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Abstract

Attachment avoidance is characterized by discomfort with closeness and a reluctance to develop intimacy with romantic partners, which contribute to heightened general negativity and lower satisfaction and self-disclosure in and out of their relationships. Recent research, however, has begun to uncover circumstances in which romantic partners and positive relationships buffer more avoidantly attached individuals against deleterious individual and relationship outcomes. Across three studies, using a multi-method approach encompassing both experimental and dyadic longitudinal diary methods, we investigated the effects of positive, intimacy-related relationship experiences on more avoidant persons' positive and negative affect, relationship quality, self-disclosure, and attachment security immediately and over time. Results revealed that more avoidant individuals exhibit a reduction of general negative affect in particular (Studies 1-2) and report greater relationship quality (Studies 2-3) in response to positive relationship experiences, and, following intimacy-promoting activities with their partner, engage in greater self-disclosure over time and demonstrate decreased attachment avoidance one month later (Study 3). These findings identify novel circumstances in which more avoidant persons' negative expectations of relationships may be countered, and suggest that relatively simple techniques can have potentially important short- and long-term implications for more avoidant individuals and their relationships.

Keywords: attachment, intimacy, affect, satisfaction, self-disclosure, relationships, longitudinal

Benefits of Positive Relationship Experiences for Avoidantly Attached Individuals

In romantic relationships, individuals who are more avoidantly attached face a closeness conundrum: They have entered into a close relationship, but have an aversion to intimacy, a central feature of such relationships (Edelstein & Shaver, 2004). Unsurprisingly, then, much research has linked higher attachment avoidance with negative personal and relationship outcomes (e.g., Simpson, Rholes, & Neligan, 1992). Recent studies, however, have begun to identify specific positive relationship contexts wherein more avoidant persons desire greater intimacy and behave in a more pro-relationship manner (e.g., Overall, Simpson, & Struthers, 2013; Slotter & Luchies, 2014). Thus, more avoidant individuals typically experience unhappy individual and relationship outcomes, but may be sensitive to and benefit from positive relationship experiences. The present three studies advance this budding literature, investigating the immediate and over-time effects of positive, intimacy-related relationship experiences (e.g., reflecting on one's love for a current romantic partner, perceiving positive partner behaviors, engaging in intimacy-promoting activities with a partner) on dispositionally avoidant persons' positive and negative affect, relationship quality, self-disclosure, and attachment security.

Attachment Theory

Originally conceptualized by Bowlby (1973, 1980, 1982), attachment theory proposes that early experiences with important caregivers (also called *attachment figures*) shape perceptions and expectations about the self and future relationships. These internal working models develop over time to include the extent to which individuals feel they are worthy of being loved and believe close others will be available when needed, and can impact goals, feelings, and behavior across the lifespan (Fraley & Shaver, 2000; Simpson, W. A. Collins, Farrell, & Raby, 2015; Simpson, W. A. Collins, Salvatore, & Sung, 2014). Briefly, humans (especially infants) rely on attachment figures for survival, and thus are motivated to seek proximity to their attachment figures during times of need.

Consistently available and responsive caregivers foster within individuals a sense of *attachment security*, leading those individuals to develop positive views of the self as worthy of comfort and others' willingness to provide it. Conversely, frequently rejecting, unavailable, or unresponsive caregivers foster within individuals a sense of *attachment insecurity*, leading those individuals to develop doubts about their self-worth and the supportiveness of others.

Over the years, as scholars applied attachment theory to understand and explain adult romantic relationship processes, research has established that two theoretically distinct dimensions tap individual differences in self-report measures of adult attachment (Brennan, Clark, & Shaver, 1998; Fraley, Hudson, Heffernan, & Segal, 2015; Simpson, Rholes, & Phillips, 1996). Scores on the *anxiety* dimension reflect the degree to which individuals worry and ruminate about their relationships. Those who are more anxiously attached tend to crave affection and cling to their romantic partners but simultaneously fear rejection and abandonment and distrust their partners' love and investment (N. L. Collins, 1996). Scores on the *avoidance* dimension, on the other hand, reflect the degree to which individuals feel uncomfortable with closeness in their relationships. Those who are more avoidantly attached strive to maintain emotional independence from their romantic partners and are less committed to their relationships (Hazan & Shaver, 1994). Individuals with lower anxiety and avoidance are typically secure in their relationships; they do not obsess about potentially being rejected or abandoned by their partners and feel comfortable with intimacy.

The attachment system activates under conditions of threat or stress, motivating individuals to respond in specific ways toward close others (Mikulincer & Shaver, 2003, 2007). Specifically, in the face of threat or stress more secure individuals (i.e., those who are less anxiously or less avoidantly attached) tend to use the primary attachment strategy of *proximity seeking*; that is, turning to their romantic partner for comfort and support. Insecure individuals (i.e., those who are more anxiously or more avoidantly attached), however, have learned through experience that proximity

seeking is an ineffective strategy, and thus when feeling threatened tend to engage in secondary attachment strategies that involve hyperactivating or deactivating the attachment system (Cassidy & Kobak, 1988; Mikulincer & Shaver, 2003). More anxiously attached persons tend to use *hyperactivating strategies*, such as demanding attention or support from their partners while at the same time doubting that their partner will meet their needs (Campbell, Simpson, Boldry, & Kashy, 2005). In contrast, more avoidantly attached individuals tend to rely on *deactivating strategies*, such as denying attachment needs or attempting to distance themselves from their relationships (Simpson et al., 1992).

In the present research, we were interested in whether individuals who are typically hesitant to foster closeness in their relationships might feel less negative in terms of their general affect, report more optimistic perceptions of their relationship (e.g., higher relationship quality), and be more willing to "open up" with their romantic partners in response to positive, intimacy-related relationship experiences. As already mentioned, attachment avoidance is characterized by a reluctance to develop and maintain closeness in relationships, and more avoidantly attached persons have relationship-relevant goals that involve prioritizing independence and minimizing dependence, while still wrestling inwardly with a desire to be loved and cared for (see Edelstein & Shaver, 2004). Indeed, their difficulty managing a need for closeness may make more avoidant persons especially sensitive to intimacy-related relationship contexts (cf. Simpson & Overall, 2014). In the current three studies, therefore, attachment avoidance (vs. attachment anxiety) was our primary focus.

Attachment Avoidance and Individual and Relationship Outcomes

Decades of research have uncovered strong links between attachment avoidance and negative individual and relationship outcomes. One personal outcome of interest, given its importance in daily life and its links to well-being, is affect. Prior research suggests that, in general, people tend to be happy and in a state of mild positive affect, even when no affect-provoking stimuli

are present (Diener, Kanazawa, Suh, & Oishi, 2014). Research on affective reactions to relationship events, however, suggests that whereas less avoidantly attached individuals experience negative and positive affect in response to negative or positive events respectively, more avoidant individuals have a propensity to experience negative affect, even for happy events (Mikulincer & Shaver, 2005). For instance, less avoidant persons typically respond to their partner's relationship-relevant distress with feelings of guilt and reparation, but more avoidant persons typically respond with resentment and hostility. When responding to their partner's relationship-irrelevant happiness, less avoidant individuals tend to experience empathic happiness, respect, and admiration, whereas more avoidant individuals tend to experience antagonistic envy. More avoidant persons also experience negative affect during interactions with others (Tidwell, Reis, & Shaver, 1996) and frequently cut off or repress their emotions (Wei, Vogel, Ku, & Zakalik, 2005).

When more avoidantly attached persons might gain opportunities for intimacy-building, they do not universally experience greater negative feelings, though they do not view these opportunities positively. Research has demonstrated that more avoidant individuals perceive lower social reward in intimacy-relevant contexts (Spielmann, Maxwell, MacDonald, & Baratta, 2013), and report ambivalence akin to indifference (i.e., a combination of greater perceived threat and lower perceived reward) when considering intimacy-related aspects of their close relationships (MacDonald, Locke, Spielmann, & Joel, 2012). To be sure, these studies make a strong case for the overall tendency for more avoidant individuals to experience negativity or indifference in and out of their relationships. Other studies have found that, within their romantic relationships, more avoidant individuals eschew closeness and behave more negatively. For example, more avoidant persons tend to act more destructively during conflict (Domingue & Mollen, 2009) and to assign negative attributions to their partner's behavior and relationship events (Pearce & Halford, 2008). These individuals are also less likely to turn to their partners for support or provide support to their partners during times of need

(Simpson et al., 1992) and tend to maintain more physical and psychological distance from romantic partners (e.g., Mashek & Sherman, 2004). Furthermore, more avoidant individuals tend to be less committed to their relationships, report greater interest in romantic alternatives, and have more permissive attitudes toward infidelity (DeWall et al., 2011). Indeed, a meta-analysis on attachment and relationship quality revealed that attachment avoidance was specifically linked to lower general satisfaction, connection, and support in relationships (Li & Chan, 2012). Deactivating strategies, therefore, may allow more avoidant individuals to maintain or regain a sense of autonomy and control (Hadden, Rodriguez, Knee, DiBello, & Baker, 2016; La Guardia, Ryan, Couchman, & Deci, 2000), but also result in facilitating greater negativity in their lives that undermines the quality of their relationships.

Lastly, and of relevance to the present research, more avoidantly attached persons also tend to engage in less self-disclosure (Bradford, J. A. Feeney, & Campbell, 2002; Tan, Overall, & Taylor, 2012). Self-disclosure (i.e., sharing personal information and one's inner thoughts and feelings) is part-and-parcel of the development and maintenance of intimacy in interpersonal relationships broadly and in romantic relationships specifically (Reis & Shaver, 1988; see also Laurenceau, Barrett, & Pietromonaco, 1998; Laurenceau, Barrett, & Rovine, 2005) and is linked to individual well-being (e.g., Berg & McQuinn, 1989). Additionally, partners who self-disclose have happier, more fulfilling relationships (Hendrick, 1981; Sprecher & Hendrick, 2004). Thus, the tendency to avoid intimacy-related behaviors such as self-disclosure has the potential to be particularly problematic, as it is related to subsequent loneliness and depression for more avoidant individuals (Wei, Russell, & Zakalik, 2005) and may moreover predict relationship unhappiness (Keelan, K. K. Dion, & K. L. Dion, 1998; Tan et al., 2012). We propose that avoidant persons' proneness to experience negativity individually and in their relationships, as well as to eschew intimacy-related behaviors such as self-

disclosure, extends beyond being triggered by specific interactions with others, and relate to avoidant persons' perceptions that they cannot rely on others and must cope with difficulties alone.

Humans, however, are not meant to be alone, according to attachment theory as well as other theories of social relationships and belongingness (e.g., social baseline theory; Beckes & Coan, 2012; Coan, 2008; Coan & Sbarra, 2015). In fact, when individuals are alone (or feel they are alone), they are at a disadvantage in terms of accomplishing their goals and regulating their behavior and affect (Coan & Sbarra, 2015; Mikulincer & Shaver, 2003; Wei, Vogel, et al., 2005). In other words, being or feeling alone is not unlike lugging a heavy backpack around because solitary individuals must invest more of their own energy into what they do and how they feel (cf. Proffitt, 2006). The tendency for more avoidantly attached persons to feel that others are unreliable and that they must cope with daily stressors on their own, therefore, may translate into a psychological "backpack" in the form of greater negativity experienced day-to-day and an aversion to "open up" and self-disclose to others, even without being triggered by particular events or interactions involving other people (cf. Diener et al., 2014). Nevertheless, by emphasizing the significance of close others to healthy human functioning, an important implication of attachment theory is that close others (e.g., romantic partners) have the capacity to help more avoidant individuals better cope with their affective experience, enjoy better relationship quality, and behave more positively toward close others (e.g., self-disclose within a relationship).

Countering Negative Working Models of Attachment: The Role of Romantic Partners and Positive Relationships

Although avoidant individuals often act like they are an "island" and deny attachment needs, they still desire to be in relationships (Edelstein & Shaver, 2004). This need to belong is thought to be experienced despite avoidant individuals' veneer of indifference, and is argued to make these individuals very sensitive to social context (Carvallo & Gabriel, 2006). The potential for a romantic

partner or the relationship context to influence personal and interpersonal dynamics, therefore, may be especially important for more avoidantly attached persons (see Simpson & Overall, 2014). Overall et al. (2013), for instance, found that when their partner engaged in "softening" (e.g., accommodating) behaviors, more avoidant individuals exhibited less anger and withdrawal during a discussion wherein one partner expressed how they wanted the other partner to change; thus, positive social contexts seem to attenuate avoidant persons' disconnection from others. In ongoing relationships, then, it may be that positive relationship experiences help counter the negative expectations harbored by avoidant individuals, which may translate to lower negative affect and increased pro-relationship perceptions and behavior.

Recent research suggests that there are indeed certain relationship contexts that reduce more avoidantly attached persons' negativity. For example, in conflict discussions more avoidant individuals behave less negatively when they are more dependent on the relationship (Campbell, Simpson, Kashy, & Rholes, 2001), or when the relationship is high-quality (Slotter & Luchies, 2014). In one study, N. L. Collins and B. C. Feeney (2004) asked participants to give a speech to an audience that would be evaluating them and provided a note to participants ostensibly from their romantic partners prior to engaging in the speech task, experimentally manipulating whether the notes contained a low-support versus a high-support message. Results revealed that more avoidant persons who received high-support notes felt just as good as less avoidant persons. Importantly, positive relationship experiences that counter more avoidant individuals' negative expectations of relationships appear to have the potential to increase attachment security (cf. Arriaga, Kumashiro, Finkel, VanderDrift, & Luchies, 2014; Simpson, Rholes, Campbell, & Wilson, 2003). Collectively, these studies point to the important role of positive contexts involving the romantic partner or relationship in shaping the experiences of more avoidant persons, particularly in a distressful situation. The present research seeks to extend this literature by examining the role of positive

relationship experiences outside of a distressing situation on more avoidant persons' experiences. When more avoidant individuals encounter positive relationship experiences (e.g., reflecting on their love for their partner or engaging in intimacy-promoting activities with their partner), therefore, we suggest that they might feel less negative in general, happier with their relationship, and more motivated to self-disclose to their partners. We further propose that these experiences may have the capacity to reduce attachment avoidance over time.

Research Overview and Hypotheses

Although previous research provides strong evidence for the pervasiveness of more avoidantly attached individuals' negativity and proclivity to eschew intimacy, and suggests that there is potential for positive relationships to counter this, an important limitation of this research is that these individuals are examined in contexts where their negative expectations about intimate relationships may be reinforced (e.g., distressful situations). Studies involving support-seeking, partner change, or conflict discussions, three heavily investigated contexts in relationship research, may actually put more avoidantly attached persons under considerable stress and make them increasingly likely to respond in a negative manner because avoidant persons deactivate their attachment system in such contexts (Mikulincer & Shaver, 2007). Few studies have explored the individual and relationship outcomes associated with the types of positive relationship experiences in which more avoidant individuals' negative relationship expectations might be countered as opposed to reinforced (for exceptions, see Arriaga et al., 2014; Simpson et al., 2003). Additionally, nearly all studies of positive relationship experiences in promoting pro-relationship outcomes for more avoidant persons examine only a single slice of behavior (e.g., behavior during a conflict discussion in the lab), and research would benefit from over-time investigation of these dynamics.

Using a multi-method approach, the present studies aimed to fill this important gap in the attachment literature by examining how emphasizing positive, intimacy-related relationship

experiences may benefit more avoidantly attached persons' outcomes immediately and over time. Study 1 was a lab experiment in which we tested whether activating thoughts of the positive aspects of one's relationship could reduce avoidant individuals' negative affect. Study 2 was a non-experimental 21-day diary study which explored how daily perceptions of positive relationship events might alleviate daily negative affect, conceptually replicating Study 1, as well as how these perceptions are associated with relationship quality for more avoidant persons. Finally, Study 3 was a multi-phase study in which romantic couples were randomly assigned to an experimental session in the lab wherein they engaged in intimacy-promoting activities, or a control condition wherein they engaged in similar activities not designed to promote intimacy per se and reported their relationship quality immediately following engaging in these activities. They then provided diary reports each day for the next 10 days about their self-disclosure behavior, and completed a follow-up survey one month following the diary period wherein we assessed whether the initial intimacy promotion manipulation yielded changes in attachment. Across these studies, we tested the following hypotheses:

Hypothesis 1: More Avoidantly Attached Individuals Experience Greater General Negative Affect that Can Be Decreased by Positive, Intimacy-Related Relationship Experiences

First, because avoidantly attached persons have a propensity to experience negative affect in their relationships (Mikulincer & Shaver, 2003, 2005, 2007), we sought to replicate prior research and predicted that, compared to less avoidant individuals, more avoidant individuals would experience greater general negative affect, even in the absence of relationship-related stimuli. Indeed, attachment theory suggests that more avoidant individuals tend to feel alone, and a possible consequence of this involves experiencing more negative affect, providing further rationale for this prediction. We also explored the potential for more avoidant persons to report lower general positive affect at baseline.

However, more avoidantly attached individuals seem to be particularly attuned to social context, and respond well to positive contexts in particular (e.g., Overall et al., 2013; Slotter & Luchies, 2014). We therefore predicted that positive, intimacy-related relationship experiences would reduce the heightened general negative affect experienced by more avoidantly attached individuals. We tested Hypothesis 1 in Studies 1 and 2. In Study 1, we activated positive relationship thoughts via a guided imagery exercise aimed at focusing individuals on the intimate aspects of their relationship (Loving, Crockett, & Paxson, 2009; see also Stanton, Campbell, & Loving, 2014). In Study 2, we examined avoidant persons' perceptions of daily positive partner behaviors (e.g., feeling loved and supported by the partner) and explored if they felt better on days when they had more positive perceptions. In the studies testing Hypothesis 1, we also investigated positive affect to explore whether any decreases in negative affect occurred on their own or whether they occurred with a concurrent decrease in positive affect (suggesting indifference, see MacDonald et al., 2012; Spielmann et al., 2013). Our firm predictions centered on reducing negative affect, however, given that a primary function of attachment bonds is to down-regulate negativity in particular (Bowlby, 1980; Mikulincer & Shaver, 2007).

Hypothesis 2A: Positive, Intimacy-Related Relationship Experiences Enhance More Avoidantly Attached Individuals' Relationship Quality and Self-Disclosure in Their Relationships

More avoidantly attached persons' greater negativity in and out of relationships may partially stem from unprocessed negative affect (cf. Mikulincer & Shaver, 2007). If and when this negative affect is reduced, then, more avoidant individuals may find some relief and feel less need to respond to relationships defensively. Thus, second, guided by this notion and recent studies suggesting that positive relationships can provide a beneficial buffer for more avoidantly attached persons (e.g., Simpson & Overall, 2014), we predicted that positive relationship experiences would increase

avoidant persons' relationship quality (operationalized as feelings of satisfaction, love, and intimacy within the relationship). We tested this empirically in Studies 2 and 3. Additionally, in Study 3 we utilized an experimental intimacy promotion paradigm and investigated the effects of this paradigm on more avoidant individuals' self-disclosure within their relationships over 10 days. As mentioned previously, self-disclosure is a vital part of intimacy and successful relationships, and more avoidant individuals typically do not disclose much to their partners (Bradford et al., 2002; Tan et al., 2012). Notably, however, leisure time and other relationship-building activities provide opportunities for self-disclosure (e.g., Baumeister & Bratslavsky, 1999; Flora & Segrin, 1998). One goal in Study 3, then, was to test if our intimacy promotion paradigm created suitable opportunities for self-disclosure.

Hypothesis 2B: Positive, Intimacy-Related Relationship Experiences Decrease Levels of Attachment Avoidance over Time

Finally, research by Simpson et al. (2003) suggests that consistent contexts that counter the negative expectations held by insecurely attached persons can reduce their insecurity over time. Other recent research has found that positive relationship experiences, such as greater trust and greater feelings of having one's goals validated by a romantic partner, diminish attachment insecurity over time (Arriaga et al., 2014). Thus, we explored the potential for our intimacy promotion intervention in Study 3 to reduce attachment avoidance one month later for more avoidant individuals who were in the intimacy promotion (vs. control) condition.

Study 1

Driven by previous research demonstrating that more avoidantly attached individuals' baseline affective state seems to be characterized by greater negative affect, we reasoned that reminding more avoidant individuals in romantic relationships that they do, in fact, have someone in their lives who cares for them and on whom they can rely (i.e., their romantic partner) could reduce

their general negative affect (Hypothesis 1). This notion is consistent with prior studies demonstrating that a romantic partner's accommodating behavior (Overall et al., 2013) and being in a high-quality relationship (Slotter & Luchies, 2014) can attenuate the negativity typically exhibited by more avoidant persons. To test this idea, we designed a lab study in which some participants engaged in a guided imagery exercise involving deep reflection on the positive aspects of their current romantic relationship (e.g., reflecting on times when they and their partner had laughed together, what it feels like to be close to their partner); other participants were in a control condition that did not activate relationship thoughts. Comparing more avoidant persons' negative affect after the experimental manipulation in the partner versus control condition allowed us to examine whether positive relationship experiences could significantly reduce negative affect. An additional strength of this manipulation is that, by asking more avoidant persons to focus on positive, intimate facets of their partner and relationship, we might create a context that could, theoretically, activate the attachment system and lead them to withdraw. Inclusion of positive affect in this study thus allowed us to uncover whether positive, intimate relationship reflection reduced only negativity, or if it simultaneously reduced negativity *and* positivity to yield a state of indifference (cf. MacDonald et al., 2013; Spielmann et al., 2012).

Participants

The sample comprised 81 individuals (22 men, 59 women) recruited from the local university who participated in exchange for partial course credit. Participants were 17-32 years of age (M_{years} = 18.32, SD_{years} = 1.72) and were in relationships lasting 1-6 months (M_{months} = 3.51, SD_{months} = 1.43).[1] All participants reported dating their current romantic partner casually or exclusively. Data collection stopped when each experimental condition contained approximately 40 individuals.

[1] The relationship length requirement in Study 1 was implemented in order to investigate an additional research question unrelated to the present research.

Materials and Procedure

Participants arrived at the lab and first completed several questionnaires, including demographic information and a measure of attachment orientations. Participants reported their dispositional attachment using the Experiences in Close Relationships Scale (ECR; Brennan et al., 1998), a 36-item measure rated on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) that assesses attachment anxiety with 18 items (e.g., "I worry a fair amount about losing my partner") and attachment avoidance with 18 items (e.g., "I get uncomfortable when a romantic partner wants to be very close"). Anxiety and avoidance scores were computed by averaging responses across the relevant 18 items, with higher scores indicating greater attachment anxiety ($\alpha = .91$) or attachment avoidance ($\alpha = .90$), respectively.

The experimenter then led half the participants through a guided imagery exercise designed to activate thoughts about a number of positive and intimate aspects of a person's current romantic relationship (Loving et al., 2009; see also Stanton et al., 2014). In the partner condition ($N = 40$; 5 men, 35 women), participants were asked to think about when they first met their partner, when they first realized they were in love with their partner, how they feel when they are close to their partner, and so on. In the control condition ($N = 41$; 17 men, 24 women), participants were not led through the guided imagery exercise and they proceeded directly to the next task.

Following the experimental manipulation, participants reported their affect using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), a 20-item measure rated on a 5-point scale (1 = *very slightly or not at all*, 5 = *extremely*) that assesses positive affect with 10 items (e.g., "excited") and negative affect with 10 items (e.g., "distressed"). Participants were asked to indicate how they were feeling at the present moment. Positive and negative affect scores were created by averaging responses across the relevant 10 items, with higher scores indicating

greater positive affect (α = .91) or negative affect (α = .80), respectively. Finally, participants were debriefed and dismissed.

Results

Descriptive information and correlations between study measures may be seen in Table 1. To test hypotheses, we conducted two multiple regression analyses: (1) positive affect as the outcome variable and (2) negative affect as the outcome variable. In both analyses, the predictor variables were effect-coded gender (-1 = women, 1 = men), effect-coded experimental condition (-1 = control, 1 = partner reflection), centered continuous scores on attachment anxiety and attachment avoidance, the interaction between attachment anxiety and experimental condition, and the interaction between attachment avoidance and experimental condition. We then re-ran analyses including relationship length as a covariate. We initially tested interactions with gender, as well as the interaction of attachment anxiety and attachment avoidance, but no effects emerged and thus we removed those interactions from the final models presented herein. Table 2 displays the results from these analyses.

Effects of Attachment and Experimental Condition on Positive and Negative Affect

Overall, more anxiously attached individuals reported marginally less positive affect, and the effect for avoidance was a nonsignificant trend. A main effect of experimental condition emerged such that participants in the partner reflection (vs. control) condition reported greater positive affect. No main effects of gender or interactions between attachment and condition emerged for positive affect.

Two main effects for negative affect emerged: Overall, more avoidantly attached individuals (as well as more anxiously attached individuals) reported greater negative affect. No main effects of gender or experimental condition emerged, and no interaction between attachment anxiety and experimental condition emerged. However, the main effect of attachment avoidance on negative

affect was qualified by an interaction between attachment avoidance and experimental condition. More avoidantly attached individuals in the partner (vs. control) condition reported significantly less negative affect after completing the guided imagery exercise, $b = -.22$, $t(74) = -2.40$, $p = .02$. Less avoidant individuals did not differ in negative affect reports across experimental conditions, $b = .07$, $t(74) = 0.78$, $p = .44$. Additionally, in the control condition more (vs. less) avoidant persons reported significantly greater negative affect, $b = .41$, $t(74) = 3.61$, $p = .001$. Conversely, in the partner condition more and less avoidant persons did not differ in their reported negative affect, $b = .05$, $t(74) = 0.49$, $p = .62$ (see Figure 1). Results held when controlling for relationship length, and length was not significantly related to any of the outcome variables in these models.

Discussion

Study 1 demonstrated that, at baseline (i.e., in a control condition), more (vs. less) avoidantly attached persons experienced greater general negative affect, replicating prior studies on attachment and affect (e.g., Mikulincer & Shaver, 2005, 2007; Tidwell et al., 1996). Study 1 then extended prior literature by establishing the novel finding that activating positive, intimate thoughts about a current romantic partner and relationship diminished more avoidant individuals' heightened negative affect. Indeed, avoidant persons' negative affect was reduced to a level that no longer differed from less avoidant persons. Although the experimental manipulation did not increase positive affect for more avoidant individuals, it also did not decrease positive affect, suggesting that these particular types of intimate thoughts do not yield indifference.

This suggests that simply thinking of one's romantic partner and relationship may help more avoidant persons experience less negativity. These findings are especially intriguing because the prompts in the guided imagery exercise focused on love and intimacy, two topics we might expect more avoidant individuals to be uncomfortable thinking about (cf. MacDonald et al., 2013; Spielmann et al., 2012). It may be that the partner reflection exercise contained a manageable (i.e.,

non-threatening) amount of positive intimacy, soothing negative affect without similarly reducing positive affect. This study dovetails with prior research examining how positive relationship contexts may attenuate the negativity more avoidant persons usually feel and express (e.g., Campbell et al., 2001; Overall et al., 2013; Slotter & Luchies, 2014), advancing this research by investigating affect in a context that was not inherently distressful (e.g., a conflict discussion). Importantly, inclusion of a control condition helps strengthen our findings because we were able to directly compare more avoidant individuals' affective experience at their relative baseline versus following the creation of a positive relationship context.

Interestingly, although the experimental manipulation seemed to influence more avoidantly attached persons' negative affect, across all participants the manipulation was tied to an increase in positive affect for those who reflected on their partner. This is consistent with previous research using this guided imagery exercise which found that thinking about one's love for a partner was linked to positive, but not negative, affect (Stanton et al., 2014). Lastly, we note that this experiment was slightly limited in that participants were involved in relatively brief relationships (1-6 months); nevertheless, the consistency of baseline affect findings in Study 1 with prior research (see Mikulincer & Shaver, 2007) suggests that the limitations of our relationship length requirement should not undermine our conclusions. Moreover, we sought in Studies 2 and 3 to use a more diverse sample of participants, including those in lengthier relationships, in order to confirm the robustness of our effects. Based on the promising finding that positive, intimacy-related relationship experiences could decrease more avoidant individuals' negativity, in these latter studies we began to focus on additional implications of positive relationship experiences for more avoidant individuals' outcomes (i.e., relationship quality (Studies 2 and 3) and self-disclosure (Study 3)).

Study 2

In Study 2, we sought to conceptually replicate the ameliorating effect of positive, intimate relationship experiences for more avoidantly attached individuals' negative affect found in Study 1 in a sample of romantic couples over time. This also would allow us to more robustly confirm if positive relationship experiences are tied mostly to lower negative affect without lower positive affect (i.e., indifference). Additionally, we wanted to explore the possibility that more avoidantly attached persons' relationship quality would be higher on days when they had more positive perceptions of their partner (vs. more avoidant persons who had less positive perceptions of their partner), providing our first test of Hypothesis 2A. Our rationale again stemmed from recent work suggesting that when more avoidant individuals have positive views of their partner and relationship, they tend to report being happier in their relationship (Campbell et al., 2001; Slotter & Luchies, 2014). In Study 2, we investigated Hypotheses 1 and 2A by asking both members of dyads to report their positive and negative affect, perceptions of their partner's positive, intimate behaviors, and relationship quality each day for 21 consecutive days.

Participants

The sample comprised 67 heterosexual romantic couples recruited from the local university and surrounding community.[2] Each participant received an honorarium of up to CAD-$50.00, depending on the number of daily diaries s/he completed. Men were 18-60 years of age (M_{years} = 27.39, SD_{years} = 9.93), and women were 18-58 years of age (M_{years} = 25.96, SD_{years} = 8.75). Couples were in relationships lasting 3 months to 33 years (M_{years} = 4.05, SD_{years} = 5.80). Approximately 45% of couples reported casually or exclusively dating and 48% reported being common-law, engaged, or married; 7% did not report their relationship status. We originally intended to collect data from 100 couples, but in the time period allotted for data collection we obtained 67.

Materials and Procedure

[2] Unrelated data from this sample was originally reported in Campbell, Simpson, Boldry, & Rubin (2010).

Phase 1. Study 2 had two phases. In the first phase, small groups of couples attended lab sessions during which they completed a pre-diary period survey. Men and women were placed in separate rooms, where they completed a brief demographics questionnaire and measures of attachment and self-esteem. Participants were then reunited with their partners and were told that Phase 2 of the study would involve having each partner privately complete daily diary questions online every day for 21 consecutive days. Each participant was given an identification number and a link to a secure website where s/he would log on to complete the daily diary questions. Participants were told to complete one diary form at the end of each day (separately from their partner) regarding their perceptions of themselves and their relationship for that day, and were asked to start completing their diaries that evening.

Phase 2. The second phase was the 21-day diary period. A daily reminder email was sent to each participant that contained a link to the secure website, the participant's identification number, and the diary number the participant was to complete that day. All diary entries were time-stamped to ensure that they were completed on the appropriate day. No participants reported problems completing the daily diaries, and the average number of diaries completed was very high for both men (M = 19.67, SD = 2.77) and women (M = 19.68, SD = 2.98).

Phase 1 Materials

Demographics. A general background questionnaire asked participants to provide their gender, age, relationship status, and relationship length.

Attachment. In this study, participants reported their dispositional attachment orientations on the Experiences in Close Relationships Scale-Revised (ECR-R; Fraley, Waller, & Brennan, 2000), a 36-item measure rated on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) that assesses attachment anxiety with 18 items (e.g., "I often worry that my partner doesn't really love me") and attachment avoidance with 18 items (e.g., "I find it difficult to allow myself to depend on romantic

partners"). Anxiety and avoidance scores were computed by averaging responses across the relevant 18 items, with higher scores indicating greater attachment anxiety (α_{men} = .91, α_{women} = .94) or attachment avoidance (α_{men} = .89, α_{women} = .92), respectively.

Phase 2 Materials

Daily positive and negative affect. As part of the daily diary measures, participants reported their daily positive affect across 2 items (i.e., "happy," "relaxed") and negative affect across 6 items (e.g., "sad," "uneasy") rated on a 7-point scale (1 = *not at all*, 7 = *extremely*). Daily positive and negative affect scores were created by averaging responses across the 2 and 6 items, respectively, with higher scores indicating greater daily positive and negative affect. Reliability across the 21 days was robust for both men (αs = .83-.93, M_α = .88) and women (αs = .76-.92, M_α = .86).

Daily perceived positive partner behaviors. Participants indicated the degree to which they felt their partner had engaged in positive behaviors each day using 8 items (e.g., "My partner said something that made me feel loved") rated on a 7-point scale (1 = *not at all*, 7 = *a lot*). Daily perceived positive partner behaviors scores were created by averaging responses across the 8 items, with higher scores indicating perceptions of more positive partner behaviors that day. Reliability across the 21 days was robust for both men (αs = .85-.94, M_α = .86) and women (αs = .80-.93, M_α = .87).

Daily relationship quality. Participants reported their daily relationship quality across 4 items designed to tap satisfaction and intimacy within the relationship (e.g., "I feel satisfied with my relationship," "My relationship with my partner is intimate") rated on a 7-point scale (1 = *not at all*, 7 = *extremely*). Daily relationship quality scores were created by averaging responses across the 4 items, with higher scores indicating higher relationship quality. Reliability across the 21 days was robust for both men (αs = .85-.96, M_α = .92) and women (αs = .82-.96, M_α = .90).

Results

Descriptive information and correlations between study measures may be seen in Table 3. Our data analytic approach was guided by the Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006; see also Campbell & Stanton, 2015). According to the APIM, when individuals are involved in a relationship, their outcomes depend not only on their own characteristics and inputs but also on their *partner's* characteristics and inputs. For example, consider how the daily negative affect of an individual in a relationship might be influenced by attachment avoidance. One person's daily negative affect may be associated with his/her *own* degree of attachment avoidance (i.e., an *actor* effect), as demonstrated in Study 1. That person's daily negative affect, however, may also be systematically related to his/her *partner's* degree of attachment avoidance (i.e., a *partner* effect). The inclusion of partner effects allows us to test for the mutual influence that often exists between members of a couple, as well as statistically account for this mutual influence when assessing both actor and partner effects.

We tested the models reported below using multilevel modeling (MLM, also known as hierarchical linear modeling; Kenny, Kashy, & Bolger, 1998; Raudenbush & Bryk, 2002), following the suggestions of Kenny et al. (2006; see also Campbell & Kashy, 2002) regarding the use of MLM with dyadic data. In the dyadic case, MLM treats the data from each partner as nested scores within a group that has an *N* of 2.

To test hypotheses, we conducted three multiple regression analyses: (1) daily positive affect as the outcome variable, (2) daily negative affect as the outcome variable, and (3) daily relationship quality as the outcome variable. In all analyses, the predictor variables were effect-coded gender (-1 = women, 1 = men), centered continuous scores on attachment anxiety, attachment avoidance, and perceived positive partner behaviors, the interaction between attachment anxiety and positive partner behaviors, and the interaction between attachment avoidance and positive partner behaviors. We then re-ran analyses including relationship length as a covariate. As in Study 1, we initially tested

interactions with gender, as well as the interaction of attachment anxiety and attachment avoidance, but no effects emerged and thus we removed those interactions from the final models presented herein. Results from these analyses are displayed in Table 4.

Associations of Attachment and Daily Perceived Positive Partner Behaviors with Daily Positive and Negative Affect

The main effects reflecting the tendency for more avoidantly attached individuals and more anxiously attached individuals to report lower general positive affect and greater general negative affect across the 21 days of the diary period mirrored the pattern of Study 1, but in Study 2 the effects were nonsignificant trends. Main effects of perceived positive partner behaviors emerged such that on days when individuals felt their partner behaved more positively towards them, they experienced significantly more positive affect and less negative affect; the partner effect for perceived positive partner behaviors was significant for positive affect and marginal for negative affect. A marginal main effect of gender on positive affect suggested that men (vs. women) experienced more positive affect. There were no other significant main effects of gender, no partner effects of attachment avoidance or attachment anxiety, and no interactions between attachment anxiety and perceived positive partner behaviors. Results held when controlling for relationship length, and length was not significantly related to any of the outcome variables in these models.

Interestingly, in Study 2 the interaction between attachment avoidance and perceived positive partner behaviors predicting daily positive affect was marginally significant (see Figure 2, Panel A). On days when more avoidantly attached individuals felt their partner behaved more (vs. less) positively towards them, they reported greater positive affect, $b = .42$, $t(104) = 9.65$, $p < .001$. Less avoidant individuals also reported higher positive affect on days where they perceived more (vs. less) positive partner behaviors, but the slope was not as steep, $b = .38$, $t(107) = 8.99$, $p < .001$. Importantly, however, and in line with initial predictions, the interaction between attachment

avoidance and perceived positive partner behaviors predicting daily negative affect was significant (see Figure 2, Panel B). On days when more avoidantly attached individuals felt their partner behaved more (vs. less) positively towards them, they reported lower negative affect, $b = -.19$, $t(102) = -5.34$, $p < .001$. Less avoidant individuals also reported reduced negative affect on days where they perceived more (vs. less) positive partner behaviors, but the slope was not as steep, $b = -.13$, $t(107) = -3.58$, $p < .001$.

Associations of Attachment and Daily Perceived Positive Partner Behaviors with Daily Relationship Quality

Main effects emerged such that more avoidantly attached individuals reported lower relationship quality over the 21-day diary period, whereas more anxiously attached individuals reported higher relationship quality. A partner effect of attachment anxiety also emerged, indicating that individuals with a more anxious partner reported lower relationship quality. Main effects of actor and partner perceived positive partner behaviors emerged such that on days when individuals felt their partner behaved more positively towards them, they reported higher relationship quality. No other main effects emerged, and no interaction between attachment anxiety and perceived positive partner behaviors emerged. Results held when controlling for relationship length with the exception of the main effect of actor attachment anxiety, and length was not significantly related to relationship quality in this model.

The interaction between attachment avoidance and perceived positive partner behaviors predicting relationship quality was significant (see Figure 2, Panel C). On days when more avoidantly attached individuals felt their partner behaved more (vs. less) positively towards them, they reported higher relationship quality, $b = .36$, $t(101) = 12.04$, $p < .001$. Less avoidant individuals also reported higher relationship quality on days where they had higher (vs. lower) perceived positive partner

behaviors, but as with the other interactions in Study 2, the slope was not as steep, $b = .28$, $t(100) = 9.51$, $p < .001$.

Discussion

Consistent with the results of Study 1, Study 2 found support for the hypothesis that positive relationship experiences reduce the greater general negative affect typically reported by more (vs. less) avoidantly attached persons. Intriguingly, Study 2 also demonstrated that positive relationship experiences increased daily positive affect, although the interaction was marginal. It seems, then, that these types of positive, intimate experiences are largely beneficial and do not foster indifference in more avoidantly attached individuals. Study 2 then built on Study 1 by demonstrating the novel finding that daily perceptions of positive partner behaviors was associated with increases in more avoidant individuals' relationship quality. In other words, Study 2 moved beyond assessing affect as an individual outcome and zeroed in on an important relationship outcome related to love and intimacy: relationship quality. In Study 2, perceiving partners as behaving in a more (vs. less) positive manner toward the self was associated with increases in positive affect, decreases in daily negative affect, and increases in daily relationship quality for both more and less avoidantly attached persons; however, the effects were especially strong for more avoidant persons. This study provides further evidence that positive relationship experiences may diminish the typical negativity more avoidant persons experience, as well as enhance the quality of their (typically less satisfying) relationships, and is strengthened by its dyadic and longitudinal design.

The effects found in Study 2, however, are correlational, making it is impossible to conclude that the daily perceptions of positive partner behaviors caused the observed changes in more avoidant persons' individual and relationship outcomes. We demonstrated in Study 1 that activating positive, intimate thoughts of the partner and relationship led to reductions in negative affect, but we do not yet have firm evidence that manipulating positive relationship experiences improve

relationship outcomes. Furthermore, in Study 2 the relative presence of positive relationship experiences each day were self-reported by partners, meaning it is difficult to know what actually occurred during these experiences and how they compare over time between couples. Lastly, although the manipulation in Study 1 included comparatively intimate prompts about one's romantic partner and relationship, we do not yet know if positive, intimate experiences translate to a key intimacy-related behavior typically eschewed by more avoidant individuals (i.e., self-disclosure, see Bradford et al., 2002; Tan et al., 2012). In Study 3, therefore, we manipulated the intimacy of dyadic interactions between couples to (a) better control the nature of positive, intimate experiences, (b) assess the causal link between contexts that increase dyadic intimacy and salutary relationship behaviors that should logically follow from heightened feelings of intimacy (specifically, self-disclosure), and (c) attempt to reduce attachment avoidance over time (cf. Arriaga et al., 2014).

Study 3

Study 3 implemented an experimental dyadic and longitudinal design to clarify the causal link between positive relationship experiences and more avoidantly attached persons' outcomes (Hypotheses 2A and 2B). We chose an intimacy promotion (vs. control) paradigm as the experimental manipulation. Research has found that individuals asked to engage in an intimacy-promoting (vs. control) interaction task with a stranger then viewed the stranger more positively (A. Aron, Melinat, E. N. Aron, Vallone, & Bator, 1997). This intimacy-promoting task is relatively neutral in tone, and thus appears to enhance closeness without creating the kind of environment that would be distressing for more avoidant individuals (e.g., it does not require them to discuss a deep conflict in their relationship). Given that certain types of intimacy may be perceived as threatening by more avoidant persons and lead to deactivation of the attachment system (cf. Spielmann et al., 2012), we deliberately chose an intimate task that would potentially be manageable for these persons. In light of our findings from Studies 1 and 2, we felt this type of intimacy promotion would

represent a positive experience to which more avoidantly attached persons would be responsive, and expected the effects previously demonstrated by A. Aron et al. (1997) with strangers to carry over to romantic relationships.

Whereas in Study 2 more avoidantly attached individuals reported more positive individual and relationship outcomes on days when they perceived their partner to behave positively toward them, in Study 3 we endeavored to demonstrate that engaging in intimacy-promoting (vs. control) activities would improve more avoidant individuals' reported relationship quality, aiming to provide a causal association between enhanced intimacy and feeling better about the relationship. We also extended Study 2 by investigating the effects of the intimacy promotion paradigm in predicting greater self-disclosure in the relationship over the next 10 days (i.e., engaging in more intimacy-related behaviors on their own outside of the laboratory), as well as reduced attachment avoidance one month later. More avoidant persons tend not to share their thoughts and feelings with their partner (Bradford et al., 2002; Tan et al., 2012), but it is possible that engaging in intimacy-promoting activities with their partner might lead to a greater tendency to self-disclose over time, given that certain relationship-building activities provide opportunities for self-disclosure (e.g., Baumeister & Bratslavsky, 1999; Flora & Segrin, 1998). We also explored whether intimacy promotion influenced not only the *quality* of time partners spent together, but also the *quantity* of time spent together. Lastly, we reasoned that intimacy promotion may have the capacity to sufficiently counter more avoidant individuals' negative expectations of their partner and relationship to decrease their attachment avoidance over time.

Participants

The sample comprised 70 heterosexual romantic couples recruited from the local university and surrounding community. Each participant received an honorarium of up to CAD-$50.00, depending on the number of daily diaries s/he completed. Men were 18-65 years of age (M_{years} =

23.17, SD_{years} = 6.91), and women were 18-64 years of age (M_{years} = 22.11, SD_{years} = 6.18). Couples were in relationships lasting 3 months to 15 years (M_{years} = 2.50, SD_{years} = 2.12). Approximately 81% of couples reported casually or exclusively dating and 19% reported being common-law, engaged, or married. We originally intended to collect data from 100 couples, but in the time period allotted for data collection we obtained 70.

Materials and Procedure

Phase 1. Study 3 had four phases. In the first phase, both members of each couple were provided a separate, secure web link to an online survey. In this initial survey they answered a number of questions about themselves, their current romantic partner, and their relationship. Upon completion of the online survey participants were informed that the in-lab portion of the study (Phase 2) would be scheduled approximately one week later.

Phase 2. In the second phase of the study, couples attended a 2-hour lab session. During this session, half of the couples were assigned to an intimacy promotion condition, wherein they were asked to engage in a 30-minute discussion task with each other that involved self-disclosure of fairly intimate information. These couples also engaged in a 30-minute gentle stretching exercise together (i.e., partner yoga). The other half of the couples were assigned to a control condition, wherein they engaged in a 30-minute discussion task with each other that involved reading excerpts from texts and playing word games. These couples also engaged in the gentle stretching exercise; however, they completed the stretches separately from each other (i.e., individual yoga).

Following the discussion and stretching tasks, men and women were placed in separate rooms, where they completed questionnaires about their experiences during the tasks and their perceptions of their relationship. Participants were then reunited with their partners and were told that Phase 3 of the study would involve having each partner privately complete daily diary questions online every day for 10 consecutive days. As in Study 2, each participant was given an identification

number and a link to a secure website where s/he would log on to complete the daily diary questions. Participants were told to complete one diary form (separately from their partner) at the end of each day regarding their perceptions of themselves and their relationship for that day, and were asked to start completing their diaries that evening.

Phase 3. The third phase was the 10-day diary period. A daily reminder email was sent to each participant that contained a link to the secure website, the participant's identification number, and the diary number the participant was to complete that day. All diary entries were time-stamped to ensure that they were completed on the appropriate day. No participants reported problems completing the daily diaries, and the average number of diaries completed was very high for both men (M = 8.41, SD = 2.07) and women (M = 9.11, SD = 1.32).

Phase 4. The fourth and final phase of the study occurred one month after completion of the diary period. All participants were sent an individual link to a follow-up online survey that contained questions about themselves, their current romantic partner, and their relationship.

Phase 1 Materials

Demographics. A general background questionnaire asked participants to provide their gender, age, relationship status, and relationship length.

Attachment. As in Study 1, attachment was assessed using the ECR (Brennan et al., 1998) and scored the same way. Reliability was robust for both attachment anxiety (α_{men} = .90, α_{women} = .91) and attachment avoidance (α_{men} = .88, α_{women} = .95).

Phase 2 Materials

Pre-manipulation relationship quality. Prior to engaging in the interaction and stretching tasks, participants separately and privately completed the Inclusion of Other in the Self Scale (IOS; A. Aron, E. N. Aron, & Smollan, 1992), a one-item measure containing seven sets of two circles, one labelled "Self" and the other labelled "Partner." The seven pairs of circles have varying degrees

of overlap, ranging from almost no overlap to almost complete overlap, and participants were asked to select the pair of circles they feel best represents their relationship with their partner. They also completed the Relationship Assessment Scale (RAS; Hendrick, 1988), a 7-item measure rated on a 7-point scale (1 = *not at all/extremely poor*, 7 = *a great deal/extremely good*) that taps how satisfied individuals are in their current romantic relationship (e.g., "How well does your partner meet your needs?"). Reliability was robust for both men ($\alpha = .85$) and women ($\alpha = .88$). Pre-manipulation relationship quality scores were computed by summing the *z*-scores of the IOS and the RAS, with higher scores indicating greater relationship quality.

Discussion tasks. The verbal discussion tasks were created and validated by A. Aron et al. (1997). First, participants were instructed to open an envelope given to them by the experimenter. The envelope contained an instruction sheet and two sets of slips. Each set of slips included a number of activities and/or questions; in the intimacy promotion condition, the activities and questions in the two sets were designed to increase self-disclosure and other intimacy-associated behaviors, whereas in the control condition, the activities and questions in the two sets were designed to involve minimal disclosure.

The experimenter told all participants that the purpose of the discussion task was for them to engage in a "sharing exercise" with their partner wherein they would talk about a number of different topics. Participants were then told that, for each slip, one of the members of the couple (in alternating order) should read the slip aloud, after which both partners should carry out the activity listed on the slip, and then move on to the next slip. Participants were reassured that it was not essential that they complete all of the activities and questions contained in the two sets of slips, and were encouraged to take as much time as they needed to get through each activity or question. Couples completed the activities and questions in the first set of slips for 15 minutes, after which

they were asked to stop and put away the set. They then completed the activities and questions in the second set of slips for 15 minutes.[3] Thus, the total interaction time was 30 minutes.

Gentle stretching exercise. The gentle stretching exercise was shown to participants on a DVD that was created specifically for the present study. On the intimacy promotion condition DVD, a female certified yoga instructor demonstrated the stretching exercise with a male partner. The stretches in this condition involved physical interaction between the male and female, such as sitting back-to-back while breathing, holding hands while balancing on one foot, and so on. Couples in the intimacy promotion condition completed the stretching exercise together. On the control condition DVD, the same female instructor demonstrated the same stretches on her own, without any interaction with a male partner. Couples in the control condition completed the stretching exercise separately from each other. The stretches on both DVDs involved very safe, low intensity exercises (e.g., touching one's toes, stretching the arms up in the air or to the sides), and mats were provided to make the exercises comfortable. All participants were asked to sanitize their hands before using the mats; additionally, the mats were cleaned with a sanitizing spray after each session. No participants had any medical conditions that prevented them from doing the task. The gentle stretching exercise lasted approximately 30 minutes.

Manipulation checks. Following the discussion and stretching tasks, participants answered two questions regarding how much they enjoyed each task (e.g., "Overall, the discussion [stretching] task was a positive experience"). Reliability for the enjoyment measure was robust for both the discussion task (α_{men} = .90, α_{women} = .85) and the stretching task (α_{men} = .89, α_{women} = .93). For each task, participants also answered one question about the intimacy of the activities (i.e., "This interaction was intimate"). Finally, participants completed a 3-item measure regarding their level of self-disclosure during the discussion task in particular (e.g., "I disclosed information about my

[3] The slips were split into two sets in this way in order to break up the task and not overwhelm participants.

innermost self during this interaction"). Reliability for the self-disclosure measure was robust for both men (α = .94) and women (α = .90).

Post-manipulation relationship quality. Following the discussion and gentle stretching tasks participants again separately and privately completed the IOS (A. Aron et al., 1992) and the RAS (Hendrick, 1988). Reliability was robust for both men (α = .82) and women (α = .92). Post-manipulation relationship quality scores were created the same way as pre-manipulation relationship quality.

Phase 3 Materials

Daily amount of time spent together. Participants reported the amount of time they spent with their partner each day in the morning (i.e., between the time they woke up and 12 noon), afternoon (i.e., between 12 noon and 6:00PM), and the evening (i.e., between 6:00PM and when they went to bed) in hours and minutes. Scores were created by converting responses to minutes and summing them, with higher scores indicating more time spent together each day.

Daily self-disclosure. Participants reported their daily self-disclosure across 3 items (e.g., "I openly expressed my feelings about my partner") rated on a 7-point scale (1 = *not at all*, 7 = *very much*). Daily self-disclosure scores were created by averaging responses across the 3 items, with higher scores indicating greater self-disclosure. Reliability across the 10 days was robust for both men (αs = .68 -.90, M_{α} = .85) and women (αs = .78 -.90, M_{α} = .86).

Phase 4 Materials

Attachment. Attachment was again assessed using the ECR (Brennan et al., 1998) and scored the same way as the prior studies. Reliability was robust for both attachment anxiety (α_{men} = .91, α_{women} = .93) and attachment avoidance (α_{men} = .95, α_{women} = .94).

Results

Descriptive information and correlations between study measures may be seen in Table 5. Our data analytic approach was very similar to that of Study 2. Specifically, analyses in Phases 2-4 were guided by the Actor-Partner Interdependence Model (APIM; Campbell & Stanton. 2015; Kenny et al., 2006). We tested the Phase 3 (diary period) models using MLM (Kenny et al., 1998; Raudenbush & Bryk, 2002), following the suggestions of Kenny et al. (2006; see also Campbell & Kashy, 2002) regarding the use of MLM with dyadic data. In all analyses, the predictor variables were effect-coded gender (-1 = women, 1 = men), effect-coded experimental condition (-1 = control, 1 = intimacy promotion), centered continuous scores on attachment anxiety and attachment avoidance, the interaction between attachment anxiety and experimental condition, and the interaction between attachment avoidance and experimental condition. We then re-ran analyses including relationship length as a covariate; the results described below remained robust and length did not relate to any outcome variable. As in our prior studies, we initially tested interactions with gender, as well as the interaction of attachment anxiety and attachment avoidance, but no effects emerged and thus we removed those interactions from the final models presented herein. Results from Phase 2-4 analyses are displayed in Tables 6A and 6B.

Effects of Attachment and Experimental Manipulation on Relationship Quality in Phase 2 (Experimental Lab Session)

Manipulation checks. Partners' reports of discussion and gentle stretching task enjoyment did not vary as a function of experimental condition, $b = .10$, $t(66) = 1.23$, $p = .22$ and $b = -.01$, $t(66) = -0.06$, $p = .96$, respectively. Those who were assigned to the intimacy promotion (vs. control) condition, however, did report that their tasks were more intimate and that they had self-disclosed to a greater extent in the discussion task specifically, $b = .30$, $t(66) = 3.43$, $p = .001$ and $b = 2.32$, $t(66) = 14.67$, $p < .001$, respectively. Thus, overall the two experimental conditions appeared to be equally

enjoyable, but the intimacy promotion condition was perceived to involve more closeness and sharing.

Interestingly, but perhaps not surprisingly, a main effect of attachment avoidance emerged such that more avoidant individuals reported that they disclosed less during the intimacy-promoting discussion task, as well as felt the tasks were less intimate, b = -.31, $t(127)$ = -1.98, p = .049 and b = -.21, $t(118)$ = -2.56, p = .01, respectively. These individuals moreover marginally enjoyed the gentle stretching task less and significantly enjoyed the discussion task less, b = -.23, $t(122)$ = -1.69, p = .09 and b = -.20, $t(126)$ = -2.44, p = .02, respectively.[4]

Changes in pre- to post-manipulation relationship quality. In this analysis, post-manipulation relationship quality was the outcome variable, with pre-manipulation relationship quality entered as a covariate. In this way, reported changes in relationship quality from pre- to post-manipulation were assessed (i.e., residualized change scores). A main effect emerged such that individuals in the intimacy promotion condition reported higher post-manipulation relationship quality (see the Phase 2 column of Table 6A). Similar to prior research where individuals viewed each other more positively after engaging in the intimacy-promoting tasks (A. Aron et al., 1997), romantic partners felt happier about their relationships post-manipulation. No main effects of actor or partner attachment anxiety or attachment avoidance emerged. The interaction between attachment avoidance and experimental condition predicting post-manipulation relationship quality, however, was significant. More avoidantly attached persons in the intimacy promotion (vs. control) condition reported a significant increase in relationship quality from baseline, b = .34, $t(97)$ = 3.99, p < .001. Less avoidant persons' relationship quality, on the other hand, did not change pre- to post-

[4] Although not relevant to the primary research questions of Study 3, we note that more anxiously attached individuals felt the tasks were more intimate, b = .18, $t(117)$ = 2.42, p = .02, and that women (vs. men) marginally enjoyed the discussion task more, b = -.11, $t(67)$ = -1.78, p = .08. No other effects emerged from manipulation check analyses.

manipulation as a function of experimental condition, b = -.06, $t(95)$ = -0.77, p = .44 (see Figure 3, Panel A).

Effects of Attachment and Experimental Manipulation on Spending Time Together and Self-Disclosure in Phase 3 (10-Day Diary Period)

Time spent together. As seen in the Phase 3 column in Table 6A, the amount of time partners spent together across the diary period was not predicted by experimental condition, actor or partner attachment scores on either dimension, or interactions between these variables. Intimacy promotion, therefore, did not alter the quantity of time partners spent with each other over the next 10 days.

Daily self-disclosure. Although the experimental manipulation did not influence the *quantity* of time more avoidantly attached persons spent with their partner, it did appear to influence the *quality* of time they spent together. More avoidantly attached persons in the intimacy promotion (vs. control) condition reported significantly greater self-disclosure over the next 10 days, b = .38, $t(97)$ = 2.22, p = .03. Less avoidant persons' daily self-disclosure across the diary period, on the other hand, did not vary as a function of experimental condition, b = -.11, $t(95)$ = -0.62, p = .54 (see Figure 3, Panel B).

Effects of Attachment and Experimental Manipulation on Follow-Up Attachment in Phase 4 (Online Survey 1 Month Post-Diary Period)

Changes in pre- to post-manipulation attachment. In these analyses, follow-up scores on attachment anxiety and avoidance were the outcome variables, with initial scores on these variables entered as covariates. In this way, reported changes in attachment anxiety and avoidance over the one-month interval were assessed. The results from these analyses are displayed in the Phase 4 column of Table 6B. Controlling for initial levels of attachment anxiety and attachment avoidance reported in the Phase 1 online survey, partners' attachment anxiety one month following

the diary period was not meaningfully influenced by experimental condition. A significant interaction of pre-manipulation attachment avoidance and experimental condition predicting post-diary period attachment avoidance, however, did emerge. Specifically, more avoidantly attached individuals who were assigned to the intimacy promotion (vs. control) condition reported a decrease in attachment avoidance from their baseline levels one month following the 10-day diary period, $b = -.17$, $t(63) = -2.07$, $p = .04$. Less avoidant persons' attachment avoidance was unaffected by experimental condition, $b = .07$, $t(53) = 0.83$, $p = .41$ (see Figure 3, Panel C).

Discussion

Study 3 demonstrated support for Hypotheses 2A and 2B with the finding that, for more avoidantly attached persons in particular, engaging in intimacy-promoting (vs. control) activities with their partner enhances immediate relationship quality, increases self-disclosure behavior over the next 10 days, and decreases levels of attachment avoidance one month later. Whereas Studies 1-2 focused on positive relationship experiences that involved intimacy more abstractly (reflecting on love for one's partner and how it feels to be close to that partner, Study 1; perceiving loving and positive behaviors from one's partner, Study 2), Study 3 tapped into intimacy directly with an experimental manipulation specifically designed to increase feelings of closeness. We then explored more avoidant persons' individual and relationship outcomes that should be meaningfully linked to this type of intimacy promotion; namely, their relationship quality and self-disclosure within the relationship. We thus replicated findings from Study 2 by demonstrating that positive relationship experiences, here operationalized as intimacy promotion, are related to increases in more avoidant persons' relationship quality. We then demonstrated the novel finding that positive relationship experiences translate to behavioral tendencies over time; in particular, a behavior often eschewed by more avoidant persons that should directly follow from enhanced intimacy in a relationship: self-disclosure.

Interestingly, more avoidant individuals reported that they disclosed less during the intimacy-promoting discussion task in Phase 2, as well as felt the tasks were less intimate. Additionally, these individuals marginally enjoyed the stretching task less and significantly enjoyed the discussion task less. Nevertheless, pre- to post-manipulation relationship quality was improved for more avoidant persons assigned to the condition they reported disliking. Put another way, it appears that more avoidant persons claim that they do not enjoy participating in intimacy-promoting activities with their partner, but they feel better about their relationship after engaging in those activities.

Furthermore, intimacy promotion appears to influence not the *quantity* of time partners spend together over the next 10 days, but the *quality* of that time spent together; that is, more avoidant individuals "opened up" about their thoughts and feelings to a greater extent across the diary period if they had engaged in intimacy-promoting activities in the experimental lab session. Similar to Study 1, it might be expected that more avoidant persons would react *more* defensively in response to activities that "force" them to be intimate with their romantic partners, but our findings suggest that this is not the case. Finally, these simple intimacy-promoting activities seem to have even more far-reaching positive consequences for more avoidant persons vis-à-vis their dispositional levels of attachment avoidance reported one month following the diary period. A major strength of this study is its experimental, dyadic, and longitudinal design. Our methods allow us to more confidently conclude that positive relationship experiences—in this specific study, intimacy promotion—have the capacity to improve more avoidant individuals' inter- and intrapersonal outcomes.

General Discussion

Although individuals who are more avoidantly attached tend to eschew intimacy and experience negativity in their relationships, recent research suggests that positive relationship contexts may help avoidant persons be more comfortable with closeness and experience better

individual and relationship outcomes. Across three studies, we advanced this literature and demonstrated that simple positive and intimacy-promoting relationship experiences had both short- and long-term effects for more avoidant persons. In Study 1, we replicated the attachment avoidance-general affect links already established in the literature (e.g., Mikulincer & Shaver, 2007), and found novel support for the hypothesis that reminding more avoidant individuals of the positive aspects of their romantic partner has the capacity to immediately reduce negative affect levels in particular. Partner reflection had no effect on positive affect for more avoidant persons, contrasting prior work demonstrating that certain intimacy-themed contexts yield indifference (i.e., reduced negative *and* positive affect) for more avoidant individuals (MacDonald et al., 2013; Spielmann et al., 2012). However, the findings of Study 1 *do* replicate previous empirical work demonstrating that positive relationship contexts diminish more avoidant persons' negativity (e.g., Overall et al., 2013; Slotter & Luchies, 2014), and also expand this previous work by providing evidence of the salutary effects of positive relationship experiences outside of overtly distressful settings, which have been the focus of much prior research (support-seeking, partner change, or conflict discussions). Thus, it may be that certain types of positive, intimate experiences are manageable for more avoidant individuals and yield benefits. Study 1's experimental design further clarified the causal role positive relationships can play in more avoidant individuals' personal outcomes.

Study 2 extended the ideas behind Study 1 into the daily lives of romantic partners; we found that on days when more avoidantly attached individuals perceived that their partner engaged in more (vs. less) positive behaviors, they reported (a) higher daily positive affect, (b) lower daily negative affect, and (b) higher relationship quality. This pattern of effects also emerged for less avoidant persons, but the salutary effects of perceived positive partner behaviors were stronger for more avoidant persons. This study offers a window into the ways in which positive relationship experiences are associated with intra- and interpersonal perceptions on a day-to-day basis. These

results suggest that the benefits of positive relationship experiences for more avoidant individuals are not confined to time-limited, distressful situations (e.g., conflict or support discussions observed in a lab setting), but in fact may reduce negativity and promote satisfaction for more avoidant individuals as they go about their daily lives. Moreover, we again found that positive relationship experiences did not simultaneously reduce daily positive affect for more avoidant individuals; rather, perceiving more positive partner behaviors was linked to an increase in daily positive affect. Although the interaction of attachment avoidance and perceived positive partner behaviors was marginal, the effect further suggests that these types of positive relationship experiences do not lead more avoidant persons to feel threatened, deactivate the attachment system, and feel indifferent.

Lastly, in Study 3 we sought to manipulate the experience of intimacy more directly and employed an experimental and longitudinal design, finding that more avoidantly attached persons who engaged in intimacy-promoting (vs. control) activities with their partner in a lab session reported (a) higher relationship quality immediately following the intimacy manipulation, (b) greater self-disclosure each day over the next 10 days, and (c) lower levels of attachment avoidance one month following the initial lab session. Not surprisingly given their characteristic discomfort with intimacy, more avoidant individuals reported less enjoyment with the lab session intimacy-promoting activities; however, these very individuals were positively influenced in the short- and long-term by those activities. Especially relevant is the finding that simple contexts designed to enhance intimacy between partners does, in fact, predict more avoidant persons' subsequent intimacy-related behavior (i.e., self-disclosure within the relationship). The findings of Study 3 emphasize that the *quality* (vs. quantity) of time partners spend together is what appears to be affected by intimacy promotion. Study 3 is particularly valuable because of its experimental design; by using this design we can conclude with greater confidence that the salutary effects of positive, intimate relationship experiences are causally related to more avoidant persons' outcomes.

The findings of these studies support the basic tenets of attachment theory and other theories of belongingness. According to these theories, individuals who are or feel alone are at a regulatory disadvantage and should be prone to experience negativity; in the present research, we found that one way this potential disadvantage manifests psychologically is in the form of lower general positive affect and heightened general negative affect. More avoidantly attached persons are particularly vulnerable to this disadvantage because they believe the people in their lives are unreliable and unresponsive. A silver lining, nevertheless, is that the greater general negative affect experienced by more avoidant individuals can be reduced via relatively simple techniques, and these techniques do not appear to concurrently lower positive affect. This latter evidence not only buttresses the notions of attachment theory related to the important role of positive social relationships in predicting positive individual and relationship outcomes, but also dovetails with recent studies in the attachment literature demonstrating that positive partner behaviors (e.g., accommodating behaviors, Overall et al., 2013) or the relationship context (e.g., relationships characterized by greater dependence, Campbell et al., 2001, or those reported to be high-quality overall, Slotter & Luchies, 2014) can buffer against more avoidant individuals' negativity. Notably, the current studies extend the budding literature on promoting salutary outcomes for more avoidant persons by establishing these effects outside of situations that are likely inherently distressful (e.g., conflict discussions), as well as by demonstrating effects over a longer period of time (e.g., over weeks vs. over the course of one discussion task in the lab).

An interesting aspect of the positive and intimacy-promoting experiences explored in the present studies is that, by their very nature, they perhaps should have been perceived as threatening by more avoidantly attached individuals and resulted in efforts to *deactivate* the attachment system. That is, thinking about closeness with a partner or engaging in intimate activities with a partner could theoretically have motivated attempts to *increase* distance and independence from the partner,

resulting in lower positive *and* negative affect (i.e., indifference; see MacDonald et al., 2013; Spielmann et al., 2012) as well as *decreased* relationship quality because those types of activities emphasize the very facets of relationships with which more avoidant persons are thought to struggle the most (cf. Mikulincer & Shaver, 2003, 2007). As other scholars (e.g., Edelstein & Shaver, 2004) have noted, nonetheless, more avoidant persons' aversion to intimacy and closeness does not preclude them from entering into and maintaining close relationships. The activities in our studies seem to have highlighted closeness and positivity at a manageable level that was not overly threatening for more avoidant persons; for example, the guided imagery in Study 1 focused solely on positive aspects of intimacy within the relationship (vs. challenges), and the intimacy-promoting tasks in Study 3 were conducted in a structured and presumably "safe" lab environment. It seems likely, then, that the relationship experiences in the present studies hooked into the "sweet spot" of supportive and positive relationship stimuli to which more avoidant persons are responsive (i.e., moderate-to-high levels, see Girme, Overall, Simpson, & Fletcher, 2015). In other words, it seems possible that more avoidant individuals can have intimacy-related experiences without activation of the attachment system and defensive responding. This, in our view, may helpfully explain why more avoidant individuals are sometimes comfortable developing dependence in their relationships (Campbell et al., 2001) or seeking reassurance from their partners (cf. Girme, Molloy, & Overall, 2016).

Our findings suggest that more avoidantly attached persons may not have been threatened by the positive relationship experiences in our studies, but the experiences nevertheless might have been slightly uncomfortable for them. For instance, although more avoidant individuals reported that they disliked the intimacy-promoting activities in Study 3 and reported less active participation in those activities, the tasks nonetheless appeared to help them feel better about their relationships immediately and over time. In line with the points raised in the preceding paragraph, the positive

and intimacy-promoting experiences in the present research may have paralleled aspects of exposure therapy (cf. Abramowitz, Deacon, & Whiteside, 2012) or stress inoculation training (Meichenbaum, 1985; see also Neff & Broady, 2011); that is, the activities exposed more avoidant persons to a manageable amount of intimacy with their partner, without feared negative consequences being realized (e.g., being ignored or having their efforts dismissed, or leaving the situation due to discomfort). Having had this success, they may have felt more comfortable to continue self-disclosing in the days following the experimental manipulation. Moreover, perhaps successfully navigating these activities with their partner suggested to more avoidant individuals that they do, in fact, have a responsive close other with whom they can better experience intimacy. This reminder may have in turn countered their attachment-related beliefs that important others are generally *un*responsive to their bids for connection and support, and contradicted their typically-held low expectations for reward (particularly regarding intimate interactions; MacDonald et al., 2013; Spielmann et al., 2012), leading to greater perceived relationship quality and higher attachment security (because their fears went unfounded, cf. Simpson et al., 2003).

In both of our dyadic studies (Studies 2 and 3), almost no partner effects of attachment avoidance emerged in our analyses. Put another way, the effects of the positive and intimacy-promoting activities implemented in the present research seemed to be uniquely linked to the outcomes of more avoidantly attached individuals *themselves* without additionally being linked to the outcomes of those with more avoidant *partners*. Given the inherently interdependent nature of intimate relationships, why might this be? One possibility, not inconsistent with existing theory, is that the changes experienced by more avoidant persons themselves may not yet be noticeable to their partners. Taking any step toward intimacy and closeness in a romantic relationship likely feels momentous and substantial for a more avoidant individual (cf. Edelstein & Gillath, 2008), but outside of the avoidant individual's subjective experience the step may be objectively smaller. For

instance, on the day following the intimacy-promoting manipulation, a more avoidant person might have reported feeling like they self-disclosed 5 out of 5 (compared to their "normal" 1.5 out of 5), but a more objective assessment of their disclosure that day might reveal that it was closer to 3 out of 5 (compared to their "normal" 1.5 out of 5)—the latter is still a meaningful increase, especially for the avoidant person, but perhaps not quite enough of an increase to be "picked up on" by the romantic partner. It may be that, over a longer period of time, as the more avoidant individual consistently "opens up" to a greater extent, the partner will take note and reap similar psychological benefits.

In the majority of our studies, the salutary effects of positive relationship experiences emerged solely for those with higher attachment avoidance. One potential explanation for this finding is the idea that, relative to more avoidantly attached individuals, less avoidant individuals tend to have fewer problems developing intimacy and feeling positively about themselves and their relationships (Mikulincer & Shaver 2003, 2007). When encountering positive relationship experiences, particularly the simple interventions used in the present research, it may be that less avoidant persons have less room to improve compared to more avoidant persons. However, the results of Study 2 suggest that certain positive relationship experiences *do* benefit less avoidant persons, albeit to a lesser extent than more avoidant persons. Uncovering additional positive experiences that yield better individual and relationship outcomes for both less and more avoidant individuals would be a worthwhile future pursuit for attachment researchers.

The current findings have interesting implications for intimate relationships. They suggest, for instance, that more avoidantly attached individuals can improve personal and relationship well-being by deliberately engaging in simple behaviors and activities with their partners that foster a positive relationship context. These behaviors and exercises need not be overly showy, time-consuming, or expensive; our findings suggest that small, manageable intimate activities such as

reflecting on one's love for a partner, self-disclosing personal information, and partner yoga are effective. Indeed, the existing attachment literature suggests that the deactivating strategies (e.g., striving to maintain emotional independence and dealing with a threat independently) favored by more avoidant individuals not only lead to negative personal consequences, such as greater loneliness and general negative affect, but also prevents those individuals from building the kind of intimacy with partners that contributes to relationship satisfaction. By enhancing positive, intimacy-related relationship experiences, more avoidant individuals may experience greater comfort with closeness and thus be better able to recognize and engage in the kinds of experiences that can counter their negative beliefs about relationship partners; indeed, Study 2 suggests that perceptions of the partner's positive behaviors are very important for predicting diminished negative affect and greater relationship quality. Furthermore, it seems likely that engaging in more positive and closeness-enhancing behaviors will lead the partners of more avoidant persons to respond in kind, creating a positive feedback loop that ideally sets both members of the couple up for success (cf. Neff & Broady, 2011).

Until this point, we have presented a relatively optimistic view suggesting it may be relatively straightforward to reduce more avoidantly attached individuals' negativity, enhance their relationship quality and self-disclosure, and diminish their attachment avoidance over time. An important question, however, is to what extent do these processes occur for more avoidant persons in real life? If it is relatively "easy" to reduce avoidant persons' negativity and to enhance their relationship outcomes through positive, intimacy-related relationship experiences, we might expect these processes to play out naturally and frequently day-to-day. This, in turn, would likely mean that associations between attachment avoidance and negative individual and relationship outcomes (e.g., heightened negative affect, and lower relationship quality and self-disclosure) would be much less clear and pronounced than is currently established in psychological literature. Relatedly, if the effects

of positive, intimacy-related experiences observed in our studies were occurring spontaneously and frequently in romantic relationships, we would expect attachment avoidance to naturally decrease over time, which is not often the case in systematic research. Thus, it may be that some people who are low in attachment avoidance have already gone through some of the processes explored in our studies, making them earned-secure (cf. Roisman, Padrón, Sroufe, & Egeland, 2002). This latter point suggests that empirical work exploring retrospective accounts examining changes in attachment avoidance over time within the context of a relationship could be interesting and informative. Additionally, given that the levels of individuals' attachment avoidance in our studies were relatively low on average, it is possible that the benefits of positive relationship experiences may not translate as cleanly to individuals with higher average levels of attachment avoidance (e.g., those seeking therapy or those who actively avoid entering into long-term relationships altogether). Further, it is possible that, given that more avoidant individuals have weak intimacy goals (Spielmann et al., 2012; Tidwell et al., 1996), they are less likely to initiate intimacy-related processes in their relationships, and therefore also less likely to have opportunities to reap the benefits observed in our studies in real life. Finally, if the partners of more avoidant individuals feel rejected when they attempt to initiate intimacy-related activities and receive minimal or no response, they may essentially stop trying to initiate such activities after repeated rejection, again yielding a relationship context wherein limited opportunities remain for the benefits of positive relationship experiences to manifest.

The present research opens the door to many additional avenues for future studies. The finding that simple intimacy-promoting activities increase self-disclosure and reduce dispositional levels of attachment avoidance over time is both novel and promising; nonetheless, future studies should test the boundaries of these effects (e.g., by exploring whether the changes are linear or if they eventually plateau). Indeed, the budding literature on positive relationships and attachment

avoidance have thus far demonstrated that aspects of the more avoidantly attached person (e.g., feeling greater dependence, Campbell et al., 2001), the more avoidant person's partner (e.g., demonstration of "accommodating" behavior by the partner during conflict, Overall et al., 2013), and the more avoidant person's relationship (e.g., being in a high-quality relationship, Slotter & Luchies, 2014). We add to this literature the role of everyday relationship experiences, and encourage future researchers to identify other important means of promoting security in intimate relationships for more avoidant persons. Next, we focused our study designs to target more avoidant individuals in particular; nonetheless, the role of positive and intimacy-promoting relationship behaviors should also be investigated in terms of attachment anxiety. Interventions that target attachment anxiety will likely need to utilize different designs, as more anxiously attached persons tend to have difficulty separating positive and negative experiences in their relationships (Mikulincer, Shaver, Bar-On, & Ein-Dor, 2010) and become easily cognitively overwhelmed when thinking about their relationships (Stanton & Campbell, 2015).

An interesting question raised by this research is whether more avoidantly attached individuals who are involved in intimate relationships feel and behave differently than more avoidant individuals who are not involved in relationships. It is possible that more avoidant persons who have elected to enter into an ongoing romantic relationship may be more open to positive relationship experiences such as intimacy promotion (cf. Edelstein & Shaver, 2004). Future research may fruitfully explore how positive, intimate experiences affect those avoidant persons who have not entered into romantic relationships. Indeed, it may be that more avoidant individuals who are not involved in a relationship, when asked to engage in intimacy-related experiences, deactivate the attachment system and detach from the experiences. Lastly, although part of the success of the intimacy-promoting activities implemented in the present research may have been related to the lack of conflict or other potentially threatening relationship context, we note that conflict is an

unavoidable aspect of close relationships (Holmes & Murray, 1996). Scholars have noted, nevertheless, that what matters for achieving healthy relationships is not the presence or absence of conflict per se, but rather the strategies used to manage conflict when it arises (see Campbell & Stanton, 2013). Given that more avoidant individuals struggle with navigating conflict constructively (Domingue & Mollen, 2009), identifying simple methods which help these individuals act in a more pro-relationship manner in these potentially distressing contexts would likely benefit not only more avoidant individuals themselves but also their romantic partners (cf. Overall et al., 2013).

Taken together, the multiple methods and samples implemented in our studies are a major strength of the present research. Before concluding, however, we note that our studies were not free of limitations. A potential limitation of Study 1 was the truncated range of relationship length; to address a research question unrelated to the present studies, we recruited only individuals who were involved in a romantic relationship of 1-6 months. Since relationship satisfaction and passion is typically highest in the first six months of a relationship (Hatfield & Sprecher, 1986), it is possible that the observed effects of the experimental manipulation on more avoidantly attached persons' negative affect could have been influenced by the nature of the sample. It is unclear, though, how such an effect could have influenced only more (vs. less) avoidant individuals in the sample. Additionally, we reproduced the pattern of effects regarding negative affect in a more diverse dyadic sample in Study 2, which lowers our concern about the possibility for the effects in Study 1 to have been unique to the particular sample studied. Another potential limitation of our three studies is their reliance on self-report measures. Although we used widely validated measures in the present research, as well as a variety of study methods (cross-sectional, daily diary, and longitudinal designs), it would have been informative to have other sources of data (e.g., coded behavioral data) to buttress the strengths of our studies. These other sources of data may be particularly helpful in exploring some of the dyadic processes related to our intimacy-promoting exercises; for example, it is possible

that the experiences of more avoidantly attached individuals' *partners* during the exercises or over the course of the 10-day diary period would be better captured by means other than self-report. We encourage researchers to investigate not only self-report but also more direct behavioral measures when exploring the influence of intimacy promotion on attachment avoidance in the future.

Concluding Remarks

Positive, intimate relationships are frequently listed among the factors that give life the most meaning (Baumeister & Leary, 1995; Berscheid, 1985). Individuals who score higher on attachment avoidance, however, do not have an easy time developing closeness with romantic partners. The present research highlights and reinforces the notion that these individuals are particularly sensitive to relationship context, and respond positively to contexts wherein intimacy-building is manageable. Specifically, more avoidant persons' general negativity can be lessened by reflecting on positive relationship experiences or by engaging in simple intimacy-promoting activities with their partner. These personal and relationship benefits are likely a result of countering more avoidant individuals' pessimistic expectations for intimate relationships (cf. Simpson et al., 2003). Future research should endeavor to emphasize the positive aspects of relationship contexts when working to assist more avoidant individuals to foster intimacy in relationships and increase attachment security over time.

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Table 1

Study 1: Descriptive Statistics, Reliability Information, and Correlations between Study Measures

		M(*SD*) or %	α	Correlations					
				1	**2**	**3**	**4**	**5**	**6**
1	Gender	73% Female	—	—					
2	Attachment Anxiety	3.18(1.05)	.91	.16	—				
3	Attachment Avoidance	2.42(0.84)	.90	.12	.21+	—			
4	Relationship Length	3.51(1.43)	—	-.14	.07	-.18	—		
5	Post-Manipulation PA	3.63(0.92)	.91	-.15	-.26*	-.21+	-.12	—	
6	Post-Manipulation NA	1.71(0.63)	.80	-.01	.35***	.35***	-.06	-.27*	—

Note. N = 81 individuals. PA = positive affect; NA = negative affect. Relationship length scores are in months.

+$p < .10$, *$p < .05$, ***$p < .001$

Table 2

Study 1: Effects of Attachment and Experimental Condition on Post-Manipulation Positive and Negative Affect

	Post-Manipulation Positive Affect			Post-Manipulation Negative Affect		
	b(*SE*)	95% CI	*d*	*b*(*SE*)	95% CI	*d*
Model 1						
Gender[a]	-.02(.12)	[-.25, .22]	0.04	-.08(.07)	[-.23, .07]	0.25
Experimental Condition[b]	.22(.10)*	[.01, .42]	0.49	-.07(.07)	[-.20, .06]	0.26
Attachment Anxiety	-.19(.10)+	[-.39, .01]	0.44	.15(.06)*	[.02, .27]	0.55
Attachment Avoidance	-.18(.12)	[-.42, .06]	0.35	.23(.08)**	[.08, .39]	0.72
Anxiety × Condition	-.08(.10)	[-.28, .12]	0.19	-.04(.06)	[-.16, .09]	0.14
Avoidance × Condition	.03(.12)	[-.21, .27]	0.06	-.17(.08)*	[-.32, -.02]	0.52
Model 2						
Gender[a]	-.04(.12)	[-.28, .19]	0.09	-.09(.08)	[-.24, .06]	0.27
Experimental Condition[b]	.20(.10)+	[-.01, .41]	0.45	-.08(.07)	[-.21, .05]	0.28
Attachment Anxiety	-.18(.10)+	[-.37, .02]	0.41	.15(.06)*	[.03, .28]	0.56
Attachment Avoidance	-.21(.12)+	[-.45, .04]	0.40	.22(.08)**	[.07, .38]	0.67
Anxiety × Condition	-.10(.10)	[-.29, .10]	0.23	-.04(.06)	[-.17, .08]	0.16
Avoidance × Condition	.04(.12)	[-.20, .28]	0.08	-.17(.08)*	[-.32, -.02]	0.52
Relationship Length	-.09(.07)	[-.23, .06]	0.29	-.03(.05)	[-.12, .06]	0.17

Note. $N = 81$ individuals. We report unstandardized regression coefficients. Continuous variables were centered on the grand mean and scored such that higher values indicate greater standing on the variable (e.g., higher attachment avoidance). Approximate effect sizes were calculated using the formula $d = 2t/\sqrt{(df)}$; 0.20 indicates a small effect, 0.50 indicates a medium effect, and 0.80 indicates a large effect (Cohen, 1988).

[a] -1 = women, 1 = men; [b] -1 = control, 1 = partner.

+$p < .10$, *$p < .05$, **$p < .01$

Table 3

Study 2: Descriptive Statistics, Reliability Information, and Correlations between Study Measures

		Men		Women		Correlations						
		M(*SD*)	α	*M*(*SD*)	α	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1	Attachment Anxiety	2.57(0.98)	.91	2.27(1.04)	.94	**.26*****	.48***	-.30***	-.19***	-.23***	.15***	-.24***
2	Attachment Avoidance	2.50(0.93)	.89	2.03(0.92)	.92	.56***	**.22*****	-.34***	-.19***	-.25***	.18***	-.41***
3	Positive Partner Behaviors	4.36(1.44)	.86	4.44(1.38)	.87	-.18***	-.26***	**.46*****	.19***	.35***	-.17***	.50***
4	Relationship Length	48.60(69.08)	—	48.60(69.08)	—	-.12***	-.21***	.08**	—	.10***	-.06*	.10***
5	Daily PA	4.85(1.35)	.71	4.67(1.36)	.72	-.14***	-.11***	.48***	.08**	**.33*****	-.53***	.42***
6	Daily NA	1.95(1.16)	.88	1.99(1.10)	.86	.12***	.14***	-.16***	-.11***	-.48***	**.21*****	-.35***
7	Daily Relationship Quality	6.19(0.98)	.92	6.25(0.92)	.90	-.22***	-.43***	.55***	.05+	.43***	-.38***	**.47*****

Note. N = 67 couples (134 individuals). PA = positive affect; NA = negative affect. Relationship length scores are in months. All correlations represent actor variables. Correlations above the diagonal are for men, whereas correlations below the diagonal are for women. Correlations between partners appear in bold along the diagonal.

$+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

Table 4

Study 2: Effects of Actor and Partner Attachment and Daily Perceived Positive Partner Behaviors on Daily Positive and Negative Affect and Daily Relationship Quality Across the Diary Period

	Daily Positive Affect			Daily Negative Affect			Daily Relationship Quality		
	b(*SE*)	95% CI	*d*	*b*(*SE*)	95% CI	*d*	*b*(*SE*)	95% CI	*d*
Model 1									
Gender[a]	.10(.06)+	[-.01, .22]	0.46	-.08(.05)	[-.19, .02]	0.40	.01(.03)	[-.06, .08]	0.05
Attachment Anxiety									
Actor	-.07(.07)	[-.22, .07]	0.18	.10(.07)	[-.03, .23]	0.29	.12(.04)**	[.03, .20]	0.63
Partner	.01(.07)	[-.13, .16]	0.04	-.02(.07)	[-.15, .11]	0.05	-.09(.04)*	[-.17, -.004]	0.47
Attachment Avoidance									
Actor	-.01(.08)	[-.16, .15]	0.01	.09(.07)	[-.05, .23]	0.23	-.21(.05)***	[-.30, -.12]	0.99
Partner	-.06(.08)	[-.21, .10]	0.13	-.08(.07)	[-.22, .07]	0.19	.06(.05)	[-.04, .15]	0.25
Positive Partner Behaviors									
Actor	.37(.02)***	[.33, .42]	0.72	-.16(.03)***	[-.22, -.11]	1.67	.31(.03)***	[.26, .37]	2.91
Partner	.12(.02)***	[.07, .16]	0.22	-.05(.03)+	[-.10, .01]	0.47	.07(.02)***	[.04, .10]	1.04
Avoidance × Positive Behaviors	.04(.02)+	[-.001, .08]	0.08	-.05(.02)*	[-.10, -.01]	0.28	.04(.01)**	[.01, .07]	0.18
Model 2									
Gender[a]	.10(.06)+	[-.01, .22]	0.46	-.08(.05)	[-.19, .03]	0.37	.01(.03)	[-.06, .08]	0.09
Attachment Anxiety									
Actor	-.07(.07)	[-.22, .07]	0.18	.08(.07)	[-.05, .22]	0.22	.06(.05)	[-.05, .17]	0.23
Partner	.02(.07)	[-.13, .16]	0.04	-.03(.07)	[-.17, .10]	0.09	-.10(.05)+	[-.21, .005]	0.38
Attachment Avoidance									
Actor	-.002(.08)	[-.16, .16]	0.004	.09(.08)	[-.06, .24]	0.22	-.27(.06)***	[-.39, -.15]	0.91
Partner	-.05(.08)	[-.21, .10]	0.13	-.05(.08)	[-.21, .10]	0.13	-.04(.06)	[-.16, .08]	0.13
Positive Partner Behaviors									
Actor	.37(.02)***	[.33, .42]	0.72	-.16(.02)***	[-.20, -.12]	0.34	.31(.01)***	[.28, .33]	1.07
Partner	.12(.02)***	[.07, .16]	0.22	-.05(.02)+	[-.08, .01]	0.09	.07(.01)***	[.05, .10]	0.26
Avoidance × Positive Behaviors	.04(.02)+	[-.001, .09]	0.08	-.05(.02)**	[-.09, -.02]	0.12	.06(.01)***	[.04, .08]	0.22
Relationship Length	.001(.001)	[-.002, .003]	0.09	-.001(.001)	[-.003, .001]	0.23	-.001(.001)	[-.003, .001]	0.22

Note. $N = 67$ couples (134 individuals). We report unstandardized regression coefficients. Continuous variables were centered on the grand mean and scored such that higher values indicate greater standing on the variable (e.g., higher attachment avoidance). The interaction in the above models represents Actor Attachment Avoidance × Actor Perceived Positive Partner Behaviors. Approximate effect sizes were calculated using the formula $d = 2t/\sqrt{(df)}$; 0.20 indicates a small effect, 0.50 indicates a medium effect, and 0.80 indicates a large effect (Cohen, 1988).

[a] -1 = women, 1 = men.

$+p < .10$, $*p < .05$, $**p < .01$

Table 5

Study 3: Descriptive Statistics, Reliability Information, and Correlations between Study Measures

		Men		Women		Correlations								
		M(*SD*)	α	*M*(*SD*)	α	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	P1 Attachment Anxiety	3.31(1.01)	.90	3.57(1.05)	.91	**.12****	.19***	-.10**	-.05	-.05	-.03	.17***	.59***	.13**
2	P1 Attachment Avoidance	2.28(0.82)	.88	2.30(1.04)	.95	.30***	**.12****	.31***	-.55***	-.55***	-.10*	-.14***	.21***	.71***
3	P1 Relationship Length	29.88(25.46)	—	29.88(25.46)	—	-.05	-.02	—	-.11**	-.02	.12**	.03	-.06	.08
4	P2 Quality (Pre)	0.15(1.60)	.85	-0.15(1.94)	.88	-.18***	-.55***	-.08*	**.70*****	.87***	.08*	.20***	-.09+	-.42***
5	P2 Quality (Post)	0.09(1.55)	.82	-0.09(1.94)	.92	-.16***	-.57***	-.04	.93***	**.63*****	.13**	.24***	-.04	-.57***
6	P3 Daily Time Together	359.74(334.70)	—	343.45(281.89)	—	-.11**	-.05	.03	.16***	.09*	**.67*****	.16***	-.02	.02
7	P3 Daily Self-Disclosure	3.81(1.82)	.85	4.47(1.81)	.86	.03	-.35***	-.06	.39***	.38***	.24***	**.41*****	.17**	-.34***
8	P4 Attachment Anxiety	3.05(0.91)	.91	3.38(1.20)	.93	.76***	.29***	-.13**	-.25***	-.13**	-.15***	-.001	**.14*****	.13**
9	P4 Attachment Avoidance	2.02(0.90)	.95	2.24(1.02)	.94	.23***	.86***	.05	-.54***	-.55***	-.09*	-.44***	.37***	**.23*****

Note. $N = 70$ couples (140 individuals). Relationship length scores are in months. All correlations represent actor variables. Correlations above the diagonal are for men, whereas correlations below the diagonal are for women. Correlations between partners appear in bold along the diagonal.

P1 = Phase 1 (initial online survey); P2 = Phase 2 (experimental lab session); P3 = Phase 3 (10-day diary period); P4 = Phase 4 (one month follow-up survey).

$+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

Table 6A

Study 3: Effects of Actor and Partner Attachment and Experimental Condition on Relationship Dynamics in Phases 2 (Experimental Lab Session) and 3 (10-Day Diary Period)

	Phase 2			**Phase 3**					
	Pre-Post Relationship Quality			Daily Time Spent Together			Daily Self-Disclosure		
	b(*SE*)	95% CI	*d*	*b*(*SE*)	95% CI	*d*	*b*(*SE*)	95% CI	*d*
Model 1									
Gender[a]	-.02(.07)	[-.15, .11]	0.07	4.69(6.25)	[-7.81, 17.20]	0.19	-.30(.08)***	[-.45, -.14]	0.94
Experimental Condition[b]	.14(.06)*	[.02, .25]	0.59	16.05(20.85)	[-25.59, 57.69]	0.19	.11(.13)	[-.16, .37]	0.20
Attachment Anxiety									
Actor	-.01(.06)	[-.13, .12]	0.02	-4.15(15.40)	[-34.83, 26.54]	0.06	.28(.11)**	[.06, .49]	0.53
Partner	-.04(.06)	[-.17, .08]	0.12	11.17(15.29)	[-19.32, 41.66]	0.17	.20(.11)+	[-.01, .41]	0.39
Attachment Avoidance									
Actor	-.13(.08)	[-.29, .03]	0.28	-16.92(16.54)	[-49.90, 16.06]	0.24	-.61(.12)***	[-.83, -.38]	1.11
Partner	-.05(.07)	[-.20, .09]	0.13	-31.78(17.06)+	[-65.74, 2.18]	0.42	-.20(.12)+	[-.44, .04]	0.33
Actor Anxiety × Condition	-.02(.06)	[-.15, .10]	0.07	-0.60(8.05)	[-16.68, 15.47]	0.02	.13(.09)	[-.05, .31]	0.28
Actor Avoidance × Condition	.22(.07)***	[.09, .36]	0.58	2.19(8.75)	[-15.28, 19.66]	0.06	.23(.10)*	[.04, .42]	0.48
Model 2									
Gender[a]	-.02(.07)	[-.15, .12]	0.06	4.78(6.26)	[-7.74, 17.31]	0.20	-.30(.08)***	[-.45, -.14]	0.94
Experimental Condition[b]	.13(.06)*	[.02, .25]	0.59	14.88(21.06)	[-27.19, 56.95]	0.18	.10(.13)	[-.16, .37]	0.19
Attachment Anxiety									
Actor	.01(.06)	[-.12, .13]	0.02	-3.28(15.71)	[-34.60, 28.03]	0.05	.28(.11)**	[.06, .50]	0.52
Partner	-.03(.06)	[-.15, .10]	0.08	11.86(15.60)	[-19.25, 42.97]	0.18	.20(.11)+	[-.01, .42]	0.39
Attachment Avoidance									
Actor	-.15(.08)+	[-.31, .02]	0.31	-18.31(16.97)	[-52.16, 15.54]	0.26	-.61(.12)***	[-.84, -.37]	1.12
Partner	-.07(.07)	[-.21, .08]	0.16	-33.39(17.62)+	[-68.46, 1.69]	0.43	-.21(.12)+	[-.45, .04]	0.33
Actor Anxiety × Condition	-.02(.06)	[-.15, .10]	0.06	-0.42(8.10)	[-16.62, 15.76]	0.01	.13(.09)	[-.05, .31]	0.28
Actor Avoidance × Condition	.21(.07)**	[.08, .35]	0.57	2.25(8.81)	[-15.35, 19.84]	0.06	.23(.10)*	[.03, .42]	0.48
Relationship Length	.003(.002)	[-.002, .01]	0.29	0.33(0.84)	[-1.34, 2.00]	0.10	.001(.01)	[-.01, .01]	0.02

Note. $N = 70$ couples (140 individuals). We report unstandardized regression coefficients. Continuous variables were centered on the grand mean and scored such that higher values indicate greater standing on the variable (e.g., higher attachment avoidance). Approximate effect sizes were calculated using the formula $d = 2t/\sqrt{(df)}$; 0.20 indicates a small effect, 0.50 indicates a medium effect, and 0.80 indicates a large effect (Cohen, 1988).

[a] -1 = women, 1 = men; [b] -1 = control, 1 = intimacy.

$+p < .10$, $*p < .05$, $**p < .01$

Table 6B

Study 3: Effects of Actor and Partner Attachment and Experimental Condition on Relationship Dynamics in Phase 4 (Online Survey One Month Post-Diary Period)

	Phase 4					
	Pre-Post Attachment Anxiety			Pre-Post Attachment Avoidance		
	b(*SE*)	95% CI	*d*	*b*(*SE*)	95% CI	*d*
Model 1						
Gender[a]	-.09(.08)	[-.25, .08]	0.29	.08(.06)	[-.04, .20]	0.42
Experimental Condition[b]	.05(.08)	[-.10, .20]	0.19	-.05(.06)	[-.16, .07]	0.25
Attachment Anxiety						
Actor	.76(.08)***	[.60, .93]	2.08	-.27(.08)**	[-.44, -.11]	0.73
Partner	-.20(.08)*	[-.36, -.04]	0.57	.12(.06)*	[.002, .24]	0.45
Attachment Avoidance						
Actor	-.35(.14)*	[-.64, -.07]	0.57	.78(.07)***	[.64, .91]	2.54
Partner	.11(.10)	[-.08, .30]	0.25	-.04(.07)	[-.19, .11]	0.12
Actor Anxiety × Condition	-.13(.08)	[-.28, .03]	0.40	.05(.06)	[-.07, .17]	0.20
Actor Avoidance × Condition	.14(.09)	[-.04, .31]	0.36	-.14(.07)*	[-.27, -.01]	0.50
Model 2						
Gender[a]	-.08(.08)	[-.25, .09]	0.27	.08(.06)	[-.04, .21]	0.41
Experimental Condition[b]	.04(.08)	[-.12, .20]	0.15	-.05(.06)	[-.17, .06]	0.29
Attachment Anxiety						
Actor	.75(.08)***	[.59, .92]	2.04	-.28(.08)***	[-.45, -.11]	0.75
Partner	-.21(.08)**	[-.37, -.05]	0.59	.11(.06)+	[-.02, .23]	0.39
Attachment Avoidance						
Actor	-.33(.15)*	[-.62, -.04]	0.52	.78(.07)***	[.64, .92]	2.57
Partner	.12(.10)	[-.08, .32]	0.25	-.03(.07)	[-.18, .11]	0.10
Actor Anxiety × Condition	-.13(.08)	[-.29, .03]	0.40	.06(.06)	[-.06, .18]	0.25
Actor Avoidance × Condition	.14(.09)	[-.04, .31]	0.36	-.14(.07)*	[-.27, -.01]	0.53
Relationship Length	-.004(.004)	[-.01, .004]	0.33	.001(.003)	[-.01, .01]	0.004

Note. $N = 70$ couples (140 individuals). We report unstandardized regression coefficients. Continuous variables were centered on the grand mean and scored such that higher values indicate greater standing on the variable (e.g., higher attachment avoidance). Approximate effect sizes were calculated using the formula $d = 2t/\sqrt{(df)}$; 0.20 indicates a small effect, 0.50 indicates a medium effect, and 0.80 indicates a large effect (Cohen, 1988).

[a] -1 = women, 1 = men; [b] -1 = control, 1 = intimacy.

+$p < .10$, *$p < .05$, **$p < .01$

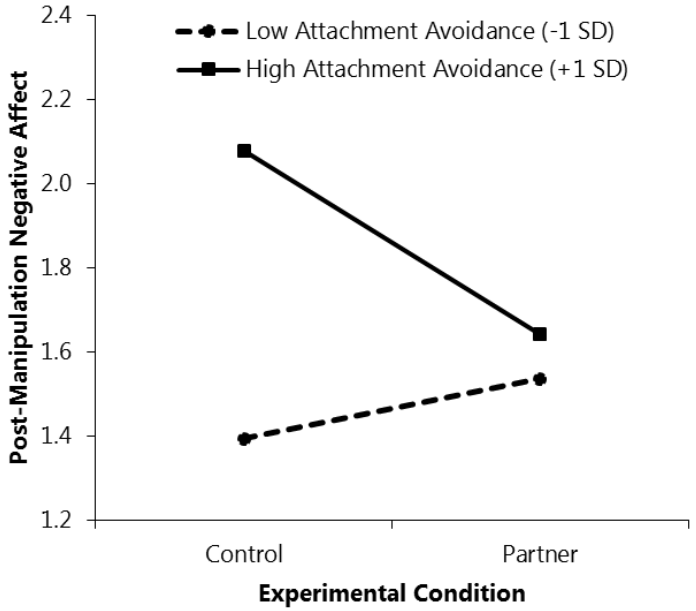

Figure 1. Study 1: Negative affect as a function of experimental condition and attachment avoidance. Low and high attachment avoidance represent ± 1 *SD*.

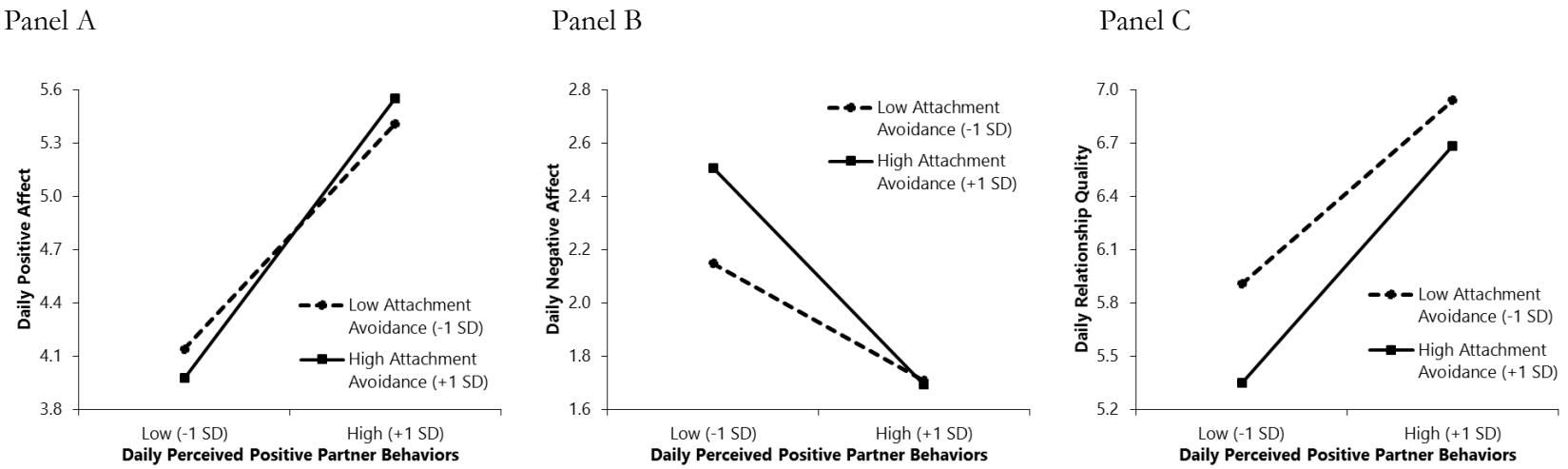

Figure 2. Study 2: Daily positive affect (Panel A), daily negative affect (Panel B), and daily relationship quality (Panel C) as a function of daily perceived positive partner behaviors and Phase 1 initial attachment avoidance. Low and high attachment avoidance represent ± 1 *SD*.

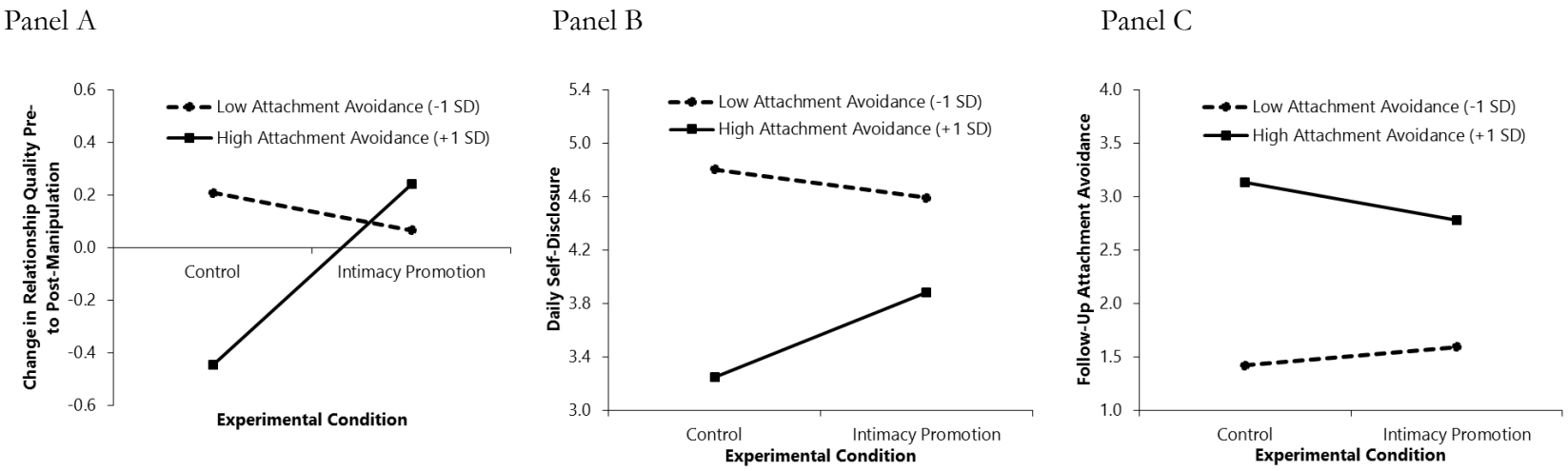

Figure 3. Study 3: Phase 2 (experimental lab session) pre- to post-manipulation relationship quality (Panel A); Phase 3 (10-day diary period) daily self-disclosure (Panel B); and Phase 4 (one month follow-up survey) attachment avoidance (Panel C) as a function of experimental condition and Phase 1 initial attachment avoidance. Low and high attachment avoidance represent ± 1 *SD*.