attachment insecurity items.

Taken together, my observations suggest that, for persons who are not currently in a committed romantic relationship, attitudes toward intimacy are shaped by their trait attachment orientations—the degree to which they generally experience attachment avoidance and anxiety in their close relationships. Whereas unpartnered people who are low in attachment avoidance tended to evaluate a hypothetical romantic partner's attempts to maintain or establish intimacy favorably, unpartnered people high in attachment avoidance tend to evaluate intimate behaviors less favorably. For people high in trait attachment avoidance and low in trait attachment anxiety, however, attitudes toward intimate behaviors are more favorable in relatively stress-free situations than in stressful situations. Based on these conclusions, I believe that theories and research that focus on strengthening attachment security through positive activities (Mikulincer & Shaver, 2019; Stanton et al., 2017) might already be capitalizing on the observed effect of context on highly avoidant persons' attitudes toward intimate behaviors. I only made these attachment orientation-related observations by testing the exploratory attachment interaction models, however. Therefore, the evidence provided by positive activity-focused research (and evidence documented in previous attachment-relevant research) might be unnecessarily constrained unless researchers examine how attachment avoidance and anxiety interact to shape participants' responses to variables of interest. Moreover, given the difference in how the covariate and interaction models supported my hypotheses, further exploration of interactions between attachment avoidance and anxiety can provide guidance on how to formulate future hypotheses more accurately in adult attachment research.

These conclusions withstanding, I must note that Study 1's use of a sample of unpartnered persons who evaluated behaviors enacted by an unspecified hypothetical romantic partner prevents me from concluding that "this is how *people* will appraise intimate behaviors in their relationships." Instead, my sample allowed me to draw conclusions about how *single people predict* they would respond to a hypothetical romantic partners' attempts to increase intimacy and closeness. For instance, the results of the confirmatory and exploratory trait attachment models in Study 1 suggest that unpartnered persons' predicted evaluations of intimate behaviors are influenced largely, but not wholly, by both internal and external factors. For liking and discomfort, the situation *and* one's reported level of attachment avoidance are independently and differentially associated with evaluations of intimate behaviors.

Study 2

Regardless of the promise of Study 1's results, Study 2 tests my hypotheses more stringently than did Study 1. Study 1 relied on a sample of unpartnered participants to report their responses to a hypothetical romantic partner's actions and, as such, has limited external validity. Additionally, outcomes in Study 1 were predicted from *trait* attachment insecurity which is, essentially, an amalgam of respondents' attachments to their non-romantic relationship partners (and potential ex-romantic partners). I improved the external validity of Study 2 by recruiting a sample of persons currently in romantic relationships to examine how attachment insecurity and context influence coupled persons' attitudes toward intimate behaviors. Moreover, because the larger question of interest pertains to insecurity in one's romantic relationship specifically, Study 2's focal analyses examine associations between attitudes toward intimate behaviors enacted by a respondents' current romantic partners (in hypothetical situations) from respondents' romantic relationship-specific (RS) attachment avoidance.

Except for the focus on RS attachment rather than trait attachment, Study 2's hypotheses are consistent with Study 1's: Greater RS attachment avoidance will be associated with less liking of intimate behaviors (H1a), less perceived responsiveness of intimate behaviors (H1b), and greater discomfort with intimate behaviors (H1c); and highly avoidant persons will report relatively greater liking (H2a) and perceived responsiveness (H2b), as well as lower discomfort with intimate behaviors (H2c), in relaxation contexts than in stressor contexts.

Method

All study procedures, including recruitment criteria and analysis plan, were pre-registered before data collection (osf.io/pzuxr/).

Participants & Procedure

For Study 2, I solicited participants from two sources: Prolific.co (Prolific) and the Syracuse University SONA research participation pool. I posted a research solicitation to Prolific and SONA for a study about "people's attitudes about different behaviors in a variety of situations and how differences in attitudes are associated with relationship beliefs" (see Appendix A). Potential participants were eligible for this study if they were between 18 and 60 years-old and if their relationship status was, "in a relationship," "engaged," "married," "in a civil union/or similar," or "rather not say." I aimed to recruit 250 participants in total—with 150 participants coming from Prolific and 100 participants from SONA—to maximize the number of observations used in my analyses. Because SONA participants were not required to complete the survey immediately upon signing-up, and some SONA participants never completed the study before the deadline, I posted 120 total SONA time slots to participate. My final sample consisted of 247 participants: 150 participants from Prolific and 97 participants from SONA. Participants' mean self-reported age was 28.97 years (*SD* = 11.55 years) and their mean self-reported current

relationship length was 7.54 years (*SD* = 9.11 years). Most participants in Study 2 self-identified as female (72.9%) and as White (72.5%). I present the rest of the sample characteristics for Study 2 in Table 1.

The procedure for Study 2 was identical to that of Study 1 but was modified to be more appropriate for coupled participants. As in Study 1, participants who signed-up to participate in the study were directed to an online survey hosted on the Qualtrics platform. Upon completing the consent form (see Appendix P), participants completed demographic and attachment-relevant items; evaluated the six focal intimate behaviors from Study 1 (e.g., giving the participant a hug, asking how the participant is feeling) without context, in the context of a stressor, and in a relaxation context; and completed a few additional demographic and control items. As in Study 1, the survey randomly assigned the order that intimate behaviors were evaluated and randomly assigned the order that participants completed the context-specific intimate behavior items. Descriptive statistics and reliability indices for, and correlations between, key study variables are presented in Table 6.

Measures

Demographics. Participants first responded to items about their age, gender identity, and relationship status (see Appendix Q). Participants whose self-reported relationship status did not match the eligibility criteria indicated that their relationship status was anything other than "in a relationship," "engaged," "married," or "in a civil partnership/civil union or similar" were considered ineligible and were unable to progress further in the survey. Eligible participants were asked to enter the name they call their partner (to be piped into other survey items), the length of their relationship with their current partner (in years and months), and if they had ever been

divorced from a previous spouse/marital partner. I collected these data for potential exploratory analyses.

Trait and RS Attachment Orientations. Participants completed the same version of the ECR-RS scale (Fraley et al., 2006) used in Study 1 to assess participants' trait attachment anxiety and avoidance in their relationships with "close others" (i.e., trait attachment insecurity): six items assessed trait attachment avoidance and three items assessed trait attachment anxiety (see Appendix D). Participants indicated how much they agreed with each item using a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*). The next page of the survey stated, "On this page, we want to ask about your relationship with [partner's name]," and instructed participants to complete this ECR-RS scale by indicating "how much you agree or disagree with the following statements about your relationship with [partner's name]." This version of the ECR-RS replaced the phrase "close others" in the previous scale with each participant's respective partner's name (e.g., "It helps to turn to *Michael* in times of need") and assessed participants' relationship-specific attachment insecurity (see Appendix R).

General Evaluations of Intimate Behaviors. In Study 2, the survey instructions for this section stated: "[...] we want to ask for your opinions on different behaviors that [partner's name] might do when you are together." I provided these instructions to ensure that participants situated their responses in their own romantic relationship when reporting their evaluations of each intimate behavior. The rest of this section was identical to that of Study 1. Afterwards, the survey then informed participants that the next questions will ask participants to recall specific situations and imagine their partner enacting the same behaviors in those situations.

Stressor & Relaxation Contexts. As in Study 1, the survey randomly assigned participants to respond to the stressor context items or relaxation context items first. The stressor

context prompt was identical to that of Study 1, and the relaxation context prompt was modified to specify that participants should think of a time they spent relaxing with their respective romantic partners. Participants then read a notice instructing them to evaluate several behaviors their respective romantic partner might do when the participant is stressed or is relaxing with their romantic partner. The rest of the procedure for these sections was identical to that of Study 1. Because the procedures for the general perceptions of intimate behaviors section and the stressor and relaxation contexts were identical to that of Study 1 (except with the participant's romantic partner's name being piped into certain prompts and items), Appendix S contains select examples from each of these survey sections.

Final Items. As in Study 1, participants were notified that they were close to finishing the survey after they completed both the stressor and relaxation context sections of the survey. In this final section, participants indicated their race/ethnicity, their romantic partner's gender identity, and their romantic partner's race/ethnicity; participants also completed the sensory sensitivity, physical assault, and sexual assault control items used in Study 1 (see Appendix T).

Debriefing. Finally, participants read the debriefing statement (see Appendix L) and were instructed to click through to the end of the survey to ensure their responses were recorded and that they would receive credit.

Data Analytic Strategy

All data were formatted and analyzed in R Studio with the packages listed in Appendix M. The data analytic strategy for Study 2 was identical to that of Study 1, with the exception that confirmatory models include relationship-specific (RS) attachment avoidance and anxiety rather than trait measures. Study 1 focused on single persons' trait attachment orientations as predictors of attitudes toward intimate behaviors in *hypothetical* romantic relationships, but the primary

analyses of Study 2 will use RS attachment orientations as predictors of attitudes toward intimate behaviors in their *current* romantic relationship. The primary analyses use RS attachment avoidance as the focal predictor and RS attachment anxiety as a covariate (in the confirmatory models) and a moderator (in the exploratory models).

Because trait attachment orientations may still be associated with coupled persons' attitudes toward intimate behaviors, I also attempted to replicate my observations from Study 1. In these replication models, I used trait attachment anxiety and avoidance in place of the RS attachment variables.

Results

RS Attachment Covariate Model: Liking

The fixed and random effects of each of the RS attachment covariate models are presented in Table 7.

When I conducted the planned model comparisons, the full RS attachment covariate model failed to converge. I removed the by-participant random slope for the interaction between context and behavior type in both the full and reduced models. The revised models successfully converged. The model comparison with the revised models indicated that the revised RS attachment covariate model fit the data better than the revised random effect only model, χ^2 (8) = 79.37, $p < .001$.

I hypothesized that greater RS attachment avoidance would be associated with less liking of intimate behaviors (H1a) and that highly avoidant persons would report relatively greater liking of intimate behaviors in the relaxation context than in the stressor context (H2a). In the RS attachment covariate model for liking, I observed significant main effects of RS attachment avoidance, context, and behavior type. The main effect of RS attachment avoidance supported

H1a: On average, people who reported greater RS attachment avoidance also reported lower liking of intimate behaviors. Moreover, participants reported greater liking of intimate behaviors in the relaxation context than in the stressor context on average, and people reported greater liking of physically affectionate behaviors than of self-disclosure solicitations on average. In this model, I failed to observe support for H2a. The lack of significant interactions in this model suggests that, regardless of one's reported level of RS attachment avoidance, people generally tend to like intimate behaviors more when relaxed than when stressed and that physical affection is liked more than self-disclosure solicitations.

RS Attachment Covariate Model: Perceived Responsiveness

When I conducted the planned model comparisons, both the random effect only and the full model failed to converge due to overfitting of random effects. I remedied the model convergence issue by removing random effects as discussed in Study 1's data analytic strategy. The models failed to converge after I removed the by-participant random slope of the interaction between context and behavior type and after I reduced the by-item random slope of context to a by-item random *intercept*. The models successfully converged, however, after I removed the by-participant random slope term for behavior type. The comparison of the revised models indicated that the revised RS attachment covariate model fit the data better than the revised random effect only model, χ^2 (8) = 57.61, $p < .001$. See Table 7 for the fixed and random effects.

I hypothesized that greater RS attachment avoidance would be associated with lower perceived responsiveness (H1b) and that highly avoidant persons would report relatively greater perceived responsiveness in relaxation contexts than in stressor contexts (H2b). Here, I observed only a significant main effect of RS attachment avoidance. Supporting H1b, people who reported greater RS attachment avoidance also perceived intimate behaviors as less responsive on

average. Since this main effect was not qualified by any interactions, I did not observe support for H2b in this model.

RS Attachment Covariate Model: Discomfort

Unlike in the previous RS attachment covariate models, both planned models successfully converged, and I did not need to remove any random effects. The full RS attachment covariate model fit the data better than the reduced, random effect only model, χ^2 (8) = 91.23, $p < .001$. See Table 7 for the fixed and random effects.

I hypothesized that greater RS attachment avoidance would be associated with greater discomfort with intimate behaviors (H1c) and that highly avoidant persons would report relatively less discomfort in relaxation contexts than in stressor contexts (H2c). In this model, I observed a significant main effect of RS attachment avoidance, of context, and of behavior type. On average and supporting H1c, greater RS attachment avoidance was associated with greater discomfort with intimate behaviors. Moreover, participants reported lower discomfort with intimate behaviors in the relaxation context than in the stressor context on average, and participants reported less discomfort with physical affection than with self-disclosure solicitations on average. These main effects were qualified by significant interactions between RS attachment avoidance and context and between RS attachment avoidance and behavior type.

How is RS attachment avoidance associated with discomfort across contexts? First, I decomposed the interaction between RS attachment avoidance and context (Figure 11) to examine how context is associated with discomfort with intimate behaviors at different levels of RS attachment avoidance. When I tested the slope of context at high and low values of RS attachment avoidance, I observed support for the hypothesis that highly avoidant people would report less discomfort in relaxation contexts than in stressor contexts. On average, participants

high in RS attachment avoidance tended to report lower discomfort with intimate behaviors in relaxation contexts than in stressor contexts (B =-.22, p < .01). However, on average, context was not associated with significant differences in discomfort between contexts for participants who reported low RS attachment avoidance (B =-.08, p = .14). Calculations of the region of significance with the unstandardized variables indicate that the effect of context reaches significance at values of RS avoidance greater than 1.20. I tested the slope of RS attachment avoidance predicting discomfort with intimate behaviors in each context and observed that RS attachment avoidance is associated with greater discomfort in both contexts. On average, greater RS attachment avoidance was associated with greater discomfort with intimate behaviors in the stressor context (B = 0.40, p <.01) and in the relaxation context (B = 0.33, p <.01).

How is RS att. avoidance associated with discomfort with each behavior type? Next, I decomposed the interaction between RS attachment avoidance and behavior type to examine how behavior type is associated with discomfort at different values of RS attachment avoidance. When I tested the slope of behavior type at high and low RS attachment avoidance (Figure 12), I observed that the size of the difference in discomfort with self-disclosure solicitations and physical affection increases at higher values of RS attachment avoidance. On average, discomfort with self-disclosure solicitations was greater than discomfort with physical affection for participants high in RS attachment avoidance (B = 0.43, p <.01) and for participants low in RS attachment avoidance (B = 0.15, p = .04), with the latter association being weaker than the former. Calculations of the region of significance indicate that the association between behavior type and liking reaches significance at values of RS attachment avoidance greater than 1.00. I tested the slope of RS attachment avoidance predicting discomfort with each type of intimate behavior and observed that RS attachment avoidance is associated with greater discomfort with

both types of intimate behaviors. On average, greater RS attachment avoidance was associated with greater discomfort with physical affection ($B = 0.29$, $p < .01$) and greater discomfort with self-disclosure solicitations ($B = 0.45$, $p < .01$).

Overall, the results of the RS attachment covariate model predicting discomfort with intimate behaviors suggest that, as people feel more reluctant to rely on their current romantic partner (i.e., people high in RS attachment avoidance), they believe they would feel more discomfort with their partner's enactment of intimate behaviors. Whereas people who feel relatively little reluctance to rely on their romantic partner reported equivalent levels of discomfort between contexts, people who are high in RS attachment avoidance believed that they would feel more discomfort with intimate behaviors when dealing with a stressor in the presence of their current romantic partner than when relaxing with their partner. Moreover, although participants generally believed they would feel more discomfort with self-disclosure solicitations than with physical affection from their romantic partner, highly avoidant participants distinguished more between stressors than did participants who reported low avoidance.

RS Attachment Interaction Model: Liking

As in Study 1, I tested additional, exploratory models (RS attachment *interaction* models) to examine how my observations differ when I test for interactive effects between both attachment variables and the other predictors. The fixed and random effects for each of the RS attachment interaction models are presented in Table 8.

When I conducted the planned model comparisons, both models with the planned random effect structure successfully converged—unlike in the RS attachment covariate model predicting liking. The planned model comparison indicated that the RS attachment interaction model fit the data better than the random effect only model, χ^2 (14) = 83.57, $p < .001$.

In this model, I observed significant main effects of RS attachment avoidance, context, and behavior type. On average and supporting H1a, people who reported greater RS attachment avoidance also reported lower liking of intimate behaviors. Moreover, people reported greater liking in the relaxation context than in the stressor context on average, and people reported greater liking of physically affectionate behaviors than of self-disclosure solicitations on average. As in the RS attachment covariate model for liking, I failed to observe support for H2a. The lack of significant interactions in this model indicated that highly avoidant persons tend to like intimate behaviors less than persons who reported low RS attachment avoidance and that the size of the differences in liking due to context and behavior type effects were relatively stable across values of RS attachment avoidance.

RS Attachment Interaction Model: Perceived Responsiveness

When I conducted the planned model comparisons, both the random effect only and the full RS attachment interaction models predicting perceived responsiveness failed to converge. The models still failed to converge after I removed the by-participant random slope of the interaction between context and behavior type and reduced the by-item random slope of context to a by-item random *intercept*. The revised models successfully converged, and the model comparisons indicated that the revised RS attachment interaction model fit the data better than the revised random effect only model, χ^2 (8) = 63.05, $p < .001$. See Table 8 for the fixed and random effects.

In this model, I only observed significant main effects for RS attachment avoidance. On average and supporting H1b, people who reported greater RS attachment avoidance also perceived intimate behaviors as less responsive. As with the RS attachment covariate model predicting perceived responsiveness, I did not observe support for H2b. However, in this RS

attachment interaction model, I observed a statistically significant interaction between RS attachment anxiety and behavior type rather than the interaction of interest.

How is RS att. anxiety associated with perceived responsiveness across behavior types? When I tested the slope of behavior type at high and low values of RS attachment anxiety (Figure 13), I observed that the negative association between behavior type and perceived responsiveness remained non-significant at each level of RS attachment anxiety but still weakened at higher values of RS attachment anxiety. On average, behavior type was not significantly associated with differences in perceived responsiveness for participants high in RS attachment anxiety (B = -0.03, p = .76) or for participants low in RS attachment anxiety (B = -0.18, p = .14). Calculations of the region of significance indicate that the association between behavior type and perceived responsiveness reaches significance at values of RS attachment anxiety outside the range of 0.29 to 18.89—values that are impossible with this scale. When I calculated the slope of RS attachment anxiety for each behavior type, I observed that the association between RS attachment anxiety and perceived responsiveness was stronger for physical affection but still failed to reach significance. On average, people who reported greater RS attachment anxiety also perceived physical affection as marginally less responsive (B = -0.10, p = .06), but RS attachment anxiety was not associated with perceived responsiveness of self-disclosure solicitations on average (B = -0.03, p = .61).

Overall, compared to people who reported low RS attachment avoidance, people who are more reluctant to rely on their romantic partner perceive intimate behaviors as less responsive in general. Although I did not observe a main effect of RS attachment anxiety, I did observe an interaction between attachment anxiety and behavior type. Interestingly, and as shown in Figure 13, it appears that the lack of a main effect of RS attachment anxiety is due to a null association

between RS anxiety and perceived responsiveness of self-disclosure solicitations and a negative association between RS anxiety and perceived responsiveness of physical affection. Perhaps physical affection conveys a romantic partner's care and understanding better than self-disclosure solicitations for people who do not fear that their romantic partner will abandon them (i.e., participants who reported low RS attachment anxiety). People who are highly concerned with abandonment (i.e., people who reported high RS attachment anxiety), however, may feel more cared and understood when their romantic partner shows interest in their internal mental states rather than when their partner attempts to quell them with physical affection. In other words, talk may not be cheap for people high in RS attachment anxiety.

RS Attachment Interaction Model: Discomfort

When I conducted the planned comparisons for the random effects only and RS attachment interaction models predicting discomfort with intimate behaviors, the model comparisons indicated that the full RS attachment interaction model fit the data better than the reduced, random effect only model, χ^2 (8) = 99.0, $p < .001$. See Table 8 for the fixed and random effects.

I observed significant main effects of RS attachment avoidance, context, and behavior type. On average and supporting H1c, participants who reported greater RS attachment avoidance also reported greater discomfort with intimate behaviors. Moreover, participants reported less discomfort with intimate behaviors in the relaxation context than in the stressor context on average, and participants reported less discomfort with physical affection than with self-disclosure solicitations on average. While I did not observe support for H2c due to a non-significant interaction between RS attachment avoidance and context, I did observe a significant interaction between RS attachment avoidance and behavior type.

How is behavior type associated with discomfort at high or low RS att. avoidance?

When I tested the slope of behavior type at high and low values of RS attachment avoidance (Figure 14), I observed that the size of the difference in discomfort with self-disclosure solicitations and physical affection was larger at high values of RS attachment avoidance. On average, discomfort with self-disclosure solicitations was greater than discomfort with physical affection for participants high in RS attachment avoidance (B = 0.43, p <.01) and for participants low in RS attachment avoidance (B = 0.15, p = .04). Calculations of the region of significance indicate that the association between behavior type and discomfort with intimate behaviors reaches significance at values of RS attachment avoidance greater than 0.92. When I tested the slope of RS attachment avoidance for each behavior type, I observed significant associations between RS attachment avoidance and discomfort with each behavior type. On average, participants who reported greater RS attachment avoidance also reported greater discomfort with physical affection (B = 0.29, p <.01) greater discomfort with self-disclosure on average (B = 0.43, p <.01).

Unsurprisingly, the RS attachment interaction model predicting discomfort with intimate behaviors demonstrated that, compared to people who reported low RS attachment avoidance, people who are more reluctant to rely on their current romantic partner generally believe they would feel greater discomfort with their partner's enactment of intimate behaviors. Furthermore, although people high and low in RS attachment avoidance believed they would feel more discomfort with self-disclosure solicitations than with physical affection, the size of the difference in discomfort was nearly three times larger for participants who reported high levels of RS attachment avoidance.

Trait Attachment Covariate Model: Liking

To aid in comparing the results of Studies 1 and 2, I attempted to replicate the trait attachment covariate models from Study 1. The fixed and random effects of Study 2's trait attachment covariate models are presented in Table 9.

I first compared the full trait attachment covariate model to a reduced model containing only the random effects of the covariate model, but the full trait attachment covariate model failed to converge. After I removed the by-participant random slope for the interaction between context and behavior type from the full and reduced models, the revised full model successfully converged. The revised trait attachment covariate model fit the data better than the revised random effect only model, χ^2 (8) = 56.11, $p < .001$.

In Study 1, I hypothesized that greater trait attachment avoidance would be associated with less liking of intimate behaviors (H1a) and that highly avoidant persons would report relatively greater liking of intimate behaviors in the relaxation context than in the stressor context (H2a). In the present model, I observed significant main effects of trait attachment avoidance, context, and behavior type. On average and supporting H1a, participants who reported greater trait attachment avoidance also reported lower liking of intimate behaviors. Moreover, participants reported greater liking of intimate behaviors in the relaxation context than in the stressor context on average, and participants reported greater liking of physically affectionate behaviors than self-disclosure solicitations on average. These main effects were qualified by a significant interaction between context and trait attachment avoidance and a marginally significant interaction between context, behavior type, and trait attachment avoidance.

How is context associated with liking at high or low trait att. avoidance? When I tested the slope of context on liking at high and low values of trait attachment avoidance, I

observed significant context-related differences only for participants high in trait attachment avoidance (Figure 15). On average and supporting H2a, highly avoidant participants reported greater liking of intimate behaviors in relaxation contexts than in stressor contexts (B =.26, p < .01), but participants low in trait attachment avoidance did not differ significantly in liking between contexts on average (B =.09, p = .16). Calculations of the region of significance with the unstandardized variables indicated that the effect of context reaches significance at values of trait attachment avoidance higher than 1.88. When I tested the slope of trait attachment avoidance on liking for each context, greater trait attachment avoidance was correlated with lower liking in each context. On average, greater trait attachment avoidance was associated with lower liking in the stressor context (B = -0.28, p <.01) and in the relaxation context (B = -0.20, p <.01).

The results of the trait attachment covariate model predicting liking suggest that, compared to less avoidant people, people who feel more reluctant to rely on close others in general also believe that they would like their current romantic partner's enactment of intimate behaviors less. Moreover, highly avoidant persons believed that context would make a difference for how much they would like intimate behaviors: Highly avoidant persons generally believed that they would like intimate behaviors more when relaxed than when stressed.

Trait Attachment Covariate Model: Perceived Responsiveness

When I conducted the planned model comparisons, both the random effect only and full trait attachment interaction models failed to converge. Both models successfully converged after I removed the by-participant random slope of the interaction between context and behavior type and reduced the by-item random slope of context to a by-item random *intercept*. Both models successfully converged. The model comparison of the revised models indicated that the revised

trait attachment covariate model fit the data better than the revised random effect only model, χ^2 (8) = 41.21, $p < .001$. See Table 9 for the fixed and random effects.

In Study 1, I hypothesized that greater trait attachment avoidance would be associated with lower perceived responsiveness (H1b) and that highly avoidant persons would report relatively greater perceived responsiveness in relaxation contexts than in stressor contexts (H2b). As in Study 1's trait attachment covariate model predicting perceived responsiveness, I observed a significant main effect of trait attachment avoidance that supported H1b. On average, greater trait attachment avoidance was associated with lower perceived responsiveness of intimate behaviors. This main effect of trait attachment avoidance was qualified by a significant interaction between context, behavior type, and trait attachment avoidance and a marginally significant interaction between context and behavior type.

How is context associated with the perceived responsiveness of each type of intimate behavior at high and low att. avoidance? When I tested the slope of context on the perceived responsiveness of physically affectionate behaviors at high or low values of trait attachment avoidance (Figure 16), I observed that context was associated with differences in perceived responsiveness only for participants high in RS attachment avoidance. On average and indirectly supporting H2b, participants high in trait attachment avoidance perceived physical affection as more responsive in the relaxation context than in the stressor context (B =.16, p = .01). On average, participants low in trait attachment avoidance perceived physical affection as equally responsive in the relaxation context and the stressor context (B =-.05, p = .34). Calculations of the region of significance with the unstandardized variables indicated that, when rating physically affectionate behaviors, the effect of context reaches significance at values of trait attachment avoidance greater than 3.10.

When I tested the slope of context on the perceived responsiveness of self-disclosure solicitations at high or low values of trait attachment avoidance, I observed that context did not appear to moderate participants' perceptions of the responsiveness of self-disclosure solicitations. On average, self-disclosure solicitations were perceived as equally responsive in the relaxation context and the stressor context by participants high in trait attachment avoidance (B =-.03, p = .55) and participants low in trait attachment avoidance (B =-.02, p = .72). Calculations of the region of significance for the association between context and perceived responsiveness of self-disclosure solicitations could not determine a range of attachment avoidance in which the slope of context reaches significance.

How is behavior type associated with perceived responsiveness in each context for people high and low in avoidance? When I tested the slope of behavior type on the perceived responsiveness of intimate behaviors *in the stressor context* at high or low values of trait attachment avoidance (Figure 16), I observed no significant behavior type differences in perceived responsiveness. On average, in the stressor context, physical affection and self-disclosure solicitations were perceived as equally responsive by participants high in trait attachment avoidance (B = -0.05, p = .67) and participants low in trait attachment avoidance (B = -0.10, p = .43). Calculations of the region of significance in the stressor context were unable to determine the values of trait attachment avoidance at which the slope of behavior type reaches significance.

When I tested the slope of behavior type on the perceived responsiveness of intimate behaviors *in the relaxation context* at high or low values of trait attachment avoidance, I observed that the negative association between behavior type and perceived responsiveness was stronger at high values of trait attachment avoidance. On average, in the relaxation context,

participants high in trait attachment avoidance perceived self-disclosure solicitations as marginally less responsive than physical affection (B = -0.24, p = .07). On average, in the relaxation context, participants low in trait attachment avoidance perceived physical affection and self-disclosure solicitations as equally responsive (B = -0.06, p = .61). Calculations of the region of significance indicated that, in the relaxation context, the slope of behavior type reaches significance at values of trait attachment avoidance greater than 3.60.

Overall, the interaction between trait attachment avoidance, context, and behavior type predicting perceived responsiveness provided indirect support for H2b. I observed that highly avoidant participants believed they would feel more cared for and understood in the relaxation context than in the stressor context, but only when evaluating physically affectionate behaviors enacted by their romantic partner. In contrast, I observed no context-related differences in perceived responsiveness of physical affection for participants low in avoidance.

Trait Attachment Covariate Model: Discomfort

When I conducted the planned model comparisons, the models containing the planned random effect structure successfully converged, and I did not need to remove any random effects. The model comparison indicated that the full trait attachment covariate model fit the data better than the reduced, random effect only model, χ^2 (8) = 73.08, p < .001. See Table 9 for the fixed and random effects.

In Study 1, I hypothesized that greater trait attachment avoidance would be associated with greater discomfort with intimate behaviors (H1c) and that highly avoidant persons would report relatively less discomfort in relaxation contexts than in stressor contexts (H2c). I observed significant main effects of trait attachment avoidance, context, and behavior type. On average and supporting H1c, greater trait attachment avoidance was associated with greater discomfort

with intimate behaviors. Moreover, on average, participants tended to report less discomfort with intimate behaviors more in relaxation contexts than in stressor contexts, and participants tended to report less discomfort with physically affectionate behaviors than with self-disclosure solicitations on average. Unlike in the trait attachment covariate model of Study 1, these main effects were qualified by a significant interaction between context and trait attachment avoidance as well as a significant interaction between trait attachment avoidance and behavior type.

How is context associated with discomfort at high or low in att. avoidance? When I tested the slope of context at high and low values of trait attachment avoidance (Figure 17), I observed context differences in discomfort for participants high in trait attachment avoidance. On average and supporting H2c, participants high in trait attachment avoidance reported lower discomfort with intimate behaviors in relaxation contexts than in stressor contexts (B =-.24, p < .01). In contrast, participants low in trait attachment avoidance reported similar levels of discomfort with intimate behaviors across contexts on average (B =-.06, p = .28). Calculations of the region of significance using the unstandardized variables demonstrated that the effect of context on discomfort reaches significance at values of trait attachment avoidance greater than 2.00. I tested the slope of trait attachment avoidance predicting discomfort in each context and observed that, on average, greater trait attachment avoidance is associated with greater discomfort with intimate behaviors in the stressor context (B = 0.31, p <.01) and in the relaxation context (B = 0.22, p <.01).

How is behavior type associated with discomfort for people high or low in att. avoidance? When I tested the slope of behavior type for people high or low in attachment avoidance (Figure 18), I observed behavior type differences in discomfort only for participants high in trait attachment avoidance. On average, participants high in trait attachment avoidance

reported greater discomfort with self-disclosure solicitations than physical affection (B = 0.47, p <.01) whereas participants low in attachment avoidance reported relatively similar levels of discomfort with self-disclosure solicitations and physical affection on average (B = 0.10, p = .14). Calculations of the region of significance indicated that the slope of behavior type on discomfort reaches significance at values of trait attachment avoidance greater than 1.88. I tested the slope of trait attachment avoidance predicting discomfort with each behavior type and observed that, on average, greater trait attachment avoidance is associated with greater discomfort with physical affection (B = 0.17, p <.01) and self-disclosure solicitations (B = 0.36, p <.01).

Overall, in the trait attachment covariate model predicting discomfort with intimate behaviors, I observed that discomfort with intimate behaviors was more dependent on context and behavior type for highly avoidant participants than it was for participants low in trait attachment avoidance. When predicting how much discomfort they would feel due to their romantic partner's enactment of intimate behaviors, highly avoidant participants believed they would feel more discomfort with intimate behaviors enacted during a stressor context (vs. a relaxation context) and that they would feel more discomfort with self-disclosure solicitations than with physical affection.

Trait Attachment Interaction Model: Liking

I also analyzed trait attachment interaction models to examine potential attachment-related variation for persons high or low in both attachment dimensions as in Study 1. However, I made the random effect structures of Study 2's trait attachment interaction models consistent with those of Study 2's trait attachment covariate models to facilitate comparisons between

models in the current study. The fixed and random effects of these trait attachment interaction models are presented in Table 10.

When I compared the modified full trait attachment interaction model predicting liking against the modified random effect only model for liking that I used in the trait covariate model, the modified trait attachment interaction model fit the data better than the modified random effect only model, χ^2 (14) = 61.63, $p < .001$.

In this model, I observed significant main effects of trait attachment avoidance, context, and behavior type. On average, participants who reported greater trait attachment avoidance also reported lower liking of intimate behaviors. Moreover, on average, participants reported greater liking of intimate behaviors in the relaxation context than in the stressor context, and participants reported greater liking of physical affection than of self-disclosure solicitations. In contrast with Study 2's trait attachment covariate model predicting liking, I did not observe the significant interaction between context and trait attachment avoidance that would support H2a.

Trait Attachment Interaction Model: Perceived Responsiveness

When I compared the revised full and random effect only models predicting perceived responsiveness, the revised full trait attachment interaction model failed to converge. Once, I removed the by-participant random slope for behavior type from both models, both revised models successfully converged. The model comparison indicated that the revised full trait attachment interaction model fit the data better than the revised random effect only model, χ^2 (14) = 49.23, $p < .001$. See Table 10 for the fixed and random effects.

In this model, I observed a significant main effect of trait attachment avoidance. On average and supporting H1b, participants who reported greater trait attachment avoidance also tended to report lower perceived responsiveness of intimate behaviors. This main effect was

qualified by a significant interaction between trait attachment avoidance, context, and behavior type (in addition to several marginally significant interactions).

How is context associated with perceived responsiveness of each behavior type for person high or low in att. avoidance? When I tested the slope of context on perceived responsiveness of physical affection for people high or low in att. avoidance (Figure 19), I observed weak indirect support for H2b. On average, when rating physically affectionate behaviors, participants high in trait attachment avoidance tended to report marginally greater perceived responsiveness in the relaxation context than in the stressor context (B =.13, p = .06). Participants low in trait attachment avoidance also did not differ significantly in ratings of perceived responsiveness across contexts (B =-.01, p = .83). Calculations of the region of significance failed to determine a range of values of trait attachment avoidance for which the effect of context on the perceived responsiveness of physically affectionate behaviors reached significance.

When I tested the slope of context on perceived responsiveness of self-disclosure solicitations, I found no support for H2b. On average, the perceived responsiveness of self-disclosure solicitations did not significantly differ between contexts for persons high in trait attachment avoidance (B =-.06, p = .40) or for persons low in trait attachment avoidance (B =.02, p = .73). As with physically affectionate behaviors, I was unable to calculate a range of values of attachment avoidance for which the effect of context reached significance.

How is behavior type associated with perceived responsiveness in each context for persons high or low in att. avoidance? When I tested the slope of behavior type on perceived responsiveness in the stressor context for participants high or low in attachment avoidance (Figure 19), I observed no significant behavior type differences in perceived responsiveness. On

average, in the stressor context, physical affection and self-disclosure solicitations were perceived as equally responsive by participants high in trait attachment avoidance (B = -0.07, p = .56) and participants low in trait attachment avoidance (B = -0.07, p = .53). Calculations of the region of significance in the stressor context were unable to determine a range of values of trait attachment avoidance in which the slope of behavior type reaches significance.

When I tested the slope of behavior type on perceived responsiveness in the relaxation context, I observed behavior type differences only for highly avoidant participants. On average, in the relaxation context, participants high in trait attachment avoidance perceived physical affection as more responsive than self-disclosure solicitations (B = -0.25, p = .02). However, in the relaxation context, participants low in trait attachment avoidance perceived physical affection and self-disclosure solicitations as equally responsive (B = -0.02, p = .80). Calculations of the region of significance in the relaxation context indicated that the slope of behavior type reaches significance at values of trait attachment avoidance greater than 3.10.

Overall, the results of the trait attachment interaction model predicting perceived responsiveness mimic those of the trait attachment covariate model. Again, the differences I observed were attributable to highly avoidant participants believing they would feel more cared for and understood by their romantic partner's enactment of physically affectionate behaviors when relaxing together (vs. when stressed).

Trait Attachment Interaction Model: Discomfort

Because I did not need to modify the structure of Study 2's trait attachment covariate model predicting discomfort, I conducted the planned model comparison and observed that the full trait attachment interaction model fit the data better than the reduced, random effect only model, χ^2 (14) = 75.67, p < .001. See Table 10 for the fixed and random effects.

In this model, I observed significant main effects of trait attachment avoidance, context, and behavior type. On average and supporting H1c, participants who reported greater trait attachment avoidance also reported greater discomfort with intimate behaviors. Moreover, on average, participants reported less discomfort with intimate behaviors in the relaxation context than in the stressor context, and participants reported greater discomfort with self-disclosure solicitations than with physically affectionate behaviors on average. Contrasting with Study 1's trait attachment interaction model predicting discomfort, the current model's main effects were qualified by a significant interaction between trait attachment avoidance and context as well as an interaction between trait attachment avoidance and behavior type.

How is context associated with discomfort at high or low in att. avoidance? When I tested the slope of context at high or low values of trait attachment avoidance (Figure 20), I observed direct support for H2c. On average, participants high in trait attachment avoidance reported less discomfort with intimate behaviors in relaxation contexts than in stressor contexts (B =-.27, p < .01). However, context was not associated with significant differences in discomfort for persons who reported low trait attachment avoidance on average (B =-.06, p = .33). Calculations of the region of significance with the unstandardized variables indicated that the slope of context on discomfort with intimate behaviors reaches significance at values of trait attachment avoidance greater than 2.02.

How is behavior type associated with discomfort at high or low att. avoidance? When I tested the slope of behavior type at high or low values of trait attachment avoidance (Figure 21), I observed differences in discomfort only for highly avoidant participants. On average, participants high in attachment avoidance reported greater discomfort with self-disclosure solicitations than with physical affection (B = 0.48, p <.01). Moreover, on average,

participants low in attachment avoidance reported relatively similar levels of discomfort with physical affection and self-disclosure solicitations (B = 0.08, p = .28). Calculations of the region of significance indicated that the slope of behavior type reaches significance at values of trait attachment avoidance greater than 1.88.

Overall, the results of the trait attachment interaction model predicting discomfort with intimate behaviors mimic those of the trait attachment covariate model predicting discomfort.

Discussion

In Study 2, I sought to examine context-related differences in partnered persons' attitudes toward intimate behaviors, focusing specifically on highly avoidant persons' attitudes toward intimate behaviors. I hypothesized that highly avoidant persons would tend to report less favorable attitudes toward intimate behaviors (i.e., liking of, perceived responsiveness of, and discomfort with intimate behaviors) than would less-avoidant persons, and I hypothesized that highly avoidant persons' attitudes toward intimate behaviors would be more favorable in relaxation contexts than in stressor contexts.

I observed consistent support for the negative associations between RS attachment avoidance and each outcome in both the RS attachment covariate and interaction models. That said, I observed support for the hypothesized interaction between RS attachment avoidance and context only once. In the RS attachment covariate model predicting discomfort with intimate behaviors, I observed that people high in RS attachment avoidance believed they would feel less discomfort with intimate behaviors when relaxing with their romantic partner than when coping with a stressor together. Although the context-by-RS avoidance interaction in the RS attachment interaction model predicting discomfort was not significant, the significant main effects of context and behavior type remained. These observations suggest that the significant interaction

in the RS attachment covariate model was an artifact of omitting interaction terms for RS attachment anxiety and that context, behavior type, and RS avoidance are most influential in predicting discomfort with intimate behaviors.

In Study 2, I also examined associations between attachment avoidance felt in close relationships in general and partnered persons' attitudes toward intimate behaviors and tested whether these associations varied between contexts as well. As in the RS attachment models, I observed consistent support for the hypothesized main effects of trait attachment avoidance, but support for the hypothesized context-by-avoidance interaction was sparce. I observed that highly avoidant persons reported relatively greater liking and relatively lower discomfort with intimate behaviors in the trait attachment covariate models, but I did not observe a significant context-by-trait attachment avoidance interaction predicting liking once I included the trait attachment anxiety interaction terms. As with the RS attachment models predicting liking and discomfort however, I observed significant main effects of context, behavior type, and attachment avoidance, suggesting that these variables are most consistently associated with partnered persons' attitudes toward intimate behaviors.

General Discussion

In two studies, I used an attachment theoretical framework to examine attitudes toward intimate behaviors among persons who are highly reluctant to rely on close others for comfort and support (i.e., persons high in attachment avoidance), and I examined whether highly avoidant persons' attitudes toward intimate behaviors vary depending on the affective context in which those behaviors are evaluated. Previous evidence suggests that, compared to persons low in attachment avoidance, highly avoidant persons desire affectionate touch less (Jakubiak et al., 2021) and engage less in affectionate touch (Debrot et al., 2021) and self-disclosure (Emery et

al., 2018) in their relationships. Moreover, an attachment theoretical framework assumes that highly avoidant persons expect others to be less responsive to their needs (Hazan & Shaver, 1994), and previous research indicates that highly avoidant persons are less comfortable with affectionate behaviors than are persons low in attachment avoidance (Chopik et al., 2014).

Given such observations and assumptions, I expected highly avoidant persons to report less favorable attitudes toward intimate behaviors (i.e., less liking, less perceived responsiveness, more discomfort). Supporting these hypotheses, I observed that both trait and RS attachment avoidance were consistently associated with less favorable attitudes toward intimate behaviors: Compared to people who reported lower attachment avoidance, people who felt more reluctant to rely on close others in general (Study 1 and 2) or their romantic partner (Study 2) generally believed they would like intimate behaviors less, perceive intimate behaviors as less responsive, and feel more uncomfortable with intimate behaviors enacted by a hypothetical romantic partner (Study 1) or their current romantic partner (Study 2).

Furthermore, given attachment theory's assumption that stress activates the attachment system (e.g., Hazan & Shaver, 1994) and evidence suggesting that attachment insecurity is more cognitively accessible as mental stress or burden increases (Kohn et al., 2012), I also expected highly avoidant persons' (but not less avoidant persons') attitudes to differ in a relaxation context versus a stressor context. Specifically, I hypothesized an interaction between context and avoidance such that persons high in attachment avoidance would report relatively greater liking and perceived responsiveness of intimate behaviors as well as less discomfort with intimate behaviors when evaluated in a relaxation context rather than a stressor context. However, in my confirmatory analyses, I only observed direct support for this hypothesis in the model predicting discomfort in Study 2: People who reported greater avoidance in their romantic relationship

believed they would feel less discomfort if their current romantic partner enacted intimate behaviors when relaxing together than when coping together with a stressor.

How is Attachment Avoidance Associated with Attitudes toward Intimate Behaviors?

My observations regarding trait and RS attachment avoidance's associations with less favorable attitudes toward intimate behaviors, though not surprising, demonstrate direct support for adult attachment researchers' assumption that highly avoidant persons are more intimacy-averse than are less avoidant persons. My observations also corroborate previous studies' results and offer potential explanations for those results that can be tested in future research. For example, Debrot and colleagues (2021) observed that people who reported greater attachment avoidance in romantic relationships in general engaged in affectionate touch less frequently than did people who reported lower general romantic attachment avoidance. Because they defined attachment avoidance as avoidance in romantic relationships in general, the avoidance–touch frequency association reported by Debrot and colleagues might be the result of past negative romantic experiences: Someone whose past romantic relationships taught them to hesitate to rely on others may feel that enacting intimate behaviors is risky, even in a different relationship.

Alternatively, the touch–avoidance association may depend less on past relationships and might instead be attributable to highly avoidant persons' relatively negative attitudes toward intimate behaviors specifically. Debrot and colleagues did not seek to examine *why* avoidance was associated with less frequent affectionate touch, but Chopik and colleagues' (2014; Study 1) observed that people high in romantic attachment avoidance (vs. people low in romantic attachment avoidance) reported "less positive feelings" when cuddling with their current romantic partner. Thus, persons who report higher levels of attachment avoidance may engage in affectionate touch less often because they generally have "less positive" feelings toward

affectionate touch. My observations build onto this potential process and suggest that highly avoidant persons enact intimate behaviors less frequently (compared to persons who reported lower attachment avoidance) because highly avoidant persons believed that they would like intimate behaviors (including affectionate touch) less, feel less cared for and understood after a romantic partner enacts of intimate behaviors, and feel more discomfort after a romantic partner enacts intimate behaviors.

Furthermore, since I relied on different attachment measures for my primary analyses in each study, I can make relationship status-specific inferences for each set of primary results. In Study 1, I examined how unpartnered persons' feelings of attachment avoidance in close relationships are associated with attitudes toward intimate behaviors enacted by a hypothetical romantic partner. As a result of my observations, I can conclude that unpartnered persons who are high in attachment avoidance predict that they would evaluate intimate behaviors less favorably. Since attitudes toward certain behaviors predict engagement in those behaviors (Ajzen, 2012), I can infer that unpartnered persons' generalizations of negative attachment experiences (i.e., trait attachment orientations) might impede their engagement in intimate behaviors in future relationships. Compared to unpartnered persons who are low in trait attachment avoidance, highly avoidant unpartnered persons are probably less likely to initiate romantic relationships with people who frequently enact intimate behaviors. Moreover, because Study 2 examined attitudes toward a current romantic partner's enactment of intimate behaviors in hypothetical situations, my inclusion of a trait attachment measure in Study 2 allows me to draw conclusions about how generalized attachment experiences manifest *after* a person has begun a romantic relationship.

Consider that greater trait attachment avoidance was associated with less liking, with less perceived responsiveness, and with more discomfort with intimate behaviors in both Study 1 and 2. Based on the observation that adolescents who reported greater romantic attachment avoidance also reported less warmth toward a novel acquaintance who provided higher levels of instrumental support/controlling or "bossy" support, past research suggests that attachment representations are generalized to new interaction partners (Feeney, 2008). This research, however, is limited because of the author's choice to aggregate instrumental and controlling support and their choice to assess romantic attachment in teenagers (who may not have had many significant romantic relationships). My observations from the trait attachment models more directly support the idea of the generalization of attachment representations. Specifically, attachment avoidance in close relationships in general (not just romantic relationships) is associated with less favorable attitudes toward intimate behaviors enacted by a hypothetical romantic partner (Study 1) and intimate behaviors enacted by a real, current romantic partner (Study 2). In other words, negative attachment experiences can negatively influence people's attitudes toward intimate behaviors enacted by potential romantic partners who are unrelated to one's previous experiences (Study 1) and people's attitudes toward intimate behaviors enacted by someone who may only be partially responsible for one's attachment experiences (Study 2).

My conclusions are still limited by my inability to determine whether attachment avoidance (or anxiety) felt in close relationships in general *causes* attachment avoidance (or anxiety) in a current romantic relationship and my inability to determine whether trait attachment avoidance *causes* negative attitudes toward intimate behaviors enacted by one's current romantic partner. Yet, my chosen research design provided me with preliminary data that would allow me to examine RS attachment avoidance as an explanatory variable (i.e., a "mediator") in the

associations between trait attachment avoidance and attitudes toward intimate behaviors. For example, because I assessed both trait attachment avoidance and relationship-specific attachment avoidance in Study 2, I could examine whether the association between trait attachment avoidance and attitudes toward intimate behaviors for partnered persons is explained by the attachment avoidance one feels toward their romantic partner.

My conclusions based on the main effects of attachment avoidance withstanding, the primary objectives of the current studies were to examine whether highly avoidant persons reported less favorable attitudes toward intimate behaviors and whether highly avoidant persons' attitudes were *relatively* more favorable in a relaxation context than in a stressor context. I observed significant main effects of context in nine of my 12 analyses and significant main effects of behavior type in eight of 12 analyses. Given that these associations were significant above and beyond the effect of attachment avoidance, attachment anxiety, and other significant interaction terms, it is important to consider how affective differences in an interaction between romantic partners and differences in the types of behaviors enacted influence attitudes toward intimate behaviors.

Is Context Associated with Variations in Attitudes toward Intimate Behaviors?

I observed little direct support for the hypothesized interaction between context and attachment avoidance (i.e., that highly avoidant persons attitudes toward intimate behaviors are more favorable in relaxation contexts than in stressor contexts). The only time this hypothesis was supported in the corresponding covariate and interaction models was in Study 2: Highly avoidant persons reported significantly lower discomfort in the relaxation context than in the stressor context. Although I did observe support for H2b in Study 2's trait attachment covariate model, the effect of context at high levels of avoidance became non-significant in the trait

attachment interaction model, and the effect of context on highly avoidant persons' attitudes was often only marginally significant when I observed the avoidance-by-context interaction in other models. I was initially surprised by the lack of direct support for this hypothesis since, when Hazan and Shaver (1994) described how attachment theory is applicable to adult romantic relationship research, they asserted that highly avoidant persons avoid intimate interactions in general and especially in the presence of stress. At first, I interpreted the lack of hypothesized interactions as evidence that highly avoidant persons do not distinguish between stressful and non-stressful contexts when evaluating intimate behaviors. However, the main effects of context suggest that context is associated with attitude differences for highly avoidant persons but only because *most* other participants reported more favorable attitudes toward intimate behaviors in the relaxation context than in the stressor context as well.

If attachment theory's assumption about the role of stress held true, people who reported low attachment avoidance should have reported more favorable attitudes toward intimate behaviors in the stressor context (vs. the relaxation context) if they also reported high levels of attachment anxiety (i.e., the anxious attachment profile) or low levels of attachment anxiety (i.e., the secure attachment profile). In other words, I would have expected to have observed consistent main effects of trait and RS attachment anxiety, as well as interactions between attachment anxiety and context, instead of the consistent main effects of context. When wrestling with my observations regarding context effects, I reflected on theoretical distinctions between people high and low in both dimensions of attachment insecurity and my observations regarding the effect of context for participants who fit different attachment profiles.

In Study 1, I observed that "avoidantly attached" participants reported greater liking of intimate behaviors and less discomfort with intimate behaviors in the relaxation context than in

the stressor context. It makes sense for avoidantly attached people to have more favorable attitudes toward intimate behaviors when relaxed than when stressed because, according to theory (e.g., Hazan & Shaver, 1994), avoidantly attached people are believed to suppress attachment behaviors when stressed. In Study 2, however, I observed significant interactions between context and attachment avoidance rather than the three-way interactions observed in Study 1. But, as mentioned previously, the context effects in these interactions failed to reach significance despite often demonstrating the hypothesized trend. Perhaps the lack of replication from Study 1 to Study 2 is the result of low statistical power due the skewness of the attachment variables. Alternatively, context can alleviate some, but not all, of the attitudinal negativity associated with attachment avoidance.

People who are invested in the study of attachment avoidance in adult relationships should take note of any indication that a highly avoidant person *likes* or feels *less discomfort* with intimate behaviors under certain conditions. My observations only suggest that highly avoidant persons' attitudes toward intimate behaviors are *relatively* more favorable in non-stressful contexts than they are in stressful contexts, not that context effects neutralize attitudinal differences between persons high and low in attachment avoidance. But when one's goal is to understand under what conditions highly avoidant persons are more likely to engage in physically affectionate behaviors or self-disclosure with their romantic partners, total reversal of the negative correlations between attachment avoidance and attitudes toward intimate behaviors may be unnecessary. Instead, even temporary or small improvements to highly avoidant persons' baseline states can lead to more favorable outcomes by facilitating the acquisition of expectation-incongruent information.

The extensive body of work on *security priming*, brief exposures to stimuli that invoke a feeling of security or facilitate access to security related thoughts (e.g., reminders of persons a participant has identified as supportive), suggests that security priming increases positive affect, willingness to try novel activities, and the effectiveness of the support one provides to their romantic partner (Mikulincer & Shaver, 2019). Greater attachment avoidance is typically associated with relatively greater negative affect (Overall et al., 2013; Stanton et al., 2017), greater reluctance to enact intimate relationship behaviors (Debrot et al., 2021; Emery et al., 2018), and less effective relationship conflict management behaviors (Overall et al., 2013). Accordingly, highly avoidant persons should benefit greatly from exposure to security-promoting stimuli. But highly avoidant persons struggle to access cognitive representations of attachment security compared to relatively more secure persons (Baldwin, 2007; Baldwin et al., 1996), possibly because more avoidant persons have relatively fewer extant cognitive representations of attachment security to access. A wealth of secure attachment representations may be unnecessary to increase one's relative state of security though.

Consider that the current research demonstrated that unpartnered and partnered persons who reported high attachment avoidance thought they would like and feel more comfortable with intimate behaviors *when they are relaxing* with a romantic partner (vs. coping with a stressor)[3]. This observation suggests that affective features of an intimate interaction act as a sort of simulator for the ingrained feelings of security that highly avoidant people seem to lack. "Securely attached" people tend to have more positive attitudes toward intimate behaviors than do more "avoidantly attached" people, but relatively stress-free interactions allow highly avoidant people's attitudes toward intimate behaviors to approximate more closely the attitudes

[3] Specifically, unpartnered participants who reported high trait attachment avoidance in Study 1 and partnered participants who reported high RS or trait attachment avoidance in Study 2.

of more securely attached people. Relatively non-stressful interactions with one's romantic partner are therefore more likely than stressful interactions are to provide highly avoidant persons with the experiences required to feel a sense of security, mimicking theoretical propositions that affectively positive experiences can bolster security more effectively than the provision of even the most appropriate support behaviors during stressors (e.g., Arriaga et al., 2018).

In fact, Stanton and colleagues (2017) have already demonstrated the benefit of intimacy-promoting interventions that take place in relatively non-stressful situations. Highly avoidant persons who participated in a brief intimacy-promoting couples' intervention (vs. a relatively neutral couples' activity) reported *more favorable* opinions of romantic relationships: lower romantic attachment avoidance and greater satisfaction with their own romantic relationship. In other words, highly avoidant people benefit from intimate behaviors enacted in non-stressful contexts (Stanton et al., 2017) despite their relative disliking of and discomfort with intimate behaviors. Even if highly avoidant people are not overjoyed at their romantic partner's enactment of intimacy-promoting behaviors, the protective effects of low-stress intimate interactions may allow highly avoidant people to feel relatively more secure in the moment. The eventual accumulation of small experiences of security may then make cognitive representations of attachment security more accessible, thus facilitating the effects of security-priming cues in future interactions.

While I can rely on extant research to form cohesive explanations about the observed context effects for highly avoidant participants, I still struggle to understand how the observed context effects for "non-avoidant" participants fit with current perspectives on adult attachment. I find these observations counter-intuitive because people of other attachment orientations (e.g.,

the secure attachment profile) theoretically should have responded more favorably in the stressor context than in the relaxation context because a romantic partner's enactment of intimate behaviors are more relevant to the attachment system during stressors. Both "securely attached" and "anxiously attached" people are assumed to be driven to establish closeness under stressful conditions (Hazan & Shaver, 1994). Compared to securely attached people, however, anxiously attached people supposedly respond to stressors with more intense efforts to establish and maintain proximity to an attachment figure (e.g., Campbell et al., 2005; Stanton & Campbell, 2015).

If this characterization was true, I should have observed that attachment anxiety is generally associated with greater liking of intimate behaviors (because intimate behaviors indicate emotional and physical proximity), with greater perceived responsiveness (because intimate behaviors indicate a partner's positive regard), and with lower discomfort (because intimate behaviors indicate willingness to provide safety or address concerns). I also should have observed that attitudes toward intimate behaviors are relatively more favorable in the stressor context for "anxiously attached" people than for securely attached people. After all, the receipt of intimate behaviors is highly relevant to the insecurities at the core of attachment anxiety (Arriaga et al., 2018) in general and especially during a stressor. Instead, my observations were incongruent with the expected results.

I observed in Study 1 that people who fit the secure attachment profile liked intimate behaviors more in the relaxation context than in the stressor context and that people who fit the anxious attachment profile perceived intimate behaviors as more responsive in the relaxation context than in the stressor context. In Study 2, however, I observed neither interactions between attachment anxiety and context nor an interaction between attachment avoidance, attachment

anxiety, and context that replicated Study 1's observations. The lack of replication in these cases could be the result of low statistical power (given the skewness of the attachment variables) or of diminished influence of attachment anxiety on partnered persons' perceptions of their romantic partner's enactment of intimate behaviors. There is reason to further investigate whether context truly does demonstrate counter-intuitive effects on people's attitudes toward intimate behaviors, however.

Why do Context Effects Matter in Adult Attachment Research?

Just as the context effects I observed might be spurious, they might also demonstrate genuine phenomena. Therefore, the fact that I observed that most people reported more favorable attitudes toward intimate behaviors in a relaxation context than in a stressor context is concerning given the privileging of stressors or implicit omission of the role of non-stressful contexts in adult attachment research (e.g., Fuentes, 2020). Research on attachment dynamics in the presence of stress may represent researchers' best efforts to keep in mind attachment theory's assumption about the importance of stressors. As someone whose own research has neglected to consider challenges to attachment theory's assumptions, I believe it is worth asking: What happens when evidence from studies that *deliberately examine context effects* does not support the assumption that stress prompts certain attachment-related thoughts and behaviors? What are the implications of assumption-inconsistent observations when research from stressor-based studies are used to motivate research that does not specify an affective context?

One consequence of this contextual mismatch between extant and novel research is that a lack of support for one's hypotheses cannot be disentangled from the possibility that (a) the hypothesized effect simply does not exist and cannot be observed or (b) that the hypothesized effect is only observable in under certain conditions. For instance, intimate behaviors are

theorized to provide relief to persons high in attachment anxiety during moments of relationship conflict (Arriaga et al., 2018), but attachment anxiety is not correlated with how positive people feel toward cuddling (Chopik et al., 2014). Moreover, people who report higher attachment anxiety in their respective romantic relationships or close friendships do not respond differently to emotionally intimate social support behaviors or practical/non-emotional social support behaviors during imagined relationship conflicts (Fuentes, 2020). Does this mean that people who are high in attachment anxiety will never benefit from a partner's enactment of intimate behaviors? No, because I observed that unpartnered persons who fit the anxious attachment profile reported greater perceived responsiveness of intimate behaviors in the relaxation context than in the stressor context. Context effects are not the only qualifier to the associations between attachment insecurity and attitudes toward intimate behaviors.

Is Behavior Type Associated with Variations in Attitudes toward Intimate Behaviors for People High in Attachment Avoidance?

In addition to the main effects and interactions with context, I also observed several main effects and interactions with behavior type in Study 1 and Study 2. Study 1 provided no evidence that unpartnered persons who are high in trait attachment avoidance distinguish between physically affectionate behaviors and self-disclosure solicitations. In Study 2, however, I observed main effects of behavior type as well as interactions between behavior type and attachment avoidance in both the RS attachment models and the trait attachment models. Typically, as people feel greater reluctance to rely on their current romantic partner (i.e., greater RS attachment avoidance), they believed they would feel more discomfort with their partner's enactment of intimate behaviors. However, people who reported high RS attachment avoidance believed they would feel especially uncomfortable with self-disclosure solicitations compared to

physical affection. Regarding *trait* attachment avoidance, partnered people who reported greater avoidance in their close relationships in general tended to believe that they would like intimate behaviors more and feel more cared for and understood (i.e., perceive intimate behaviors as more responsive) after their romantic partner enacts intimate behaviors in relaxation contexts (vs. stressor contexts). The effect of context on liking and perceived responsiveness for partnered people who are high in trait attachment avoidance, in addition to the observation that people who reported greater trait attachment avoidance also believed they would feel less discomfort with physical affection than with self-disclosure solicitations when relaxing, suggests that highly avoidant persons are sensitive to the affective quality of their interactions with romantic partners, the behaviors enacted by their romantic partners, and the source of their insecurities.

Since I observed few interactions in addition to the correlations between RS attachment avoidance and attitudes toward intimate behaviors enacted by one's own romantic partner, it appears that people who have learned to be wary of relying on their romantic partner tend to be less influenced by the context and type of intimate behaviors enacted. For the most part, people high in RS attachment avoidance have less favorable attitudes toward intimate behaviors regardless of the context or the behaviors enacted by one's partner. In contrast, the interactions between trait attachment avoidance and behavior type (and sometimes context) when evaluating intimate behaviors enacted by one's current romantic partner suggest that people who are more avoidantly attached in general react more strongly toward the affective features of an interaction and the type of intimate behaviors being enacted. Compared to people whose romantic partner is the source of their attachment avoidance (i.e., people who report high RS attachment avoidance), people whose experiences in close relationships taught them to be wary of relying on the people they are closest to appear to either (a) value physical affection from their romantic partner more

than self-disclosure solicitations or (b) perceive self-disclosure to their partner as riskier than being physically affectionate.

Although self-disclosure and physical affection have successfully been used together to promote intimacy for highly avoidant persons, further study of the distinctions between highly avoidant persons' attitudes toward physical affection and self-disclosure solicitation can provide insight into how to maximize these interventions. For instance, if self-disclosure is perceived as more uncomfortable *and* riskier than physical affection, order effects might influence highly avoidant persons' reactance to intimacy-promotion interventions. When self-disclosure activities come before physically affectionate behaviors, the increased discomfort with and perceived riskiness of self-disclosure may diminish highly avoidant persons' engagement in the intervention. In contrast, interventions in which participants engage in physical affection before self-disclosure activities may provide highly avoidant participants the opportunity to habituate to a less uncomfortable behavior first. In this way, the physical affection-relevant activities act as an intermediate phase that reduce the "shock" of being forced from one's base state to a high-risk situation.

Moreover, the difference in the number of interactions between behavior type and trait or RS attachment avoidance also has implications for the effectiveness of intimacy-promotion interventions. The source of one's attachment avoidance is likely to influence the effectiveness of intimacy-promotion interventions. Compared to people whose avoidance is rooted more in their extant non-romantic relationships than in their current romantic relationship, someone whose romantic partner is a primary source of their avoidance may struggle more to reach a state of relative security while participating in intimacy-promotion interventions. People are high in trait attachment avoidance but low in avoidance in their romantic relationship, for example, may

have less reason to resist intimacy because they have had fewer negative experiences with their romantic partner. In contrast, people who are low in trait attachment avoidance but high in relationship-specific avoidance are likely to have multiple reasons to be wary of their romantic partner. My observations regarding behavior type were not limited to attachment avoidance, however.

Is Behavior Type Associated with Variations in Attitudes toward Intimate Behaviors for People High in Attachment Anxiety?

I observed in Study 1 that, whereas participants who reported low trait attachment anxiety liked physical affection more than self-disclosure solicitations on average, participants who reported relatively high levels of trait attachment anxiety did not differ significantly in their liking of self-disclosure solicitations and physical affection. The behavior type-by-context-by-trait attachment anxiety interaction predicting discomfort in Study 1 demonstrated that, whereas participants who reported high or low in trait attachment anxiety believed they would feel greater discomfort with self-disclosure solicitations than with physical affection in the *relaxation context*, participants high in trait attachment anxiety did not differ in their reported discomfort with either type of intimate behavior in the *stressor context*. In other words, unpartnered persons whose relationship experiences have led them to develop a concern that close others may abandon them or may otherwise be unavailable in times of need generally believed that their attitudes toward intimate behaviors would depend on the situation and the specific behaviors enacted.

When evaluating intimate behaviors in a relaxation context, unpartnered persons high in trait attachment anxiety liked and felt more comfortable with physical affection than self-disclosure solicitations. But, when evaluating intimate behaviors in the context of a stressor, the

difference in discomfort disappeared. Perhaps for people who are highly concerned with abandonment, their concerns might be better assuaged if a romantic partner shows interest not just in placating the highly anxious person with physical affection but also in understanding how the situation affects the inner state of the highly anxious person. Study 2 provides some evidence for this perspective in that, compared to people low in RS attachment anxiety, people who were more concerned that their current romantic partner may abandon them also seemed to believe that they would feel less cared for and understood after their romantic partner enacts physically affectionate behaviors (vs. when they solicit self-disclosure). In contrast, the perceived responsiveness of self-disclosure solicitations remained relatively stable across low and high values of RS attachment anxiety.

To better understand why attachment anxiety trends toward a negative association with physical affection but not with self-disclosure, I reflected on the lack of main effects of attachment anxiety in Study 2. The intercepts of liking and perceived responsiveness tended to lie relatively high on the response scales for each variable, and the intercept of discomfort was relatively low, indicating ceiling and floor effects, respectively. The lack of main effects of either RS or trait attachment anxiety could indicate ceiling effects: People generally had such positive attitudes toward intimate behaviors that I was unable to observe differences between people low and high in attachment anxiety. Alternatively, the relatively lower number of observations at the high end of the RS and trait attachment anxiety scales in Study 2 could have limited the power of my analyses and prevented me from observing main effects of attachment anxiety.

A more provocative explanation is that, compared to unpartnered people who are evaluating a hypothetical romantic partner's behaviors, people who are in committed romantic relationships naturally have less reason to fear abandonment. People in committed relationships

have already "cuffed" a romantic partner. Perhaps, once people have received a declaration of interdependence and commitment from a romantic interest, even past experiences with inconsistently available close relationship partners become less influential. I do not put forth this opinion to suggest that attachment anxiety is a useless variable. I only aim to suggest that the predictive utility of attachment anxiety without some variable to represent "evidence" of a close relationship partner's potential lack of commitment.

Instead, adult attachment research might benefit from examining unconventional indicators of commitment to clarify when attachment anxiety is most clearly associated with attitudes toward a romantic partner's enactment of intimate behaviors. For example, the time it takes to transition from the "talking" or casual dating phase to a committed romantic relationship could interact with attachment anxiety to predict attitudes toward intimate behaviors. When a relationship takes relatively long to "officialize," concerns about abandonment—in that specific relationship or in close relationships in general—might exaggerate attention to one's romantic partner's behaviors. In this case, people high in attachment anxiety may seek greater confirmation that their partner is committed to relationship-maintenance, resulting in more positive attitudes toward intimate behaviors in general. Self-disclosure may be more uncomfortable than physical affection when relaxing with one's partner for people high or low in attachment anxiety (Study 2) because self-disclosure requires greater emotional vulnerability. But, for highly anxious persons whose relationships involved longer transitions, that distinction might be absent in interactions imply vulnerability (i.e., stressors) because they may perceive opportunities to receive comfort and to be emotionally vulnerable as equally indicative of their partner's commitment to them.

Alternatively, persons high in attachment anxiety and whose relationships involved longer transition times may value physical affection less than self-disclosure solicitations due to perceived relationship contingencies. For those whose relationships involved longer transitions, they may be concerned that their partner's interest is mostly physical without evidence of genuine emotional interest and investment. Such concerns are likely if being affectionate is perceived as relatively easier than saying something helpful (e.g., Jakubiak, 2021). In this case, people high in attachment anxiety and who had longer relationship transitions might have ambivalent or negative attitudes toward physical affection. Conversely, they may demonstrate positive attitudes toward self-disclosure solicitations because they perceive their partner's inquisitiveness as a sign of investment and commitment to "making the relationship work." For people who supposedly doubt whether they are worthy of love or care, they may need evidence that their partner accepts even the "ugly" parts of them. That evidence, however, cannot be provided by physical affection alone.

Strengths, Limitations, and Future Directions

The research presented here has several noteworthy strengths. For instance, both the confirmatory and exploratory models I tested were motivated by theory and empirical evidence. Oftentimes, the language attachment researchers use in their hypotheses is inadvertently inconsistent with their analytical models. As was the case with the reasoning behind my own hypotheses, adult attachment researchers' theories often imply interactions between dimensions of attachment insecurity, but the models used to test hypotheses often neglect the interactions between attachment dimensions. Though I prioritized the main effect of and interactions with attachment avoidance as the variables of interest in my confirmatory models, my inclusion of attachment anxiety as a covariate in these models allowed me to examine the independent

contributions of each attachment dimension. Of course, the confirmatory models were unable to demonstrate how variations in both attachment dimensions are associated with attitudes toward intimate behaviors. Instead, with my exploratory attachment interaction models, I was able to gain insights into attachment-related variations in attitudes and how the effects of context and behavior type varied at different levels of attachment avoidance and anxiety.

Another strength of the current research is my use of multiple outcomes to operationalize the concept of *attitudes toward intimate behaviors*. Attitudes can be defined broadly as a person's evaluations of a given attitude object (e.g., liking of chocolate; Ajzen, 2012), but I chose three related yet conceptually distinct outcomes to represent attitudes toward intimate behaviors. This decision allowed me to test the broad question of interest, to observe nuance in the associations between attachment insecurity and attitudes toward intimate behaviors, and to provide relatively clear direction for future research. Broadly, liking, perceived responsiveness, and discomfort each represent some aspect of attitudes toward intimate behaviors, and scores for each variable were positively correlated in Studies 1 and 2. Despite the correlations between each variable, they differ in relevance to the concept of attachment avoidance.

Discomfort with intimate behaviors is most directly relevant in that the Experiences in Close Relationships–Relationship Structures scale (Fraley et al., 2006) assesses attachment avoidance with items like, "I don't feel comfortable opening up to this person," and, "I find it easy to depend on this person." Because I observed that people who are high in RS attachment avoidance believed they would feel less discomfort in a relaxation context than in a stressor context, I have evidence which suggests that relationship-specific attachment avoidance exerts less influence in contexts that are relatively non-stressful. Moreover, since people who were high in RS attachment avoidance reported greater discomfort with self-disclosure solicitations than

with physical affection, I can conclude that avoidance in one's relationship is especially influential when one's partner attempts to gain insight into their personal, mental state. In contrast, liking of intimate behaviors is a more superficial evaluation; liking is an evaluation of how positive one feels toward intimate behaviors.

Of course, my evaluations of each outcome's relevance to attachment avoidance are limited to theoretical propositions since I did not conduct latent variable analyses or similar data analyses to determine the "structure" of attachment avoidance. Likewise, I have not performed analyses that provide insight into why, for instance, RS attachment avoidance is correlated with discomfort with intimate behaviors. Such analyses are still valuable even if testing whether one outcome "mediates" the associations between avoidance and a different variable is limited by the correlational, rather than experimental, design of the current research. For example, the negative correlation between RS attachment avoidance and the perceived responsiveness of intimate behaviors (i.e., how cared for and understood one feels after their partner enacts intimate behaviors) may be explained by the RS attachment avoidance–discomfort and discomfort–perceived responsiveness correlations. In other words, people who are relatively more reluctant to rely on their romantic partner may perceive their partner's behaviors as less responsive because they feel greater discomfort with intimate behaviors. If the avoidance–perceived responsiveness correlation is explained by discomfort with intimate behaviors, we can hypothesize that discomfort-reduction is necessary for highly avoidant persons to internalize their partner's intimate behaviors as evidence of their caring and understanding.

The composition of my samples represents another strength of the current research. First, I ensured that my samples were diverse in age and generalizable to the United States in that I recruited university participants and participants from the Prolific platform for each study.

Moreover, I was able to compare the accuracy of my hypotheses when using a sample of unpartnered persons (Study 1) and a sample of partnered persons (Study 2). Comparing observations across samples allowed me to observe (a) differences in the patterns of correlations between *predicted* attitudes toward intimate behaviors and trait attachment avoidance for unpartnered people and partnered people. In this regard, I observed that variations in both trait attachment avoidance and anxiety determined how unpartnered persons predicted they would evaluate a *hypothetical* partner's enactment of intimate behaviors. In contrast, attachment avoidance but not attachment anxiety was directly associated with partnered persons' predicted attitudes toward their *current* partner's enactment of intimate behaviors. Perhaps, for partnered persons, their current partner's commitment compensates somewhat for experiences with inconsistent close relationship partners in the past.

Moreover, for partnered persons, I observed differences in associations between attachment avoidance and attitudes when avoidance was defined at the trait level or as a feature of one's current romantic relationship. These differences allow me to speculate how the source of insecurities influences context and behavior type-effects. People high in *RS* attachment avoidance believed they would feel less discomfort in relaxation contexts (vs. stressor contexts) and less discomfort with their partner's enactment of physically affectionate behaviors (vs. self-disclosure solicitations). Thus, people who are higher in RS attachment avoidance may be more accepting of "make-up sex" as a form of relationship-repairing behaviors since it involves physically affectionate behaviors enacted in non-stressful situations[4]. People high in *trait* attachment avoidance, however, predicted that they would perceive their current partner's enactment of physical affection as more responsive than self-disclosure solicitations. Perhaps this

[4] If the sexual experience is consensual and satisfying for both partners.

observation suggests that people who have developed attachment avoidance in response to previous close relationship partners' consistent unresponsiveness use their current romantic partner's physically affectionate behaviors as a safe indicator of responsiveness. If so, then couple members who consistently initiate physical affection first may eventually instill in their highly avoidant partners a degree of willingness to reciprocate physical affection and respond to their self-disclosure solicitations.

My decision to examine context as a moderator of highly avoidant persons' attitudes toward intimate behaviors is among the chief strengths of the current research. As I previously discussed, my observations run counter to a key assumption in research based on attachment theory. Because of the differences in Studies 1 and 2, the fact that I relied on self-reported reactions to hypothetical situations, and the possibility that participants' responses for each outcome reflect participants' attitudes toward the context itself (and not just the behaviors enacted in that context), I cannot definitively state that attachment theoretical perspectives' assumption that stress activates proximity-seeking functions in adults is incorrect. However, the opposite is also true due to the lack of research on whether context moderates associations between attachment insecurity and relationship outcomes. Until adult attachment researchers make more concerted efforts to test its key assumptions or even to examine *when* context moderates correlations with attachment avoidance or anxiety, the field is open to a variety of uncomfortable yet fair critiques.

For instance, critics may ask if the evidence used to motivate adult attachment research is context-specific or context-general. This question is more of an opportunity to gain further knowledge than it is a threat to adult attachment researchers' careers, an invalidation of previous research, or a call for revolution. If few people are examining context effects, there is an obvious

and potentially lucrative direction for future research to take. Researchers can attempt to replicate past research while treating context as a variable of interest, or they could use the great expanse of available data to conduct a meta-analysis of related studies to examine how the affective context of the study is associated with the reported observations. Given the large number of manuscripts that are rejected for reasons ranging from language barriers to issues with sample compositions, as well as contradictions between the reported results and reviewers' opinions, a meta-analysis presents a valuable opportunity to collaborate. Opportunities like this are important for early-career researchers, researchers of color, or under-funded researchers—researchers whose career advancement depends heavily on the approval of those in power—because they provide less-privileged researchers with access to a network of collaborators, lend credibility to their work, and allow them to add tangible proof of years' worth of work to their CV. For these reasons among others, adult attachment researchers *can* and *should* test for context effects or, at least, acknowledge the limits of studies that ignore context.

In each study, in the absence of an agreed upon and accessible "best practice" method of calculating power in multilevel linear models, I attempted to maximize statistical power by using an analysis strategy that took advantage of the repeated measures design. Aside from losing information that aids in hypothesizing explanatory mechanisms, aggregation of responses undermines statistical power by reducing the number of observations available for each analysis. My outcomes were not aggregated across each of the six intimate behaviors participants evaluated in Studies 1 and 2, and I treated each response as its own observation, meaning that each participant provided six observations for each outcome. Moreover, I included random effect terms in my models that allowed my models to draw on the at least 2,694 observations in my data when calculating the model estimates. If I would have aggregated responses instead, either

by creating a liking score by aggregating responses within each context or by aggregating across each of the three outcomes within each context, the number of observations in my analyses would have decreased dramatically. My analytic strategy, though unconventional, allowed me to test novel research questions and increased the confidence with which I can draw conclusions.

Despite its strengths, the current research is not without limitations. Chief among them is the reliance on self-reports and on *hypothetical* events as the evaluative targets. The use of self-report data without corroboration via observational or other sorts of data means that I am unable to estimate how much my results are dependent on common issues with self-report measures. Socially desirable responding could limit statistical power if participants are motivated to respond more favorably to the attachment insecurity items; such response tendencies could partially explain the skewed response distributions in attachment avoidance or anxiety. Moreover, people differ in the degree of insight they have into their own mental states, and the degree of insight might even vary within person depending on the measure they are responding to. On one hand, since highly avoidant persons devote some portion of their attention to suppressing negative attachment experiences (Kohn et al., 2012), they may not attend to information necessary to answer truthfully to attachment measures. On the other hand, persons who have made great investments in a dissatisfying relationship may be motivated to respond in ways that suggest to them that their relationship is worth maintaining or repairing.

Relatedly, although I assessed attitudes toward intimate behaviors with outcomes I viewed as related yet distinct, participants may vary in how much they distinguished between each specific outcome. Since I tested for by-participant random slopes and intercepts, my models demonstrated that participants varied considerably in their intercepts. While some portion of the between-participant variance is attributable to context or behavior type effects, I did not estimate

the variance attributable to outcome type (e.g., liking, discomfort), but this limitation could be remedied by reformatting and re-analyzing the data. These limitations do still influence the ecological validity of my observations, but the costs of my method should be viewed in light of the benefit gained from researcher control over (a) the behaviors participants evaluated, (b) the presentation of the intimate behaviors enacted in each scenario, and (c) the peripheral contextual features that may influence how participants respond to stimuli. Moreover, the current studies represent an *initial* attempt to better understand how attachment avoidance is associated with attitudes toward intimate behaviors.

Although I attempted to ensure the consistency and validity of the memory recall prompts in the stressor and relaxation prompts across studies, my conclusions are also limited by a minor confound in the design of the study. Specifically, the context prompts that preceded the key intimate behavior questions differed with regard to the affective tone (as intended) but also with regard to whether the imagined context was personal or interpersonal. In the stressor context prompt, participants were asked to recall a recent experience where they were experiencing personal stress, and the examples provided were all individual stressors (losing a job, having money troubles), whereas in the relaxation context prompt, participants were asked to recall a recent experience where they were able to spend free time relaxing with a close other. Because social interactions may be inherently more stressful for highly avoidant persons than they are for less avoidant persons, these prompts may have also unintentionally diminished the affective distinctiveness of the stressor and relaxation contexts for highly avoidant persons. In other words, highly avoidant persons may have recalled relatively stressful experiences in both contexts. Yet, each of the six intimate behaviors were presented as a behavior enacted during an interaction between participants and their (hypothetical or actual) romantic partner, meaning that

the potentially stressful element (i.e., social interaction) was held constant between contexts while participants were responding to the key items. That said, future research would benefit from assessing participants' affective responses to context manipulations.

The limitations of this research, while important, also provide opportunities for further study. One such avenue for future study is an investigation of the joint influence of context effects and social-cognitive interventions on highly avoidant persons' attitudes toward intimate behaviors. Although I was able to observe that the difference in affective contexts weakened the negative association between attachment avoidance and attitudes toward intimate behaviors, context effects did not alter the direction of the avoidance–attitudes associations. In other words, I did not observe evidence that context effects override highly avoidant persons' tendencies to evaluate intimate behaviors less favorably. Fortunately, previous research provides a foundation for interventions that can, at least temporarily, override highly avoidant persons' cognitive and affective habits that may maintain unfavorable attitudes toward intimate behaviors.

For instance, when instructed to focus on positive memories relevant to their current romantic relationships, highly avoidant persons reported diminished negative affect (Stanton et al., 2017, Study 1). Additionally, attachment security primes (e.g., reflecting on moments where one felt secure with and understood by a relationship partner) temporarily alter attachment-related expectations and beliefs (Baldwin, 2007; Baldwin et al., 1996) to have a variety of beneficial effects on people's affect, perception, and behavior (see Gillath, 2019 for a review of security priming studies). Such priming procedures might work because, even among people for whom a given construct is not highly accessible, they have some degree of knowledge about and experience with that construct (i.e., the construct is available to access but is not highly accessible; Baldwin et al., 1996; Bargh et al., 2012; Bargh & Tota, 1988). Perhaps, beyond the

influence of contextual features, highly avoidant persons may perceive intimate behaviors more positively than usual after an intervention that reduces negative affect *and* makes comforting (i.e., secure) relationship experiences more cognitively accessible. To examine how context effects vary as a result of mood enhancement procedures and security priming effects, researchers could modify the current studies' procedures to include elements from previous research. This example study might begin with attachment insecurity assessments before administering the partner-focused guided visualization from Stanton and colleagues' first study (2017) to increase positive affect and reduce negative affect. The change in affect resulting from the partner-focused intervention might then increase the accessibility of security-congruent relationship experiences, which could facilitate the effects of brief, subtle security priming cues. The study could then assess participants' attitudes toward intimate behaviors in different contexts. Yes, the example I provided still has limitations, but the general procedure could be applied to studies that employ self-report or observational data.

Additional limitations include the focus on evaluations of a romantic partner enacting intimate behaviors in hypothetical rather than real interactions, as well as my omission of further tests of potential covariates or moderators. What hypothetical situation-based studies lack in external validity, however, they make up for in experimenter control and feasibility, and they are an important first step to obtaining the resources necessary for more externally valid studies. Likewise, the limitations imposed by my omission of additional covariates or moderators were necessary to provide the clearest initial tests of my hypotheses. Moreover, though I chose my analytic strategy to maximize statistical power, the lack of accessible guidance or methods for conducting *a priori* power analyses with mixed effects models required me to prioritize the variables most relevant to my research questions. One way to increase statistical power with the

data available to me is to refrain from aggregating participants' responses to the attachment avoidance and to the attachment anxiety items and, instead, use participants' responses to each of the attachment insecurity items (within a given dimension) as predictors of attitudes. An approach like this could have provided me with six observations for attachment avoidance and three observations for attachment anxiety for each participant; in doing so, the model estimates would have been based on 1,500 observations for attachment avoidance and 750 observations for attachment anxiety. However, my approach in the current research was chosen to be relatively straightforward and palatable due to the relative novelty of my use of mixed effects/multilevel linear models in adult attachment research. Fortunately, the need to balance the interpretability of my models and conservation of statistical power did not prevent me from collecting data for use in further tests of covariates and moderators.

Attitudes toward intimate behaviors may vary due to gender norms and cultural differences in beliefs about intimate behaviors. Additionally, tactile sensitivities and experiences with sexual or physical violence may trigger negative responses to intimate behaviors. The information that can be gathered from analyses regarding these variables may be important for a general understanding of attitudes toward intimate behaviors, but I chose to collect those data for future interested parties and to focus on the most relevant variables. For instance, since I collected demographic data for participants (Studies 1 and 2) and their romantic partners (Study 2), I can examine how unpartnered persons' own characteristics are associated with their attitudes toward a hypothetical partner's enactment of intimate behaviors (Study 1). I can also examine how one's own characteristics, one's romantic partner's characteristics, and (mis)matches between those characteristics are associated with attitudes toward intimate behaviors. I also collected information regarding tactile sensitivities and past experiences of

sexual or physical violence in both studies. Although the current research is limited by my prioritization of attachment-relevant variables, my foresight allowed me to obtain data that is useful for researchers who are interested in associations between attitudes toward intimate behaviors and culture, gender, interracial or queer relationship status, and even neurodivergent traits.

Conclusion

The current studies are among the first to directly investigate associations between attachment avoidance and attitudes toward intimate behaviors—namely, physical affection and self-disclosure solicitations. Moreover, they are among the first to directly investigate both context and behavior type as moderators of the attachment avoidance-attitudes associations. I also posited several directions for future research on attitudes toward intimate behaviors for scholars to encourage future study of attitudes toward intimate behaviors, regardless of whether they approach the topic from an attachment theoretical perspective.

Although it is rare for adult attachment research to explicitly compare attachment processes across affectively different contexts, my observations imply a need for adult attachment researchers to contextualize their observations. Attachment avoidance is generally associated with less favorable attitudes toward intimate behaviors among partnered and unpartnered persons, and people generally reported more favorable attitudes toward intimate behaviors enacted in a relaxation context (vs. a stressor context) and more favorable attitudes toward physical affection than self-disclosure solicitations. That the observed context and behavior type effects were often more pronounced for highly avoidant participants than for participants who reported lower attachment avoidance suggests that relationship-improvement

interventions may be more effective for highly avoidant participants when administered in the absence of stressors and when physical affection is prioritized over self-disclosure solicitations.

Table 1

Sample characteristics for Study 1 (Singles) and Study 2 (Partnered) participants.

	Study 1	Study 2
	N (%)	*N* (%)
Gender		
Female	142 (55.5%)	180 (72.9%)
Male	104 (40.6%)	60 (24.3%)
Non-binary	8 (3.1%)	7 (2.8%)
Identity not represented by choices	1 (0.4%)	-
I prefer not to say or NA	1 (0.4%)	-
Race/Ethnicity		
American Indian/Alaskan Native	2 (0.8%)	-
Asian	34 (13.3%)	25 (10.1%)
Black	15 (5.9%)	5 (2.0%)
Latinx/Hispanic*	23 (9.0%)	17 (6.9%)
Native Hawaiian or Other Pacific Islander	-	-
White	164 (64.3%)	179 (72.5%)
Multiracial/multiethnic	16 (6.3%)	9 (3.6%)
Other racial or ethnic identity/NA	1 (0.4%)	12 (4.9%)
Previously partnered?		
Yes	137 (53.9%)	-
No	104 (40.9%)	-
NA	15 (5.1%)	-
Previously married?		
Yes	3 (1.2%)	19 (7.7%)
No	239 (93.7%)	222 (89.9%)
NA	14 (13%)	6 (2.4%)
Relationship Status		
Single	234 (92.1%)	-
In a relationship	-	148 (59.9%)
Engaged	-	15 (6.1%)
Married	-	83 (33.6%)
Widowed	1 (0.4%)	-
Divorced	12 (4.7%)	-
Separated	-	-
Never Married	8 (2.8%)	-
Rather not say	-	-
In a civil union/partnership or similar	-	1 (0.4%)

Note. The term "Latinx/Hispanic" encompasses Latinos of all races (e.g., Black, mixed-race) and all genders.

Table 2

Study 1: Descriptive statistics, reliability indices, and correlations of main variables.

Variable	α	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Trait att. anxiety	.87	3.81	1.74									
2. Trait att. avoidance	.86	3.23	1.28	.34**								
3. Gen. intimacy rate	.88	4.36	1.12	.21**	-.05							
4. Gen. comfort rate	.84	6.01	0.96	-.13*	-.36**	.08						
5. Intimate bx liking – stressor	.83	5.98	1.00	.01	-.01	.00	-.04					
6. Perc. respons. – stressor	.93	5.99	0.96	.01	.04	-.02	-.05	.81**				
7. Discomfort – stressor	.89	1.72	1.14	-.05	.03	.04	.09	-.58**	-.50**			
8. Intimate bx liking – relaxation	.85	6.21	0.74	.00	.02	-.01	.00	.61**	.66**	-.42**		
9. Perc. respons. – relaxation	.93	6.01	0.91	-.03	.07	-.05	-.02	.60**	.79**	-.38**	.81**	
10. Discomfort – relaxation	.88	1.52	0.90	-.02	-.03	.02	.09	-.41**	-.38**	.83**	-.45**	-.39**

Note. "Gen." refers to the non-context-specific items. Att. = attachment. Bx = Behavior. Perc. Respons. = perceived responsiveness.

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

Table 3

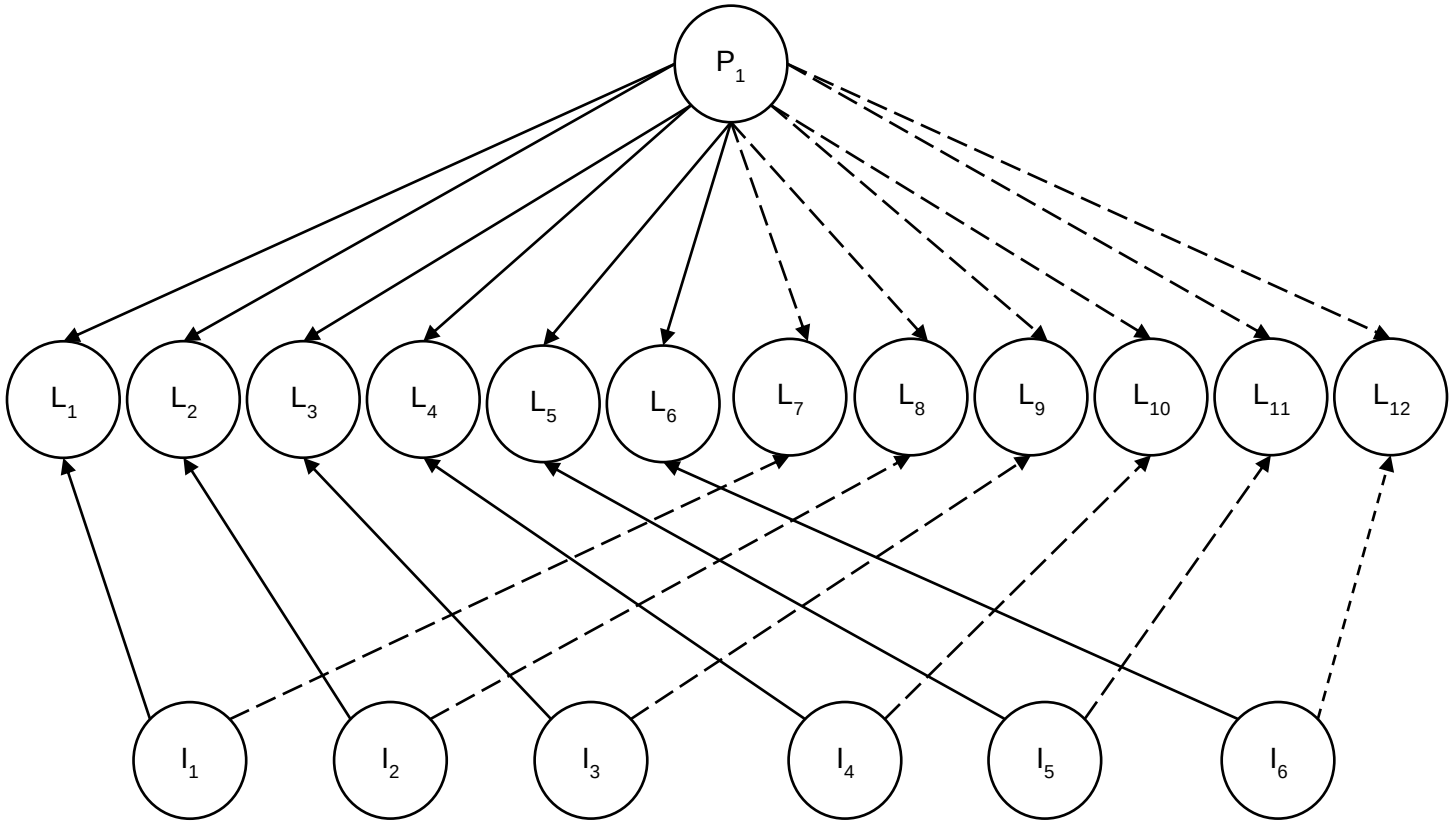
Means and Standard Deviations of Ratings for each of the Intimate Behavior Items in Study 1 and Study 2.

Study 1								
	General		Stressor context			Relaxation context		
Behavior Item	Intimacy	Comfort	Liking	Perc. respons.	Discomfort	Liking	Perc. respons.	Discomfort
Hug	4.83 (1.30)	6.22 (1.21)	6.22 (1.16)	5.95 (1.16)	1.71 (1.22)	6.35 (0.96)	5.87 (1.11)	1.64 (1.21)
Squeeze hand	4.80 (1.28)	6.15 (1.20)	5.79 (1.34)	5.48 (1.41)	1.84 (1.33)	6.06 (1.13)	5.56 (1.24)	1.65 (1.15)
Arm around shoulder	4.59 (1.26)	5.97 (1.33)	5.51 (1.46)	5.32 (1.46)	2.09 (1.51)	6.09 (1.11)	5.56 (1.27)	1.62 (1.06)
Ask about thoughts	4.07 (1.60)	5.74 (1.42)	5.41 (1.38)	5.57 (1.28)	2.17 (1.42)	5.43 (1.31)	5.48 (1.29)	2.02 (1.32)
Ask about feelings	4.26 (1.46)	5.89 (1.34)	5.72 (1.32)	5.70 (1.31)	1.94 (1.29)	5.72 (1.22)	5.71 (1.14)	1.87 (1.18)
Ask follow-ups	3.59 (1.58)	6.07 (1.19)	5.41 (1.38)	5.48 (1.38)	2.11 (1.38)	5.63 (1.22)	5.51 (1.24)	1.82 (1.18)
Study 2								
Hug	5.03 (1.40)	6.76 (0.63)	6.41 (1.07)	6.24 (1.06)	1.49 (1.21)	6.64 (0.78)	6.26 (1.00)	1.31 (1.02)
Squeeze hand	5.08 (1.36)	6.63 (0.79)	6.19 (1.17)	6.00 (1.19)	1.50 (1.16)	6.51 (0.85)	6.06 (1.03)	1.31 (0.90)
Arm around shoulder	4.71 (1.45)	6.62 (0.80)	6.11 (1.26)	5.89 (1.31)	1.64 (1.35)	6.43 (0.97)	5.99 (1.14)	1.39 (1.03)
Ask about thoughts	4.49 (1.67)	6.06 (1.31)	5.66 (1.51)	5.91 (1.26)	1.88 (1.43)	5.79 (1.31)	5.82 (1.27)	1.78 (1.33)
Ask about feelings	4.55 (1.67)	6.30 (1.12)	5.89 (1.36)	6.10 (1.11)	1.81 (1.47)	5.91 (1.25)	6.02 (1.17)	1.70 (1.28)
Ask follow-ups	4.00 (1.77)	6.38 (1.05)	5.69 (1.39)	5.87 (1.22)	1.97 (1.54)	5.97 (1.17)	5.94 (1.18)	1.64 (1.16)

Note. Standard deviations are presented in parentheses. Perc. respons. = perceived responsiveness.

Figure 1

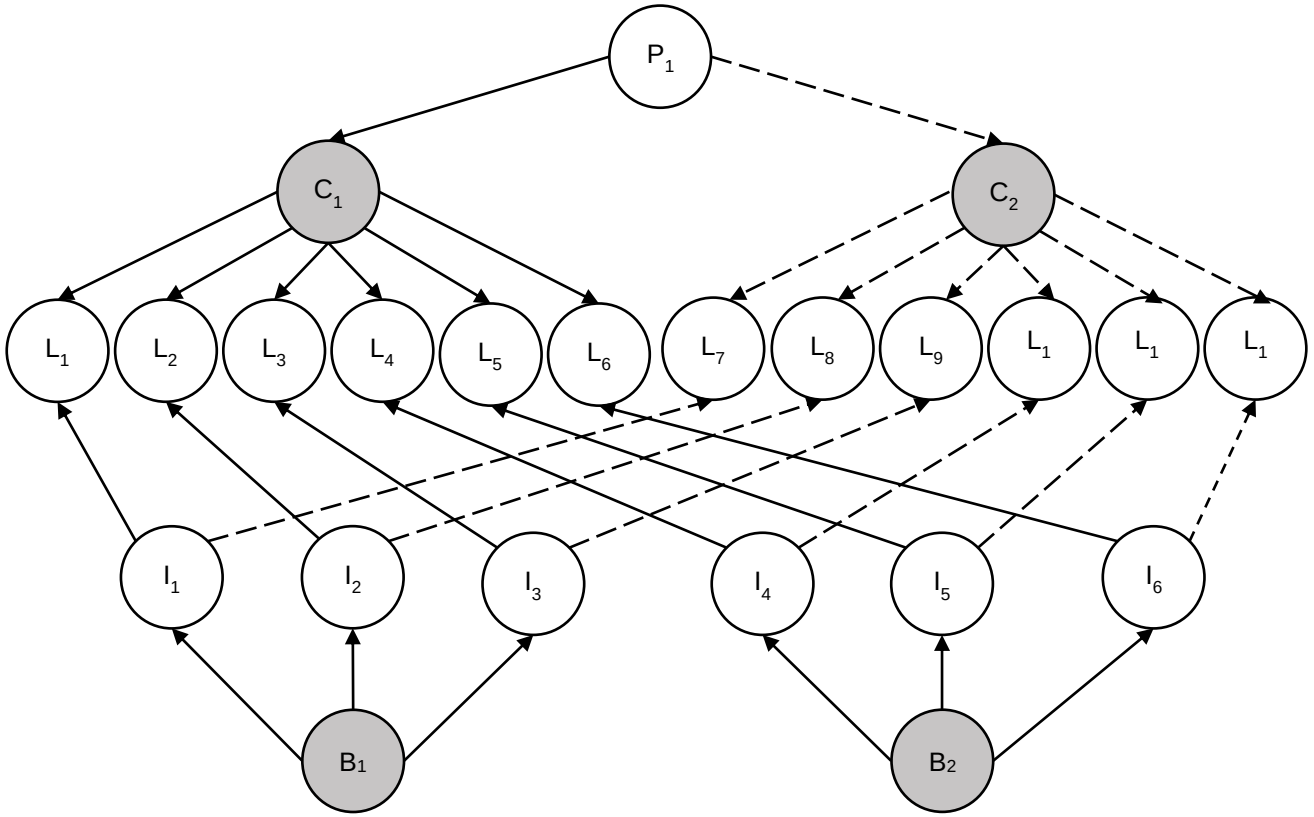
Diagram of the basic data structure.



Note. *P* = participant. C = context. L = liking score. I = item. Model contains random intercepts for participants and for items.

Figure 2

Diagram of the complex data structure.



Note. *P* = participant. C = context. L = liking score. I = item. *B* = behavior type. Model contains random slopes for participants and random slopes for items. Solid lines represent scores obtained in the stressor context. Dashed lines represent scores obtained in the relaxation context.

Table 4

Study 1: Fixed and Random Effects of Trait Attachment Covariate Models.

	Liking		Perceived Responsiveness		Discomfort	
Fixed Effects	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*
Trait att. anxiety	.08†	.04	.10*	.04	.05	.04
Trait att. avoidance	-.26***	.04	-.34***	.05	.21***	.05
Context	.16*	.06	.02	.05	-.16*	.06
Behavior type	-.35†	.14	-.04	.13	.18*	.07
Trait att. avoidance × context	-.05	.04	-.07*	.03	-.01	.04
Trait att. avoidance × behavior type	-.06	.05	-.02	.04	.06	.04
Context × behavior type	-.18	.12	-.08	.08	.06	.11
Trait att. avoidance × context × behavior type	-.01	.06	.00	.05	.04	.05
Random Effects	Variance	*SD*	Variance	*SD*	Variance	*SD*
Participant ID	.35	.59	.43	.66	.45	.67
Behavior type	.43	.65	.33	.57	.26	.51
Context	.20	.45	.21	.46	.24	.49
Behavior type × context	.32	.56	.31	.56	.07	.26
Item	.03	.16	.02	.15	.004	.06
Context	.02	.13	.01	.08	.01	.12
Residual	.37	.60	.30	.55	.35	.59

Note. Att. = attachment. Context coded as -0.5 = stressor context, 0.5 = relaxation context. Behavior type coded as -0.5 = physical affection, 0.5 = self-disclosure solicitations.

† $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 3

Covariate Model: Perceived Responsiveness of Intimate Behaviors as a Function of Trait Attachment Avoidance and Context.

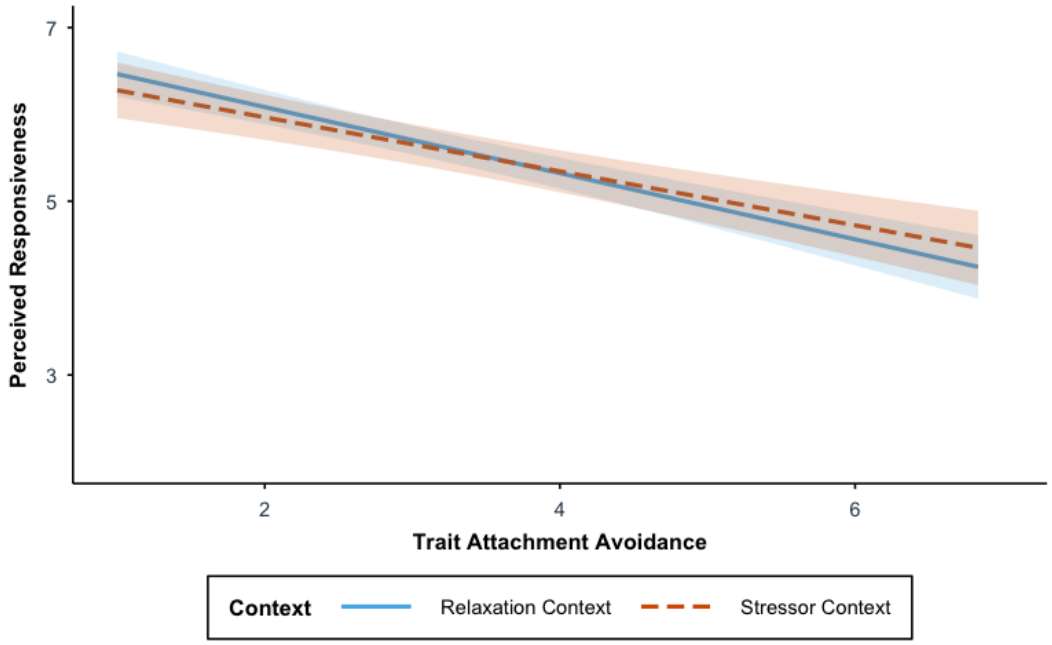


Table 5

Study 1: Fixed and Random Effects of Trait Attachment Interaction Models.

	Liking		Perceived Respons.		Discomfort	
Fixed Effects	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*
Trait att. anxiety	.08*	.04	.10*	.04	.05	.05
Trait att. avoidance	-.26***	.04	-.34***	.04	.21***	.05
Context	.18*	.07	.05	.05	-.19*	.05
Behavior type	-.36*	.13	-.04	.13	.18*	.06
Trait att. avoidance × trait att. anxiety	.07*	.04	.10*	.04	.00	.07
Trait att. anxiety × context	-.01	.04	-.01	.04	.05	.04
Trait att. avoidance × context	-.05	.04	-.07†	.04	-.03	.04
Trait att. anxiety × behavior type	.10*	.05	.07	.04	-.03	.04
Trait att. avoidance × behavior type	-.09†	.05	-.04	.04	.07	.04
Context × behavior type	-.18	.12	-.08	.08	.06	.04
Trait att. avoidance × trait att. anxiety × context	-.07*	.03	-.07*	.03	.07*	.11
Trait att. avoidance × trait att. anxiety × behavior type	.04	.04	-.05	.04	-.02	.04
Trait att. anxiety × context × behavior type	-.02	.06	-.10†	.06	.12*	.05
Trait att. avoidance × context × behavior type	-.01	.06	.04	.06	.00	.05
Random Effects	Variance	*SD*	Variance	*SD*	Variance	*SD*
Participant ID	.35	.59	.42	.65	.45	.67
Behavior Type	.42	.65	.32	.57	.26	.51
Context	.20	.45	.21	.45	.23	.49
Behavior Type × Context	.32	.56	.31	.56	.06	.26
Item	.03	.16	.02	.15	.004	.06
Context	.02	.13	.01	.08	.01	.12
Residual	.36	.60	.30	.55	.35	.59

Note. Att. = attachment. Perceived Respons. = perceived responsiveness. Context coded as -0.5 = stressor context, 0.5 = relaxation context.

Behavior type coded as -0.5 = physical affection, 0.5 = self-disclosure solicitations.

† $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 4

Interaction Model: Liking of Intimate Behaviors as a Function of Trait Attachment Orientations.

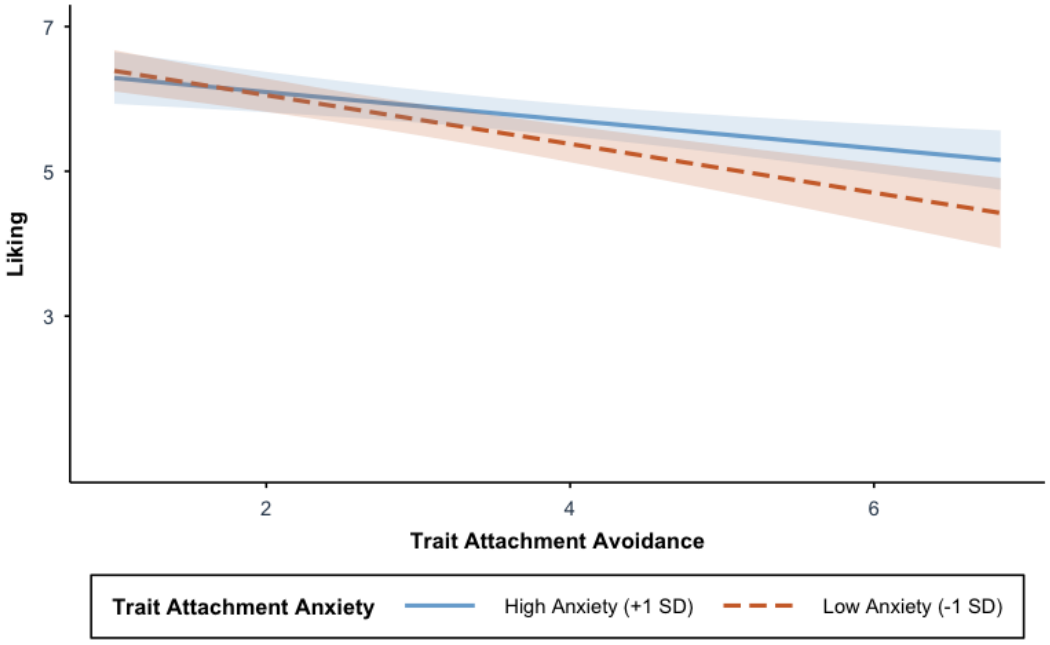


Figure 5

Interaction Model: Liking of Intimate Behaviors as a Function of Trait Attachment Anxiety and Behavior Type.

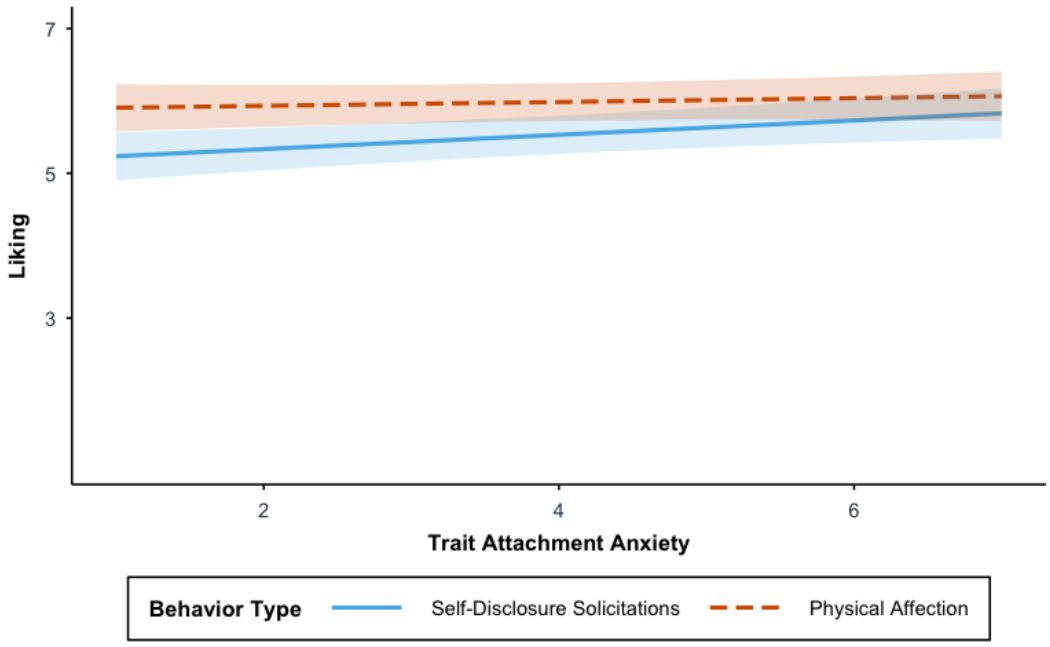


Figure 6

Interaction Model: Liking of Intimate Behaviors as a Function of Trait Attachment Orientations and Context.

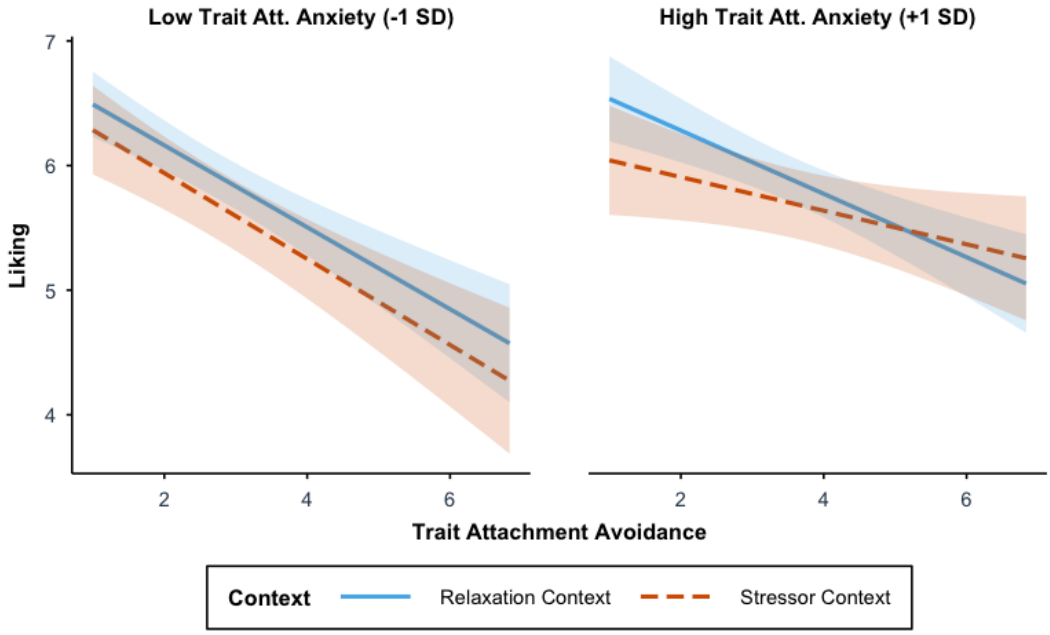


Figure 7

Interaction Model: Perceived Responsiveness of Intimate Behaviors as a Function of Trait Attachment Orientations.

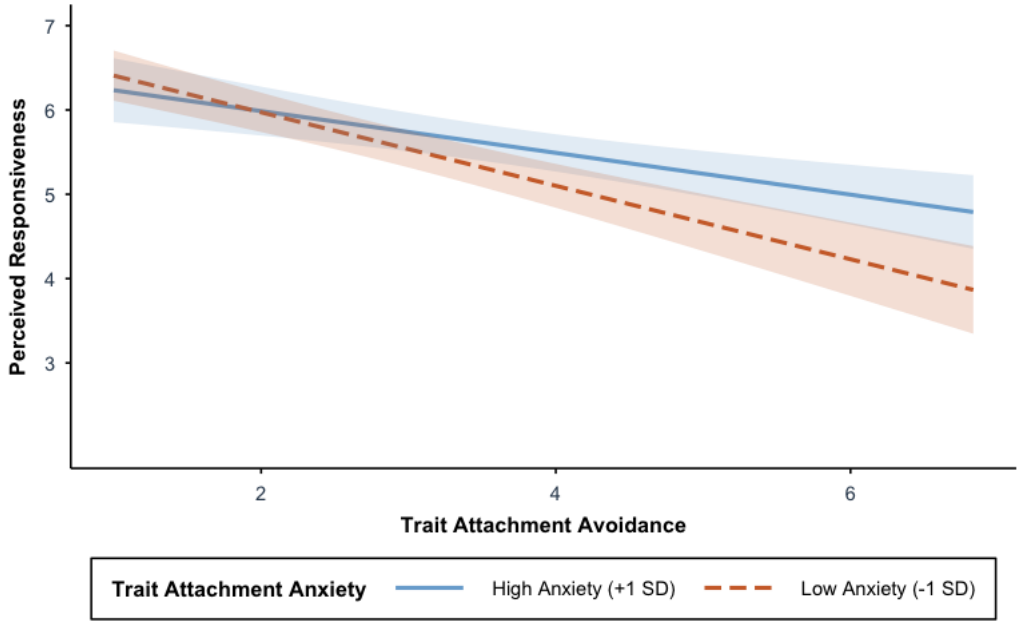


Figure 8

Interaction Model: Perceived Responsiveness of Intimate Behaviors as a Function of Trait Attachment Orientations and Context.

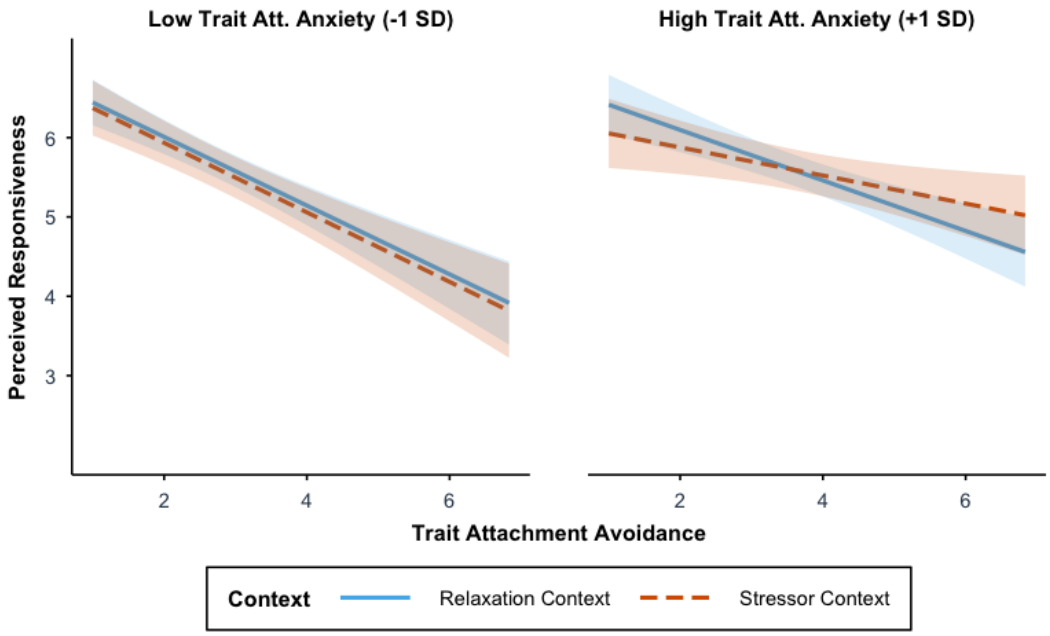


Figure 9

Interaction Model: Discomfort with Intimate Behaviors as a Function of Trait Attachment Anxiety, Context, and Behavior Type.

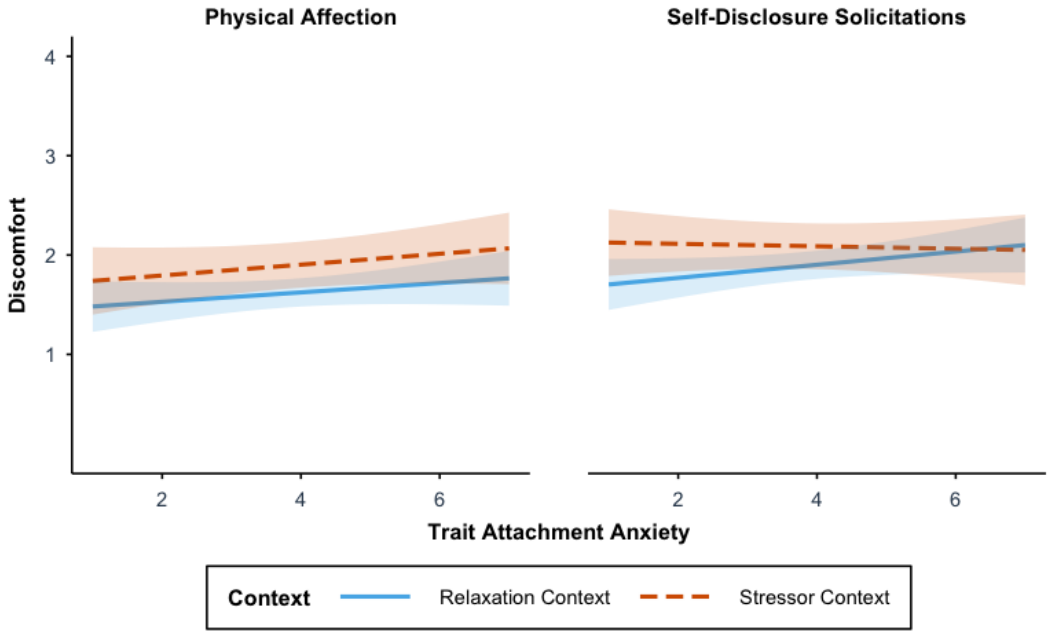


Figure 10

Interaction Model: Discomfort with Intimate Behaviors as a Function of Trait Attachment Orientations and Context.

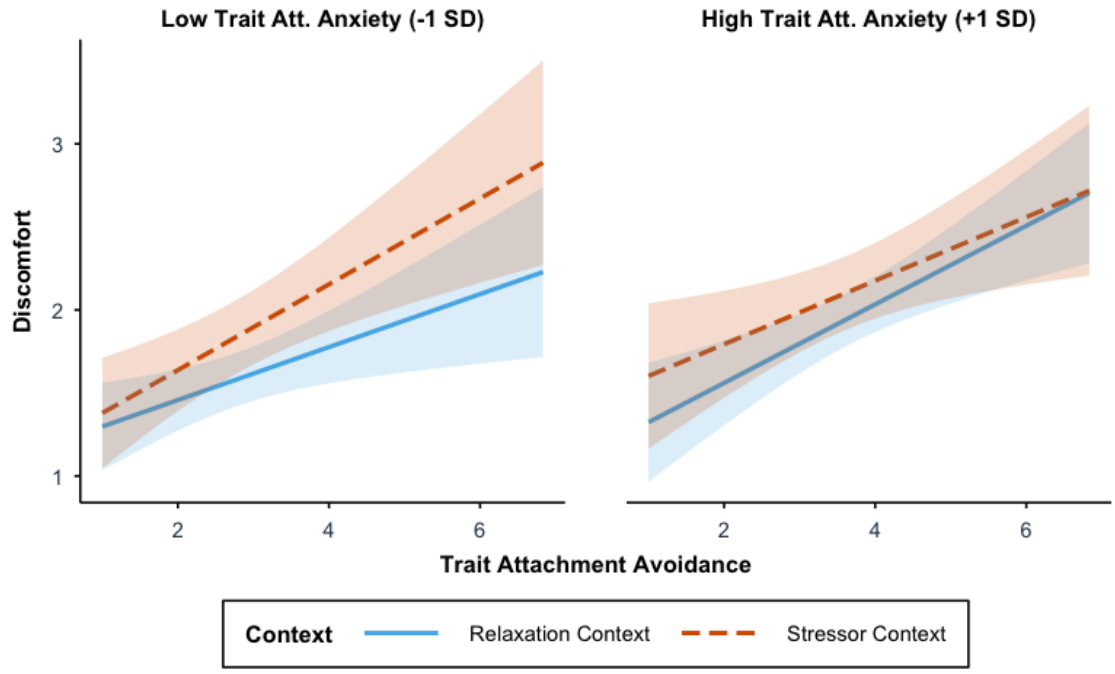


Table 6

Study 2: Descriptive statistics, reliability indices, and correlations of main variables.

Variable	α	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1. Trait anxiety	.92	3.46	1.87											
2. Trait avoidance	.87	2.75	1.17	.53**										
3. RS anxiety	.91	2.70	1.81	.69**	.44**									
4. RS avoidance	.87	2.01	1.04	.38**	.61**	.51**								
5. Gen. intimacy rate	.89	4.64	1.25	.17*	.08	.13*	.03							
6. Gen. comfort rate	.82	6.46	0.70	-.21**	-.34**	-.30**	-.55**	.13						
7. Intimate bx liking – stressor	.85	5.99	0.98	-.11	-.31**	-.15*	-.37**	.10	.51**					
8. Perceived responsiveness – stressor	.93	6.00	0.96	-.18**	-.33**	-.27**	-.42**	.15*	.54**	.81**				
9. Discomfort – stressor	.92	1.71	1.14	.23**	.38**	.26**	.45**	.03	-.52**	-.57**	-.49**			
10. Intimate bx liking – relax	.79	6.21	0.74	-.05	-.27**	-.19**	-.42**	.23**	.59**	.62**	.66**	-.42**		
11. Perceived responsiveness – relaxation	.92	6.01	0.91	-.09	-.29**	-.25**	-.39**	.20**	.54**	.59**	.78**	-.37**	.81**	
12. Discomfort – relaxation	.89	1.52	0.90	.24**	.35**	.26**	.47**	.03	-.55**	-.40**	-.38**	.83**	-.45**	-.39**

Note. "Gen." refers to the non-context-specific items. RS = relationship-specific. Bx = behavior.

† $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 7

Study 2: Fixed and Random Effects of RS Attachment Covariate Models.

	Liking		Perceived Responsiveness		Discomfort	
Fixed Effects	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*
RS att. anxiety	0.03	.04	-0.05	.05	-0.01	.05
RS att. avoidance	-0.29***	.04	-0.30*	.05	0.37***	.05
Context	0.17**	.05	0.01	.03	-0.15**	.04
Behavior type	-0.46***	.09	-0.11	.09	0.28***	.05
RS att. avoidance × context	0.03	.04	0.04	.03	-0.07*	.03
RS att. avoidance × behavior type	-0.03	.05	-0.01	.02	0.16***	.04
Context × behavior type	-0.12	.07	-0.08	.05	0.02	.07
RS att. avoidance × context × behavior type	-0.01	.05	-0.08	.05	-0.00	.05
Random Effects	Variance	*SD*	Variance	*SD*	Variance	*SD*
Participant ID	.29	.54	.43	.66	.45	.67
Behavior type	.55	.74	–	–	.34	.58
Context	.28	.53	.14	.37	.16	.40
Behavior type × context	–	–	–	–	.24	.49
Item	.01	.09	.01	.11	.00	.03
Context	.00	.06	–	–	.00	.06
Residual	.37	.61	.42	.65	.27	.51

Note. Att. = attachment. Perceived Respons. = perceived responsiveness. Context coded as -0.5 = stressor context, 0.5 = relaxation context. Behavior type coded as -0.5 = physical affection, 0.5 = self-disclosure solicitations.

† $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 11

Covariate Model: Discomfort with Intimate Behaviors as a Function of RS Attachment Avoidance and Context.

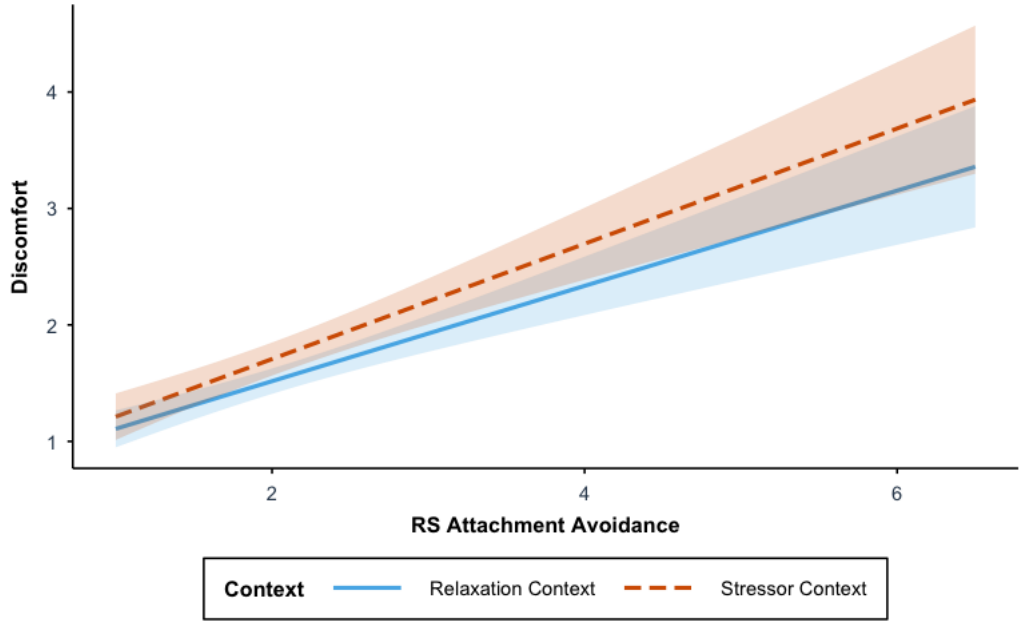


Figure 12

Covariate Model: Discomfort with Intimate Behaviors as a Function of RS Attachment Avoidance and Behavior Type.

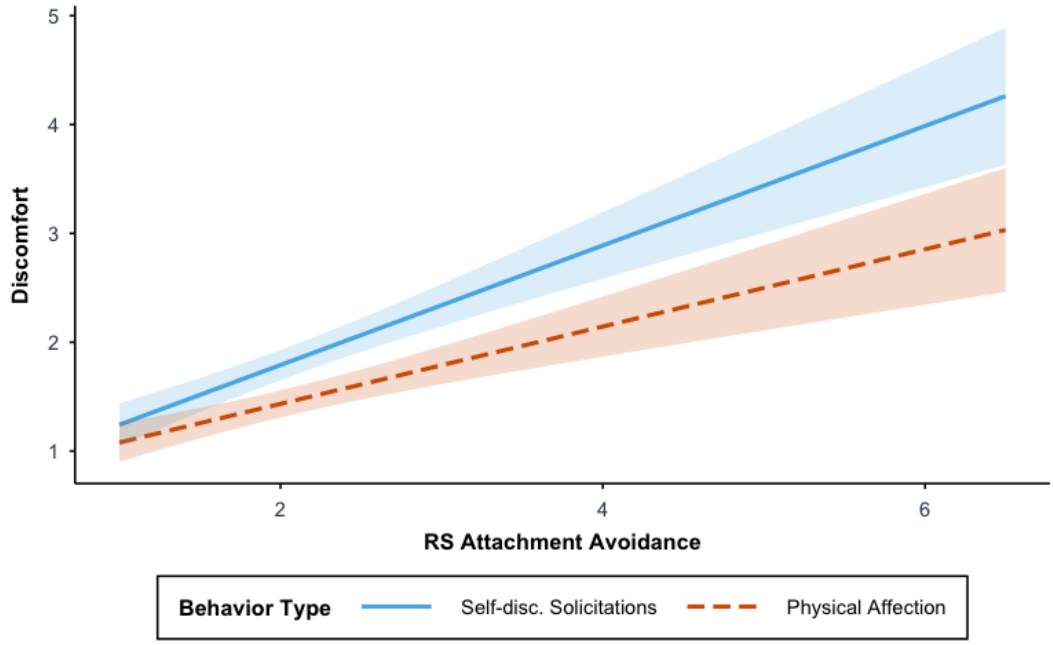


Table 8

Study 2: Fixed and Random Effects of RS Attachment Interaction Models.

	Liking		Perceived Respons.		Discomfort	
Fixed Effects	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*
RS att. anxiety	0.03	.06	-0.06	.05	0.04	.05
RS att. avoidance	-0.29***	.04	-0.31***	.05	0.36**	.05
Context	0.18**	.04	-0.00	.04	-0.17**	.05
Behavior type	-0.44***	.05	-0.10	.10	0.29**	.05
RS att. avoidance × RS att. anxiety	0.01	.09	0.05	.05	-0.06	.06
RS att. anxiety × context	-0.02	.04	0.00	.04	-0.03	.05
RS att. avoidance × context	0.05	.04	0.03	.04	-0.06	.04
RS att. anxiety × behavior type	-0.01	.05	0.07*	.03	0.05	.04
RS att. avoidance × behavior type	-0.01	.05	-0.04	.03	0.14**	.05
Context × behavior type	-0.12	.06	-0.08	.05	0.02	.05
RS att. avoidance × RS att. anxiety × context	-0.01	.05	0.03	.04	0.03	.07
RS att. avoidance × RS att. anxiety × behavior type	-0.03	.05	-0.02	.03	-0.01	.04
RS att. anxiety × context × behavior type	-0.08	.05	-0.03	.06	0.11	.06
RS att. avoidance × context × behavior type	0.03	.05	-0.06	.06	-0.06	.06
Random Effects	Variance	*SD*	Variance	*SD*	Variance	*SD*
Participant ID	.29	.54	.43	.66	.44	.66
Behavior type	.55	.74	–	–	.34	.59
Context	.28	.53	.14	.37	.16	.41
Behavior type × context	–	–	–	–	.24	.49
Item	.01	.09	.01	.11	.00	.03
Context	.00	.06	–	–	.00	.06
Residual	.37	.60	.42	.65	.27	.51

Note. Att. = attachment. Perceived Respons. = perceived responsiveness. Context coded as -0.5 = stressor context, 0.5 = relaxation context.

Behavior type coded as -0.5 = physical affection, 0.5 = self-disclosure solicitations.

† $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 13

Interaction Model: Perceived Responsiveness of Intimate Behaviors as a Function of RS Attachment Anxiety and Behavior Type.

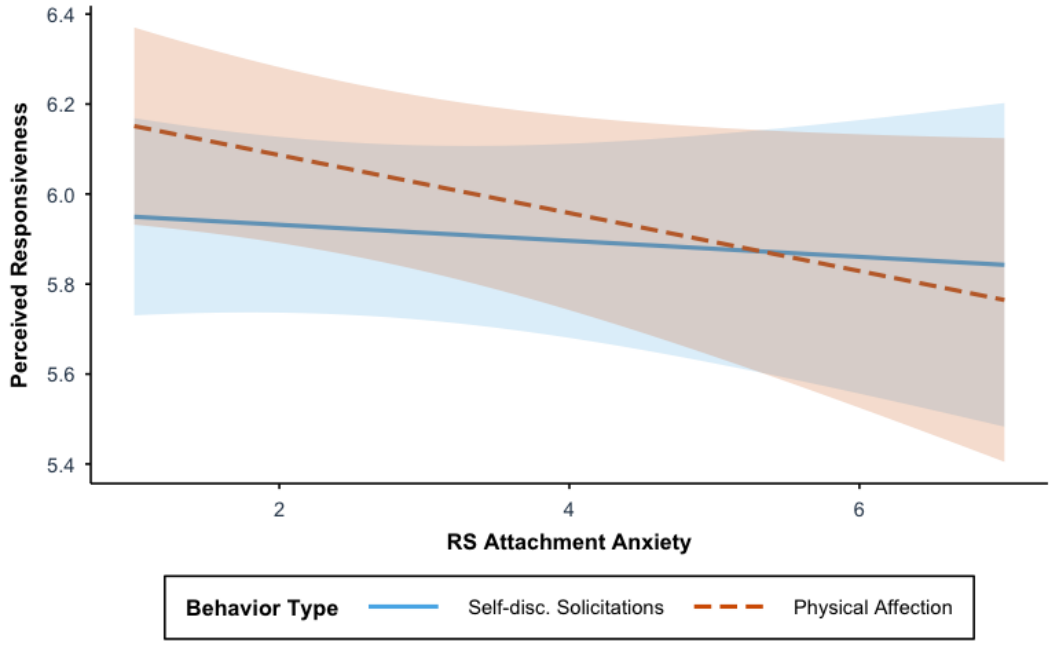


Figure 14

Interaction Model: Discomfort with Intimate Behaviors as a Function of RS Attachment Avoidance and Behavior Type.

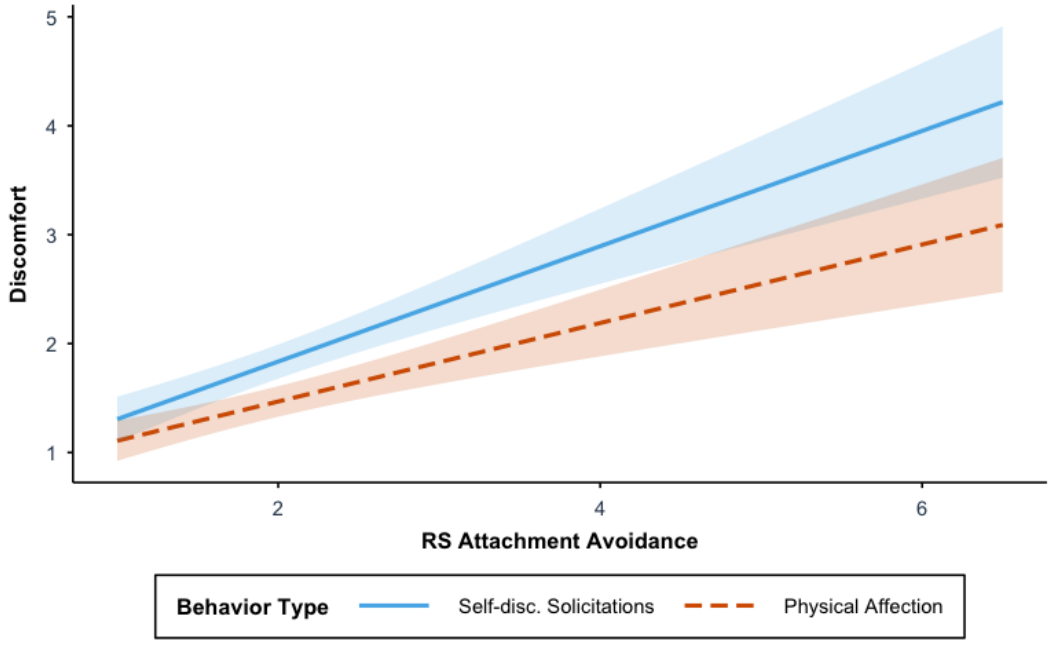


Table 9

Study 2: Fixed and Random Effects of Trait Attachment Covariate Models.

	Liking		Perceived Responsiveness		Discomfort	
Fixed Effects	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*
Trait att. anxiety	0.07	.04	0.04	.05	0.05	.05
Trait att. avoidance	-0.24**	.04	-0.27***	.05	0.27***	.05
Context	0.17**	.05	0.01	.03	-0.15**	.04
Behavior type	-0.46**	.09	-0.11	.10	0.28***	.05
Trait att. avoidance × context	0.08*	.04	0.05	.03	-0.09**	.03
Trait att. avoidance × behavior type	-0.08	.05	-0.03	.04	0.19***	.04
Context × behavior type	-0.12	.07	-0.08	.04	0.02	.07
Trait att. avoidance × context × behavior type	-0.08	.05	-0.11**	.04	0.04	.05
Random Effects	Variance	*SD*	Variance	*SD*	Variance	*SD*
Participant ID	.32	.57	.49	.70	.49	.70
Behavior type	.54	.73	.37	.61	.33	.58
Context	.27	.52	.17	.42	.16	.40
Behavior type × context	–	–	–	–	.24	.49
Item	.01	.09	.01	.11	.00	.03
Context	.00	.06	–	–	.00	.06
Residual	.37	.60	.31	.56	.27	.51

Note. Att. = attachment. Perceived Respons. = perceived responsiveness. Context coded as -0.5 = stressor context, 0.5 = relaxation context. Behavior type coded as -0.5 = physical affection, 0.5 = self-disclosure solicitations.

† $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 15

Covariate Model: Liking of Intimate Behaviors as a Function of Trait Attachment Avoidance and Context.

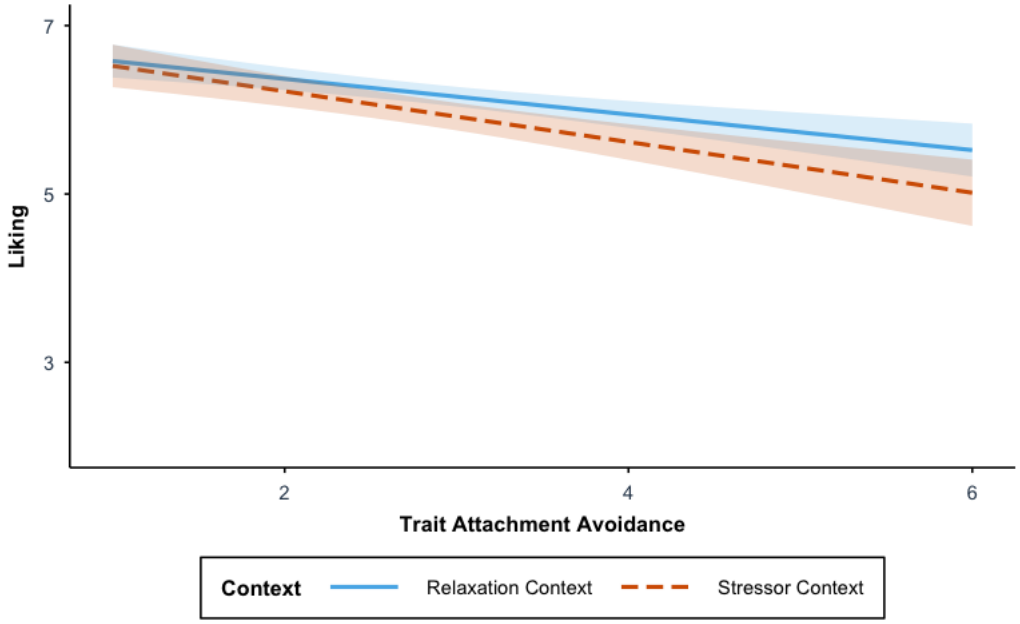


Figure 16

Covariate Model: Perceived Responsiveness of Intimate Behaviors as a Function of Trait Attachment Avoidance, Behavior Type, and Context.

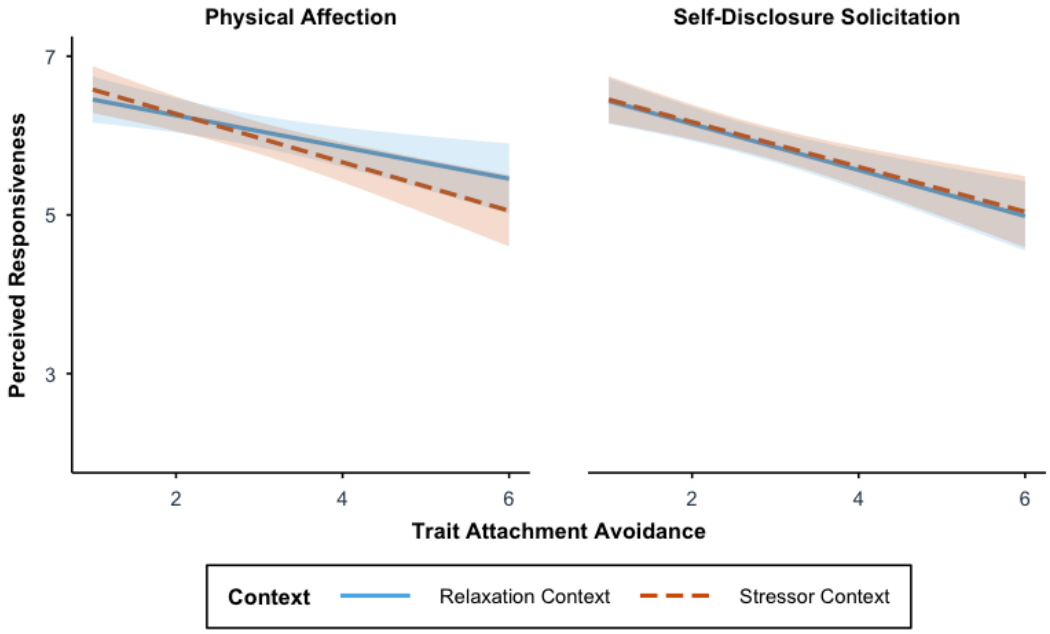


Figure 17

Covariate Model: Discomfort with Intimate Behaviors as a Function of Trait Attachment Avoidance and Context.

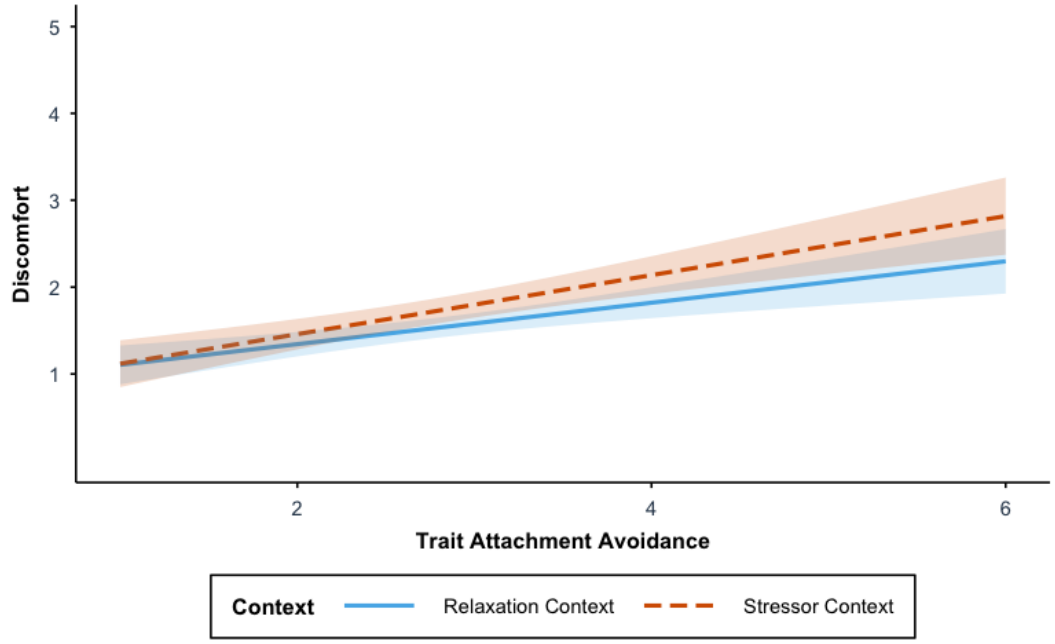


Figure 18

Covariate Model: Discomfort with Intimate Behaviors as a Function of Trait Attachment Avoidance and Behavior Type.

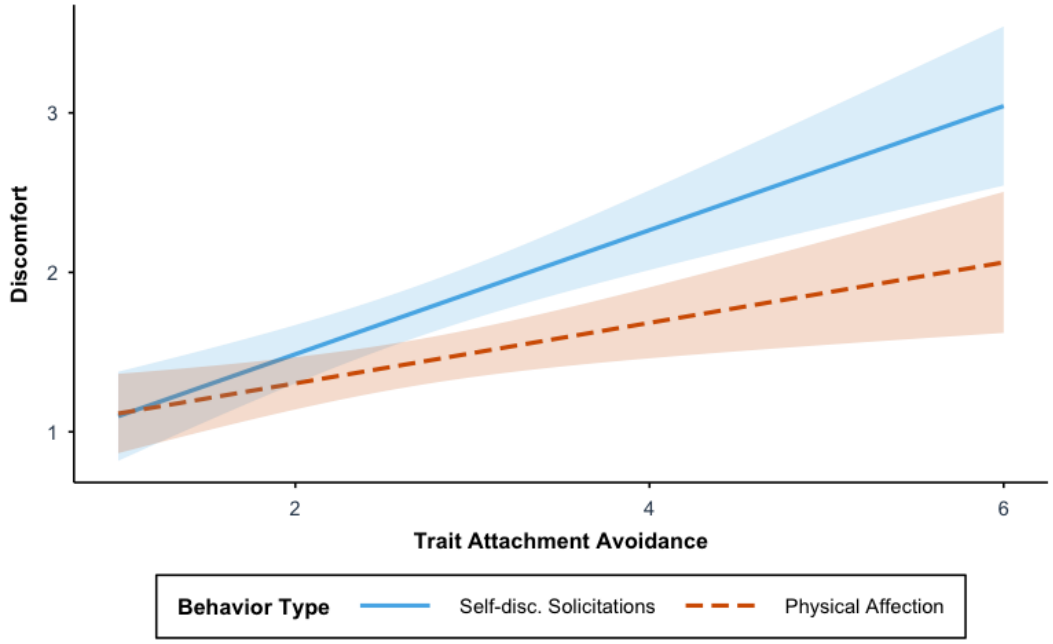


Table 10

Study 2: Fixed and Random Effects of Trait Attachment Interaction Models.

	Liking		Perceived Responsiveness		Discomfort	
Fixed Effects	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*	$\hat{\beta}$	*SE*
Trait att. anxiety	0.07	.05	0.04	.05	0.05	.05
Trait att. avoidance	-0.25***	.05	-0.28***	.06	0.27**	.06
Context	0.18**	.05	0.02	.04	-0.16**	.04
Behavior type	-0.42**	.09	-0.10	.10	0.26**	.06
Trait att. avoidance × trait att. anxiety	0.05	.04	0.06	.05	0.01	.05
Trait att. anxiety × context	0.01	.05	0.07	.04	0.02	.04
Trait att. avoidance × context	0.08	.05	0.02	.04	-0.11*	.04
Trait att. anxiety × behavior type	0.02	.06	0.05	.03	-0.01	.05
Trait att. avoidance × behavior type	-0.07	.06	-0.05	.03	0.18**	.05
Context × behavior type	-0.12	.07	-0.08	.05	0.02	.07
Trait att. avoidance × trait att. anxiety × context	-0.02	.05	-0.02	.03	0.03	.03
Trait att. avoidance × trait att. anxiety × behavior type	-0.07	.05	-0.03	.02	0.04	.04
Trait att. anxiety × context × behavior type	-0.03	.05	0.01	.06	0.04	.06
Trait att. avoidance × context × behavior type	-0.06	.05	-0.11*	.06	0.02	.06
Random Effects	Variance	*SD*	Variance	*SD*	Variance	*SD*
Participant ID	.32	.57	.48	.69	.49	.70
Behavior Type	.54	.73	–	–	.33	.58
Context	.27	.52	.14	.37	.16	.40
Behavior Type × Context	–	–	–	–	.24	.49
Item	.01	.09	.01	.11	.00	.03
Context	.00	.06	–	–	.00	.06
Residual	.37	.60	.42	.65	.27	.51

Note. Att. = attachment. Perceived Respons. = perceived responsiveness. Context coded as -0.5 = stressor context, 0.5 = relaxation context.

Behavior type coded as -0.5 = physical affection, 0.5 = self-disclosure solicitations.

† $p < .10$ * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 19

Interaction Model: Perceived Responsiveness of Intimate Behaviors as a Function of Trait Attachment Avoidance, Behavior Type, and Context.

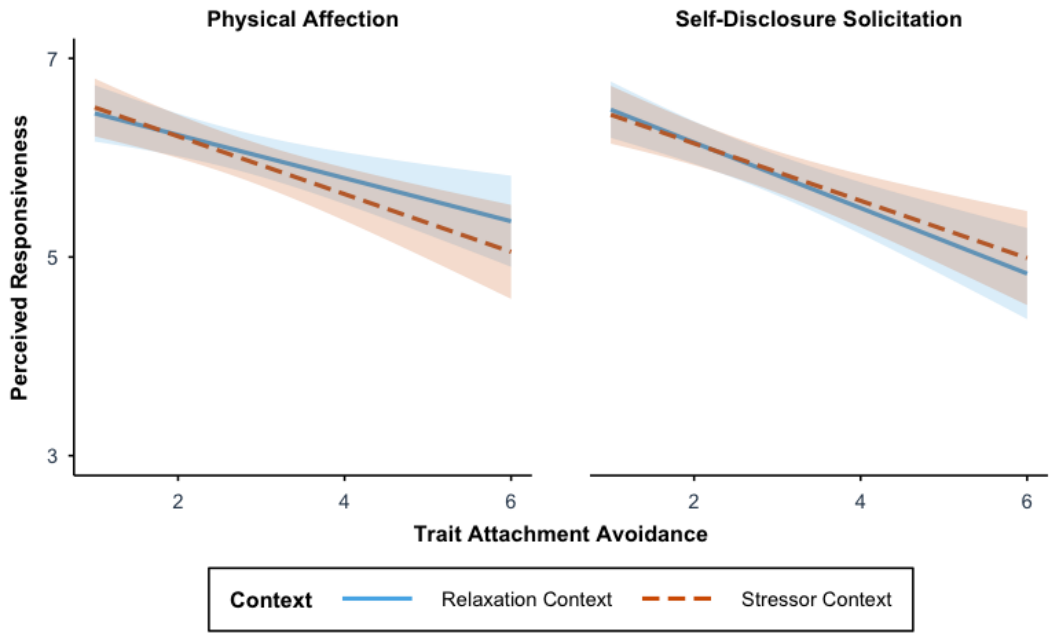


Figure 20

Interaction Model: Discomfort with Intimate Behaviors as a Function of Trait Attachment Avoidance and Context.

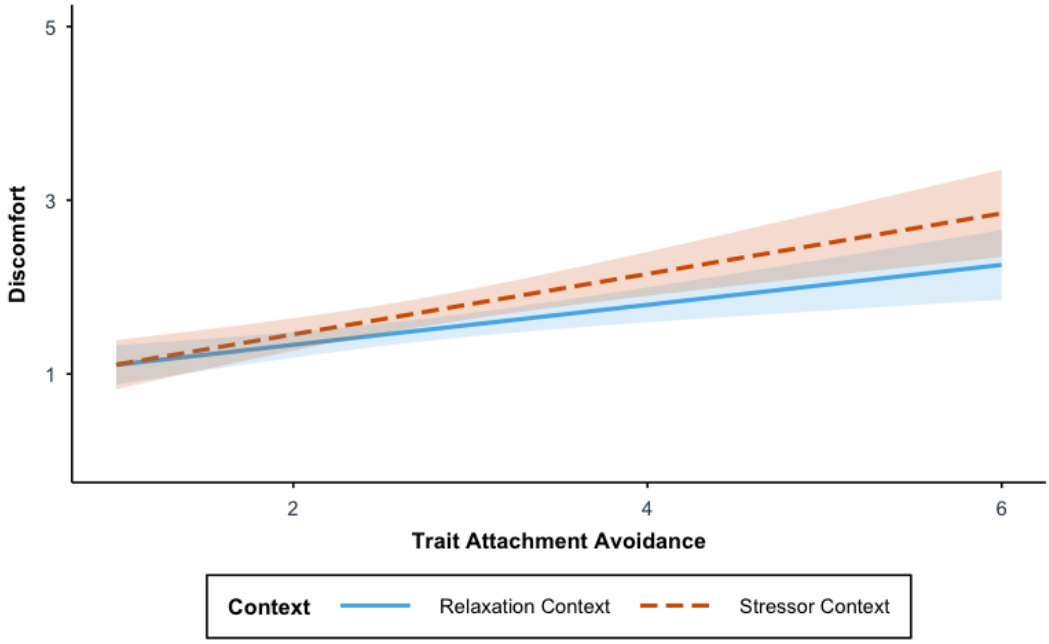
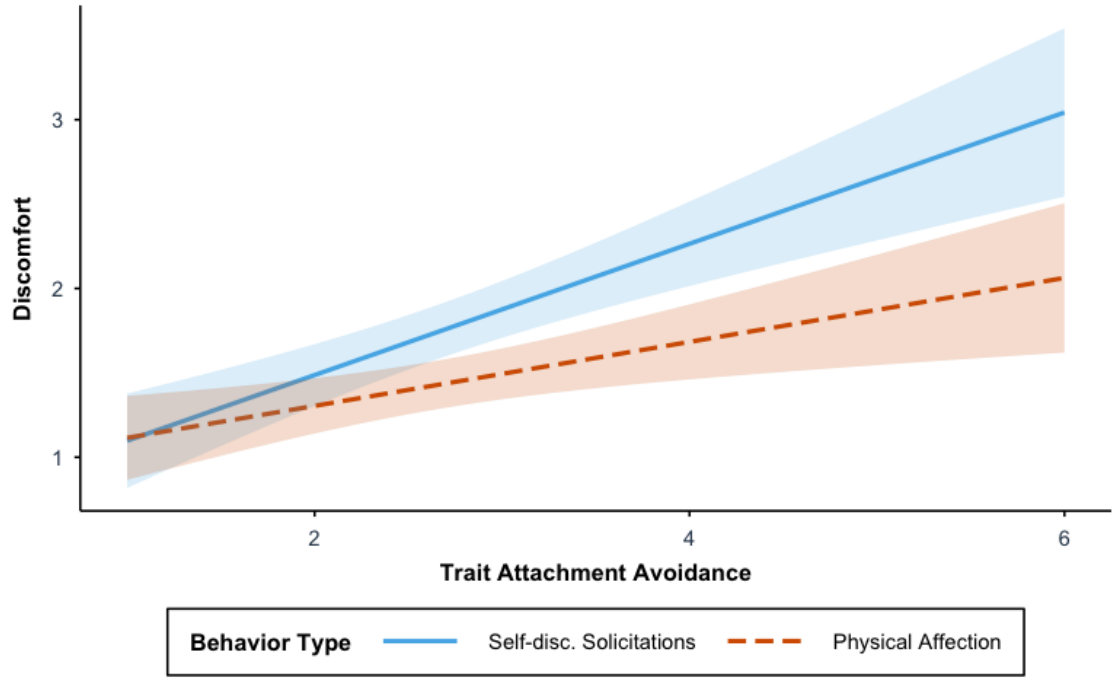


Figure 21

Interaction Model: Discomfort with Intimate Behaviors as a Function of Trait Attachment Avoidance and Behavior Type.



Appendices

Appendix A: Recruitment Solicitations for Studies 1 and 2

> We are interested in people's attitudes about different behaviors in a variety of situations and how differences in attitudes are associated with relationship beliefs. You will be asked to complete an online survey that contains a few demographic questions, questionnaires about your close relationships, and questionnaires about your thoughts in different situations. Please allow 3-5 business days for payment.

Note. The recruitment solicitation was identical across studies.

Appendix B: Study 1 Consent Form

My name is Julian Fuentes, and I am a graduate student at Syracuse University. I am working with my faculty advisor, Dr. Brett Jakubiak, on a research study.

We are interested in people's attitudes about different behaviors in a variety of situations and how differences in attitudes are associated with relationship beliefs.
I am inviting you to participate in a research study. Involvement in the study is voluntary. This means you can choose whether to participate and that you may withdraw from the study at any time without penalty.

You will be asked to complete an online survey that contains a few demographic questions, questionnaires about your close relationships, and questionnaires about your thoughts in different situations. This brief survey will take approximately 10 minutes of your time.

You will participate in this study remotely, on your own electronic device. Please use a computer or tablet to complete this research study; formatting may not work on a small electronic device like a cell phone. You must complete all sections in one sitting, as you are not allowed to resume at another time from where you left off.
Your responses will not be linked to any identifying information. However, whenever one works with email or the internet; there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns or complaints about the research please contact Dr. Brett Jakubiak via email at bkjakubi@syr.edu.

By continuing, I confirm that the statement below is true, and I agree to participate in this research study.

"I am 18 years of age or older, and I wish to participate in this research study."

- ○ I consent; please begin the survey. (1)
- ○ I do not consent. (2)

Appendix C: Study 1 Demographics Section, part 1

study_intro Thank you for agreeing to participate in our study!

On the next few pages, you will be asked to provide some common background information about yourself and your attitudes toward various things.

Please read the questions and answer carefully because you will not be allowed to revisit different pages in the survey.

Page Break

age Your age, in years:

_____

gender Your gender:

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary (5)
- ○ A gender identity not presented here (please specify below): (3)

_____

- ○ I prefer not to say (4)

rel_status What is your relationship / marital status?

- ○ Single (1)
- ○ In a relationship (2)
- ○ Engaged (3)
- ○ Married (4)
- ○ Widowed (5)
- ○ Divorced (6)
- ○ Separated (7)
- ○ Never married (8)
- ○ Rather not say (9)
- ○ In a civil partnership/civil union or similar (10)

Page Break

Display This Question:

If What is your relationship / marital status? != Divorced

prev_marriage Have you ever been divorced from a previous spouse/marital partner?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If What is your relationship / marital status? = Single
Or What is your relationship / marital status? = Never married
Or What is your relationship / marital status? = Rather not say

prev_rom_rel Have you ever been in a committed romantic relationship (i.e., an "official" romantic relationship)?

- ○ Yes (1)
- ○ No (2)

Appendix D: Study 1 Attachment Measure

sng_att_intro This next series of questions will ask how you think about important people in your life. Please rate how much you disagree or agree with each statement.

sng_gen_att For this set of questions, we want to know how you usually feel when you're with **close others** (i.e., the people who are important to you).

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly Agree 7 (7)
It helps to turn to close others in times of need. (gen_attach_1)	○			○			○
I usually discuss my problems and concerns with close others. (gen_attach_2)	○			○			○
I talk things over with close others. (gen_attach_3)	○			○			○
I find it easy to depend on close others. (gen_attach_4)	○			○			○
I don't feel comfortable opening up to close others. (gen_attach_5)	○			○			○
I prefer not to show close others how I feel deep	○			○			○

down. (gen_attach_6)			
I often worry that close others don't really care for me. (gen_attach_7)	○	○	○
I'm afraid that close others may abandon me. (gen_attach_8)	○	○	○
I worry that close others won't care about me as much as I care about them. (gen_attach_9)	○	○	○

Appendix E: General Perceptions of Intimate Behaviors

sng_gen_perc_instr Thank you for answering the previous questions! **Next, we want to ask for your opinions about different behaviors that a romantic partner** (like someone you are dating) **might do when you are together**.

sng_hug Imagine you are with your romantic partner and they **give you a hug**.

sng_hug_int
How **intimate** do you think this behavior is?

- ○ Not intimate at all 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Moderately intimate4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ As intimate as can be 7 (7)

sng_hug_comf
How **comfortable** are you with this behavior?

- ○ Very **UNcomfortable** 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neutral 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Very **comfortable** 7 (7)

sng_hand Imagine you are with your romantic partner and they **squeeze your hand affectionately**.

sng_hand_int
How **intimate** do you think this behavior is?

- Not intimate at all 1 (1)
- 2 (2)
- 3 (3)
- Moderately intimate 4 (4)
- 5 (5)
- 6 (6)
- As intimate as can be 7 (7)

sng_hand_comf
How **comfortable** are you with this behavior?

- Very **UNcomfortable** 1 (1)
- 2 (2)
- 3 (3)
- Neutral 4 (4)
- 5 (5)
- 6 (6)
- Very **comfortable** 7 (7)

sng_arm Imagine you are with your romantic partner and they **put their arm around your shoulder**.

sng_arm_int

How **intimate** do you think this behavior is?

- Not intimate at all 1 (1)
- 2 (2)
- 3 (3)
- Moderately intimate 4 (4)
- 5 (5)
- 6 (6)
- As intimate as can be 7 (7)

---

sng_arm_comf
How **comfortable** are you with this behavior?

- Very **UNcomfortable** 1 (1)
- 2 (2)
- 3 (3)
- Neutral 4 (4)
- 5 (5)
- 6 (6)
- Very **comfortable** 7 (7)

---

sng_feel Imagine you are talking with your romantic partner and they **ask how you are feeling**.

sng_feel_int
How **intimate** do you think this behavior is?

- Not intimate at all 1 (1)
- 2 (2)
- 3 (3)
- Moderately intimate 4 (4)
- 5 (5)
- 6 (6)
- As intimate as can be 7 (7)

---

sng_feel_comf
How **comfortable** are you with this behavior?

- Very **UNcomfortable** 1 (1)
- 2 (2)
- 3 (3)
- Neutral 4 (4)
- 5 (5)
- 6 (6)
- Very **comfortable** 7 (7)

---

sng_think Imagine you are talking with your romantic partner and they **ask what you are thinking**.

sng_think_int
How **intimate** do you think this behavior is?

- ○ Not intimate at all 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Moderately intimate 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ As intimate as can be 7 (7)

sng_think_comf
How **comfortable** are you with this behavior?

- ○ Very **UNcomfortable** 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neutral 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Very **comfortable** 7 (7)

sng_foll Imagine you are talking with your romantic partner and they **ask follow-up questions about something you said**.

sng_foll_int
How **intimate** do you think this behavior is?

- ○ Not intimate at all 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Moderately intimate 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ As intimate as can be 7 (7)

sng_foll_comf
How **comfortable** are you with this behavior?

- Very **UNcomfortable** 1 (1)
- 2 (2)
- 3 (3)
- Neutral 4 (4)
- 5 (5)
- 6 (6)
- Very **comfortable**7 (7)

Appendix F: Study 1 Context Section Notice

sng_cont_intro Thank you for completing the previous questions!

Next, we will ask you to recall **specific situations** and rate how you feel about those same behaviors in these different situations. **Please pay careful attention to the wording of the questions**.

Appendix G: Study 1 Stressor Context Prompt

sng_Str_prompt People often experience stress in their lives. They may lose their job, have money troubles, get sick, or get injured.

Think back to a relatively recent experience you have had where you were experiencing personal stress. Then, take some time to write about that experience in the box below.

_____

_____

_____

_____

_____

Page Break

Appendix H: Stressor Context Items

sng_Str_instr Next, please evaluate several things a romantic partner might do **when you are stressed.**

sng_Str_hug Imagine that **when you are stressed out** and talking to your romantic partner, they move close to you, lean in, and **give you a hug**.

sng_Str_hug_like If a romantic partner **gave me a hug when I'm stressed out**, I would...

- Dislike it very much 1 (1)
- 2 (2)
- 3 (3)
- Neither like nor dislike it 4 (4)
- 5 (5)
- 6 (6)
- Like it very much 7 (7)

sng_Str_hug_comRes If a romantic partner **gave me a hug when I'm stressed out**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (1)	○	○	○	○	○	○	○
I would feel **understood** (2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (3)	○	○	○	○	○	○	○

sng_Str_hand Imagine that **when you are stressed out** and talking to your romantic partner, they move close to you, lean in, and **squeeze your hand affectionately**.

sng_Str_hand_like If a romantic partner **squeezed my hand when I'm stressed out**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Str_hand_comRes If a romantic partner **squeezed my hand when I'm stressed out**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Str_hand_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Str_hand_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Str_hand_comf_3)	○	○	○	○	○	○	○

sng_Str_arm Imagine that **when you are stressed out** and talking to your romantic partner, they move close to you, lean in, and **put their arm around your shoulder**.

sng_Str_arm_like If a romantic partner **put their arm around my shoulder when I'm stressed out**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Str_arm_comRes If a romantic partner **put their arm around my shoulder when I'm stressed out**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Str_arm_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Str_arm_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Str_arm_comf_3)	○	○	○	○	○	○	○

sng_Str_feel Imagine that **when you are stressed out** and talking to your romantic partner, they set aside all distractions, look at you, and **ask how you're feeling**.

sng_Str_feel_like If a romantic partner **asked how I'm feeling when I'm stressed out**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Str_feel_comRes If a romantic partner **asked how I'm feeling when I'm stressed out**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Str_feel_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Str_feel_under_2)	○	○	○	○	○	○	○

I would feel **UNcomfortable** (sng_Str_feel_comf_3)	○	○	○	○	○	○	○

sng_Str_think Imagine that **when you are stressed out** and talking to your romantic partner, they set aside all distractions, look at you, and **ask what you're thinking about**.

sng_Str_think_like If a romantic partner **asked what I'm thinking about when I'm stressed out**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Str_think_comRe If a romantic partner **asked what I'm thinking about when I'm stressed out**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Str_think_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Str_think_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Str_think_comf_3)	○	○	○	○	○	○	○

sng_Str_foll Imagine that **when you are stressed out** and talking to your romantic partner, they set aside all distractions, look at you, and **ask follow-up questions about something you said**.

sng_Str_foll_like If a romantic partner **asked follow-up questions about something I said when I'm stressed out**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Str_foll_comRes If a romantic partner **asked follow-up questions about something I said when I'm stressed out**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Str_foll_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Str_foll_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Str_foll_comf_3)	○	○	○	○	○	○	○

Appendix I: Study 1 Relaxation Context Prompt

sing_Rlx_prompt People often spend time alone with their romantic partner to watch movies, cook, or hang-out with each other.

Think back to a relatively recent experience you have had in which you were able to spend free time relaxing with someone you're close to. Then, take some time to write about that experience in the box below.

_____

_____

_____

_____

_____

Page Break

Appendix J: Relaxation Context Items

sng_Rlx_instr Next, please evaluate several things a romantic partner might do **when you are relaxing together.**

sng_Rlx_hug Imagine that **when you are relaxing** and talking to your romantic partner, they move close to you, lean in, and **give you a hug**.

sng_Rlx_hug_like If a romantic partner **gave me a hug when we're relaxing together**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Rlx_hug_comRes If a romantic partner **gave me a hug when when we're relaxing together**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Rlx_hug_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Rlx_hug_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Rlx_hug_comf_3)	○	○	○	○	○	○	○

sng_Rlx_hand Imagine that **when you are relaxing** and talking to your romantic partner, they move close to you, lean in, and **squeeze your hand affectionately**.

sng_Rlx_hand_like If a romantic partner **squeezed my hand when we're relaxing together**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Rlx_hand_comRes If a romantic partner **squeezed my hand when we're relaxing together**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Rlx_hand_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Rlx_hand_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Rlx_hand_comf_3)	○	○	○	○	○	○	○

sng_Rlx_arm Imagine that **when you are relaxing** and talking to your romantic partner, they move close to you, lean in, and **put their arm around your shoulder**.

sng_Rlx_arm_like If a romantic partner **put their arm around my shoulder when when we're relaxing together**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Rlx_arm_comRes If a romantic partner **put their arm around my shoulder when when we're relaxing together**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Rlx_arm_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Rlx_arm_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Rlx_arm_comf_3)	○	○	○	○	○	○	○

sng_Rlx_feel Imagine that **when you are relaxing** and talking to your romantic partner, they set aside all distractions, look at you, and **ask how you're feeling**.

sng_Rlx_feel_like If a romantic partner **asked how I'm feeling when we're relaxing together**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Rlx_feel_comRes If a romantic partner **asked how I'm feeling when we're relaxing together**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Rlx_f	○	○	○	○	○	○	○

eel_care_1)							
I would feel **understood** (sng_Rlx_feel_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Rlx_feel_comf_3)	○	○	○	○	○	○	○

sng_Rlx_think Imagine that **when you are relaxing** and talking to your romantic partner, they set aside all distractions, look at you, and **ask what you're thinking about**.

sng_Rlx_think_like If a romantic partner **asked what I'm thinking about when we're relaxing together**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Rlx_think_comRes If a romantic partner **asked what I'm thinking about when we're relaxing together**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Rlx_think_care_1)	○	○	○	○	○	○	○

I would feel **understood** (sng_Rlx_think_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Rlx_think_comf_3)	○	○	○	○	○	○	○

sng_Rlx_foll Imagine that **when you are relaxing** and talking to your romantic partner, they set aside all distractions, look at you, and **ask follow-up questions about something you said**.

sng_Rlx_foll_like If a romantic partner **asked follow-up questions about something I said when we're relaxing together**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

sng_Rlx_comRes If a romantic partner **asked follow-up questions about something I said when we're relaxing together**...

	Not true at all 1 (1)	2 (2)	3 (3)	Somewhat true 4 (4)	5 (5)	6 (6)	Completely true 7 (7)
I would feel **cared for** (sng_Rlx_care_1)	○	○	○	○	○	○	○
I would feel **understood** (sng_Rlx_under_2)	○	○	○	○	○	○	○
I would feel **UNcomfortable** (sng_Rlx_comf_3)	○	○	○	○	○	○	○

Appendix K: Study 1 Final Items

demo_instr_sng You're almost done! On the next few pages, we would like to ask you to provide some more information about yourself.

---

race_ethnic Your race/ethnicity (please check all that apply):

- ☐ American Indian or Alaskan Native (1)
- ☐ Asian (2)
- ☐ Black or African American (3)
- ☐ Latina/Latina/Latinx or Hispanic (4)
- ☐ Native Hawaiian or Other Pacific Islander (5)
- ☐ White (6)
- ☐ A racial identity not presented here (please specify below): (7)

_____

sensory How true is the following statement?

My skin is sensitive to the touch (i.e., I feel uncomfortable when wearing clothes made of scratchy fabrics or when other things touch my skin).

- ○ Not true at all (1)
- ○ Slightly true (2)
- ○ Moderately true (3)
- ○ Very true (4)
- ○ Extremely true (5)

phys_assault Have you ever been physically assaulted (e.g., being attacked, beat up, hit repeatedly)?

- ○ Yes (1)
- ○ No (2)
- ○ I prefer not to say (3)

---

sexual_assault Have you ever been sexually assaulted or had any significantly uncomfortable sexual experiences?

- ○ Yes (1)
- ○ No (2)
- ○ I prefer not to say (3)

Appendix L: Debriefing Statements

Study 1	Study 2
Thank you for completing our survey! Please read the next few statements carefully to make sure you get credit for your hard work! The purpose of this research study is to see how situations influence people's attitudes toward relationship behaviors. With the data provided by you and other helpful participants, we plan to see if certain kinds of people have more positive attitudes toward intimate behaviors in one kind of situation vs. a different situation. This way, we can make general recommendations to help people in romantic relationships create closeness and other positive feelings in their relationships.	Thank you for completing our survey! Please read the next few statements carefully to make sure you get credit for your hard work! The purpose of this research study is to see how situations influence people's attitudes toward relationship behaviors. With the data provided by you and other helpful participants, we plan to see if certain kinds of people have more positive attitudes toward intimate behaviors in one kind of situation vs. a different situation. This way, we can make general recommendations to help people in romantic relationships create closeness and other positive feelings in their relationships.

Appendix M: List of R Packages used for Study 1 and Study 2

tidyverse
tidyselect
psych
describer
car
ggplot2
effects
lme4
lmerTest
reghelper
jtools
sandwich
interactions
apaTables

Appendix N: Example Data Format

Participant	...	Trait Avoidance	Context	Behavior Type	Behavior	Liking Score	Perc. Respons.	Discomfort
1		3.4	Stressor	Phys. Aff.	Hug	6	5.0	3
1		3.4	Stressor	Phys. Aff.	Arm	3	2.4	3
1		3.4	Stressor	Phys. Aff.	Hand	6	5.5	1
1		3.4	Stressor	Self Disc.	Think	4	5.0	7
1		3.4	Stressor	Self Disc.	Feel	4	6.3	3
1		3.4	Stressor	Self Disc.	Follow-up	5	3.4	5
1		3.4	Relaxation	Phys. Aff.	Hug	7	3.2	6
1		3.4	Relaxation	Phys. Aff.	Arm	5	6.4	3
1		3.4	Relaxation	Phys. Aff.	Hand	6	4.1	6
1		3.4	Relaxation	Self Disc.	Think	3	4.6	4
1		3.4	Relaxation	Self Disc.	Feel	3	5.7	4
1		3.4	Relaxation	Self Disc.	Follow-up	1	7.4	1
2		6.2	Stressor	Phys. Aff.	Hug	7	5.0	6
2		6.2	Stressor	Phys. Aff.	Arm	5	6.3	3
2		6.2	Stressor	Phys. Aff.	Hand	6	3.4	6
2		6.2	Stressor	Self Disc.	Think	3	3.5	4
2		6.2	Stressor	Self Disc.	Feel	3	1.0	4
2		6.2	Stressor	Self Disc.	Follow-up	1	6.0	5
2		6.2	Relaxation	Phys. Aff.	Hug	3	3.4	7
2		6.2	Relaxation	Phys. Aff.	Arm	3	3.5	5
2		6.2	Relaxation	Phys. Aff.	Hand	1	1.0	6
2		6.2	Relaxation	Self Disc.	Think	7	5.0	3
2		6.2	Relaxation	Self Disc.	Feel	3	6.3	2
2		6.2	Relaxation	Self Disc.	Follow-up	1	3.4	5

Appendix O: Example R Code

Example R Code: Confirmatory Models

```
lmer(
liking ~ trait anxiety scaled + trait avoidance scaled + context +
        behavior type + trait avoidance scaled:context +
        trait avoidance scaled:behavior type + context:behavior type +
        trait avoidance scaled:context:behavior type
        (behavior type*context | participant)+ (context | item),
            data = context_rate_data,
            REML = T,
            na.action = “na.omit”)
```

Example R Code: Exploratory Anxiety Interaction Models

```
lmer(
liking ~ trait anxiety scaled + trait avoidance scaled + context + behavior type +
        trait avoidance scaled:trait anxiety scaled + trait avoidance scaled:context +
        trait anxiety scaled:context + trait avoidance scaled:behavior type +
        trait anxiety scaled:behavior type + context:behavior type +
        trait avoidance scaled:context:behavior type +
        trait anxiety scaled:context:behavior type +
        trait avoidance scaled:trait anxiety scaled:context +
        trait avoidance scaled:trait anxiety scaled: behavior type +
        (behavior type*context | participant)+ (context | item),
            data = context_rate_data,
            REML = T,
            na.action = “na.omit”)
```

Example R Code: Model Comparisons

```
anova(
        lmer(liking ~ (behavior type*context | participant)+ (context | item),
                data = context_rate_data, REML = T, na.action = “na.omit”),
        lmer(liking ~ trait anxiety scaled + trait avoidance scaled * context *
                behavior type + (behavior type*context | participant) +
                (context | item), data = context_rate_data, REML = T, na.action = “na.omit”)
)
```

Appendix P: Study 2 Consent Form

My name is Julian Fuentes, and I am a graduate student at Syracuse University. I am working with my faculty advisor, Dr. Brett Jakubiak, on a research study.

We are interested in people's attitudes about different behaviors in a variety of situations and how differences in attitudes are associated with relationship beliefs.

I am inviting you to participate in a research study. Involvement in the study is voluntary. This means you can choose whether to participate and that you may withdraw from the study at any time without penalty.

You will be asked to complete an online survey that contains a few demographic questions, questionnaires about your close relationships, and questionnaires about your thoughts in different situations. **This brief survey will take approximately 15 minutes of your time.**

You will participate in this study remotely, on your own electronic device. **Please use a computer or tablet to complete this research study; formatting may not work on a small electronic device like a cell phone**. You must complete all sections in one sitting, as you are not allowed to resume at another time from where you left off.
Your responses will not be linked to any identifying information. However, whenever one works with email or the internet; there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns or complaints about the research please contact Dr. Brett Jakubiak via email at bkjakubi@syr.edu.

By continuing, I confirm that the statement below is true, and I agree to participate in this research study.

"I am 18 years of age or older, and I wish to participate in this research study."

- ○ I consent; please begin the survey. (1)
- ○ I do not consent. (2)

Appendix Q: Study 2 Demographics part 1

study_intro Thank you for agreeing to participate in our study!

On the next few pages, you will be asked to provide some common background information about yourself and your attitudes toward various things.

Please read the questions and answer carefully because you will not be allowed to revisit different pages in the survey.

age Your age, in years:

_____

gender Your gender:

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary (5)
- ○ A gender identity not presented here (please specify below): (3)

_____

- ○ I prefer not to say (4)

rel_status What is your relationship / marital status?

- ○ Single (1)
- ○ In a relationship (2)
- ○ Engaged (3)
- ○ Married (4)
- ○ Widowed (5)
- ○ Divorced (6)
- ○ Separated (7)
- ○ Never married (8)
- ○ Rather not say (9)
- ○ In a civil partnership/civil union or similar (10)

Display This Question:
If What is your relationship / marital status? = In a relationship
Or What is your relationship / marital status? = Engaged
Or What is your relationship / marital status? = Married
Or What is your relationship / marital status? = In a civil partnership/civil union or similar

partner_name
What do you call your current romantic partner? DO NOT use their last name.

_____

Display This Question:
If What is your relationship / marital status? = In a relationship
Or What is your relationship / marital status? = Engaged
Or What is your relationship / marital status? = Married
Or What is your relationship / marital status? = In a civil partnership/civil union or similar

rel_length Approximately how long have you
and **${partner_name/ChoiceTextEntryValue}** been in a romantic relationship?

Please enter the length in years in the first box, and enter the length in months in the second box.

For example, if you have been together for 2 months, you would enter 0 in the first box and 2 in the second box.

- ○ Years (1) _____
- ○ Months (2) _____

Display This Question:
If What is your relationship / marital status? != Divorced

prev_marriage Have you ever been divorced from a previous spouse/marital partner?

- ○ Yes (1)
- ○ No (2)

Appendix R: Study 2 Relationship-Specific Attachment Measure

RS_att_instr On this page, we want to ask about **your relationship with ${partner_name/ChoiceTextEntryValue}.**

ecr_rs Please indicate how much you disagree or agree with the following statements about **your relationship with ${partner_name/ChoiceTextEntryValue}**.

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly Agree 7 (7)
It helps to turn to **${partner_name/ChoiceTextEntryValue}** in times of need. (ecr_rs_1)	○	○	○	○	○	○	○
I usually discuss my problems and concerns with **${partner_name/ChoiceTextEntryValue}.** (ecr_rs_2)	○	○	○	○	○	○	○
I talk things over with **${partner_name/ChoiceTextEntryValue}.** (ecr_rs_3)	○	○	○	○	○	○	○
I find it easy to depend on **${partner_name/ChoiceTextEntryValue}.** (ecr_rs_4)	○	○	○	○	○	○	○
I don't feel comfortable opening up to **${partner_name/ChoiceTextEntryValue}.** (ecr_rs_5)	○	○	○	○	○	○	○
I prefer not to show **${partner_name/ChoiceTextEntryValue}** how I feel deep down. (ecr_rs_6)	○	○	○	○	○	○	○
I often worry that **${partner_name/ChoiceTextEntryValue}** doesn't really care for me. (ecr_rs_7)	○	○	○	○	○	○	○
I'm afraid that **${partner_name/ChoiceTextEntryValue}** may abandon me. (ecr_rs_8)	○	○	○	○	○	○	○

I worry that **${partner_name/ChoiceTextEntryValue}** won't care about me as much as I care about them. (ecr_rs_9)	○	○	○	○	○	○	○

Page Break

c_gen_perc_instr Thank you for answering the previous questions! **Next, we want to ask for your opinions about different behaviors that ${partner_name/ChoiceTextEntryValue} might do when you are together**.

Appendix S: Example Survey Items from Study 2

General Perceptions of Intimate Behaviors Example Items

hug_example Imagine you are with ${partner_name/ChoiceTextEntryValue} and they **give you a hug**.

hug_intimacy_rate
How **intimate** do you think this behavior is?

- Not intimate at all 1 (1)
- 2 (2)
- 3 (3)
- Moderately intimate 4 (4)
- 5 (5)
- 6 (6)
- As intimate as can be 7 (7)

Stressor Context Example Items

stress_hug Imagine that **when you are stressed out** and talking to ${partner_name/ChoiceTextEntryValue}, they move close to you, lean in, and **give you a hug**.

stress_hug_like If ${partner_name/ChoiceTextEntryValue} **gave me a hug when I'm stressed out**, I would...

- Dislike it very much 1 (1)
- 2 (2)
- 3 (3)
- Neither like nor dislike it 4 (4)
- 5 (5)
- 6 (6)
- Like it very much 7 (7)

stress_feel Imagine that **when you are stressed out** and talking to ${partner_name/ChoiceTextEntryValue}, they set aside all distractions, look at you, and **ask how you're feeling**.

stress_feel_like If ${partner_name/ChoiceTextEntryValue} **asked how I'm feeling when I'm stressed out**, I would...

- Dislike it very much 1 (1)
- 2 (2)
- 3 (3)
- Neither like nor dislike it 4 (4)
- 5 (5)
- 6 (6)
- Like it very much 7 (7)

Relaxation Context Example Items

relax_hug Imagine that **when you are relaxing** and talking to ${partner_name/ChoiceTextEntryValue}, they move close to you, lean in, and **give you a hug**.

---

relax_hug_like If ${partner_name/ChoiceTextEntryValue} **gave me a hug when we're relaxing together**, I would...

- Dislike it very much 1 (1)
- 2 (2)
- 3 (3)
- Neither like nor dislike it 4 (4)
- 5 (5)
- 6 (6)
- Like it very much 7 (7)

---

relax_feel Imagine that **when you are relaxing** and talking to ${partner_name/ChoiceTextEntryValue}, they set aside all distractions, look at you, and **ask how you're feeling**.

---

relax_feel_like If ${partner_name/ChoiceTextEntryValue} **asked how I'm feeling when we're relaxing together**, I would...

- ○ Dislike it very much 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ Neither like nor dislike it 4 (4)
- ○ 5 (5)
- ○ 6 (6)
- ○ Like it very much 7 (7)

Appendix T: Study 2 Final Items

demo_instr_couple You're almost done! On the next few pages, we would like to ask you to provide some more information about yourself and your relationship.

race_ethnic Your race/ethnicity (please check all that apply):

- ☐ American Indian or Alaskan Native (1)
- ☐ Asian (2)
- ☐ Black or African American (3)
- ☐ Latina/Latina/Latinx or Hispanic (4)
- ☐ Native Hawaiian or Other Pacific Islander (5)
- ☐ White (6)
- ☐ A racial identity not presented here (please specify below): (7)

_____

partner_gender What is **your romantic partner's** gender?

- ○ Male (1)
- ○ Female (2)
- ○ Non-Binary (4)
- ○ A gender identity not presented here (please specify below) (5)

_____

- ○ I prefer not to say (6)

partner_race_ethnic What is **your romantic partner's** race/ethnicity (please check all that apply):

- ☐ American Indian or Alaskan Native (1)
- ☐ Asian (2)
- ☐ Black or African American (3)
- ☐ Latina/Latino/Latinx or Hispanic (7)
- ☐ Native Hawaiian or Other Pacific Islander (4)
- ☐ White (5)
- ☐ A racial identity not presented here (please specify below): (6)

_____

sensory How true is the following statement?

My skin is sensitive to the touch (i.e., I feel uncomfortable when wearing clothes made of scratchy fabrics or when other things touch my skin).

- ○ Not true at all (1)
- ○ Slightly true (2)
- ○ Moderately true (3)
- ○ Very true (4)
- ○ Extremely true (5)

phys_assault Have you ever been physically assaulted (e.g., being attacked, beat up, hit repeatedly)?

- ○ Yes (1)
- ○ No (2)
- ○ I prefer not to say (3)

sexual_assault Have you ever been sexually assaulted or had any significantly uncomfortable sexual experiences?

- ○ Yes (1)
- ○ No (2)
- ○ I prefer not to say (3)

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Vita

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EDUCATION

Ph.D. Social Psychology (Expected 2023) 2018 – Present
Syracuse University, Syracuse, New York
Advisor: Brett K. Jakubiak, PhD

M.S. Psychology 2018 – 2020
Syracuse University, Syracuse, New York

B.A. Psychology 2015 – 2018
Ronald E. McNair Scholar
University of Mississippi, Oxford, MS

Associate of Liberal Arts 2013 – 2015
East Central Community College, Decatur, MS

FUNDING & AWARDS

Teaching Assistantship for approximately $21,000 2021 – 2023

STEM Diversity Fellowship valued at $25,000/year 2019 – 2021

Psychology Research Initiative in Diversity Enhancement (PRIDE) 2019
Summer Mentor Fellowship for $2,500

Teaching Assistantship for $18,000 2018 – 2019

PUBLISHED MANUSCRIPTS

Jakubiak, B. K., **Fuentes, J. D.**, Sun, E. R., & Feeney, B. C. (2019). Social support is a balancing act: Mitigating attachment anxiety by supporting independence and dependence. *Journal of Social and Personal Relationships*.

Jakubiak, B.K., **Fuentes, J.D.**, Feeney, B.C. Affectionate touch promotes shared positive activities. Manuscript accepted to *Personality and Social Psychology Bulletin*.

Jakubiak, B.K., **Fuentes, J.D.**, Feeney, B.C. (In press). Individual and relational differences in desire for touch in romantic relationships. *Journal of Social and Personal Relationships*.

Greene, N.R., Jewell, D.E., **Fuentes, J.D.**, & Smith, C.V. (2019). Basic need satisfaction in the parental relationship offsets millennials' worries about the transition to college. *The Journal of Social Psychology*.

MANUSCRIPTS UNDER REVIEW

Jakubiak, B. K., **Fuentes, J. D.**, Sun, E. R., & Feeney, B. C. (under review). Perceptions of oneself and one's spouse following a stressor discussion predicting attachment insecurity over one year. Manuscript under review.

Smith, C.V., **Fuentes, J.D.**, Bilsky, S.A., & Hadden, B.W. Looking good or being good? Parenting goals predict need satisfaction and need thwarting. Manuscript under review.

MANUSCRIPTS IN PREPARATION

Fuentes, J.D., Jakubiak, B.K. Relationship-specific attachment insecurity predicts preferences for attachment-matched support. Manuscript in preparation.

Fuentes, J.D., & Jakubiak, B.K. Investigating the effects of attachment insecurity-matched social support in friendships and romantic relationships. Manuscript in preparation.

CONFERENCE TALKS & INVITED TALKS

Fuentes, J.D., & Jakubiak, B. K. (2022, February). *Attachment Insecurity Predicts Preferences for and Effectiveness of Attachment-Matched Support.* Talk given at the 23rd annual Meeting of the Society for Personality and Social Psychology, San Francisco, CA.

Fuentes, J.D., & Jakubiak, B. K. (2021, June). *How Can I Help? An Overview of Recent Work.* Invited talk given for the 2021 Psychology Research Initiative in Diversifying Education (PRIDE) cohort, Syracuse, NY.

Smith, C. V., **Fuentes, J.D.**, & Hadden, B. W. (2018, July). *Looking good or being good? Parenting goals predict need satisfaction and need thwarting.* Talk given at the 2018 Biennial International Conference of the International Association of Relationship Research, Ft. Collins, CO.

Fuentes, J.D. & Smith, C.V. (2016, July). Raised from darkness: Dark Triad influences on parent motives, involvement, and need satisfaction. Paper presented at the 22nd Annual University at Buffalo Undergraduate Research Conference, Niagara, NY.

POSTER PRESENTATIONS

Fuentes, J.D., & Jakubiak, B. K. (2021, February). *Benefits of Attachment-Matched Support in Romantic Relationships and Friendships.* Poster presented at the 22nd annual Meeting of the Society for Personality and Social Psychology, virtual conference.

Fuentes, J.D., & Jakubiak, B. K. (2020, February). *What's good? Support preferences depend on security of attachment.* Poster accepted for the 21st annual Meeting of the Society for Personality and Social Psychology, New Orleans, LA.

Fuentes, J.D., & Jakubiak, B. K. (2019, May). *Different strokes: Attachment insecurity and differential support preferences.* Poster presented at the 2019 Social Psychologists Around New York Conference, Syracuse, NY.

Fuentes, J.D., Chandler, S.Q., & Smith, C.V. (2018, March). Bad News (for Mama and Papa) Bears: Parenting Goals Predict Need Satisfaction and Need Thwarting. Poster presented at the 19th Annual Meeting of the Society for Personality and Social Psychology, Atlanta, GA.

Chandler, S.Q., **Fuentes, J.D.**, & Smith, C.V. (2018, March). Doing It (or Not) For the Kids: Attachment and Interpersonal Goals in Parents of College Freshmen. Poster presented at the 19th Annual Meeting of the Society for Personality and Social Psychology, Atlanta, GA.

Fuentes, J.D., Mathias, V.D., Greene, N.R., Smith, C.V., & Dowling, C.B. (2017, January). Looking good or being good? Parenting goals and positive parenting outcomes. Poster presented at the 18th Annual Meeting of the Society for Personality and Social Psychology, San Antonio, TX.

Greene, N.R., Jewell, D.E., **Fuentes, J.D.**, Smith, C.V., & Dowling, C.B. (2017, January). Giving wings but keeping them clipped: The relationship between overprotective parenting and student psychological well-being during the transition to college. Poster presented at the 18th Annual Meeting of the Society for Personality and Social Psychology, San Antonio, TX.

TEACHING EXPERIENCE

Teaching Assistant, Syracuse University:

Social Psychology — Fall 2021 – Spring 2023

- Assisted with two lecture sections each semester (approx. 220 students per semester)
- Proctored exams
- Graded assignments
- Lectured for absent faculty

Teaching Assistant, Syracuse University:

Foundations of Human Behavior — Fall 2018 – Spring 2019

- Fall 2018: 4 recitation sections (100 students)
- Spring 2019: 3 recitation sections (66 students)
- Planned and delivered weekly recitation lectures
- Designed weekly quizzes

SERVICE

Psychology Action Committee Graduate peer mentor — Fall 2021 – Spring 2022

- Oriented two incoming Social Psychology PhD students to the program, directed peers to resources, and maintained connections with peers to ensure their continued success

PRIDE Graduate student mentor Summer 2019

- Mentored an undergraduate student on the process of seeking opportunities to discover and develop their research interests, plan their academic career, and identify solutions to problems in and out of research settings
- Led professional development seminars for undergraduates from underrepresented backgrounds; topics included searching for graduate programs and obtaining letters of recommendation
- Taught an undergraduate student how to develop and test research questions, including a crash-course in Multilevel Modeling using the Actor-Partner Interdependence Model

Psychology Action Committee area representative Fall 2018 – Spring 2019

- Served as a liaison between Social area graduate students, the area director, social area faculty, and graduate students in other areas in the psychology department

HONORS & PROFESSIONAL AFFILIATIONS

International Association for Relationship Research	2021 – Present
National Latinx Psychological Association	2021 – Present
The Society for Personality and Social Psychology	2016 – Present
Ronald E. McNair Scholar	2016 – 2018
Gamma Beta Phi Honors Society	2015 – 2018
Phi Theta Kappa Honors Society	2013 – 2015

SKILLS

Survey research

Statistical analysis (e.g., ANOVA, Multiple Regression, Multilevel Modeling) in R and SPSS

Programming with R & MATLAB

Theory-driven scale creation

Conducting research in medical settings

Conducting research with vulnerable populations

Administering structured clinical interviews

Limited working proficiency in Spanish and French