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How Can I Help You? Social Support in the Context of Attachment Insecurity.

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Abstract

People in close relationships support each other through various means yet support attempts may be unsuccessful. I propose that people prefer support behaviors matched to their dispositional needs (the *personal context*) and their relationship with the support provider (the *interpersonal context*). I also propose that this kind of support is most effective at enhancing relationship quality and reducing personal distress. Attachment theory provides a framework for characterizing differences in dispositional needs and in the specific relationship context between a support recipient and support provider. In three studies, I tested whether one's *trait* and *relationship-specific* attachment orientations are associated with preferences for attachment-matched social support (Study 1) and whether attachment-matched social support most effectively buffers distress and promotes relationship quality during an imagined relationship stressor (Study 2) and during a personal stressor (Study 3). Results showed that attachment anxiety is associated with preferences for emotion-laden support that affirms their relationship with a support provider, and attachment avoidance is associated with preferences for pragmatic support that de-emphasizes the emotional significance of stressors. These patterns of support preferences were strongest in reference to support provided by a specific relationship partner compared to support provided by others in general. Although attachment anxiety was not associated with better personal or relationship outcomes after imagining attachment-matched (vs. unmatched) social support, attachment avoidance was associated with enhanced relationship quality after imagining attachment-matched social support. These findings demonstrate that insecurely attached people prefer support matched to their attachment needs, but the effects of attachment-matched social support on personal and relationship outcomes are less consistent.

Keywords: attachment, social support, close relationships, experimental psychology

HOW CAN I HELP YOU? SOCIAL SUPPORT IN THE CONTEXT OF ATTACHMENT INSECURITY.

by

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Close relationship partners (e.g., family members, friends, romantic partners) often support each other during difficult moments, but support attempts do not always succeed despite support-providers best intentions (Simpson et al., 2007). Although any support behavior—for example, making jokes to lighten the mood or listening sympathetically—has the potential to relieve stress and strengthen the bond between support providers and support recipients, context is key to successful support transactions. Past theories of social support hypothesized that support is most effective when it is matched to the demands of a specific stressor (e.g., financial assistance after job loss; Cutrona & Russell, 1990), but support provision may still fail even when support behaviors "match" the situation at hand (see Lakey, 2013 for a review of the matching hypothesis). If matching support to the stressor does not consistently reduce the support recipient's distress, additional factors may be influencing support recipients' perceptions of and reactions to support provision.

One possibility is that, rather than matching support to a stressor (matching to the *situational* context), support attempts may need to be tailored to the unique needs of the support recipient (*personal context*) and to their relationship with the support provider (*interpersonal context*). Indeed, support recipients' relationship beliefs moderate support outcomes (e.g., Collins & Feeney, 2004), and recent theories of social support state that support provided by romantic partners should be matched to support recipients' individual attachment needs (Arriaga et al., 2018). The current research uses this approach and investigates how one's perceptions of and reactions to support provision vary according to their *trait* attachment orientation—general preferences and expectations in close relationships—and their *relationship-specific* attachment orientation—preferences and expectations in their relationship with a specific

support-provider. This work applies a framework based on adult attachment research and the recently proposed Attachment Security Enhancement Model (ASEM; Arriaga et al., 2018) to test specific hypotheses about the effects of personal and interpersonal contexts on support preferences and immediate support outcomes.

Attachment Histories Influence Current Interactions

Attachment theory states that interactions with close others shape a person's beliefs about whether the self is worthy of love or care, their expectations about whether others can be relied on for support, and their preferences in ongoing relationships (Bowlby, 1969, 1973, 1980). These beliefs, expectations, and preferences—or attachment orientations—are based on interactions with primary caregivers during childhood and on interactions with close others throughout the lifespan. The quality of someone's caregiving environment and the responsiveness of close others throughout adolescence and adulthood determines the extent to which their attachment orientation is characterized along two dimensions of attachment insecurity: attachment anxiety and attachment avoidance (Simpson et al., 2021). Attachment anxiety, an adaptation to inconsistently responsive relationship partners, results in doubts about one's own worthiness of love and support and a preoccupation with maintaining closeness or proximity to a relationship partner. When physical or emotional proximity to a relationship partner is threatened, attachment anxiety manifests as emotional hyperactivation, or exaggerated negative affect. Attachment avoidance is an adaptation to consistently unresponsive relationship partners and results in discomfort with emotional intimacy and the belief that others cannot be relied upon for support. In distressing situations, attachment avoidance manifests as emotional deactivation as well as withdrawal from and avoidance of emotional stimuli (Mikulincer & Shaver, 2019).

These individual differences in attachment are also implicated in ongoing relationship behaviors. Attachment insecurity is associated with more negative behaviors, attitudes, perceptions, and outcomes in adult romantic relationships. For example, insecurely attached people tend to perceive more discord and negative emotions in their relationships (Campbell et al., 2005), engage in more relationship-destructive behaviors during conflicts (J. Feeney & Fitzgerald, 2019), are relatively more likely to be unfaithful to their romantic partners (e.g., Fish et al., 2012), and generally experience more negative relationship outcomes than less insecure individuals do (Mikulincer & Shaver, 2013). Further, people who report high levels of attachment anxiety and attachment avoidance experience less benefit from and enjoyment of normative relationship behaviors, including peace-making behaviors during conflicts (Campbell et al., 2005) and cuddling (Chopik et al., 2014a), compared to people who report lower levels of attachment anxiety and avoidance.

Of particular importance to the current research, compared to people who report lower attachment insecurity, people high in attachment anxiety and attachment avoidance benefit less from social support and perceive their partner's support attempts as more unsupportive or hostile (Collins & Feeney, 2004). Insecurely attached people may have these relatively negative support experiences because the support they receive does not suit their support needs. People who are high in attachment anxiety struggle to regulate their distress and tend to seek excessive support to navigate stressors; in contrast, people high in attachment avoidance become emotionally withdrawn and prefer to manage stressors independently (Hazan & Shaver, 1994). Insecurely attached people's emotional and behavioral responses may make it difficult for close others to provide them with effective support. However, dyadic regulation perspectives suggest that these attachment-relevant behaviors signal support needs to one's relationship partner (e.g., a need for

more or less emotional intimacy; Overall & Lemay, 2015). If differences in behavioral and emotional responses to stress result from differences in the beliefs and preferences associated with attachment anxiety and attachment avoidance, support recipients may prefer and benefit most from support matched to their attachment orientation (Arriaga et al., 2018).

Attachment-Matched Social Support

People high in attachment anxiety or avoidance benefit less from *normative* relationship behaviors than more securely attached people (Chopik et al., 2014b; Collins & Feeney, 2004), but the assumption that these individuals *cannot* benefit from social support is unproductive. In fact, recent studies have demonstrated that affectionate behaviors mitigate the association between attachment anxiety and expressions of jealousy (Kim et al., 2017), and "softening" behaviors—minimizing emotions, using humor—mitigate the association between attachment avoidance and emotional disengagement during conflict discussions (Overall et al., 2013). These findings support two ideas: People who experience varying degrees of attachment anxiety and avoidance may benefit from different forms of social support behaviors, and behaviors typically considered unsupportive (e.g., downplaying problem severity) may be beneficial for some people. Similar ideas underly the Attachment Security Enhancement Model (ASEM; Arriaga et al., 2018), a framework for explaining how different support behaviors may buffer attachment insecurity in-the-moment and enhance attachment security over time.

The authors of the ASEM proposed that two different categories of social support behaviors may mitigate immediate negative outcomes associated with attachment insecurity. The first category, called *safe strategies,* includes support behaviors tailored to the strong need for closeness and doubts about one's own worthiness of love and care associated with attachment anxiety. Support providers use safe strategies when their behaviors convey high levels of

commitment to their relationship with the support recipient (e.g., exaggerating concern for their partner's emotions, expressing affection, maintaining physical proximity). The second category of support behaviors, called *soft strategies,* cater to the need for emotional distance and independence associated with attachment avoidance. Specific examples of soft strategies include downplaying the emotional nature of conflicts and stressors (e.g., avoid emotional expression, provide distraction) and allow the support recipient to withdraw emotionally when feeling distressed (for a brief review of the ASEM and more examples of safe and soft strategies, see Arriaga & Kumashiro, 2019).

Safe and soft strategies could be effective for anxiously and avoidantly attached individuals, respectively, because these support behaviors are *responsive* to recipients' unique attachment needs. According to Reis and Clark (2013), behaviors are responsive when they demonstrate that the person enacting the behaviors understands, validates, and cares for another person's unique needs. Because emotional intimacy is uncomfortable for people high in attachment avoidance (Hazan & Shaver, 1994), emotion-focused support behaviors might be perceived as unresponsive to avoidantly attached people's need for emotional distance (Overall & Lemay, 2015). Instead, partners of people high in attachment avoidance may be most responsive when using soft strategies to downplay strong emotions and validate the support recipient's desire for independence. People high in attachment anxiety crave intimacy and benefit from exaggerated expressions of affection (Lemay & Dudley, 2011). Consequently, responsive partners of highly anxious individuals might emphasize their genuine feelings of positive regard for the support recipient in a way that appears exaggerated to observers. If responsiveness truly is central to healthy relationships (Reis & Clark, 2013), safe and soft

strategies may reduce distress in insecurely attached individuals and promote positive perceptions and beliefs about one's relationship.

Outcomes of Attachment-Matched Social Support

There are many potential outcomes of attachment-matched social support worth discussing, but the current research focuses on two specific benefits. First, people may simply prefer (i.e., provide more favorable evaluations of) attachment-matched social support compared to unmatched social support. Second, attachment-matched social support could be more effective than other forms of support at preventing stress-reactivity, accelerating stress-recovery (personal outcomes), and enhancing support recipients' perceptions of the support provider and their relationship with the support provider (relational outcomes). The effects of support receipt on personal and relational outcomes are not always symmetrical (e.g., Gleason et al., 2008), and they should be assessed simultaneously to explore the boundaries of attachment-matched social support. Since, for example, a support strategy could be evaluated favorably (be preferred or liked) without improving personal or relationship outcomes (or vice versa), a comprehensive assessment of attachment-matched social support must consider both support evaluations and support effectiveness. To that end, the current research sought to test whether attachment-matched social support is a) evaluated more favorably and b) is more effective at buffering stress, enhancing perceived partner responsiveness, and protecting relationship quality compared to unmatched support.

Trait and Relationship-Specific Attachment

Although adult attachment research often centers trait attachment orientations (e.g., Fraley et al., 2000) there is growing evidence that attachment orientations should be characterized at the relationship-specific level as well (Fraley et al., 2006; La Guardia et al.,

2000). That is, theorists now acknowledge that people have preferences and expectations about their relationships in general (trait-level) and in their relationships with specific other people (relationship-specific level), and these attachment orientations may differ (Sibley & Overall, 2008). This raises the question: Should support be matched to recipients' trait or relationship-specific attachment orientations?

Initially, trait attachment and relationship-specific attachment are identical as a child develops an initial working model of attachment based on their experiences with their parents or other primary caregivers. As people form additional attachment relationships with close friends and romantic partners throughout the lifespan, experiences in those relationships result in unique attachments to each attachment figure (i.e., relationship-specific attachment orientations). Although the initial childhood-based attachment orientation generalizes to future relationships to some degree (because people use existing attachment beliefs to guide interactions with new relationship partners; Bowlby, 1969, 1973, 1980; B. C. Feeney et al., 2008), interactions with specific attachment figures that counter one's pre-existing beliefs about close relationships. When this occurs, relationship-specific attachment orientations can differ (in small or large degree) from one's trait attachment orientation. Over time relationship-specific attachments contribute to the revision of one's trait attachment orientation because trait attachment in adulthood is a product of the set of relationship-specific attachment to many different close others (e.g., B. C. Feeney et al., 2008; La Guardia et al., 2000; Overall et al., 2003).

The conceptualization of attachment at both the trait and relationship-specific level raises the possibility that one's trait attachment orientation and their relationship-specific attachment orientation to a support provider may differentially predict support preferences and support outcomes. Whereas the former consists of information from multiple sources (i.e., many

attachment relationships), the latter contains precise information about the relationship with the support provider. Therefore, I considered both trait and relationship-specific attachment to conceptualize attachment-matchedsocial support.

The Current Studies

The ASEM (Arriaga et al., 2018) provides compelling theoretical arguments for why attachment-matched social support may be advantageous in the moment, yet the ASEM's short-term insecurity buffering propositions are currently limited by a lack of empirical support and a lack of specificity in conceptualizing attachment orientations. The current research addresses these limitations by directly testing preferences for attachment-matched social support and the outcomes of experimentally manipulated attachment-matched support. The current research also differentiates support preferences from support effectiveness to clearly assess the consequences of attachment-matched support. Specifically, the current research examines:

1) how trait and relationship-specific attachment anxiety and attachment avoidance are associated with one's relative *preferences* for safe and soft support strategies; and

2) whether trait and relationship-specific attachment anxiety and attachment avoidance each predict the relative *effectiveness* of safe and soft strategies to reduce distress and promote relational outcomes.

The current studies advance research on adult attachment and social support by extending the ASEM to account for both person-level and relationship-level differences in support needs and by including support preferences as an outcome of interest. Further, these studies can identify important definitional and methodological considerations for future research in this area by distinguishing support preferences from support effectiveness.

This series of studies utilized a multimethod approach to test key propositions of the ASEM (Arriaga et al., 2018). In Study 1, participants completed an in-lab questionnaire in which they reported their support preferences using a novel scale that specifically assessed evaluations of safe and soft strategies. Study 2 was an online experiment in which participants imagined their romantic partner attempting to reconcile a relationship threat (an interpersonal stressor) by providing either safe strategies or soft strategies. Finally, Study 3 was an in-lab experiment that examined relative preferences for safe and soft strategies and the effect of imagined support strategies in the context of a personal, laboratory-induced stressor.

Study 1

In Study 1, I tested whether *trait* and *relationship-specific* attachment were each associated with an individual's evaluations of safe and soft strategies. Based on the ASEM's proposition that support is most effective when it is matched to an individual's attachment orientation, I predicted that:

H1: Individuals high in *trait* attachment anxiety will report relatively more favorable evaluations of safe strategies than soft strategies.[1]

H2: Individuals high in *trait* attachment avoidance will report relatively more favorable evaluations of soft strategies than safe strategies.

H3: Individuals high in *relationship-specific* attachment anxiety will report relatively more favorable evaluations of safe strategies than soft strategies.

H4: Individuals high in *relationship-specific* attachment avoidance will report relatively more favorable evaluations of soft strategies than safe strategies.

[1] At the time of pre-registration, I was agnostic as to whether the trait attachment or RS attachment variables would predict different patterns of support preferences.

To evaluate the generalizability of these hypotheses across support situations, I had participants evaluate support strategies in the context of personal stressors (a work or school-related stressor) and interpersonal stressors (a conflict with an attachment figure).

Method

Participants

I recruited 216 participants from the research participation pool at Syracuse University, a large private university in the northeastern United States. Of these 216 participants, 25 were excluded due to failing both attention checks, and 7 additional participants requested that I delete their data. The final sample consisted of 184 participants (59% female). These participants predominantly self-identified as White (67%), Asian (24%), Black (7%), or other (2%). Additionally, 9% of this sample identified as Hispanic. Participants ranged in age from 18 to 25 years old (M = 19.1, SD = 1.2).

Procedure and Measures

I used the Syracuse University department of psychology's research participation pool to recruit participants for a 30-minute-long study titled "Responses to Everyday Problems." Once participants arrived at the psychological research center at their scheduled times, research assistants led each participant to a computer cluster room to complete an online Qualtrics survey on a semi-private computer. After participants read the electronic consent form on the first page of the survey and provided consent, they began a two-part survey asking them to reflect back on a stressful but not traumatic work or school-related event (*personal stressor*) and a stressful but not traumatic conflict between themselves and an attachment figure (*interpersonal stressor*). I counterbalanced the order in which participants completed these two sections.

Personal Stressor.

Attachment Figure Identification. Participants identified an attachment figure to reference throughout the personal stressor section by reporting the first name or nickname of the person they go to when they are feeling upset or down (WHOTO; Fraley & Davis, 1997). Participants then indicated their relationship to the attachment figure they identified (e.g., romantic partner, friend, father) and provided some additional relational demographics (e.g., estimated how long they have been going to this person for support). The attachment figure's name was piped into any instructions or items that referenced the attachment figure.

Relationship-Specific Attachment. Next, participants completed the Experiences in Close Relationships—Relationships Structures scale (ECR-RS; Fraley et al., 2006). The ECR-RS assessed the degree to which a respondent experiences attachment anxiety and attachment avoidance in their relationship to a specific person. Relationship-specific (RS) attachment anxiety was measured with three items (e.g., "I often worry that this person doesn't really care for me"; $\alpha = .92$), and RS attachment avoidance was measured with six items (e.g., "I don't feel comfortable opening up to this person"; $\alpha = .77$). Participants indicated how true each item was of their relationship with the attachment figure they identified (1 = *not at all true* and 7 = *very true*). If participants had previously completed the interpersonal stressor section of the survey (due to the counterbalanced design), the survey displayed an item asking if the participant identified the same attachment figure in the previous stressor section; if they selected yes, they did not complete the ECR-RS a second time.

Personal Stressor Description and Support Evaluations. After completing the ECR-RS, the survey prompted participants to think of the most stressful (but not traumatic) work or school-related event that happened to them in the past year, specifying that the event should be one in which they sought support from the attachment figure they identified. Participants briefly

described the event in a free-response text box, indicated how stressful they found the situation to be (1 = *not at all* and 5 = *extremely stressful*), reported how long it took to resolve the situation (1 = *resolved immediately* and 7 = *still not resolved*), and reported the extent to which they experienced negative affect in the situation using the negative affect sub-scale of the Positive and Negative Affect Scale (Diener et al., 2010; α = .86).[2]

Next, participants completed the Safe and Soft Strategies Preference Scale (S/SSPS), a self-report scale I created for this study to assess respondents' evaluations of safe and soft support strategies (see Appendix A). The S/SSPS assessed the extent to which participants would like their attachment figure to provide support consistent with the definitions of safe and soft strategies if the participant experienced a similar work or school-related stressor in the future. Participants used a 7-point scale to indicate how much they would like their attachment figure to support them as described by each item (1 = *dislike a great deal* and 7 = *like a great deal*). Participants were shown 13 items depicting specific examples of safe strategies ("emphasize that we can deal with this together"; α = .88) and 11 items depicting specific examples of soft strategies ("help me take my mind off of the situation"; α = .74), and the order of the items was randomized for each participant.

Interpersonal Stressor. The interpersonal stressor section of the survey was largely the same as the personal stressor section, with a few notable exceptions.

Attachment Figure Identification. Participants identified an attachment figure to reference throughout the interpersonal stressor section by reporting the first name or nickname of

[2] Additionally, the survey instructed participants to recall up to two support behaviors their attachment figure enacted that were most helpful, up to two other support behaviors that were helpful, up to two behaviors that were unhelpful, up to four behaviors that would have been helpful, and up to two behaviors that would have been unhelpful. Later, participants were given the option to list up to four other behaviors they would have wanted their attachment figure to do. These open-ended responses have not yet been analyzed at the time of this writing.

the person they most like to spend time with (WHOTO; Fraley & Davis, 1997). Participants classified their relationship to this person and provided some additional relational demographics (e.g., estimated how many hours per day they interact with the attachment figure).

Relationship-Specific Attachment Orientation. If participants identified a different attachment figure in the interpersonal stressor section, they completed the ECR-RS (Fraley et al., 2006) a second time, referencing the second attachment figure.[3]

Interpersonal Stressor Description and Support Evaluations. Next, the survey prompted participants to think of the most stressful (but not traumatic) conflict that occurred between them and the attachment figure they identified. Participants briefly described the event, indicated how long it took to resolve the situation (1 = *resolved immediately* and 7 = *still not resolved*), and indicated how they felt in the situation using the negative affect sub-scale of the PANAS.[4] Participants then completed the Safe and Soft Strategies Preference Scale (S/SSPS), indicating how much they would like if their attachment figure supported them as described by each item in a moderately severe hypothetical conflict with that attachment figure in the future.

Trait Attachment Orientation and Consent to Use Data. After completing both stressor sections of the survey, participants completed the Experiences in Close Relationships Short Form (ECR-SF; Wei et al., 2007) which assessed *trait* attachment anxiety with 6 items ("I need a lot of reassurance that I am loved by close others"; $\alpha = .69$) and *trait* attachment avoidance with 6 items ("I am nervous when others get too close to me"; $\alpha = .70$). Participants indicated how much they agree with each item in reference to how they generally experience

[3] Because I programmed the survey incorrectly, 23 participants who completed the interpersonal stressor section first and indicated that they identified a different attachment figure in the personal stressor section were unable to provide ECR-RS data for the second attachment figure.

[4] After participants responded to the negative affect items, they responded to the same open-ended behavior recall items that occurred before the personal stressor S/SSPS items. These open-ended responses have not yet been analyzed.

relationships with close others using a 7-point scale (1 = *disagree strongly* and 7 = *agree strongly*). Finally, participants provided demographic information and indicated whether there was any reason I should not use their data. If they indicated that their data should be deleted, they were asked to confirm their choice.

Data Analytic Strategy

I formatted and analyzed the data for this study in R Studio with the following packages: tidyverse, psych, stats, car, effects, ggplot2, lme4, lmerTest, reghelper, jtools, sandwich, interactions, and tidyselect. I structured the data so the responses provided in each stressor section were nested within participants. Additionally, to compare participants' evaluations of each support strategy on the S/SSPS scale, I restructured the data so there were four rows per participant, reflecting that each participant evaluated safe strategies and soft strategies in two different stressor contexts (personal and interpersonal). Rows were distinguished by a support strategy type variable (hereafter referred to as "strategy type"; safe strategies = -0.5, soft strategies = 0.5) and a stressor context variable (personal stressor = -0.5, interpersonal stressor = 0.5).

I used one mixed effects model to test the hypotheses that *trait* attachment anxiety and attachment avoidance are associated with preferences for one support strategy over the other, and I used a second mixed effects model to test the hypotheses that *relationship-specific* attachment anxiety and attachment avoidance are associated with preferences for one support strategy over the other. In each model, support evaluations were regressed onto attachment anxiety and avoidance (each mean-centered), the strategy type variable, the stressor context variable, and each interaction term for all predictor variables. Finally, I included the by-subject random intercept to account for non-independence of observations. Of note, I also included the stressor

context variable in the model to test for between-stressor differences in support evaluations. In these models, a main effect of strategy type indicates that, on average, participants prefer one strategy type over the other; other main effects indicate associations between participants' support evaluation scores, averaged across strategy types; and interactions between an attachment variable and the strategy type variable indicate attachment-related *preferences* for one strategy type relative to the other.

Results and Discussion

Attachment Figure Characteristics

Descriptive statistics and correlations between predictors and outcome variables are presented in Table 1. For the personal stressor, participants typically indicated that their attachment figure was a maternal figure (35.3%), a friend (30.4%), or a romantic partner (16.3%), and participants reported that they had been going to this person for support a total of 53.9 months on average (*SD* = 41.1). For the interpersonal stressor, participants typically indicated that their attachment figure was a friend (52.1%), a romantic partner (22.8%), or a maternal figure (12.5%), and reported that they spend 5.8 hours each day in contact with their attachment figure on average (*SD* = 4.3). In total, 42 participants (22.8%) identified the same attachment figure for both stressors. On average, participants described personal stressors that they rated as very stressful (*M* = 3.91, *SD* = 0.81), characterized by moderate negative affect (*M* = 27.9, *SD* = 8.7), and that were resolved within a few months (*M* = 4.53, *SD* = 2.05). Similarly, participants described interpersonal stressors that they rated as moderately stressful (*M* = 2.84, *SD* = 1.19), characterized by moderate negative affect (*M* = 20.9, *SD* = 8.2), and that were resolved within a few weeks (*M* = 4.36, *SD* = 2.28).

Trait Attachment Predicting Relative Preferences for Support (Hypotheses 1 & 2)

Hypotheses 1 and 2, respectively, state that greater trait attachment anxiety will be associated with more favorable evaluations of safe strategies (vs. soft strategies) whereas greater trait attachment avoidance will be associated with more favorable evaluations of soft strategies. The results of the trait attachment model (see Table 2) demonstrated significant main effects of attachment anxiety, attachment avoidance, and strategy type. The main effects suggest that people higher in attachment anxiety generally evaluate support more favorably, people higher in attachment avoidance generally evaluate support less favorably, and people generally prefer safe strategies over soft strategies. These main effects were qualified by significant interactions between strategy type and attachment anxiety, between strategy type and attachment avoidance, and between strategy type and stressor context. To examine whether these interactions were consistent with hypotheses 1 and 2, I analyzed the simple effects of strategy type at 1 *SD* above and below the mean for each attachment dimension. For each simple effects analysis, I also calculated the region of significance for the appropriate attachment variable. This calculation provides a range of values for each attachment variable where the effect of strategy type reaches significance.

Simple effects analyses demonstrate support for hypothesis 1. In the interaction between strategy type and trait attachment anxiety (see Figure 1), the effect of strategy type was significant at values of trait attachment anxiety below 1.36 and above 3.32. Accordingly, the interaction between trait attachment anxiety and strategy type showed no differences in evaluations of safe and soft strategies at low levels (-1 *SD* = 2.80) of trait attachment anxiety (b = -.01, p = .84) although safe strategies were evaluated more favorably at high levels (+ 1 *SD* = 4.92) of trait attachment anxiety (b = -.19, p < .01). Exploratory simple slopes analyses

demonstrated that greater trait attachment anxiety was associated with more favorable evaluations of safe strategies (b = .20, p < .01) but not soft strategies (b = .03, p = .53).

Hypothesis 2 was not supported. The effect of strategy type was significant at values of trait attachment avoidance below 3.41 and above 4.77. The simple effects of the interaction between attachment avoidance and strategy type (see Figure 2) confirmed this calculation, showing that safe strategies are evaluated more favorably than soft strategies at low levels (-1 *SD* = 1.91) of trait attachment avoidance (b = -.20, p < .01) and there were no differences in support evaluations at high levels (+1 *SD* = 3.99) of trait attachment avoidance (b = .01, p = .75). Additional exploratory simple slopes analyses demonstrated that greater trait attachment avoidance was associated with less favorable evaluations of safe strategies (b = -.33, p < .01) and soft strategies (b = -.12, p = .02) though the latter slope was less steep.

These results demonstrate that, when defined at the trait level, people high in attachment anxiety tend to prefer attachment-matched social support over mismatched social support. Of note, although I did not observe preferences for soft strategies over safe strategies at values of trait attachment avoidance 1 *SD* above the mean, my calculations of the region of significance for the avoidance-by-strategy type interaction suggest that the expected support preferences are present at very high levels of trait attachment avoidance.

Table 1

Means, Standard Deviations, and Correlations.

Variable	*M*	*SD*	1	2	3	4	5
1. Trait att. anxiety	3.87	1.07					
2. Trait att. avoidance	2.95	1.04	.13				
3. RS att. anxiety	1.93	1.20	.44**	.12			
4. RS att. avoidance	2.13	0.83	-.02	.39**	.24**		
5. Safe strategy evaluations	5.60	0.86	.21**	-.37**	.02	-.47**	
6. Soft strategy evaluations	5.41	0.67	.03	-.15*	-.17*	-.26**	.51**

Note. Correlations were calculated after aggregating data by participant to prevent over-inflation due to repeated measures across stressor contexts. Att. = attachment. RS = relationship-specific attachment. * indicates $p < .05$. ** indicates $p < .01$.

Table 2

Fixed Effects of Attachment on Evaluations of Support Strategies

	Trait Attachment		Relationship-specific Attachment	
Predictor	*b*	95% CI	*b*	95% CI
(Intercept)	5.50***	[5.44, 5.57]	5.52***	[5.44, 5.58]
Attachment anxiety	0.12*	[0.06, 0.18]	0.06*	[-0.00, 0.12]
Attachment avoidance	-0.23***	[-0.28, -0.16]	-0.29**	[-0.40, -0.24]
Stressor context	-0.02	[-0.13, 0.11]	-0.01	[-0.15, 0.14]
Strategy type	-0.20***	[-0.32, -0.08]	-0.14**	[-0.29, -0.00]
Att. anxiety × Att. avoidance	0.00	[-0.05, 0.07]	-0.12***	[-0.16, -0.02]
Att. anxiety × Stressor context	-0.04	[-0.15, 0.09]	-0.15*	[-0.27, -0.03]
Att. avoidance × Stressor context	-0.04	[-0.16, 0.09]	0.06	[-0.13, 0.18]
Att. anxiety × Strategy type	-0.17***	[-0.29, -0.05]	-0.19***	[-0.32, -0.07]
Att. avoidance × Strategy type	0.21***	[0.09, 0.33]	0.32***	[0.17, 0.48]
Stressor context × Strategy type	-0.21*	[-0.46, 0.03]	-0.06	[-0.34, 0.23]
Att. anxiety × Att. avoidance × Stressor context	0.00	[-0.09, 0.14]	0.04	[-0.12, 0.15]
Att. anxiety × Att. avoidance × Strategy type	0.01	[-0.10, 0.13]	-0.01	[-0.14, 0.13]
Att. anxiety × Stressor context × Strategy type	-0.02	[-0.26, 0.21]	0.07	[-0.18, 0.31]
Att. avoidance × Stressor context × Strategy type	0.12	[-0.12, 0.37]	0.15	[-0.16, 0.46]
Att. anxiety × Att. avoidance × Stressor context × Strategy type	-0.09	[-0.32, 0.14]	-0.13	[-0.41, 0.14]

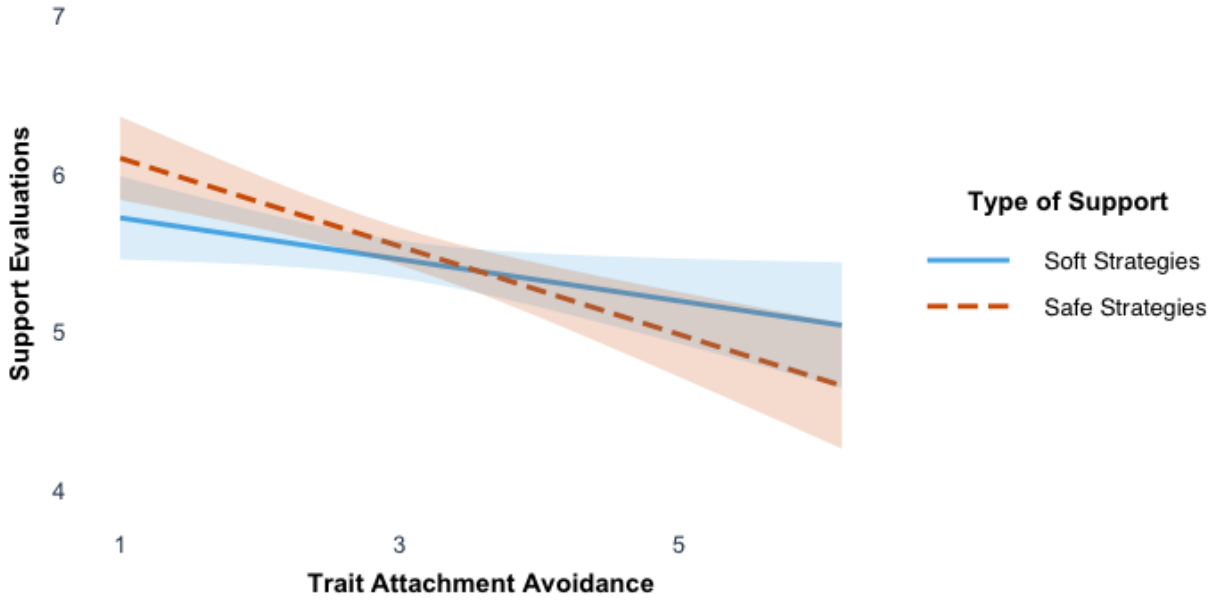
Note. Att. = attachment.
* indicates $p < .05$. ** indicates $p < .01$. ** indicates $p < .001$

Figure 1

Association Between Trait Attachment Anxiety and Support Evaluations as a Function of Support Type

Figure 2

Association Between Trait Attachment Avoidance and Support Evaluations as a Function of Support Type



Relationship-Specific Attachment Predicting Relative Support Preferences (Hypotheses 3 & 4)

Hypotheses 3 and 4, respectively, state that greater relationship-specific (RS) attachment anxiety will be associated with more favorable evaluations of safe strategies whereas greater RS attachment avoidance will be associated with more favorable evaluations of soft strategies. The RS attachment model (see Table 2) demonstrated main effects of RS attachment anxiety, RS attachment avoidance, and strategy type. On average, RS attachment anxiety was associated with more favorable evaluations of support, RS attachment avoidance was associated with less favorable evaluations of support, and safe strategies were evaluated more favorably than soft strategies. These main effects were qualified by significant interactions between RS attachment anxiety and strategy type, between RS attachment avoidance and strategy type, an interaction between RS attachment anxiety and attachment avoidance, and an interaction between RS attachment anxiety and stressor context. To examine whether these interactions were consistent with hypotheses 3 and 4, I analyzed the simple effects and calculated the region of significance.

Analyses of the simple effects supported hypothesis 3. The effect of strategy condition was significant at values of RS attachment anxiety above 1.70. Confirming this calculation, the simple effects of the interaction between attachment anxiety and strategy type (see Figure 3) showed that there was no difference in evaluations of safe and soft strategies at low levels (-1 *SD* = 0.56) of RS attachment anxiety (b = .06, p = .14), but safe strategies were evaluated more favorably than soft strategies at high levels (+1 *SD* = 3.27) of RS attachment anxiety (b = -.20, p < .01). Further exploratory simple slopes analyses demonstrated that RS attachment anxiety was positively associated with evaluations of safe strategies (b = .15, p < .01) but was not associated with evaluations of soft strategies (b = -.04, p = .27). These results suggest that people who

report higher RS attachment anxiety in their relationships tend to evaluate safe strategies more favorably than soft strategies despite reporting relatively neutral evaluations of soft strategies.

The interaction between RS attachment avoidance and strategy type (see Figure 4) supported hypothesis 4. The effect of strategy condition was significant at values of RS attachment avoidance below 2.33 and above 3.08. Confirming this calculation, safe strategies were preferred at low levels (-1 *SD* = 1.24) of RS attachment avoidance (b = -.23, p < .01), and soft strategies were preferred at high levels (+1 *SD* = 3.17) of RS attachment avoidance (b = .09, p < .01). Further exploratory simple slopes analyses demonstrated that RS attachment avoidance was negatively associated with evaluations of safe strategies (b = -.45, p < .01) and soft strategies (b = -.12, p = .02), although the latter association was weaker. It appears that, for highly avoidant individuals, even the preferred form of support was evaluated relatively unfavorably. As with the trait attachment models, preferences for attachment-matched social support (compared to unmatched social support) were present at higher values of RS attachment anxiety and avoidance. Interestingly, when calculating the regions of significance for the attachment variables, I observed that preferences for attachment-matched support were observable at less extreme values of RS attachment anxiety and avoidance than for trait attachment anxiety and avoidance.

Study 1 provides initial evidence that people prefer (i.e., report relatively more favorable evaluations of) attachment-matched support over unmatched support. Additionally, these results suggest that, when evaluating support provided by a specific attachment figure, RS attachment anxiety and avoidance predict the hypothesized patterns of support preferences more reliably than trait attachment anxiety and avoidance do. I observed preferences for attachment-matched support, but I did not test whether attachment-matched support is more effective than unmatched

support. Study 2 expands on these initial findings by evaluating the relative consequences of attachment-matched and unmatched support strategies.

Figure 3

Association Between Relationship-Specific Attachment Anxiety and Support Evaluations as a Function of Support Type

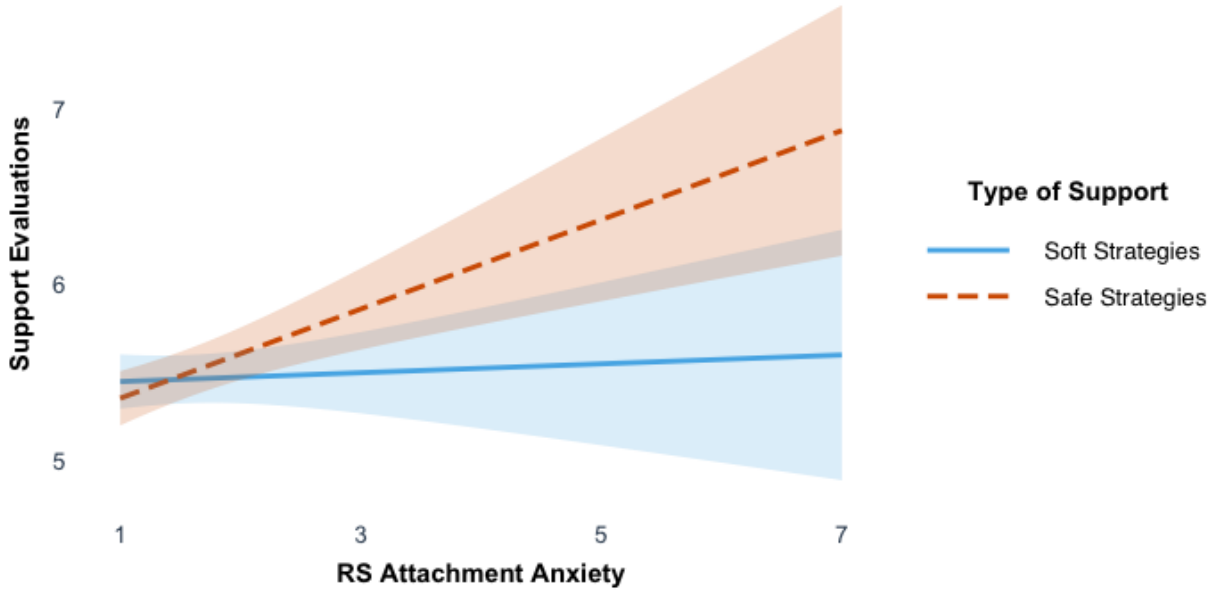
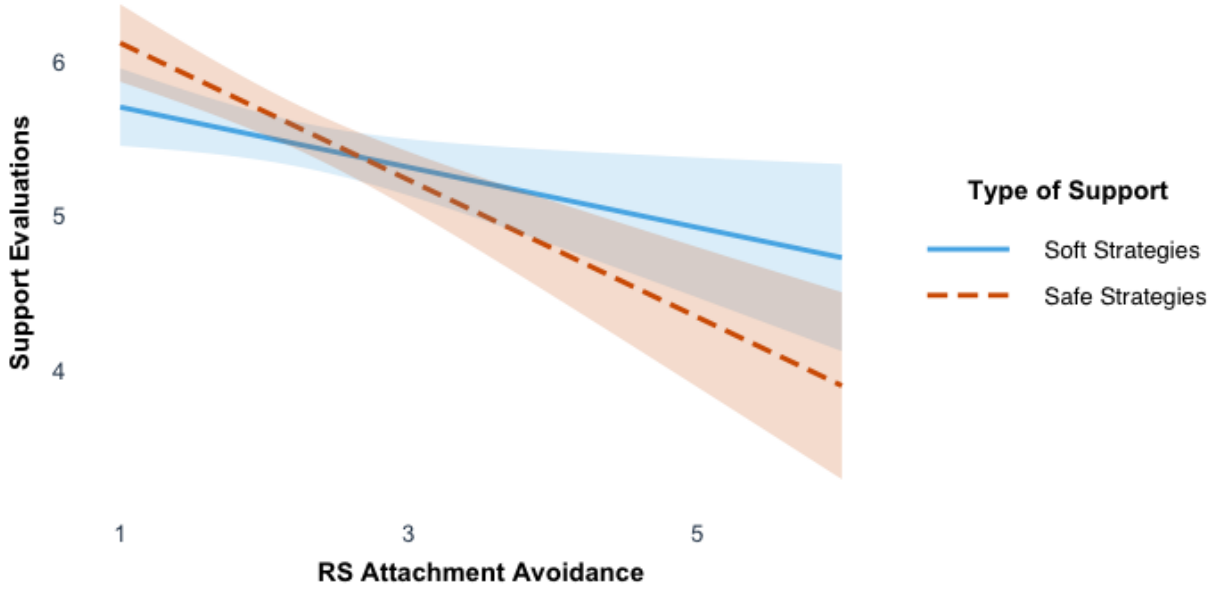


Figure 4

Association Between Relationship-Specific Attachment Avoidance and Support Evaluations as a Function of Support Type



Study 2

Study 1 provided evidence for attachment-matched support preferences using a correlational design. Study 2 expanded this line of work by testing whether attachment-matched support improves support outcomes using an experimental study design. In Study 2, I tested the relationship-protective and distress-buffering effects of imagined safe and soft strategies during an imagined relationship threat (an interpersonal stressor). Consistent with the ASEM, I predicted that the consequences of imagining safe versus soft strategies would depend on participants' trait and relationship-specific attachment orientations. Regarding trait attachment orientation, I predicted that:

> H1: For participants high in trait attachment anxiety, imagining receiving safe strategies will lead to greater relationship quality (H1a). Alternatively, for participants high in trait attachment avoidance, imagining receiving soft strategies will lead to greater relationship quality (H1b).
>
> H2: For participants high in trait attachment anxiety, imagining receiving safe strategies will lead to lower distress (H2a). Alternatively, for participants high in trait attachment avoidance, imagining receiving soft strategies will lead to lower distress (H2b).

Attachment-matched support is likely to be more responsive to participants' needs than unmatched support. Therefore, I also predicted that participants would perceive greater partner responsiveness when they imagined receiving matched support strategies. Specifically, I hypothesized that:

> H3: For participants high in trait attachment anxiety, imagining receiving safe strategies will lead to greater perceived partner responsiveness (H3a) than imagining receiving soft strategies. Alternatively, for participants high in trait attachment avoidance, imagining

receiving soft strategies will lead to greater perceived partner responsiveness (H3b) than imagining receiving safe strategies.

Regarding relationship-specific attachment, I predicted the same patterns of results (H4-H6).

Method

Participants

I used Amazon's Mechanical Turk (MTurk) to recruit participants who were in a romantic relationship for at least six months and who were residing in the United States. *A priori* power analyses using the pwr package in R Studio suggested that the minimum sample size required to detect an effect of $f^2 = 0.03$, $p = 0.05$, with 95% power is approximately $N = 705$ for a regression model with 6 predictors. Thus, I aimed to collect usable data from at least 710 participants. I received a total of 1366 responses. After culling possible fake responses from bots (determined by anomalous response patterns, poor grammar and syntax, or irrelevant text responses), I approved responses from 807 participants. Data from these 807 participants were then filtered further to ensure usability. Data were un-usable if the participant requested that their data be deleted ($N = 41$), if participants reported that they were not in a romantic relationship ($N = 24$) or if their romantic relationship has not lasted for at least six months ($N = 4$), and if participants did not pass both attention checks ($N = 18$). After exclusions, the final sample consisted of data from 720 participants.

My final sample had a slightly higher percentage of female respondents (57%) than male respondents (43%). Most participants self-identified as White (76%), Black (11%), or Asian (7%), and most participants (93%) reported being in a heterosexual relationship. Participants ranged in age from 18 years-old to 78 years-old ($M = 36.08$, $SD = 11.43$), and participants reported relationship lengths from 6 months to 600 months ($M = 104.11$, $SD = 110.73$). Finally,

approximately 50% of the sample reported being married, 39% reported being in a serious dating relationship, and approximately 11% reported being engaged or in a casual dating relationship.

Procedure and Measures

MTurk workers responded to a solicitation to participate in a 20-minute study titled "Opinions About Common Relationship Events." The solicitation informed participants that the study was investigating how people navigate normal relationship events. Since the study involved topics such as disagreements in relationships and responses to potential relationship threats, I included the phrase "normal relationship events" in the solicitation to preemptively decrease the likelihood of socially desirable responding by normalizing the events described within the study. The rest of the procedure is as follows.

Personal and Relationship Background. After participants consented to participate in the study, they provided demographic information and responded to items asking for their partner's first name or nickname, their partner's gender, their relationship status, and the length of time in months and years that they have been in a serious romantic relationship with their partner. I programmed the survey to pipe each participant's partner's name into relevant instructions, survey items, and experimental vignettes. I also programmed the survey to display instructions, items, and experimental vignettes that use the appropriate pronouns to address their romantic partner.

Attachment Measures. In the next section, participants completed two self-report measures of attachment orientation: the 12-item Experiences in Close Relationships-Short Form (ECR-SF; Wei et al., 2007) and the 9-item Experience in Close Relationships-Relationship Structures (ECR-RS; Fraley et al., 2006). The ECR-SF assessed trait attachment anxiety with 6 items (α = .79) and assessed trait attachment avoidance with 6 items (α = .78). Next, participants

completed the ECR-RS relationship-specific (RS) attachment scale. In the ECR-RS, 3 items assessed RS attachment anxiety (α = .90) and 6 items assessed RS attachment avoidance (α = .88). To emphasize that participants were to reference their current romantic relationship when completing the ECR-RS, the name of each participant's respective romantic partner was piped into the instructions and into the scale items. For both the ECR-SF and ECR-RS, participants indicated their agreement with each item on a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*). After responding to the attachment measures, participants completed the Ten-Item Personality Inventory (Gosling et al., 2003) to reduce carryover effects from responding to the attachment scales before beginning the guided visualization task.

Guided Visualization. At this point, participants began a guided visualization task in which they imagined a specific interaction with their partner. I used this visualization task to introduce a relationship threat before exposing participants to either experimental vignette. In the first part of the guided visualization, participants read that people sometimes dislike some of their romantic partner's behaviors, hobbies, or habits, and these issues may contribute to relationship conflict or dissolution. They then read that people may need to change their own behaviors to maintain their romantic relationships. Additionally, participants were asked to list three of their own behaviors that their partner may want them to change and to rate how much their partner would want them to change these behaviors. Finally, for consistency, participants were asked to list three behaviors they would want their partner to change (see Appendix B).

Next, the guided visualization introduced an insecurity-triggering relationship threat. In this sense, the word "trigger" refers to a situation which prompts an individual's reliance on their attachment representations to guide their perceptions of, and reactions to, an attachment-relevant situation. For the relationship threat, all participants read a vignette instructing participants to

imagine that their partner has unexpectedly become distant, rarely responding to the participant's attempts to communicate. The visualization then stated that the participant's partner confessed that they were distant because they were unhappy, citing the behaviors that the participant's partner might dislike (see Appendix C). Because conflicts like this imagined confrontation may lead to relationship dissolution or require one to accommodate their partner, similar relationship events are believed to activate the attachment system's goals to maintain proximity to (attachment anxiety), or seek emotional distance from (attachment avoidance), an attachment figure. The survey instructed participants to imagine themselves in the situation presented to them to the best of their abilities and instructed participants to type how they would feel, think, and behave in the situation presented to them. Because some participants write more than others, I embedded a visible timer in the Qualtrics survey which did not allow participants to proceed to the next page until 30 seconds passed. Additionally, the survey instructed participants to indicate how likely it would be for the events in the insecurity trigger to occur in their own relationship using a 5-point scale (1 = *extremely unlikely*; 5 = *extremely likely*). Next, participants used a bipolar, seven-point scale to indicate how much they felt *insecure* (1) to *secure* (7), *calm* (1) to *upset* (7), and *worried* (1) to *relaxed* (7). After reverse-scoring the first and third items, I averaged participants' responses to these bipolar items to form an index of how insecure they felt after the insecurity trigger (α = .88).

Experimental Manipulations. In the final part of the guided visualization, participants were randomly assigned to imagine that their partner attempted to resolve the conflict using either safe strategies or soft strategies. The contents of the safe and soft strategy vignettes were based on the definitions of safe and soft strategies provided by Arriaga and colleagues (2018). Both vignettes were 4 lines long and contained approximately 120 words. The exact wording of

the vignettes, including line-by-line explanations, and examples of the work on which these definitions are based are provided in Table 3 and Table 4. In the safe strategies condition, participants imagined that, after their partner admitted their dissatisfaction with the relationship, their partner expressed high commitment to the relationship, apologized for their negative behavior, and expressed strong desires to soothe the participant's distress. In the soft strategies condition, participants imagined that, after their partner admitted their dissatisfaction with the relationship, their partner downplayed the intensity of the situation by laughing about and acknowledging their own flaws, expressed a desire to calmly discuss how to make the relationship better for both parties, and stated that the participant is free to distance themselves from the situation if wanted.

Table 3

Safe Strategy Vignette with Explanations and Relevant Citations

Line	Purpose	Example citations
Soon after telling you they have been having doubts about continuing the relationship, **[Partner Name]** says, *"I'm sorry I've been distant and holding this in. I know it's stressful when someone is being weird and you don't know why they're acting that way."*	Expressing guilt and understanding of support recipients' feelings.	(Overall et al., 2014)
While holding your hand they say, *"People sometimes have doubts, but I know for sure that I care about you, and I am so happy to be with you."*	Offering physical affection; conveying positive regard toward support recipient and relationship.	(Kim, Feeney, & Jakubiak, 2017)
"We're great together, and I want to keep this up. I'm sorry for being harsh. How can I make it up to you? I want to do everything I can to make you happy."	Expressing guilt; conveying commitment; expressing willingness to sacrifice.	(Campbell et al., 2005)
"I want to stay right here with you. Please tell me everything that is on your mind."	Maintaining proximity.	(Hazan & Shaver, 1994)

Note. The pronouns used in each vignette changed depending on the reported gender of the participant's partner; this vignette was shown to participants whose partner is non-binary. Partner's names were substituted for the bold text. Italics were used to distinguish dialogue from narrative elements.

Table 4

Soft Strategy Vignette with Explanations and Relevant Citations

Line	Purpose	Example citations
Soon after telling you they have been having doubts about continuing the relationship, **[Partner's Name]** says, *"I'm sorry that I have been acting weird and holding this in."*	Downplaying severity of transgression.	(Overall et al., 2013)
"I know it's annoying when someone comes along and tells you what to do." They laugh and add, *"Especially when I have my own issues to fix. I was overreacting."*	Using humor to downplay the severity of the conflict.	(Overall et al., 2013)
"It's unfair to make you do all the work. You've been doing a lot for our relationship, and I really appreciate that. What can I do to make this better for you too?"	Framing matters of independence rationally or "matter-of-factly."	(Simpson et al., 2007)
"Or, if you want, we can leave it alone for now and come back to it when we can stay level-headed and work it out."	Encouraging support recipient to withdraw if needed; managing desire to keep interactions from becoming emotional; offering practical assistance.	(Overall et al., 2013)

Note. The pronouns used in each vignette changed depending on the reported gender of the participant's partner; this vignette was shown to participants whose partner is non-binary. Partner's names were substituted for the bold text. Italics were used to distinguish dialogue from narrative elements.

Outcome Measures. After completing the guided visualization, each participant was presented with several outcome measures. First, participants completed a measure of *perceived partner responsiveness* (PPR; α = .96) containing 7 items from the 12-item Perceived Responsiveness Scale (Reis et al., 2011). I selected those 7 items to prevent confounding perceived partner responsiveness with the contents of the experimental manipulations. Using a 7-point scale (1 = *not at all true*; 7 = *completely true*), participants indicated how true each item would be if their partner behaved as depicted in the support vignettes, and I calculated the mean of their responses (see Appendix D). Next, the survey re-displayed the experimental vignette that participants saw earlier. Participants indicated how they would feel if their partner supported them as shown in the vignette using a modified version of the Felt Security measure (α = .95; Jakubiak & Feeney, 2016; Luke et al., 2012) which included two additional items assessing the extent to which participants would feel "angry" or "hurt." Participants indicated the extent to which they would feel each of the 12 listed emotions using a 7-point scale (1 = *not at all*; 7 = *very much*). After I reverse-scored positively worded items in the Felt Security measure, I computed participants' mean scores on all 12 items to create the distress variable.

Participants then responded to 14 items assessing *relationship satisfaction*, *commitment*, and *trust* in one's partner. Relationship satisfaction (α = .90) and commitment (α = .78) were measured with four and five items, respectively, taken from an abbreviated version of the Investment Model Scale (Lemay et al., 2015; Rusbult et al., 1998). Trust was measured with five of the most relevant items from the 8-item Dyadic Trust Scale (α = .83; Larzelere & Huston, 1980; see Appendix E). Participants indicated their agreement with all 14 items on a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*). Because the relationship satisfaction,

commitment, and trust variables were highly correlated (*r*s ranged from .65 to .76), I combined them to form the relationship quality composite (RQ; α = .92).

Final Items. After participants responded to the outcome measures, they responded to a series of questions meant to assess whether they were paying attention to the content of the vignettes and whether they thought the content of the strategy vignettes was realistic. The survey instructed participants to indicate the extent to which their partner (as portrayed in the vignettes) was 1) physically affectionate, 2) reassured the participants that they were cared for, 3) was committed to the relationship, 4) was genuine with what they said, 5) was willing to give the participant space, 6) wanted to come up with practical solutions, and 7) stayed calm and unemotional. I expected participants to assign higher scores to the first three items if they read the safe strategy vignette (*safe strategy-consistent behaviors;* α = .73), and I expected participants to assign higher scores to the last three items if they read the soft strategy vignette (*soft strategy-consistent behaviors;* α = .64). I expected that participants would assign equal scores to the fourth item ("was genuine") regardless of which condition they read. The survey then asked participants how realistic the events presented to them in the passages they read were (even if the events would not occur in the participant's relationship), and participants responded on a scale from 1 = *not at all realistic* to 5 = *very realistic*. In case participants wanted to elaborate on their responses, I provided a text box for them to leave any comments or concerns. Finally, participants were given the opportunity to request that we delete their data with items similar to those presented at the end of Study 1. On the final page of the survey, participants were presented with the debriefing message and instructions for receiving compensation.

Data Analytic Strategy

I analyzed these data in R Studio using the following packages: tidyverse, psych, stats, car, effects, and ggplot2. When testing each of my hypotheses, I tested two separate regression models: For each analysis, the first model contained the *trait* attachment anxiety and attachment avoidance variables and the strategy condition variable, and the second model contained the *relationship-specific* attachment anxiety and attachment avoidance variables and the strategy condition variable. I also included all possible interaction terms in each model. I contrast coded the strategy condition variable (safe = -0.5; soft = 0.5) and mean-centered all attachment variables.

Results and Discussion

Descriptive Statistics

Descriptive statistics and zero-order correlations among the predictor and outcome variables are presented in Table 5. To confirm the success of randomization, I conducted a series of ANOVAs to test for differences between participants in the safe strategies condition and participants in the soft strategies condition. Participants in the safe strategies condition did not differ significantly from participants in the soft strategies condition in age (M_{safe} = 35.39, SD_{safe} = 11.28; M_{soft} = 36.76, SD_{soft} = 11.55), $F(1, 718) = 2.57$, $p = .11$, trait attachment anxiety (M_{safe} = 3.46, SD_{safe} = 1.29; M_{soft} = 3.34, SD_{soft} = 1.24), $F(1, 718) = 1.57$, $p = .21$, trait attachment avoidance (M_{safe} = 3.09, SD_{safe} = 1.13; M_{soft} = 3.22, SD_{soft} = 1.19), $F(1, 718) = 2.15$, $p = .14$ or relationship-specific (RS) attachment anxiety (M_{safe} = 2.67, SD_{safe} = 1.70; M_{soft} = 2.65, SD_{soft} = 1.68), $F(1, 718) = 0.02$, $p = .88$. However, there were marginal condition differences in relationship length, $F(1, 718) = 3.47$, $p = 0.06$, such that participants in the safe strategies condition were in a romantic relationship for less time than participants in the soft strategies

condition (M_{safe} = 96.35, SD_{safe} = 107.13; M_{soft} = 111.70, SD_{soft} = 113.78). Additionally, participants in the safe strategies condition reported marginally less RS attachment avoidance than participants in the soft strategies condition (M_{safe} = 2.24, SD_{safe} = 1.12; M_{soft} = 2.40, SD_{soft} = 1.20), $F(1, 718) = 3.38$, $p = .06$.

I then tested for condition differences in affective reactions to the vignettes. Participants who were later assigned to the safe strategies condition did not differ from those in the soft strategies condition in the extent to which they reported feeling insecure after the insecurity trigger passage (M_{safe} = 5.19, SD_{safe} = 1.67; M_{soft} = 5.18, SD_{soft} = 1.60), $F(1, 718) = 0.004$, $p = .98$. Participants in the safe strategies condition reported that their partner engaged in more safe strategy-consistent behaviors than participants in the soft strategies condition (M_{safe} = 5.84, SD_{safe} = 0.98; M_{soft} = 5.23, SD_{soft} = 1.14), $F(1, 718) = 56.95$, $p < .001$, and participants in the soft strategies condition reported that their partners engaged in more soft strategy-consistent behaviors than participants in the safe strategies condition (M_{safe} = 5.22, SD_{safe} = 1.13; M_{soft} = 5.44, SD_{soft} = 1.04), $F(1, 718) = 7.57$, $p < .001$. Unexpectedly, participants in the safe strategies condition rated their partner as more genuine than did participants in the soft strategies condition (M_{safe} = 5.97, SD_{safe} = 1.15; M_{soft} = 5.71, SD_{soft} = 1.33), $F(1, 717) = 7.41$, $p < 0.01$. Importantly, participants in the safe strategies condition and soft strategies condition reported similar levels of realism in the study (M_{safe} = 3.83, SD_{safe} = 1.21; M_{soft} = 3.91, SD_{soft} = 1.09), $F(1, 718) = 0.95$, $p = .33$.

Table 5

Means, Standard Deviations, and Correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7
1. Trait att. anxiety	3.40	1.27							
2. Trait att. avoidance	3.15	1.16	.35**						
3. RS att. anxiety	2.66	1.69	.58**	.34**					
4. RS att. avoidance	2.32	1.17	.26**	.52**	.56**				
5. Insecurity	5.19	1.64	.18**	-.07	.05	-.15**			
6. PPR	5.48	1.28	-.12**	-.25**	-.28**	-.51**	.02		
7. Distress	2.71	1.37	.20**	.21**	.20**	.25**	.18**	-.56**	
8. RQ (composite)	5.52	1.10	-.21**	-.32**	-.35**	-.56**	.16**	.69**	-.56**

Note. RS = relationship-specific; PPR = perceived partner responsiveness; RQ = relationship quality. * indicates $p < .05$. ** indicates $p < .01$.

Trait Attachment and Support Outcomes

I first tested whether exposure to the attachment-matched (vs. mismatched) support vignettes promotes higher relationship quality (H1), lower distress (H2), and greater perceived partner responsiveness (H3) when considering trait attachment orientations.

Trait Attachment and Relationship Quality (H1). Hypothesis 1 stated that trait attachment anxiety would be associated with greater relationship quality (RQ) in the safe strategies condition (H1a) and trait attachment avoidance would be associated with greater RQ in the soft strategies condition (H1b). As shown in Table 6, there were main effects of trait attachment anxiety and trait attachment avoidance: Both trait attachment anxiety and attachment avoidance were associated with lower RQ on average. These results were qualified by a three-way interaction between strategy condition, attachment anxiety, and attachment avoidance. To interpret this higher-order interaction (see Figure 5), I tested the simple effects of strategy condition for people who fit the anxious trait attachment profile (+1 *SD* in trait attachment anxiety = 4.67, -1 *SD* in attachment avoidance = 1.99) and the avoidant trait attachment profile (-1 *SD* in attachment anxiety = 2.13, +1 *SD* in attachment avoidance = 4.31). In the process, I also tested the effect of strategy condition for participants who fit the secure trait attachment profile (-1 *SD* in attachment anxiety = 2.13, -1 *SD* in attachment avoidance = 1.99) and the fearful trait attachment profile (+1 *SD* in trait attachment anxiety = 4.67, +1 *SD* in attachment avoidance = 4.31). While conducting these analyses, I calculated the region of significance for trait attachment anxiety (the values at which the effect of trait attachment anxiety was significant) at 1 *SD* above and below the mean of attachment avoidance.

At “low” values of trait attachment avoidance, there was no range of values of trait attachment anxiety in which the effect of strategy condition was significant. Accordingly,

participants who fit the anxious trait attachment profile reported equivalent levels of RQ in either condition (b = .09, p = .62), and the same was true for participants who fit the secure trait attachment profile (b = -.21, p = .09). At "high" values of trait attachment avoidance, the effect of strategy condition was significant at values of trait attachment anxiety higher than 4.18. Although participants who fit the avoidant trait attachment profile reported equivalent levels of RQ in either condition (b = .26, p = .16), participants who fit the fearful trait attachment profile reported greater RQ in the safe strategies condition (b = -.35, p = .01).

Trait Attachment and Distress (H2). Hypothesis 2 stated that trait attachment anxiety would be associated with lower distress in the safe strategies condition (H2a) and trait attachment avoidance would be associated with lower distress in the soft strategies condition (H2b). The results of this model did not support hypothesis 2, in that there were no interactions between trait attachment anxiety and strategy condition or between trait attachment avoidance and strategy condition. As can be seen in Table 6, the only significant effects present are the main effects of trait attachment anxiety and avoidance on distress which indicate that both trait attachment anxiety and attachment avoidance are, on average, associated with greater distress.

Trait Attachment and Perceived Partner Responsiveness (H3). Hypothesis 3 stated that trait attachment anxiety would be associated with greater perceived partner responsiveness (PPR) in the safe strategies condition (H3a) and trait attachment avoidance would be associated with greater PPR in the soft strategies condition (H3b). According to this model (see Table 6), there was a significant main effect of trait attachment avoidance so that attachment avoidance was associated with lower PPR. Although I observed neither of the hypothesized two-way interactions, there was a significant three-way interaction between strategy condition, trait attachment anxiety, and trait attachment avoidance (see Figure 6).

At “low” levels of trait attachment avoidance, there was no significant effect of strategy condition at different levels of trait attachment anxiety. Accordingly, participants who fit the anxious trait attachment profile reported equivalent levels of PPR in both strategy conditions (b = .14, p = .55), and PPR was equivalent in both strategy conditions for participants who fit the secure trait attachment profile (b = -.23, p = .12). At “high” levels of trait attachment avoidance, the effect of trait attachment anxiety was significant at values below 1.62 and higher than 3.81. This was demonstrated in that participants who fit the avoidant trait attachment profile reported equivalent levels of PPR in both strategy conditions (b = .34, p = .12), and participants who fit the fearful trait attachment profile reported greater PPR in the safe strategies condition (b = -.51, p = .00).

Table 6

Predicting Support Effectiveness from Trait Attachment and Strategy Condition

	Relationship quality		Distress		Perceived partner responsiveness	
Predictor	*b*	95% CI	*b*	95% CI	*b*	95% CI
(Intercept)	5.51**		2.70**		5.47**	
Trait att. anxiety	-0.09**	[-0.16, -0.03]	0.17**	[0.08, 0.25]	-0.03	[-0.11, 0.05]
Trait att. avoidance	-0.27**	[-0.35, -0.20]	0.18**	[0.09, 0.27]	-0.27**	[-0.36, -0.19]
Strategy condition	-0.05	[-0.21, 0.11]	0.17	[-0.03, 0.39]	-0.08	[-0.27, 0.12]
Trait att. anxiety × Trait att. avoidance	0.00	[-0.05, 0.05]	-0.00	[-0.07, 0.06]	0.01	[-0.05, 0.07]
Trait att. anxiety × Strategy condition	-0.06	[-0.19, 0.07]	0.07	[-0.11, 0.22]	-0.11	[-0.27, 0.04]
Trait att. avoidance × Strategy condition	0.01	[-0.14, 0.15]	0.04	[-0.13, 0.23]	-0.03	[-0.19, 0.15]
Trait att. anxiety × Trait att. avoidance × Strategy condition	-0.16**	[-0.26, -0.05]	0.09	[-0.05, 0.21]	-0.22**	[-0.34, -0.10]

Note. Att. = attachment. * indicates $p < .05$. ** indicates $p < .01$.

Figure 5

Effect of Trait Attachment Anxiety on Relationship Quality as a Function of Strategy Condition and Trait Attachment Avoidance

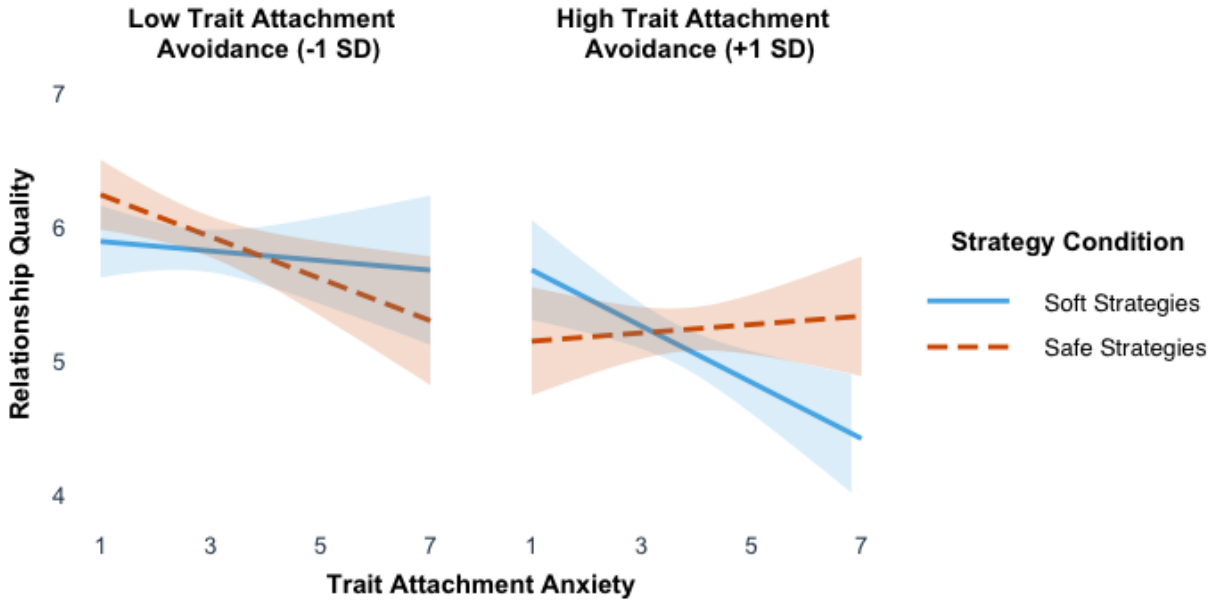
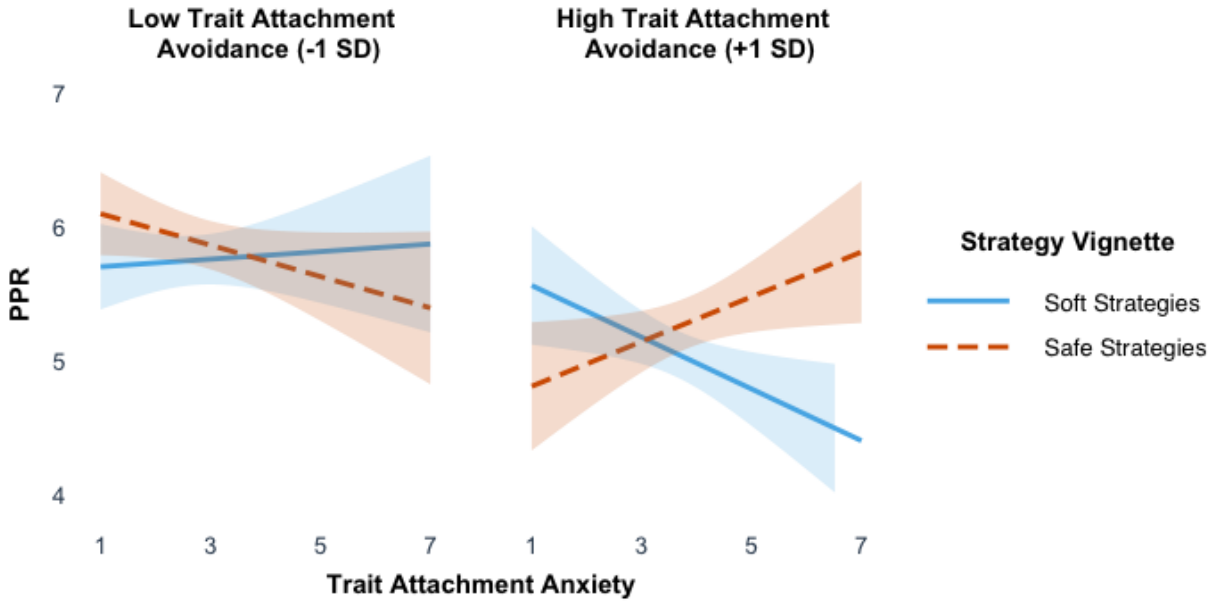


Figure 6

Effect of Trait Attachment Anxiety on Perceived Partner Responsiveness as a Function of Strategy Condition and Trait Attachment Avoidance



Relationship-Specific Attachment and Support Outcomes

In the next set of analyses, I tested whether exposure to the attachment-matched (vs. mismatched) support vignettes promotes higher RQ (H4), lower distress (H5), and greater PPR (H6) when considering relationship-specific (RS) attachment orientations.

Relationship-Specific Attachment and Relationship Quality (H4). Hypothesis 4 stated that RS attachment anxiety would be associated with greater RQ in the safe strategies condition (H4a) and RS attachment avoidance would be associated with greater RQ in the soft strategies condition (H4b). The results from this model, in which RS attachment anxiety and RS attachment avoidance replaced trait attachment anxiety and avoidance, are presented in Table 7. Neither the interaction between strategy condition and RS attachment anxiety nor the interaction between strategy condition and RS attachment avoidance were significant. There was, however, a significant interaction between strategy condition, RS attachment anxiety, and RS attachment avoidance. As with the trait attachment models, I tested the effect of strategy condition for participants who fit different RS attachment profiles and calculated the region of significance for the effect of RS attachment anxiety at "low" and "high" values of RS attachment avoidance. Specifically, I tested the effect of strategy condition for participants who fit the anxious RS attachment profile (+1 *SD* in RS attachment anxiety = 4.35, -1 *SD* in RS attachment avoidance = 1.15) and the avoidant RS attachment profile (-1 *SD* in attachment anxiety = .97, +1 *SD* in attachment avoidance = 3.49). I also tested the effect of strategy condition for participants who fit the secure RS attachment profile (-1 *SD* in attachment anxiety = .97, -1 *SD* in attachment avoidance = 1.15) and the fearful RS attachment profile (+1 *SD* in RS attachment anxiety = 4.35, +1 *SD* in attachment avoidance = 3.49).

According to simple effects analyses of the three-way interaction (see Figure 7), hypothesis 4a was not supported, and hypothesis 4b was indirectly supported. At "low" levels of attachment avoidance, there was no range of values of trait attachment anxiety at which the effect of strategy condition was significant. Accordingly, participants who fit the anxious RS attachment profile reported equivalent levels of RQ in both strategy conditions (b = -.09, p = .62), and the same was true of participants who fit the secure RS attachment profile (b = -.17, p = .15). At "high" levels of attachment avoidance, the effect of strategy condition on relationship quality was significant at values of RS attachment anxiety lower than 2.31 and higher than 4.59. Confirming this calculation, participants who fit the avoidant RS attachment profile reported greater RQ in the soft strategies condition than the safe strategies condition (b = .54, p = .01), although RQ was equivalent in both strategy conditions for participants who fit the fearful RS attachment profile (b = -.16, p = .12).

Relationship-Specific Attachment and Distress (H5). According to Hypothesis 5, RS attachment anxiety would be associated with lower distress in the safe strategies condition (H5a) and RS attachment avoidance would be associated with lower distress in the soft strategies condition (H5b). As shown in Table 7, there were main effects of attachment anxiety and avoidance: Both RS attachment dimensions were associated with greater distress on average. However, there was no support for the hypothesized two-way interactions between strategy condition and RS attachment anxiety and strategy condition and RS attachment avoidance. In this experiment, it appears that imagined safe or soft strategies do not buffer distress regardless of one's trait or relationship-specific attachment insecurity. Although this is the pattern demonstrated by Models 1 and 2, it is important to note that there was not much variation in

participants' self-reported distress. The lack of support for hypothesis 2 may be the result of floor effects in the distress items.

Relationship-Specific Attachment and Perceived Partner Responsiveness (H6). Hypothesis 6 stated that RS attachment anxiety would be associated with greater PPR in the safe strategies condition (H6a) and RS attachment avoidance would be associated with greater PPR in the soft strategies condition (H6b). According to the results of this model (see Table 7), RS attachment avoidance was associated with lower PPR. The main effect of RS attachment avoidance was further qualified by an interaction between RS attachment avoidance and strategy condition and a three-way interaction between strategy condition, RS attachment anxiety, and RS attachment avoidance. Although the interaction between RS attachment avoidance and strategy condition also confirms hypothesis 6b, I describe only the higher-order interaction for parsimony. As before, I probed the three-way interaction between RS attachment anxiety, RS attachment avoidance, and strategy condition (see Figure 8) for participants who fit different RS attachment profiles and calculated the region of significance for attachment anxiety at "low" and "high" values of RS attachment avoidance.

At "low" values of attachment avoidance, the effect of strategy condition on PPR is significant at values of RS attachment anxiety lower than 2.58. Confirming this calculation, participants who fit the anxious RS attachment profile reported similar levels of PPR in both conditions (b = -.04, p = .86), and participants who fit the secure RS attachment profile reported greater PPR in the safe strategies condition (b = -.44, p < .01). At "high" values of RS attachment avoidance, the effect of strategy condition was significant at values of RS attachment anxiety lower than 3.02 and greater than 5.00. Accordingly, participants who fit the avoidant RS attachment profile reported greater PPR in the soft strategies condition (b = .82, p = .00), and

participants who fit the fearful RS attachment profile reported equivalent levels of PPR in both strategy conditions (b = -.10, p = .10).

Study 2 demonstrated that people who are avoidantly attached to their romantic partner viewed their relationship as higher in quality and viewed their romantic partner as more responsive when they imagined receiving attachment-matched support (i.e., soft strategies) compared to unmatched support (i.e., safe strategies). People who generally experience high levels of attachment avoidance across their close relationships did not experience the same relational benefits though. Moreover, people who are anxiously attached, either in general or in their romantic relationship, responded similarly to each form of imagined support, suggesting that anxiously attached people may differentiate less between attachment-matched or unmatched support.

Table 7

Predicting Support Effectiveness from Relationship-Specific (RS) Attachment and Strategy Condition

	Relationship quality		Distress		Perceived partner responsiveness	
Predictor	*b*	95% CI	*b*	95% CI	*b*	95% CI
(Intercept)	5.45		2.72		5.45**	
RS att. anxiety	-0.04	[-0.09, 0.01]	0.07*	[0.00, 0.15]	0.02	[-0.04, 0.08]
RS att. avoidance	-0.53**	[-0.60, -0.46]	0.23**	[0.13, 0.34]	-0.60**	[-0.68, -0.51]
Strategy condition	0.03	[-0.12, 0.18]	0.14	[-0.08, 0.36]	0.06	[-0.12, 0.24]
RS att. anxiety × RS att. avoidance	0.06**	[0.03, 0.10]	-0.01	[-0.06, 0.04]	0.02	[-0.02, 0.06]
RS att. anxiety × Strategy att. condition	-0.09	[-0.19, 0.01]	0.06	[-0.08, 0.20]	-0.08	[-0.19, 0.04]
RS att. avoidance × Strategy condition	0.14	[-0.00, 0.28]	-0.12	[-0.32, 0.09]	0.26**	[0.09, 0.43]
RS att. anxiety × RS att. avoidance × Strategy condition	-0.10**	[-0.16, -0.03]	0.04	[-0.05, 0.14]	-0.17**	[-0.25, -0.09]

Note. Att. = attachment. RS = relationship-specific. * indicates $p < .05$. ** indicates $p < .01$.

Figure 7

Effect of Relationship-Specific Attachment Anxiety on Relationship Quality as a Function of Strategy Condition and Relationship-Specific Attachment Avoidance

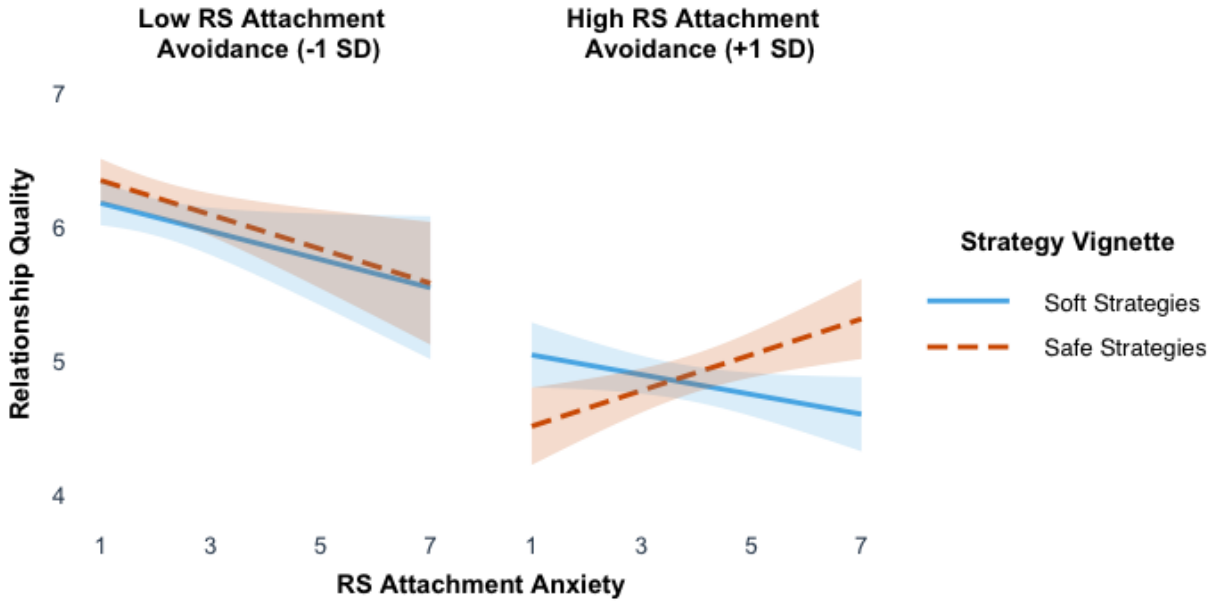
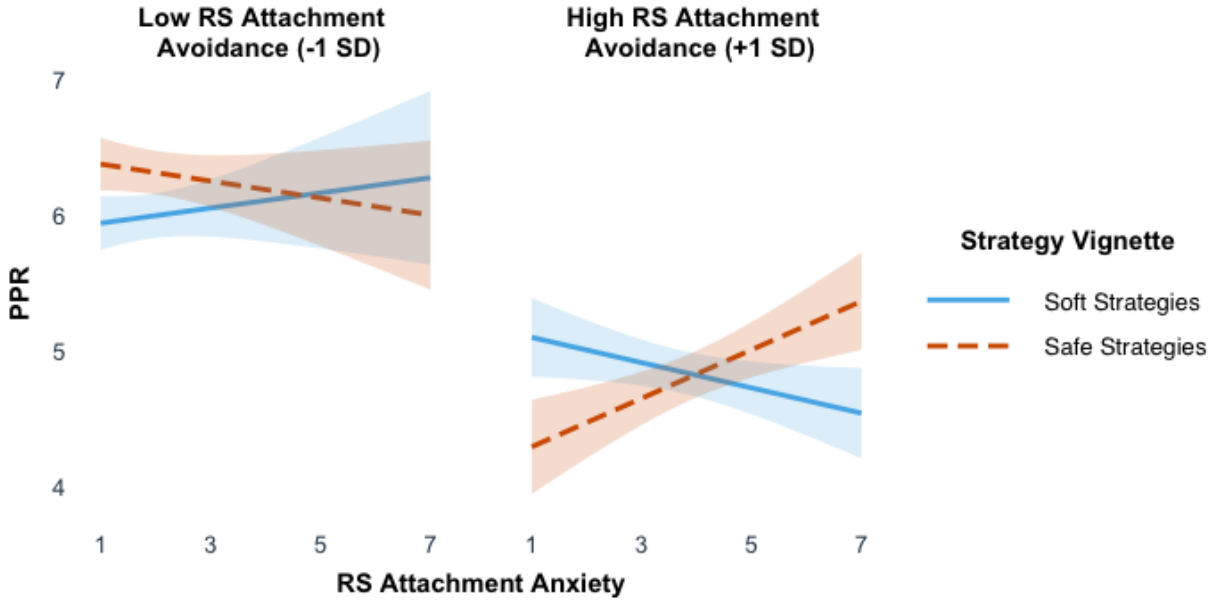


Figure 8

Effect of Relationship-Specific Attachment Anxiety on Perceived Partner Responsiveness as a Function of Strategy Condition and Relationship-Specific Attachment Avoidance



Study 3

In Study 3, I tested the effectiveness of imagined safe or soft strategies in mitigating distress and promoting relationship outcomes in the context of a personal stressor. I designed Study 3 to replicate and extend the results of Studies 1 and 2, demonstrating 1) that participants evaluate attachment-matched social support more favorably than unmatched social support and 2) attachment-matched social support is most effective to buffer stress and promote relational outcomes in the context of a personal stressor.

In Study 3, participants were instructed to identify an attachment figure to whom their relationship-specific attachment matched their own trait attachment orientation. With this method, I tested the effects of support that is matched versus mismatched to one's trait attachment orientation and RS attachment orientation. This strategy mitigated concerns about differences in outcomes between people whose trait and RS attachment orientations are more or less congruent. Study 3's stress-induction procedure also created greater variance in distress—addressing the lack of variance in distress scores in Study 2. During the experiment, participants read that they would complete academic performance tasks in front of judges and while being video-recorded (based on the Modified Trier Social Stress Test procedure; TSST-M; Yim et al., 2010, 2015). This stress-induction procedure was used, in part, because the tasks described in the procedure are similar to stressors that the participants (undergraduate students) commonly face and because this type of stressor is clearly distinguishable from an interpersonal stressor. With a distinct personal stressor, I examined whether the patterns of results found in Study 2 are generalizable to personal stressors.

Study 3's first aim was to test whether attachment-matched social support is preferred when the referent support provider was "others in general" and when the referent was the

attachment figure identified by participants. I did not predict different patterns of results between referents (evaluations of support in general vs. evaluations of support from specific relationship partner). Instead I hypothesized the following:

H1: When referring to evaluations of support strategies provided by others in general, participants classified as anxiously attached will report a relative preference for *safe strategies* over *soft strategies.*

H2: Likewise, participants classified as having an avoidant trait attachment will report a relative preference for *soft strategies* over *safe strategies*.

H3: When referring to support strategies provided by a *specific* support provider, participants classified as anxiously attached and assigned to consider an anxious attachment relationship will report a relative preference for *safe strategies* over *soft strategies*.

H4: Likewise, participants classified as avoidantly attached and assigned to consider an avoidant attachment relationship will report a relative preference for *soft strategies* over *safe strategies*.

Regarding Study 3's second aim, testing the relationship-promoting and distress-buffering effects of safe and soft strategies, my hypotheses for the proposed study were consistent with the hypotheses of Study 2 with a few adjustments. Before stating my hypotheses, I wish to clarify that this portion of the experiment was not meant to compare the effectiveness of support strategies between attachment classifications (e.g., the effect of safe strategies for participants classified as anxiously attached vs. the effect of safe strategies for participants classified as avoidantly attached). Instead, the focal point of this experiment is the match between attachment classification and support condition (e.g., comparing the relative effects of

support strategies for participants in the attachment anxiety condition). As such, my hypotheses regarding the effectiveness of support strategies are organized by attachment classification.

H5-H7: For participants classified as anxiously attached and assigned to imagine receiving support from someone to whom they are *anxiously attached*, I hypothesized that participants in the safe strategies condition (vs. soft strategies) will report higher perceived partner responsiveness (H5), higher trust (H6), and lower distress (H7).

H8-H10: Next, for participants classified as avoidantly attached and assigned to imagine receiving support from someone to whom they are *avoidantly attached*, I hypothesized that participants in the soft strategies condition (vs. safe strategies) will report higher perceived partner responsiveness (H8), higher trust (H9), and lower distress (H10).

Method

Participants

Participants were 130 undergraduate students recruited from the psychology research participation pool at a private university in the northeastern united states. An *a priori* power analysis using the pwr package for R indicated that, to test between-support condition differences for participants in each attachment classification, I needed usable data from approximately 160 participants (around 52 participants in each of the three attachment classifications; approximately 26 participants from each attachment classification in each support condition) to detect an effect size of $d = .8$ at a significance level of .05 with 80% power. Due to the mandatory closing of American universities and cessation of in-person research with undergraduate students during the COVID-19 pandemic however, I was unable to reach the desired number of avoidantly attached participants and my analyses of support outcomes for this group were underpowered.

Participants were eligible for this study if they were at least 18 years of age and fluent in English. I excluded participants if they requested their data to be deleted upon finishing the study (n = 6), if they failed the last two attention checks (out of 3 attention checks in total; n = 5), and if they had previous knowledge of the deceptive elements in this study (n = 8). In total, 18 participants were excluded for these reasons. Further, because the analyses for this study only involved participants classified as anxiously attached and avoidantly attached, participants in the secure condition (n = 13) were excluded from these analyses. The final sample for this study included 92 participants: 53 participants were classified as anxiously attached and 39 participants were classified as anxiously attached. Of note, demographic data are unavailable for 50% of participants in this sample (n = 46) due to survey programming errors. For participants for whom demographic data were available, participants' ages ranged from 18 years to 22 years (M = 18.74). Further, participants mostly self-identified as female (65.9%), as Asian (51%) or White (40.4%), and as not Hispanic or Latina/Latino (87.2%). In the sample for which demographic data were available, approximately 53.2% spoke English as their first language. Of the 22 participants who reported English was not their first language, 95.4% reported that they have been speaking English fluently for at least one to five years.

Procedure and Measures

Potential participants responded to an online solicitation for a 1-hour, in-laboratory research study examining stress reactions among college students. Each participant completed the experiment in a room by themselves. To limit distractions, experimenters collected participants' cell phones before participants began the study and placed a white noise machine inside the room. After providing consent, participants responded to several questionnaires and were instructed that they would participate in two stressful tasks (modeled after the TSST-M

procedure). After reading the task instructions, participants read that they would engage in a stress-reducing visualization task before the stressor tasks to calm them before the tasks. Immediately after the visualization task, participants responded to a series of questionnaires designed to capture their experiences with the visualization task. Participants were informed that their responses to the post-visualization questionnaires would be used to improve the stress-reduction visualization. Upon completing all questionnaires, participants were debriefed on the purpose of the study, including the use of deception in the study.

Trait-level Individual Differences. Participants first completed the Experiences in Close Relationships – Revised (ECR-R; Fraley et al., 2000), a 36-item trait attachment scale. The ECR-R contained 18 items for the attachment anxiety sub-scale (α = .91) and 18 items for the attachment avoidance sub-scale (α = .91). Next, participants completed a newly created, general version of the Safe and Soft Strategies Preference Scale (S/SSPS-General; see Appendix F). The S/SSPS-General was used to assess participants' overall evaluations of safe strategies (α = .59; "Make it very clear that they care about me and want to be with me") and soft strategies (α = .46; "Give me space to deal with my thoughts and feelings regarding the issue (i.e., not pressuring me into facing the issue)"). Specifically, participants indicated how often they have found six broad types of safe and soft strategies helpful in the past (1 = *never*; 5 = *always*). Importantly, the six items in this part of the S/SSPS were purposely worded so that each item may describe more than one specific safe or soft strategy-consistent behavior.

Assignment of Attachment Classification. Based on participants' mean trait attachment anxiety and trait attachment avoidance scores, measured by the ECR-R, participants read one of three attachment prompts in which they were presented with an unlabeled description of a relationship characterized by attachment security, attachment anxiety, or attachment avoidance

(Bartz & Lydon, 2004, Study 1; see Appendix G). Participants were considered low in attachment anxiety or avoidance if their mean score on a given sub-scale was below 3.17; participants were high in attachment anxiety or avoidance if their mean scores were above 3.17. I based these cutoff values on the median value of trait attachment avoidance in Study 2 because it seemed to be a reasonable, albeit arbitrary, cutoff value that would prevent over-classification of participants as securely attached. Participants with low attachment anxiety and avoidance scores were assigned to identify an attachment figure to whom they are securely attached; participants with high attachment anxiety scores and low attachment avoidance scores were assigned to identify an individual to whom they are anxiously attached; participants with low attachment anxiety scores and high attachment avoidance scores were assigned to identify an individual to whom they are avoidantly attached. Participants with high attachment anxiety scores and high attachment avoidance scores were assigned to the attachment figure identification condition that matched the higher of their two scores ($n_{anxious}$ = 32, $n_{avoidant}$ = 22), or they were randomly assigned to the attachment anxiety or attachment avoidance condition if both scores were equal ($n_{anxious}$ = 2, $n_{avoidant}$ = 1).

After participants read their assigned attachment prompt, the survey instructed participants to identify an attachment figure: Participants thought of one of their relationships that fits the description they read, limiting their choices to relationships with people who are (a) still living and (b) with whom the participant is still in contact. Next, participants provided the name of the person they thought about, indicated how they are related to that person, and indicated that person's gender and the length of time in years and months that they have known that person. Finally, to increase the salience of their attachment to the individual they have identified, participants were given 3 minutes to write about what their attachment figure does or

says that makes the participant feel securely attached to that individual, avoidantly attached to that individual, or anxiously attached to that individual, based on their assigned condition (see Appendix H).

Relationship-Level Variables. Next, participants responded to questionnaires pertaining to their relationship with the attachment figure they identified. In this section, participants first completed the 9-item Experiences in Close Relationships – Relationship Structures scale (ECR-RS; Fraley et al., 2006) to assess participants' relationship-specific attachment anxiety (α = .92) and attachment avoidance (α = .90).

Participants then completed a modified version of the Safe and Soft Strategies Preference Scale described in Study 1 (herein referred to as the S/SSPS-Revised) to assess their affective evaluations of specific safe and soft strategies in the context of the participant-identified attachment relationship. The S/SSPS-Revised contains 13 items representing specific examples of safe strategies (α = .92) and 13 items representing specific examples of soft strategies (α = .81) (see Appendix I). Participants indicated the extent to which they would like it if their attachment figure supported them as described in each item using a 7-point response scale (1 = *dislike a great deal;* 7 = *like a great deal*).

Baseline Outcome Assessments. I assessed participants' perceptions of their attachment figure's responsiveness using the same PPR scale items used in Study 2 (Reis et al., 2011; α = .96). Next, participants reported their trust toward that attachment figure using the same items from the Dyadic Trust Scale that were used in Study 2 (Larzelere & Huston, 1980; α = .86). Rather than including dyadic trust as part of a relationship quality composite variable (as I did in Study 2) I focused exclusively on trust because trust may be more applicable than other

relationship quality variables (e.g., satisfaction and commitment) when referencing attachment figures across different relationship domains (e.g., parent, friend, partner).

Next, participants were shown a message in the survey stating that instructions for the upcoming academic tasks will be provided on-screen. I programmed Qualtrics with JavaScript to show participants successive portions of the instructions after an average of 7 seconds to ensure participants had time to process each line of the instructions. Once participants were shown each portion of the instructions, they progressed to another page in the survey containing the full task instructions (for review) and a brief 7-item distress assessment (α = .78; e.g., "calm," "anxious," "annoyed"). I reverse-scored positively worded items and created a composite distress score variable by computing the mean of all items. After participants responded to the distress scale, they proceeded to a page that instructed them to notify the experimenter that they have read the task instructions carefully. This page also notified participants that the experimenter would answer participants' questions before entering a code required to proceed to the next page. At this point, the experimenter reiterated to participants that the academic tasks in this study are known for being stressful. The experimenter informed participants that they will complete a brief visualization activity meant to help participants manage the stress they feel as they prepare for the tasks.

Support Manipulation. For the visualization task, participants were randomly assigned to one of two conditions by the Qualtrics survey: an imagined safe strategies condition or an imagined soft strategies condition. In the safe strategies condition, participants read a passage prefaced with the statement, "When we are stressed, it is important that people reassure us that they truly care for us," to emphasize the interpersonal nature of the support described in the rest of the passage. The rest of the passage provided broad examples of how one might enact safe

strategies (e.g., verbal reassurance, physical proximity) and instructed participants to imagine that the attachment figure they identified was present with them. Participants were also instructed to write about how their attachment figure might support them by demonstrating that they care for the participant (see Table 8). In the soft strategies condition, participants read a passage prefaced with the statement, “When we are stressed, it is important that people are able to remain calm and help us find solutions,” to emphasize the more practical, unemotional nature of the support described in the rest of the passage. The rest of the passage provided examples of how one might enact soft strategies (e.g., non-emotional communication, distancing) and instructed participants to imagine that the attachment figure they identified was present with them. Participants were also instructed to write about how their attachment figure might support them by demonstrating that they can remain calm and find solutions (see Table 9). In both support strategy conditions, the survey instructed participants to write for 3 minutes, and participants were unable to advance to the next page until time had elapsed.

Table 8

Safe strategies guided visualization

Line	Purpose
When we are stressed, it is important that we are aware of *how much other people care for us*.	Summary of the goal of safe strategies
It is helpful when people *we are close to provide us with reassurance that they truly care for us.*	Emphasis on the emotional, interpersonal nature of safe strategies
Examples of this could be when people *give up their own time to be physically close to us*, when they *give us verbal reassurance that they care deeply about how we feel*, or when they *show that they are heavily invested in making us feel cared for by those around us*.	Example support behaviors
Considering the unique nature of your relationship with **[name]**, please write about what **[name]** could do to support you in this way if they were here now.	Constant; instructions to imagine the support behaviors occurring in the context of the performance tasks

Note. Italics added here to emphasize the unique aspects of each vignette but were not displayed for participants. The bolded characters were replaced with the name of the participant's attachment figure.

Table 9

Soft strategies guided visualization

Line	Purpose
When we are stressed, it is important that *we are able to remain calm and find solutions*.	Summary of the goal of soft strategies
It is helpful *when people understand that we need to distance ourselves from the problem at hand and any negative emotions that come with it.*	Emphasis on non-emotional support
Examples of this could be when people *let us keep to ourselves instead of talking about the problem,* when they *avoid being overly emotional or affectionate,* or when they *give us space to cope however we need to without judging us, or being too demanding*.	Example support behaviors
Considering the unique nature of your relationship with **[name]**, please write about what **[name]** could do to support you in this way if they were here now.	Constant; instructions to imagine the support behaviors occurring in the context of the performance tasks

Note. Italics added here to emphasize the unique aspects of each vignette and were not displayed for participants. The bolded characters were replaced with the name of the participant's attachment figure.

Post-intervention Measures. After completing the support manipulation task, participants responded to a series of questionnaires (PPR, trust, and distress) about the support vignette and their current experiences. Perceived partner responsiveness was assessed with the same items from the PPR scale (Reis et al., 2011) used earlier in this study ($\alpha = .96$). Participants indicated how true each item would be if their attachment figure supported them as in the support vignette. Trust was assessed with the same items from the Dyadic Trust Scale (Larzelere & Huston, 1980) used earlier in this study ($\alpha = .79$). As with PPR, participants indicated how true each item would be if their attachment figure supported them as in the vignette. Next, participants reported how distressed they were about the upcoming performance tasks using the same 6 items used to assess baseline distress. Here, participants responded according to how they felt after completing the visualization task.

Debriefing and final items. After participants completed the post-intervention measures, the survey prompted them to inform the experimenter that they finished the survey. At this point, the experimenter read the debriefing script (Appendix J), informing participants that no participants actually completed the academic tasks. In the script, experimenters asked participants not to inform other potential participants about the deceptive elements in this study. After experimenters answered participants' questions, participants responded to a few more items. Specifically, the survey asked participants if they had prior knowledge of the deceptive elements in this study; if participants responded that they had prior knowledge, they were presented with an item asking them to explain how they obtained that knowledge. Participants were then asked if they would like us to delete their data; if they selected yes, they were presented with another item to confirm that they would like their data deleted.

Data Analytic Strategy

Data were analyzed in R Studio using the following packages: tidyverse, psych, stats, car, effects, ggplot2, lme4, lmerTest, afex, reghelper, jtools, sandwich, interactions, and tidyselect. All analyses were conducted with long-format data, but tests of hypotheses 1 through 4 required data to be structured differently than for tests of hypotheses 5 through 7.

Testing Preferences for Support Strategies. For hypotheses 1 through 4, I compared each participants' evaluations of safe strategies against their evaluations of soft strategies. Consistent with Study 1, I structured the data so there were two rows per participant: one row contained participants' ratings of safe strategies, and one row contained their ratings of soft strategies. To distinguish each row, I created a strategy type variable (-0.5 = safe strategies, 0.5 = soft strategies). With this data structure, I conducted two mixed effect ANOVAs to test between-attachment classification differences in evaluations of support strategies; the first model compared evaluations of support provided from others *in general*, and the second model compared evaluations of support from *a specific support provider*. In both models, the predictors were attachment classification (-0.5 = attachment anxiety, 0.5 = attachment avoidance), strategy type (-0.5 = safe strategies, 0.5 = soft strategies), and their interaction term. In these models, the main effects indicated whether evaluations of support differed between attachment classifications or between strategy types. My hypotheses regarding support preferences were supported if the interaction between attachment classification and strategy type demonstrated that evaluations of support strategies varied by strategy type within an attachment classification.

Testing Support Outcomes. When examining the effect of the support intervention on the outcome variables (hypotheses 5 – 10; distress, trust, and perceived partner responsiveness), the data were formatted so each participant had one row for observations obtained at baseline and one row for observations obtained post-intervention. In these analyses, I tested the effect of

time (-0.5 = baseline, 0.5 = post-intervention), support condition (-0.5 = safe strategies intervention, 0.5 = soft strategies intervention), and their interaction term on a given outcome (e.g., distress). Because I was not attempting to compare attachment classifications, I tested separate models for each outcome: one set of models used data from participants I classified as anxiously attached, and the other set of models used data from participants I classified as avoidantly attached. Main effects of strategy condition in these models were estimated while holding time constant (time = 0). Because a significant effect of strategy condition would indicate between-strategy condition differences in the outcome averaged across baseline and post-intervention, I did not expect these main effects to be significant. Main effects of the time variable would indicate differences in outcome scores from baseline to post-intervention, controlling for strategy condition. Confirmation or rejection of my hypotheses depends on the interaction between strategy condition and time: The simple effects of the interaction would indicate whether there are between-support condition differences in outcomes post-intervention.

Results

Attachment Figure Characteristics

Correlations between the predictor and outcome variables are presented in Table 10. Participants typically indicated that their attachment figure was a friend (46.73%), a romantic partner (22.82%), or their mother (13.04%), and participants reported they have known this attachment figure for a total of 73.31 months, on average (*SD* = 84.73). Approximately 55.43% of participants indicated that their attachment figure was female, 42.49% indicated that their attachment figure was male, and 2.17% chose not to disclose their attachment figure's gender.

Table 10

Means, Standard Deviations, and Correlations.

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Trait att. anx.	3.70	1.04													
2. Trait att. avoid.	3.58	0.98	.43**												
3. RS att. anx.	3.38	1.94	.54**	.09											
4. RS att. avoid.	3.41	1.62	.25**	.44**	.41**										
5. Gen. safe eval.	3.42	0.86	.20*	-.23**	.10	-.19*									
6. Gen. soft eval.	3.18	0.75	-.10	.07	-.06	.07	.03								
7. Spec. safe eval.	5.45	1.15	.09	-.52**	.12	-.46**	.30**	-.10							
8. Spec. soft eval.	5.37	0.78	.06	-.23**	-.11	-.27**	.07	.07	.55**						
9. Base. PPR	4.67	1.79	-.26**	-.45**	-.39**	-.85**	.16	.01	.49**	.35**					
10. Base. trust	4.79	1.44	-.33**	-.28**	-.55**	-.69**	.18*	.01	.33**	.18*	.76**				
11. Base. distress	4.30	1.17	.31**	.06	.32**	.10	.14	-.16	.15	.08	-.12	-.21*			
12. Post. PPR	5.25	1.54	-.14	-.47**	-.17*	-.69**	.20*	-.02	.61**	.39**	.78**	.55**	.06		
13. Post. trust	5.32	1.18	-.20*	-.34**	-.34**	-.52**	.22*	.06	.44**	.25**	.61**	.74**	-.12	.70**	
14. Post distress	3.53	1.18	.22*	.20*	.25**	.22*	-.03	-.18*	-.09	-.14	-.22*	-.29**	.70**	-.17	-.30**

Note. M and *SD* represent mean and standard deviation, respectively. Att. = attachment, anx. = anxiety, avoid. = avoidance, RS = relationship-specific, base. = baseline, post. = post-manipulation. Evaluations of safe and soft strategies were measured separately in reference to support from others in general (Gen.) and support from the specific attachment figure (Spec.). * $p < .05$. ** $p < .01$.

Relative Preferences for Support in General

In the model testing evaluations of support provided by others in general (hypotheses 1 and 2; see Table 11), there were no significant main effects of attachment classification or strategy type. Therefore, there was no evidence for attachment-related differences in overall support evaluations nor were there differences in evaluations of safe strategies and soft strategies overall. These results were qualified by a significant interaction between attachment classification and strategy type which supports hypothesis 1 but not hypothesis 2 (see Figure 9). On average, participants classified as anxiously attached preferred safe strategies over soft strategies (b = -.49, p < .00), although participants classified as avoidantly attached did not differ in their evaluations of either form of support when provided by others in general (b = .22, p = .21). Of potential interest, exploratory analyses demonstrated that anxiously attached participants evaluated safe strategies more favorably than avoidantly attached participants did (b = -.56, p < .00), but there was no difference in evaluations of soft strategies (b = .15, p = .36). Perhaps anxiously attached people are more accepting of support provided by anyone, but avoidantly attached people default to refusing support provision.

Relative Preference for Support from Attachment Figure

In the model testing evaluations of support provided by the participants' attachment figures (hypotheses 3 and 4; see Table 11), avoidantly attached participants reported less favorable evaluations of support than anxiously attached participants did (b = -.91, p < .00). On average, evaluations of safe strategies and soft strategies did not differ. These results were further qualified by a significant interaction between attachment classification and strategy type that supports hypotheses 3 and 4 (see Figure 10). Simple effects tests of this interaction demonstrated that anxiously attached participants preferred safe strategies over soft strategies (*b*

= -.53, $p < .00$), and participants classified as avoidantly attached preferred soft strategies over safe strategies ($b = .75$, $p < .00$). Additional exploratory analyses demonstrated that avoidantly attached participants evaluated safe strategies less favorably than anxiously attached participants did ($b = -1.55$, $p < .00$) although neither attachment group differed in evaluations of soft strategies ($b = -.27$, $p = .13$). Together, these results demonstrate that attachment-related differences in support evaluations are more evident when referring to support provided by specific individuals to whom participants are anxiously or avoidantly attached.

Table 11

Evaluations of Support Strategies as a Function of Attachment Classification and Strategy Type

Predictor	*b*	95% CI	*df*	*F*	Partial η^2
Support from Others in General					
(Intercept)	3.22***	[3.11, 3.34]	1,180		
Attachment classification	-0.21	[-0.43, 0.02]	1,180	3.23	0.02
Strategy type	-0.13	[-0.36, 0.09]	1,180	1.35	0.01
Attachment classification × Strategy type	0.71**	[0.26, 1.17]	1,180	9.55	0.05
Support from Specific Attachment Figure					
(Intercept)	5.23**	[5.10, 5.36]	1,90		
Attachment classification	-0.91***	[-1.16, -0.66]	1,90	32.94	0.27
Strategy type	0.11	[-0.14, 0.36]	1,90	1.58	0.02
Attachment classification × Strategy type	1.28***	[0.77, 1.78]	1,90	53.48	0.37

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

Figure 9

Evaluations of Support from Others in General as a Function of Attachment Classification and Support Type

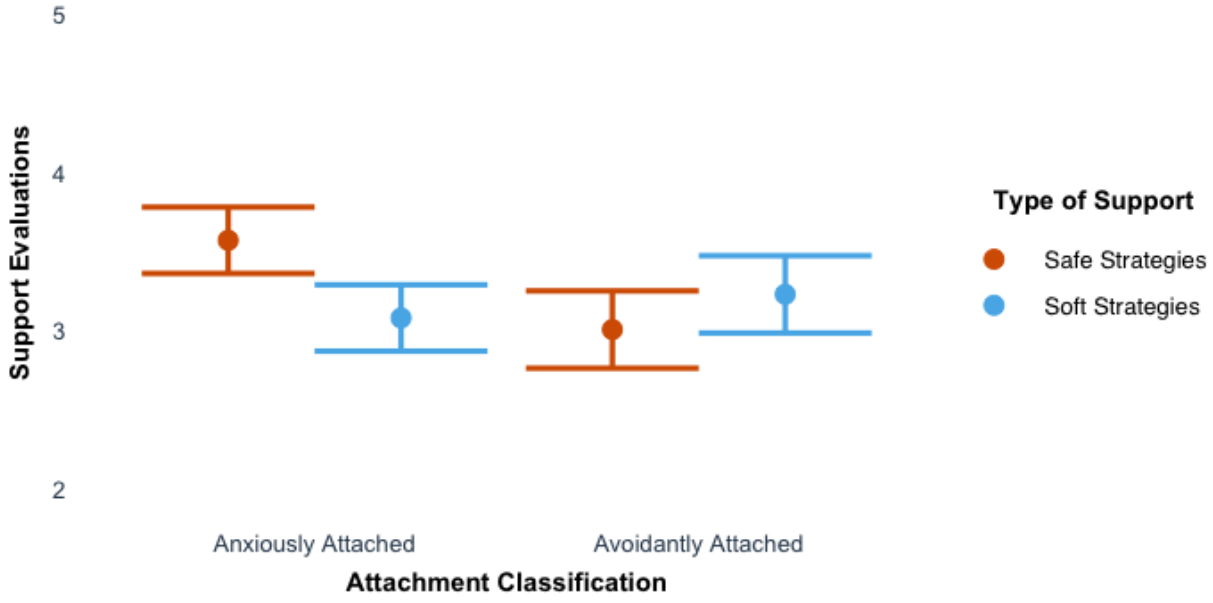
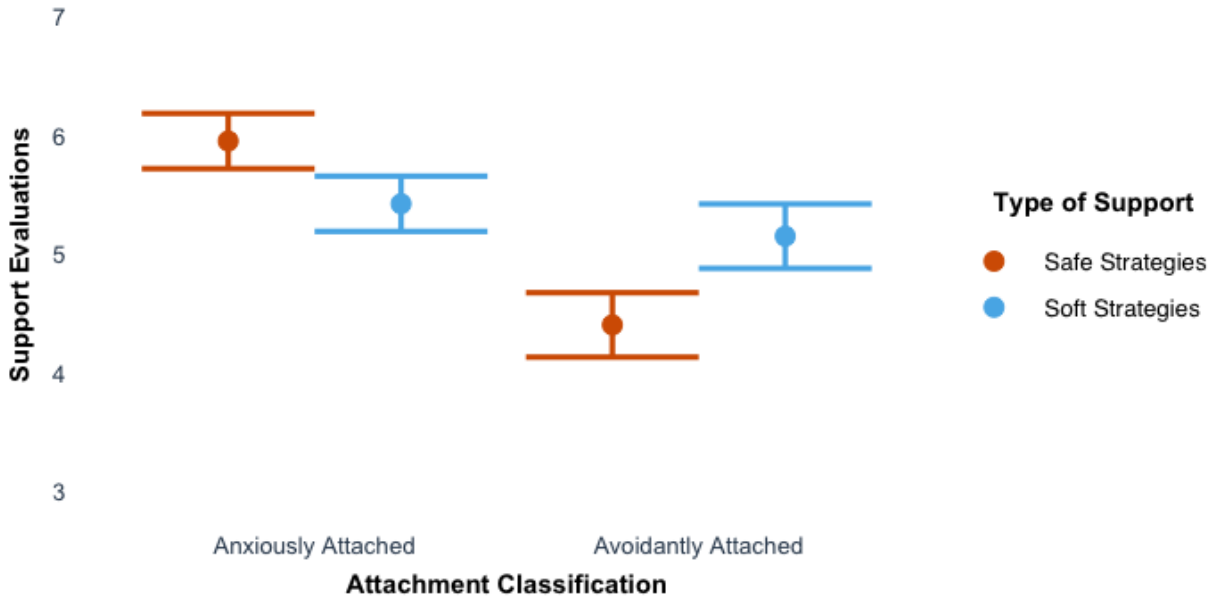


Figure 10

Evaluations of Support from Attachment Figure as a Function of Attachment Classification and Support Type



Outcomes of Support Intervention

Hypotheses 5 through 10 pertained to between strategy condition effects of attachment-matched social support on individual and relationship outcomes (perceived partner responsiveness (PPR), trust, and distress) for participants within an attachment classification (e.g., differences in outcomes for anxiously attached participants based on the type of support). The interactions between time and support condition provided evidence in favor or opposition to my hypotheses if they demonstrated post-intervention differences between support conditions. I also conducted exploratory simple effects analyses to examine how outcomes differ from baseline to post-intervention for participants in each support condition regardless of the presence of a significant interaction term. My reasoning from this approach is that the presence of an effect is not fully determined by its *p*-value (Amrhein et al., 2019) and effect sizes may better qualify the effects of support provision. In Study 1, I observed that attachment anxiety was associated with a tendency to evaluate support favorably, and attachment avoidance was associated with a tendency to evaluate support unfavorably. As such, it is possible that both forms of support will have similar effects for participants within an attachment classification, but these effects may differ in relative magnitude. Importantly, because my analyses of support outcomes for avoidantly attached individuals were underpowered, those results should be interpreted with caution.

Attachment Anxiety and Outcomes of Imagined Support Receipt.

Perceived Partner Responsiveness (H5). Hypothesis 5 stated that participants classified as anxiously attached would report greater PPR if they imagined safe strategies compared to soft strategies. As shown in Table 12, the main effect of time demonstrates anxiously attached participants reported greater PPR after the intervention (vs. at baseline). Hypothesis 5 was not

supported because there was no interaction between time and support provision (see Figure 11). There was also no difference in post-intervention PPR between the two support conditions (b = .07, p = .86, η_p^2 = 0.00). Exploratory analyses demonstrated that, from baseline to post-intervention, participants reported significantly greater PPR in the safe strategies condition (b = .98, p = .01, η_p^2 = 0.37), but the change in PPR from baseline to post-intervention did not reach significance in the soft strategies condition (b = .76, p = .06, η_p^2 = 0.26).

Trust (H6). Hypothesis 6 stated that anxiously attached participants in the safe strategies condition would report greater trust. The main effect of time demonstrates an increase in trust from baseline to post-intervention. The lack of a significant interaction between time and strategy condition (see Figure 12) suggests that hypothesis 6 was not supported. Simple effects analyses demonstrated that anxiously attached participants reported equivalent levels of post-intervention trust in both strategy conditions (b = .01, p = .97, η_p^2 = 0.00). Exploratory simple effects analyses demonstrated significant change in trust from baseline to post-intervention in the safe strategies condition (b = .98, p = .004, η_p^2 = 0.42) but not in the soft strategies condition (b = .65, p = .07, η_p^2 = 0.19).

Distress (H7). Hypothesis 7 stated that participants in the safe strategies condition would report lower distress. The main effect of time demonstrates that anxiously attached participants reported lower distress post-intervention. Again, there was not a significant main effect of strategy condition, nor was there a significant interaction between time and support condition. Analyses of the simple effects of the interaction between time and support condition on distress (see Figure 13) did not support hypothesis 7. Anxiously attached participants reported equivalent levels of post-intervention distress in either strategy condition (b = -.13, p = .66, η_p^2 = 0.00). Exploratory simple effects analyses demonstrated that, from baseline to post-intervention,

distress decreased significantly for participants in the safe strategies condition (b = -1.01, p < .001, η_p^2 = 0.57) and for participants in the soft strategies condition (b = -.67, p = .03, η_p^2 = 0.41). It appears that, for anxiously attached participants, the effects of safe strategies and soft strategies on PPR, trust, and distress are relatively similar.

Table 12

Perceived Partner Responsiveness (PPR), Trust, and Distress as a function Measurement Time and Strategy Condition for Anxiously Attached Participants.

Predictor	*b*	95% CI	*df*	*F*	Partial η^2
		PPR			
(Intercept)	4.54***	[4.15, 4.93]	1,75		
Time	0.87***	[0.32, 1.42]	1,51	23.87	0.32
Strategy condition	0.29	[-0.49, 1.07]	1,75	0.53	0.00
Time × Strategy condition	-0.22	[-1.32, 0.89]	1,51	0.38	0.01
		Trust			
(Intercept)	4.43***	[4.09, 4.77]	1,82		
Time	0.81***	[0.33, 1.30]	1,51	21.53	0.30
Strategy condition	0.34	[-0.34, 1.03]	1,82	0.99	0.01
Time × Strategy condition	-0.33	[-1.30, 0.63]	1,51	0.89	0.02
		Distress			
(Intercept)	4.65**	[4.35, 4.94]	1,69		
Time	-0.84**	[-1.26, -0.42]	1,51	50.30	0.50
Strategy condition	-0.47	[-1.06, 0.12]	1,69	2.51	0.02
Time × Strategy condition	0.34	[-0.49, 1.18]	1,51	2.08	0.04

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

Figure 11

Effects of Strategy Condition on Perceived Partner Responsiveness for Anxiously Attached Participants

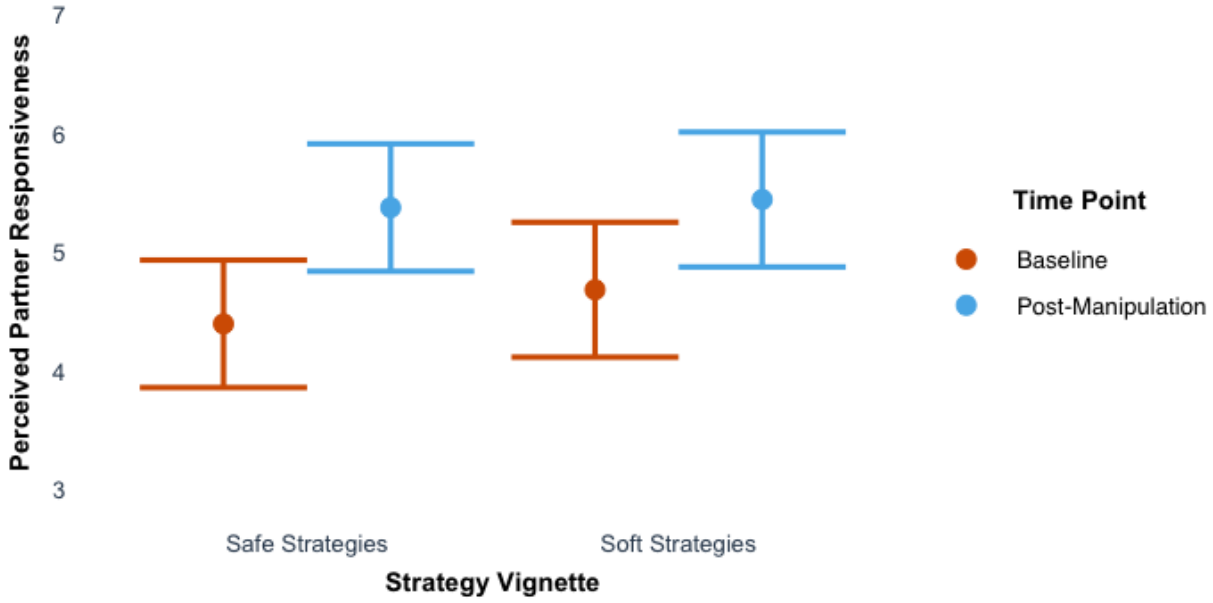


Figure 12

Effects of Strategy Condition on Trust for Anxiously Attached Participants

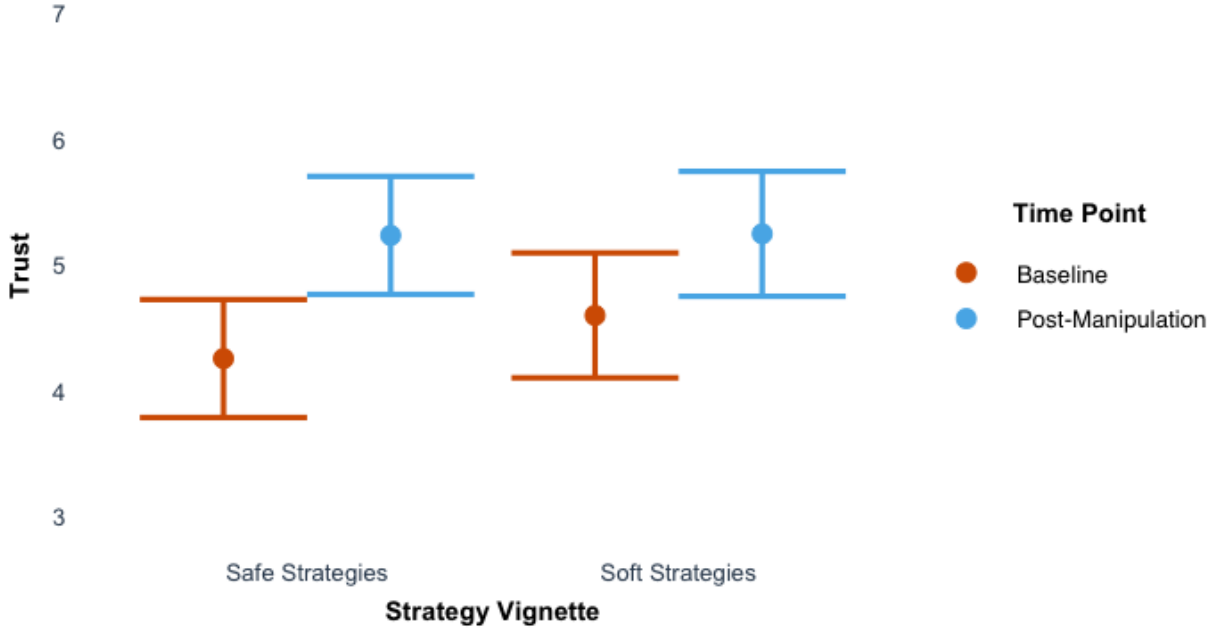
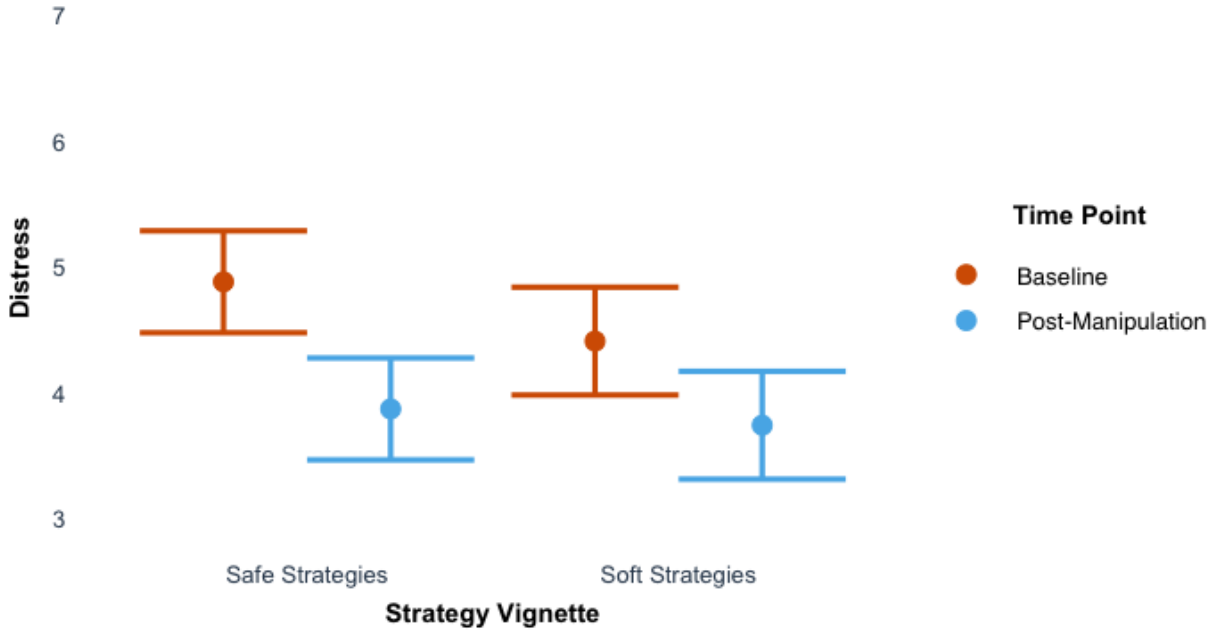


Figure 13

Effects of Strategy Condition on Distress for Anxiously Attached Participants



Attachment Avoidance and Outcomes of Imagined Support Receipt.

Perceived Partner Responsiveness (H8). Hypothesis 8 stated that avoidantly attached participants would report greater PPR in the soft strategies condition. As shown in Table 13, PPR increased from baseline to post-intervention. Though the interaction between time and support condition was not significant, and hypothesis 8 was not supported, I probed the interaction between time and strategy condition (see Figure 14). Avoidantly attached participants reported similar levels of post-intervention PPR in either strategy condition (b = -.35, p = .54, η_p^2 = 0.01). Exploratory simple effects analyses demonstrated that, for avoidantly attached participants, changes in PPR from baseline to post-intervention were not significant either in the safe strategies condition (b = .89, p = .14, η_p^2 = 0.44) or the soft strategies condition (b = .54, p = .33, η_p^2 = 0.19).

Trust (H9). Hypothesis 9 stated that avoidantly attached participants in the soft strategies condition would report greater trust. Overall, avoidantly attached participants reported increases in trust from baseline to post-intervention. Again, there was no main effect of strategy condition, nor was there a significant interaction between time and support condition. Analyses of the simple effects of the interaction between time and support condition (see Figure 15) did not support hypothesis 9. There were no significant differences in post-intervention trust between support conditions (b = .10, p = .82, η_p^2 = 0.00). Exploratory simple effects analyses showed that, for avoidantly attached participants, there were no significant differences in trust from baseline to post-intervention in either the safe strategies condition (b = .63, p = .18, η_p^2 = 0.47) or the soft strategies condition (b = .35, p = .42, η_p^2 = 0.27).

Distress (H10). Hypothesis 10 states that avoidantly attached participants in the soft strategies condition would report lower distress. On average, avoidantly attached participants

tended to report lower distress post-intervention. Again, there was no significant main effect of support condition, nor was there a significant interaction between time and support condition. Analyses of the interaction between time and support condition (see Figure 16) did not support hypothesis 10. There were no significant differences in reported distress between support conditions post-intervention (b = -.32, p = .45, η_p^2 = 0.02). Exploratory simple effects analyses showed no significant differences in reported distress from baseline to post-intervention for avoidantly attached participants in the safe strategies condition (b = -.52, p = .23, η_p^2 = 0.33) or in the soft strategies condition (b = -.37, p = .35, η_p^2 = 0.22).

It appears that, for avoidantly attached participants, both support strategies had similar effects on PPR, trust, and distress. These results should be interpreted carefully however, because my analyses for these participants were underpowered.

Table 13

Perceived Partner Responsiveness (PPR), Trust, and Distress as a function Measurement Time and Strategy Condition for Avoidantly Attached Participants.

Predictor	*b*	95% CI	*df*	*F*	Partial η^2
		PPR			
(Intercept)	3.63***	[3.07, 4.20]	1,44		
Time	0.71***	[-0.09, 1.52]	1,37	16.68	0.31
Strategy condition	-0.00	[-1.14, 1.13]	1,44	0.00	0.00
Time × Strategy condition	-0.35	[-1.96, 1.25]	1,37	1.01	0.03
		Trust			
(Intercept)	4.49***	[4.04, 4.95]	1,40		
Time	0.49***	[-0.15, 1.14]	1,37	23.15	0.38
Strategy condition	0.39	[-0.52, 1.29]	1,40	0.72	0.01
Time × Strategy condition	-0.28	[-1.57, 1.00]	1,37	1.88	0.05
		Distress			
(Intercept)	3.97***	[3.56, 4.38]	1,43		
Time	-0.45***	[-1.03, 0.14]	1,37	13.87	0.27
Strategy condition	-0.46	[-1.29, 0.36]	1,43	1.27	0.03
Time × Strategy condition	0.14	[-1.02, 1.30]	1,37	0.35	0.01

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

Figure 14

Effects of Strategy Condition on Perceived Partner Responsiveness for Avoidantly Attached Participants

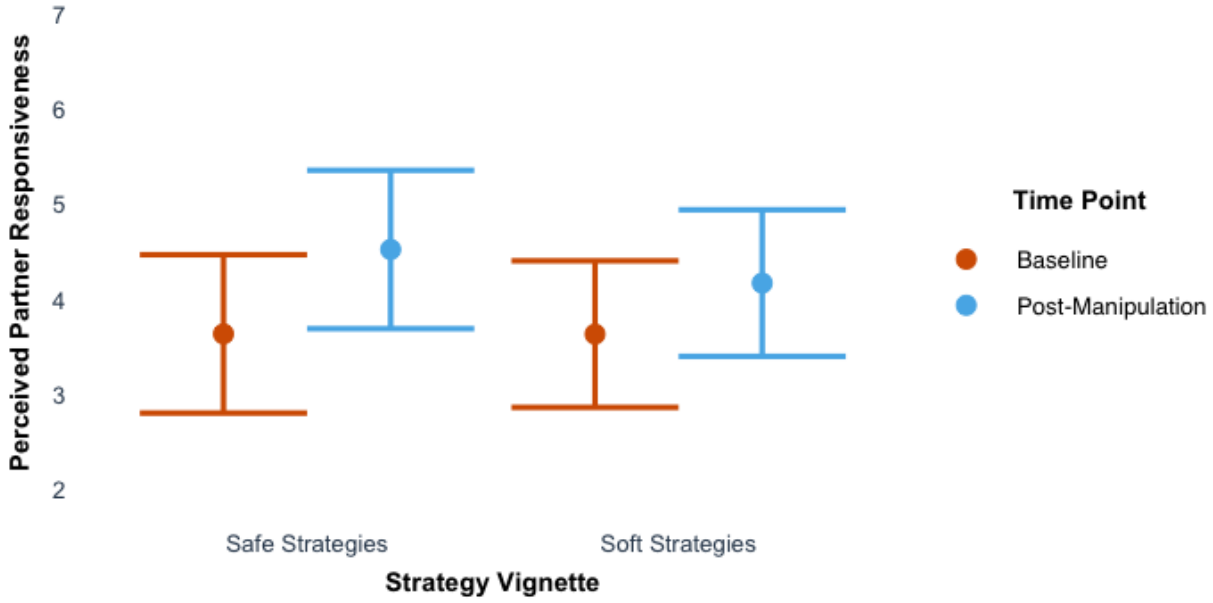


Figure 15

Effects of Strategy Condition on Trust for Avoidantly Attached Participants

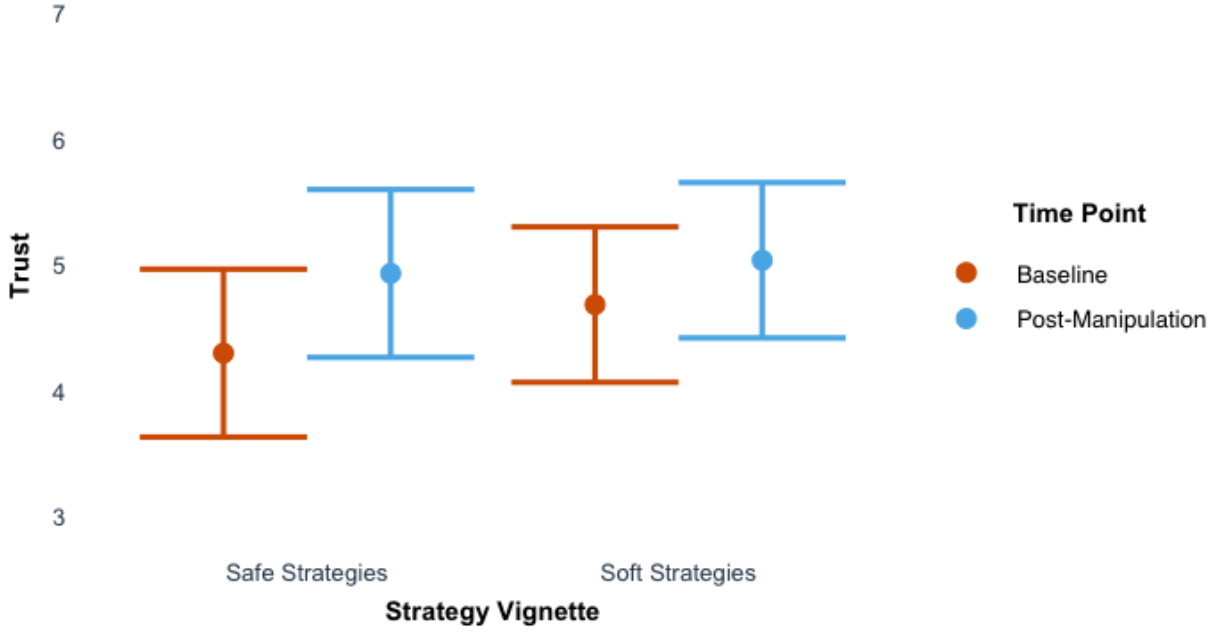
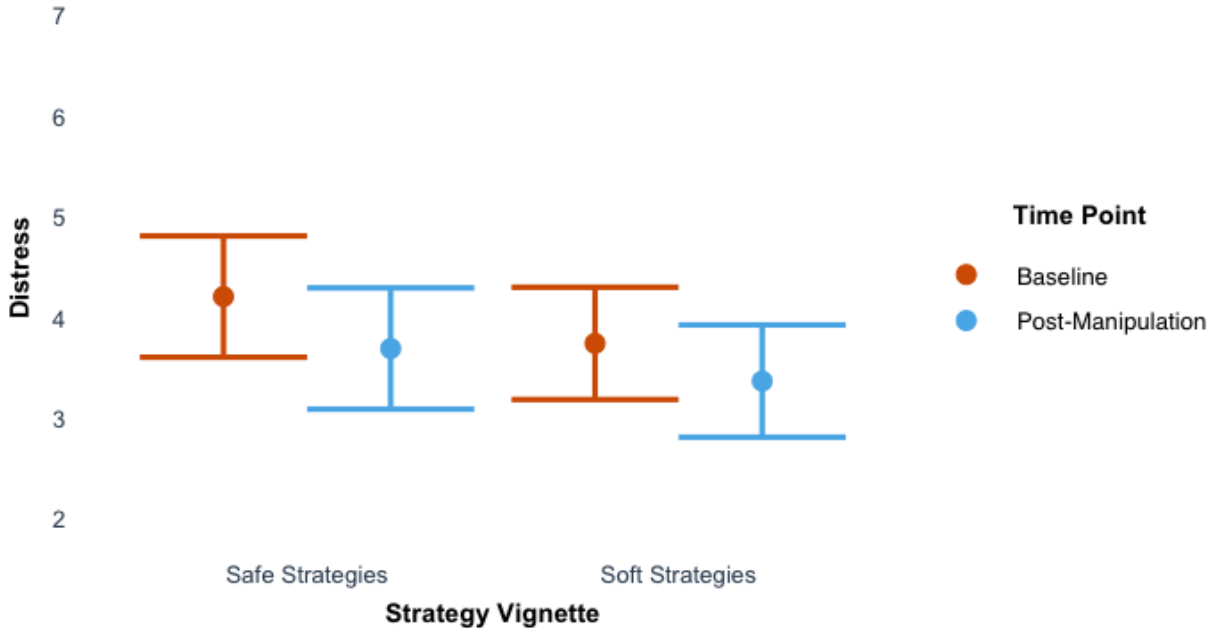


Figure 16

Effects of Strategy Condition on Distress for Avoidantly Attached Participants



General Discussion

In one correlational and two experimental studies, I examined how personal and interpersonal contextual factors are associated with support preferences and outcomes. Specifically, I tested whether support matched to an individual's attachment orientation is preferred (Studies 1 and 3) and more effective to buffer distress and promote relationship outcomes (Studies 2 and 3) than unmatched support. I differentiated between trait and relationship-specific (RS) attachment in all studies, and I differentiated between support in the context of a relationship threat (Studies 1 and 2) and in the context of an individual stressor (Studies 1 and 3) to test the generalizability of results. These studies were the most direct tests of the ASEM's short-term insecurity-buffering propositions to date, and my hypotheses were congruent with the ASEM's short-term insecurity buffering propositions (Arriaga et al., 2018). I expected that safe strategies (i.e., support that conveys high levels of commitment and personal regard) would be preferred by and more effective for people who report greater attachment anxiety, and I expected that soft strategies (i.e., support that minimizes the emotional nature of interactions and promotes autonomy) would be preferred by and more effective for people who report greater attachment avoidance.

In the following discussion, I use the terms "anxiously attached" and "avoidantly attached" to describe certain groups of participants. In Study 3, I classified participants as "anxiously attached" if they reported mean trait attachment anxiety scores above a pre-determined cutoff and mean trait attachment avoidance scores below the cutoff value; I classified participants as "avoidantly attached" if their mean trait attachment avoidance scores were above the cutoff value and their mean trait attachment anxiety scores were below the cutoff value. Additionally, while Study 3's analyses of support preferences were adequately powered, my

analyses of support outcomes for avoidantly attached participants were underpowered. To prevent overstatement of those results, I do not expand on them in this discussion.

Attachment Insecurity and Preferences for Safe and Soft Strategies

I posited that attachment anxiety and attachment avoidance may each be associated with unique support preferences and tested whether trait and RS attachment orientations each predict support preferences. Studies 1 and 3 demonstrated that people generally evaluate attachment-matched social support more favorably than unmatched support, especially when support is matched to their RS attachment orientation. In Study 1, greater trait and RS attachment anxiety were each associated with preferences for safe strategies over soft strategies provided by a specific attachment figure, and greater trait and RS attachment avoidance were each associated with preferences for soft strategies over safe strategies provided by a specific attachment figure. Study 3 replicated these findings in the context of support provided by a specific attachment figure and extended these findings in the context of support provided by others in general. As in Study 1, anxiously attached participants preferred safe strategies, and avoidantly attached participants preferred soft strategies over safe strategies. When referring to others in general, anxiously attached participants still preferred safe strategies, but avoidantly attached participants showed no preference.

These findings highlight that trait and RS attachment anxiety and avoidance are reliable predictors of support preferences that may explain some remaining discrepancies in other theories of social support. Whereas past work has focused on matching support to characteristics of the stressor (see Lakey, 2013 for a review), the present research illustrates that support recipients prefer support matched to their perceptions of their relationship with a specific support provider. Perhaps, in past research, attachment-matched support was associated with more

positive outcomes (e.g., more positive relationship perceptions for anxiously attached support recipients' in Lemay & Dudley, 2011; maintaining avoidantly attached partners' engagement in relationship discussions in Overall et al., 2013) because attachment-matched support is preferable to—and more responsive than—unmatched support. If perceived partner responsiveness is indeed central to high-quality relationships (Reis & Clark, 2013), attachment-matched support conveys support providers' desires to understand, validate, and care for support recipients.

Attachment-Matched Support Outcomes

Whereas my results clearly demonstrated that attachment insecurity predicts relative *preferences* for attachment-matched support, the results for *outcomes* of support were more nuanced. Regarding distress, neither Study 2 nor Study 3 directly supported the hypothesized distress-buffering effects of attachment-matched support. Imagined safe and soft strategies appeared to have no effect on distress in Study 2. In Study 3, however, anxiously attached participants' distress levels dropped significantly from baseline to post-manipulation in both support strategy conditions, resulting in equivalent levels of post-intervention distress. There are various potential explanations for the lack of distress-buffering effects. For example, Study 2's imagined relationship threat may have been insufficient to produce participant distress, resulting in floor effects in the distress variable which could obscure any distress-buffering effects of either support strategy. Since attachment anxiety and avoidance are associated with different emotional responses to distress, it may have been more appropriate to analyze the effect of attachment-matched support on each item comprising the distress composite variable (e.g., anger, sadness, fear). Past research has utilized similar approaches: Affectionate touch (i.e., a safe strategy) assuages *jealousy* (triggered by relationship-threatening situations) in people who

report high levels of attachment anxiety (Kim et al., 2016), and increased use of softening behaviors (i.e., soft strategies) was associated with lower levels of *anger* in avoidantly attached partners (Overall et al., 2013).

Similar to previous research, social support's effect on relationship outcomes (relationship quality, perceived partner responsiveness, and trust) did not match its effect on personal outcomes (e.g., Gleason et al., 2008; Jakubiak et al., 2020). I observed some evidence for attachment-matched support's relationship-promoting effects, although this evidence was limited to participants who fit the avoidant attachment profile and was limited to Study 2. In Study 2, participants who fit the trait avoidant attachment profile (high avoidance, low anxiety) perceived their romantic partner as more responsive after they imagined receiving soft strategies. Moreover, for participants who fit the avoidant RS attachment profile, imagined soft strategies promoted both relationship quality and perceived partner responsiveness. Since people tend to prefer attachment-matched support, people who are avoidantly attached to their romantic partners may prefer soft strategies and appraise this form of support as more responsive to their needs. Avoidantly attached support recipients may in turn perceive their relationship as high-quality when they receive more responsive support. Alternatively, avoidantly attached people may have found safe strategies, which emphasize and reaffirm closeness, to be particularly unresponsive to their needs, therefore diminishing relationship quality in the short-term.

In Study 2, participants who fit the anxious trait and RS attachment profiles did not appear to discriminate between support strategies. This finding is consistent with the idea that anxiously attached people are particularly distressed by relationship threats and can be resistant to support in those contexts (e.g., Campbell et al., 2005). Perhaps, if participants high in attachment anxiety imagined safe strategies that included more direct forms of physical

affection, differences in support outcomes may have been more pronounced. However, support manipulations involving physically affectionate behaviors should be developed in consideration of factors like the type of relationship between support provider and recipient, gender norms, and norms regarding physical affection.

Despite observing that participants who fit the anxious attachment profile reported similar outcomes after imagining safe strategies and soft strategies, I found that participants who fit the fearful attachment profile reported better outcomes after imagining safe strategies (vs. soft strategies). Fearful attachments are characterized by desire for more intimacy and fear of the consequences of emotional intimacy (Brennan et al., 1991; Jacobvitz & Reisz, 2019). The ASEM does not discuss benefits of social support for fearfully attached people (Arriaga et al., 2018), but the results of Study 2 suggest that these individuals benefit from safe strategies more than soft strategies. An anxiously attached person may become avoidantly attached if caregivers are continually unresponsive (Hazan & Shaver, 1994), and fearful attachments may represent a transitional stage in attachment formation. During this transition, fearfully attached adults may alternate between emotional hyperactivation and deactivation because they are unsure which emotional response would have more favorable outcomes. If they receive safe strategies, fearfully attached people may regain some security in their relationship, but soft strategies may trigger greater reliance on avoidant attachment schemas. While further discussions of the effects of safe and soft strategies for fearfully attached individuals are beyond the scope of this paper, theories of attachment change may benefit from pursuing this direction.

Strengths, Limitations, and Future Directions

The studies presented here make several notable contributions to research on attachment insecurity and social support despite the lack of evidence for some of my hypotheses. First, these

studies are currently among the most direct tests of the Attachment Security Enhancement Model's (Arriaga et al., 2018) short-term insecurity buffering hypotheses. By testing support preferences as well as support effectiveness, I was able to demonstrate that attachment anxiety and avoidance are associated with unique preferences for different support behaviors and different responses to attachment-matched social support. I have thus laid the foundation for future research to determine how attachment insecurity-related support preferences are associated with different support outcomes. Additionally, the experimental designs of Studies 2 and 3 directly tested whether the support match, in particular, (rather than some other co-occurring characteristic of the support or support provider) is responsible for matched support's unique effectiveness. The support manipulations I developed for these studies provide a foundation for future empirical work. For example, similar research using the soft strategies vignette (which was sufficient to produce relationship-promoting effects for avoidantly attached participants) and a modified safe strategies vignette may result in a better test of the ASEM's short-term insecurity-buffering hypotheses.

Another key strength of the current research is its inclusion of both trait attachment insecurity and RS attachment insecurity. Although I did not specifically compare models in which support preferences or outcomes were predicted by trait or relationship-specific attachment anxiety and avoidance, my findings demonstrate the importance of considering both trait and relationship-specific attachment insecurity when theorizing about support-matching. In Study 3, this is exemplified by my failure to fully replicate the expected pattern of preferences for safe or soft strategies provided by others in general. As has been discussed in the literature on attitudes, it is important that predictors match an outcome's level of specificity, as explained by the compatibility principle (see Ajzen, 2012 for a brief review). In different situations,

relationship-specific attachment insecurity could predict support outcomes better than trait attachment insecurity and vice versa. For research on the effects of support provided by someone with a pre-existing relationship with the support recipient, relationship-specific attachment anxiety and avoidance are study-compatible predictors. When support recipients receive support from people to whom they have no previous relationship, trait attachment anxiety and avoidance may better predict outcomes since people generalize pre-existing attachment beliefs to interactions with new relationship partners (B. C. Feeney et al., 2008).

Despite the current research's strengths, there are limitations to address in future investigations of the effects of attachment-matched social support. Setting aside discussions of whether statistical significance should be the standard against which the quality of research is judged (e.g., Amrhein et al., 2019), these studies were, at times, limited in their ability to produce statistically significant results. In Studies 2 and 3, I attempted to induce and assuage distress in participants through the use of imagined stressors and support provision. Similar methods have been employed successfully in related research (Jakubiak & Feeney, 2016, 2018) but could nevertheless have been insufficient to produce strong stress responses. Observational experiments in which support providers are assigned to use safe strategies or soft strategies during a conflict or stressor discussion may afford greater opportunities for participants to experience fluctuations in (di)stress. This approach, however, is more costly and affords less experimental control compared to experiments that use standardized support vignettes or scripts.

Participants also tended to report relatively low levels of relationship-specific attachment insecurity in their relationship with their romantic partner in Study 2. People might tend to feel secure with the people they are romantically involved with, or they might hesitate to report that they feel insecure in their committed romantic relationships. Whatever the cause, low variability

in RS attachment may limit analytical accuracy and undermines power (Lane & Hennes, 2018). The attachment classification approach in Study 3 allowed me to observe greater variability in RS attachment anxiety and avoidance, but I could not recruit a sufficient number of avoidantly attached participants to examine the effects of attachment-matched support for this sub-sample. Future research can build upon Study 2's preliminary findings by specifically recruiting participants who fit the avoidant attachment profile and who can identify a relationship partner to whom they are avoidantly attached. Recent research on support processes associated with declines in attachment anxiety (Arriaga et al., 2020) and attachment avoidance (Rholes et al., 2020) during the transition to parenthood suggests that there are benefits to analyzing attachment dimensions in isolation (i.e., testing different mechanisms). However, if our research centers one dimension of attachment insecurity and ignores the other, our conclusions may be interesting yet inherently incomplete. To whom do unidimensional analyses of attachment insecurity apply if every person experiences some degree of attachment anxiety and attachment avoidance?

In addition to the limitations specific to each study, the current studies are not a comprehensive examination of the ASEM's short-term insecurity-buffering hypotheses. Situational factors affect the likelihood of interaction partners engaging in various behaviors (Reis & Holmes, 2018), but I did not thoroughly explore the effects of stressor context or relationship type on support outcomes. Due to space constraints, I examined the effects of attachment-matched (and unmatched) support without distinguishing between different types of relationship partners or comparing results across stressor contexts. Moreover, I constrained these initial studies to two types of support—safe strategies and soft strategies—to compare relative preferences for and outcomes of attachment-matched vs unmatched support. Accordingly, I cannot claim that either form of support as defined here is superior to support defined in other

ways (e.g., traditional definitions of emotional support) for people who report different levels of attachment anxiety and attachment avoidance.

Finally, I caution readers to consider my findings in light of attachment theory's history of centering white, Western European or American values and people (Strand, 2020), past research demonstrating race and culture-related differences in support evaluations (Burleson, 2003), and the fact that the current studies were conducted in the United states with mostly white samples from a private university. Societal values impose different experiences on people from various cultural, racial, or ethnic groups which in turn shapes each person's perception of different stimuli (Reinka & Leach, 2018). I do not know whether my findings apply only to a sub-section of the population I sampled from (i.e., white European-Americans); however, future research should mindfully approach questions about generalizability across racial or cultural groups without pathologizing the population of interest. Rather than asking, "Why don't people from Group A benefit from social support," a more responsible and informative question may be, "What constitutes effective social support for people from Group A," or, "Given the barriers people from Group A face in their society, what forms of social support are useful in coping with stressors?" The first question assumes fault in the population of interest, and the latter questions invite further critical thinking and acknowledge the importance of cultural values and situational constraints. The current research mirrors the latter approach in that it does not ask, "Why don't insecurely attached people benefit from social support," and instead asks, "Given the interpersonal histories of insecurely attached people, what forms of social support are useful for enhancing personal and relationship outcomes?"

Conclusion

The current research demonstrated (a) that attachment anxiety and attachment avoidance are associated with preferences for specific types of support that target relevant insecurities, (b) that the effects of attachment-matched support differ for participants who fit the anxious and avoidant attachment profiles, and (c) that support preferences and outcomes are predicted by both trait attachment orientations or relationship-specific attachment orientations. These studies provide the first empirical evidence of the benefits of soft strategies for attachment avoidance and provide a foundation for further research on safe strategies and attachment anxiety. The current research also expanded upon the Attachment Security Enhancement Model's short-term propositions (ASEM; Arriaga et al., 2018) by examining attachment-related preferences for safe and soft strategies.

Appendix A

Original Safe and Soft Strategies Preference Scale

Instructions: Now imagine that you had a moderately severe conflict with [attachment figure's name] today and you and [attachment figure's name] discussed it. Rate how much you would like it if [attachment figure's name] did each of the following things.

Dislike a great deal	Dislike a moderate amount	Dislike a little	Unsure if I would like or dislike	Like a little	Like a moderate amount	Like a great deal
1	2	3	4	5	6	7

Safe Strategies

1. Tell me they care about me
2. Move toward me to be closer
3. Encourage me to come closer to them
4. Show me they care by giving me a hug
5. Show me they care by giving me a gift
6. Remind me they will always be there for me
7. Emphasize that we can deal with this together
8. Offer to spend time with me until I feel better
9. Reassure me everything will be okay
10. Encourage me to share my feelings
11. Listen carefully to my perspective
12. Acknowledge how hard the situation is for me
13. Try to solve my problems

Soft Strategies

14. Stay calm and unemotional
15. Make jokes to lighten the mood
16. Downplay how big the problem is
17. Help me take my mind off of the situation
18. Let me talk as much or as little as I want to
19. Encourage me to make my own decisions
20. Remind me that I am capable of solving the problem myself
21. Acknowledge my efforts to deal with this on my own
22. Give me space to cool down
23. Help me make detailed, specific plans to solve the problem
24. Stay solution-oriented (i.e., focus on solving the problem)

Appendix B

Insecurity threat passage and behavior change items

Even in the best relationships, we notice things about our partners that we don't like – and our partners find things they don't like about us as well.

Maybe our partners don't like some of our cleaning habits (ex., leaving dishes out overnight), our opinions on drug or alcohol use, or our taste in entertainment, hobbies, or food.

When there are things about our behavior that our partners don't like, sometimes **we need to make sacrifices or change our behaviors** to make the relationship work.

Research shows that if we don't change the behaviors that bother our partners, these issues **can lead to relationship problems or even break-up.**

Think about your own relationship. **What behaviors would like you to change and why?** List the **two things** would **most** want you to change in the boxes below.

Please provide two brief yet specific responses in a format similar to the examples below. In other words, please list a behavior you think would want you to change, and give a short reason why.

Behavior 1. would want me to stop _____
because _____.

Behavior 2. It would make happy if I started _____ instead of _____ because _____.

Now, consider the behaviors **you would like to change and why.** List the **two things** you would **most** want to change in the boxes below.

Please provide two brief yet specific responses. Just like you did with the last question, *please list **a behavior you want to change**, and give a short reason why.*

Behavior 1.

Behavior 2.

Appendix C

Relationship stressor passage

Imagine that, after work one day, you call to talk to them about your day.

You notice that has been acting strange though. At first, was not answering your calls or texts, then only gave short replies when they finally answered you.

This strange behavior continues for a few days. Then confesses to you they have been **having doubts about how compatible you two are because of the behaviors or habits you listed earlier:**

Appendix D

Perceived Partner Responsiveness Scale items (Reis et al., 2011)

1. **[Partner's name] sees the "real" me.**
2. **[Partner's name] "gets the facts right" about me.**
3. **[Partner's name] knows me well.**
4. **[Partner's name] values and respects the whole package that is me.**
5. **[Partner's name] understands me.**
6. **[Partner's name] is on the same wavelength as me.**
7. **[Partner's name] is responsive to my needs.**
8. [Partner's name] esteems me, shortcomings and all
9. [Partner's name] really listens to me
10. [Partner's name] expresses liking and encouragement for me
11. [Partner's name] seems interested in what I am thinking and feeling
12. [Partner's name] values my abilities and opinions

Note. Items in bold were selected for use in Studies 2 and 3.

Appendix E

The Dyadic Trust Scale items (Larzelere & Huston, 1980)

1. My partner is primarily interested in his (her) own welfare.

2. There are times when my partner cannot be trusted.

3. My partner is perfectly honest and truthful with me.

4. I feel that I can trust my partner completely.

5. My partner is truly sincere in his (her) promises.

6. I feel that my partner does not show me enough consideration.

7. My partner treats me fairly and justly.

8. I feel that my partner can be counted on to help me.

Note. Items in bold were selected for use in Studies 2 and 3.

Appendix F

Safe and Soft Strategy Preference Scale - General

Instructions: Thinking about how you usually react when you are experiencing stress and people attempt to support you, how often do you find it helpful when others…

Never	Sometimes	Half the time	Most of the time	Always
1	2	3	4	5

1. Make it very clear that they care about me and want to be with me.
2. Do everything in their power to calm me down when I am stressed out.
3. Prioritize my feelings about my problems more than trying to solve the problem.
4. Only get involved when they have specific ideas about how to fix the problem.
5. Keep themselves from becoming emotional even if things get tense.
6. Give me space to deal with my thoughts and feelings regarding the issue i.e., not pressuring me into facing the issue).

Appendix G

Attachment primes adapted from Bartz and Lydon (2004)

Security prime: Please think about a relationship you have had in which you have found that it was relatively easy to get close to the other person and you felt comfortable depending on the other person. In this relationship you didn't often worry about being abandoned by the other person and you didn't worry about the other person getting too close to you.

Avoidance prime: Please think about a relationship you have had in which you have found that you were somewhat uncomfortable being too close to the other person. In this relationship, you found it was difficult to trust the other person completely, and it was difficult to allow yourself to depend on the other person. In this relationship, you felt yourself getting nervous when the other person tried to get too close to you, and you felt that the other person wanted to be more intimate that you felt comfortable being.

Anxiety prime: Please think about a relationship you have had in which you have felt like the other person was reluctant to get as close as you would have liked. In this relationship, you worried that the other person didn't really like you, or love you, and you worried that they wouldn't want to stay with you. In this relationship, you wanted to get very close to the other person, but you worried that this would scare the other person away.

Appendix H

Attachment prime writing instructions

Security prime:

In this section, we would like you to write about your relationship with [attachment figure].

For the next 5 minutes, please write about your relationship with [attachment figure]. What does [attachment figure] do or say that makes you feel comfortable being close to [attachment figure] and depending on [attachment figure], and that keeps you from worrying about whether or not [attachment figure] cares for you or would abandon you?

Avoidance prime:

In this section, we would like you to write about your relationship with [attachment figure].

For the next 5 minutes, please write about your relationship with [attachment figure]. What does [attachment figure] do or say that makes you not completely trust [attachment figure], makes it difficult for you to depend on [attachment figure], or makes you uncomfortable with letting [attachment figure] get close to you emotionally?

Anxiety prime:

In this section, we would like you to write about your relationship with [attachment figure].

For the next 5 minutes, please write about your relationship with [attachment figure]. What does [attachment figure] do or say that makes you feel like [attachment figure] doesn't want as much emotional closeness as you want, makes you worry about whether [attachment figure] truly cares about you, or makes you believe [attachment figure] may leave you if you try getting too close (emotionally) to them?

Appendix I

S/SSPS-Revised

Instructions: Thinking back to the most recent times that you felt stressed or as if you were under a lot of pressure, how much would you have liked it if [attachment figure] did each of the following things:

Dislike a great deal			Unsure if I would like or dislike			Like a great deal
1	2	3	4	5	6	7

Safe Strategies

1. Tell me they care about me
2. Move toward me to be closer
3. Encourage me to come closer to them
4. Show me they care by giving me a hug
5. Show me they care by giving me a gift
6. Remind me they will always be there for me
7. Emphasize that we can deal with this together
8. Offer to spend time with me until I feel better
9. Reassure me everything will be okay
10. Encourage me to share my feelings
11. Listen carefully to my perspective
12. Acknowledge how hard the situation is for me
13. Try to solve my problems

Soft Strategies

14. Stay calm and unemotional
15. Make jokes to lighten the mood
16. Downplay how big the problem is
17. Help me take my mind off of the situation
18. Let me talk as much or as little as I want to
19. Encourage me to make my own decisions
20. Remind me that I am capable of solving the problem myself
21. Acknowledge my efforts to deal with this on my own
22. Give me space to cool down
23. Help me make detailed, specific plans to solve the problem
24. Stay solution-oriented (i.e., focus on solving the problem)
25. **Let me determine when I want to walk away from a problem for a while**
26. **Trust that I know what is best for me**

Note. Items in bold are new items added to the S/SSPS for Study 3.

Appendix J

Study 3 Debriefing Script

[Experimenter sits down.]

I know the survey told you that you will complete two academic tasks now. I want to let you know that we are not having participants complete the stress task on camera or in front of evaluators. Our study has concluded, and now I will just explain the purpose before you leave.

I want to thank you very much for your participation in our research project. We really appreciate your time, effort, and willingness to help us learn more about how college students react to stress.

Even though we aren't having participants complete academic tasks, we tell participants that there will be stressful academic tasks so we can test our stress-reduction methods without having to cause participants too much discomfort. It's **really important** that participants think they're really going to complete these tasks though.

You might have friends who are going to sign up for this study. Can you please help us out by not telling anyone that they won't actually complete the stressful academic tasks? If participants do not believe that they will participate in the stress tasks, they may not provide accurate information, and our research will not be accurate. This study is for a graduate student's thesis research, so we really care about having accurate data. Are you willing to keep this secret until after your friends participate?

[Experimenter waits for response.]

As a last note: Some people may feel uncomfortable after learning that this study involved the use of deception. As a research participant, it is your right to request that we delete your data and do not use it in our research. The next page of the survey will give you the option to have us delete your data. **Before you advance to that page, do you have any questions about this study?**

[After experimenter answers questions:] Okay, you may advance to the next page. Once you are finished, you may leave. Here is your phone and ID!

Thank you again for participating today and thank you for helping us maintain the quality and accuracy of our research. We appreciate your time and will grant your SONA credit now!

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EDUCATION

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PUBLISHED MANUSCRIPTS

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

MANUSCRIPTS UNDER REVIEW

Jakubiak, B.K., **Fuentes, J.D.**, Feeney, B.C. *Individual and Relational Differences in Desire for Touch in Romantic Relationships*. Manuscript under review.

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

CONFERENCE PRESENTATIONS

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

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

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

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

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

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

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

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

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

FUNDING & AWARDS

STEM Diversity Fellowship 2019 – 2021

Amount: Valued at approximately $50,000

Graduate Mentor Summer Fellowship Summer 2019
Psychology Research Initiative in Diversifying Education
Amount: $2,500

TEACHING EXPERIENCE

Teaching Assistant, Syracuse University:
Foundations of Human Behavior Fall 2018 – Spring 2019

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

SERVICE

PRIDE Graduate student mentor Summer 2019

- Mentored an undergraduate student on the process of seeking opportunities to discover and develop their research interests, plan their

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

Psychology Action Committee area representative — Fall 2018 – Spring 2019
- Served as a liaison between Social area graduate students, the area director, social area faculty, and graduate students in other areas in the psychology department

HONORS & PROFESSIONAL AFFILIATIONS

The Society for Personality and Social Psychology	2016 – Present
Ronald E. McNair Scholar	2016 – 2018
Gamma Beta Phi Honors Society	2015 – 2018
Phi Theta Kappa Honors Society	2013 – 2015

SKILLS

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

Programming with R & MATLAB

Theory-driven scale creation

Conducting research in medical settings

Conducting research with vulnerable populations

Administering structured clinical interviews

Limited working proficiency in Spanish and French