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Mate-Retention Behaviors Mediate the Association between Spouses' Attachment Insecurity and Subsequent Partner Satisfaction

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MATE-RETENTION BEHAVIORS MEDIATE THE ASSOCIATION BETWEEN SPOUSES'
ATTACHMENT INSECURITY AND SUBSEQUENT PARTNER SATISFACTION

By

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ABSTRACT

Partner defection for an attractive alternative represents a threat to romantic relationships. Intimates' behaviors to combat this threat are likely influenced by their attachment style. Attachment anxiety is characterized by fear of partner defection and thus intimates with relatively more (versus less) attachment anxiety likely perform more frequent mate retention. Conversely, attachment avoidance is characterized by apathy towards partner defection and thus intimates with relatively more (versus less) attachment avoidance likely perform less frequent mate retention. Moreover, given the partner-directed nature of mate-retention behaviors, such behaviors may have implications for intimates' partners. We examined these possibilities in one cross-sectional study of undergraduates and one 3-year longitudinal study of newlywed couples. Across both studies, intimates with more attachment anxiety performed more frequent cost-inflicting mate-retention behaviors and intimates with more attachment avoidance performed less frequent benefit-provisioning mate-retention behaviors. Study 2 further demonstrated that both facets of intimates' attachment insecurity were indirectly associated with decreased partner satisfaction over time through intimates' over-performance of cost-inflicting mate retention and under-performance of benefit-provisioning mate retention. Implications and future directions of research are discussed.

CHAPTER 1

INTRODUCTION

Relational threats are ubiquitous and can have dire consequences for long-term relationships. Same-sex rivals are one particularly notable threat because they might attract the attention of people's partners away from their ongoing relationships (Kelley & Thibaut, 1978; Rusbult, 1983), which could have negative implications for those relationships. Indeed, such attention to attractive alternative partners predicts subsequent infidelity (McNulty, Meltzer, Makhanova, & Maner, 2018) and relationship dissolution (Miller, 1997). Given these costly implications, intimates are likely highly motivated to mitigate the pervasive threat of partner defection for alternative romantic partners.

Intimates vary, however, in the ways they manage such threats. According to attachment theory (Mikulincer & Shaver, 2003; Mikulincer, Shaver, & Pereg, 2003), relationship threats activate people's working mental attachment models, which are based on their past relationship experiences, that influence people's subsequent behaviors. Attachment theory characterizes these working models in terms of two continuous dimensions: attachment anxiety and attachment avoidance (Brennan, Clark, & Shaver, 1998; Fraley & Waller, 1998). Attachment anxiety is associated with hyperactivation of the working attachment model such that anxiously attached individuals frequently over-perceive relational threats such as potential romantic rivals (Mikulincer et al., 2003; Mikulincer & Shaver, 2003). Accordingly, individuals high (versus low) in attachment anxiety may more frequently engage in behaviors aimed at retaining their partners, which likely impacts their relationship partners. Attachment avoidance, in contrast, is associated with deactivation of the working attachment model such that avoidantly attached

individuals frequently under-perceive, or even ignore, relationship threats such as potential romantic rivals (Mikulincer et al., 2003; Mikulincer & Shaver, 2003). Accordingly, individuals high (versus low) in attachment avoidance may less frequently engage in behaviors aimed at retaining their partners, which may also impact their relationship partners.

The goal of the current study was to explore these possibilities. In pursuit of this goal, the remainder of this introduction is divided into three sections. The first section reviews the impact of intimates' attachment insecurity on their relationship-maintenance behaviors, and considers the extent to which such insecurity predicts intimates' mate retention. The second section considers the potential implications of intimates' mate retention for their partners' relationship outcomes. The final section summarizes the current research that examined data from one cross-sectional study of undergraduate students and one 3-year longitudinal study of newlywed couples to test (a) the associations between intimates' attachment insecurity and their mate-retention behaviors as well as (b) the impact of those behaviors on their partners' marital satisfaction over time.

Intimates' Attachment Insecurity and Corresponding Relationship-Maintenance Behaviors

According to Mikulincer and Shaver's (2003) conceptualization of working models of attachment, the hyperactivating strategies of attachment anxiety predispose intimates high (versus low) in attachment anxiety to experience greater emotional distress in their relationships (Campbell, Simpson, Boldry, & Kashy, 2005; Collins, 1996), which influences their relationship responses and behaviors (Collins, 1996; Collins & Feeney, 2000; Simpson, Rholes, & Phillips, 1996; for a review, see Li & Chan, 2012). Notably, many of these responses and behaviors are harmful to relationships. Intimates' higher (versus lower) in attachment anxiety, for example, experience more frequent conflict and interact more negatively with their partners (Collins,

1996; particularly women, Simpson et al., 1996; for a review, see Li & Chan, 2012). Perhaps due in part to their intense desire to maintain their relationships and retain their relationship partners, intimates higher (versus lower) in attachment anxiety are additionally more likely to be involved in relationships characterized by physical aggression and violence (particularly men, Babcock, Jacobson, Gottman, & Yerington, 2000; Bookwala & Zdaniuk, 1998; Holtzworth-Munroe, Stuart, & Hutchinson, 1997). Interestingly, more (versus less) anxious intimates also more frequently engage in behaviors that are beneficial to relationships. For example, more (versus less) anxious intimates report greater closeness with their partner such that they more frequently engage in self-disclosure with their partners and seek support from their partners, which positively impacts their partners' satisfaction (Brennan & Shaver, 1995). Additionally, following satisfying sexual experiences, more (versus less) anxious intimates engage in more constructive and less destructive relationship behaviors (Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006; but also see, Collins & Feeney, 2000; Feeney & Collins, 2001; Li & Chan, 2012; Tran & Simpson, 2009).

The deactivating strategies of attachment avoidance, in contrast, predispose intimates high (versus low) in attachment avoidance to either not perceive or refrain from reacting emotionally to relational threats, which hinders their perceived need to respond to such threats and subsequently results in less frequent negative and positive relationship processes (Mikulincer & Shaver, 2003; also see Collins, 1996; Collins, Cooper, Albino, & Allard, 2002; Collins & Feeney, 2000; Simpson, Rholes, & Nelligan, 1992; Simpson et al., 1996). Indeed, intimates high (versus low) in attachment avoidance provide less partner support (Simpson et al., 1992; Simpson, Rholes, Orina, & Grich, 2002), display less warmth (Simpson et al., 1996), perform fewer constructive, pro-relationship behaviors (e.g., affection, disclosure; Collins et al., 2002;

Tran & Simpson, 2009), and are less responsive (Collins & Feeney, 2000; Feeney & Collins, 2001; for a review, see Li & Chan, 2012).

Given attachment anxiety predisposes individuals to frequently over-perceive relationship threats such as partner defection (Mikulincer & Shaver, 2003), intimates high in attachment anxiety may be particularly likely to engage in negative and positive behaviors aimed at retaining their partners. Conversely, given attachment avoidance predisposes individuals to disregard relationship threats such as partner defection (Mikulincer & Shaver, 2003), intimates high in attachment avoidance may be particularly unlikely to engage in negative and positive behaviors aimed at retaining their partners. Indeed, two independent studies have demonstrated that attachment insecurity is associated with mate-retention behaviors (Barbaro, Pham, Shackelford, & Zeigler-Hill, 2016; Barbaro, Sela, Atari, Shackelford, & Zeigler-Hill, 2018). These studies specifically demonstrated that whereas intimates high (versus low) in attachment anxiety perform more high-risk, cost-inflicting mate-retention behaviors *and* low-risk, benefit-provisioning mate-retention behaviors, intimates high (versus low) in attachment avoidance perform fewer high-risk, cost-inflicting mate-retention behaviors (though this effect was not robust across the two independent studies) and low-risk, benefit-provisioning mate-retention behaviors. Cost-inflicting mate retention, as its name implies, refers to partner-directed behaviors that inflict costs on those partners and include behaviors such as monitoring, controlling, and partner derogation (see Buss & Shackelford, 1997; Miner, Starratt, & Shackelford, 2009). Notably, these behaviors are aimed at lowering partner self-esteem and perceived social support, thereby decreasing the partner's perceived ability to obtain an alternative partner. Benefit-provisioning mate retention, in contrast, refers to partner-directed behaviors that provide emotional and material benefits and include behaviors such as gift giving and public displays of

affection. Notably, these behaviors increase the value of the individual performing the behaviors, thereby decreasing the partner's perceived ability to obtain an alternative partner superior to his or her current partner.

Intimates' Attachment Insecurity May Impact Their Partners' Relationship Outcomes Through Their Mate Retention

Given the partner-directed nature of mate retention, intimates' attachment insecurity may harm or benefit their relationships to the extent that their mate-retention behaviors influence their partners' satisfaction. Supporting this possibility, previous research has demonstrated that intimates' attachment insecurity is associated with a variety of partner-directed relationship behaviors, which subsequently influence those partners' relationship satisfaction (Brennan & Shaver, 1995; Collins et al., 2002; Kane et al., 2007; Overall, Girme, Lemay, & Hammond, 2014; Tan, Overall, & Taylor, 2012). For example, intimates with more (versus less) attachment anxiety exhibit more hurt feelings that induce greater guilt in their partners, which predicts steeper declines in their partners' satisfaction over time (Overall et al., 2014). Likewise, they seek out more physical closeness with their partners, which positively impacts their partners' relationship satisfaction (Brennan & Shaver, 1995). Intimates with more (versus less) attachment avoidance, in contrast, perform fewer pro-relationship behaviors such as showing affection and self-disclosing (Collins et al., 2002) and avoid physical closeness with their partners (Brennan & Shaver, 1995), each of which predicts lower partner satisfaction.

Of course, the positive implications of intimates' benefit-provisioning mate retention may "wash out" the negative implications of intimates' cost-inflicting mate retention, and thus, partners of intimates high (versus low) in attachment anxiety may be no more or less satisfied with their relationships. It is worth noting, however, that other work has demonstrated that bad is

stronger than good (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). It is thus perhaps more likely that partners of intimates high (versus low) in attachment anxiety are less satisfied with their relationships, at least in part, because they are the recipients of cost-inflicting mate retention, regardless of whether they are also recipients of benefit-provisioning mate retention. The partners of intimates high (versus low) in attachment avoidance, in contrast, incur fewer partner-directed costs but also fewer partner-directed benefits (Barbaro et al., 2016, 2018), which may, in turn, either be unassociated with those partners' satisfaction or negatively impact those partners' satisfaction (to the extent that the costs of their less frequent benefits outweigh the benefits of their less frequent costs). We are not aware, however, of any research that has directly tested either of these possibilities. Thus, the goal of the current research was to test both possibilities.

Overview of the Current Studies

In pursuit of this goal, we conducted two studies that examined the unique associations between individuals' attachment insecurity and their mate-retention behaviors (Studies 1 and 2), and the extent to which such mate-retention behaviors mediate the association between intimates' attachment insecurity and their partners' relationship outcomes (Study 2). In Study 1, we recruited a large sample of undergraduate students to complete measures of attachment insecurity and mate retention. In Study 2, we used data from a 3-year longitudinal study of newlywed couples. Specifically, at the start of their marriages, intimates completed measures of attachment insecurity, mate retention, and marital satisfaction. Then, at approximately 6-month intervals, we reassessed spouses' mate retention (for a total of four follow-up assessments spanning the first two and one-half years of marriage) and marital satisfaction (for a total of five follow-up assessments spanning the first three years of marriage).

CHAPTER 2

METHODS

Study 1

In this study, we aimed to examine the extent to which attachment anxiety and attachment avoidance uniquely predict each type of mate retention. Although other empirical evidence demonstrates that attachment anxiety is associated with more cost-inflicting and benefit-provisioning mate retention and attachment avoidance is associated with less frequent cost-inflicting and benefit-provisioning mate retention (Barbaro et al., 2016, 2018), we are not aware of any research that has examined the extent to which each type of attachment *uniquely* predicts each type of mate retention. Given that both facets of attachment anxiety are positively correlated (Del Giudice, 2011; Sibley, Fischer, & Liu, 2005), and given that both facets of mate retention are positively correlated (Barbaro et al., 2018), it is possible that only one facet of attachment insecurity and one facet of mate retention are driving previously demonstrated associations (see Barbaro et al., 2016, 2018). Thus, to explore these unique associations, we recruited undergraduate men and women to complete online self-report measures assessing their attachment insecurity and the frequency with which they perform mate-retention behaviors in romantic relationships. We then examined the extent to which individuals' (a) attachment anxiety independently predicts their cost-inflicting and benefit-provisioning mate-retention behaviors, controlling for attachment avoidance, and (b) attachment avoidance independently predicts their cost-inflicting and benefit-provisioning mate-retention behaviors, controlling for attachment anxiety.

Participants, Procedure, and Measures

We recruited 342 undergraduate students from a large, southeastern university to participate in an online study. We a priori excluded 10 participants who failed to complete the attachment insecurity measure, and two additional participants who failed to complete the mate-retention measure. Additionally, given the aim of examining relationship-specific behaviors, we a priori excluded three participants who reported never having been in a romantic relationship. Thus, our final sample was comprised of 327 (251 women) participants.

Participants reported a mean age of 19.90 ($SD = 1.48$; ranging from 18 to 28). The sample was relatively diverse; 66.1% of participants self-identified as White, 20.2% of participants self-identified as Latino/a, 8.9% of participants self-identified as African American, 2.1% of participants self-identified as Asian, and 2.7% of participants self-identified as another race/ethnicity. Moreover, 180 (55%) participants reported that they were involved in romantic relationships (169 reported opposite-sex partners, 11 reported same-sex partners) that, on average, had been ongoing for 19.04 ($SD = 17.50$) months. The remaining 147 single participants reported that their longest prior relationships (141 reported opposite-sex partners, five reported same-sex partners, and one reported an opposite-gender partner), on average, lasted 13.27 ($SD = 11.58$) months.

Upon registering for the study, participants were directed to Qualtrics.com where they read and signed a consent form that was approved by the university's human-subjects review board. All participants then completed self-report measures assessing their attachment insecurity and mate-retention behaviors. We compensated all participants with course credit.

Attachment insecurity. We assessed participants' attachment insecurity using the revised version of the Experiences in Close Relationships scale (ECR-R; Fraley, Waller, &

Brennan, 2000), which is a 36-item measure assessing the two dimensions of adult attachment insecurity: attachment anxiety and attachment avoidance (Brennan, Clark, & Shaver, 1988). Eighteen statements assess attachment anxiety (e.g., “I’m afraid I will lose my partner’s love”) and 18 statements assess attachment avoidance (e.g., “I prefer not to be too close to romantic partners”). Participants indicated the extent to which they agreed or disagreed with each statement using a 7-point scale. After reverse scoring the necessary items, we averaged the items comprising each subscale to create separate indices of attachment anxiety and avoidance; higher values reflect greater attachment insecurity. Internal consistency for this measure was high (for attachment anxiety, $\alpha = .95$; for attachment avoidance, $\alpha = .94$).

Mate retention. We assessed participants’ mate-retention behaviors using the Mate Retention Inventory-Short Form (MRI-SF; Buss, Shackelford, & McKibbin, 2008). Specifically, participants reported the frequency with which they performed 38 mate-retention behaviors using a 4-point scale ranging from 0 = “Never performed this act” to 3 = “Often performed this act.” Partnered participants reported their mate-retention behaviors in their current relationships whereas single participants reported their mate-retention behaviors in their longest prior relationships. Following the procedures outlined by Miner, Starratt, and Shackelford (2009), we categorized these 38 items into two subscales: benefit-provisioning mate retention (16 items; e.g., “displayed greater affection for my partner”) and cost-inflicting mate retention (22 items; e.g., “became angry when my partner flirted too much”), and averaged participants’ responses to the items comprising each subscale; higher scores reflect more frequent cost-inflicting and benefit-provision mate-retention behaviors, respectively. Internal consistency of this measure was high (for cost-inflicting mate retention, $\alpha = .90$; for benefit-provisioning mate retention, $\alpha = .85$).

Study 2

Study 2 aimed to replicate the findings of Study 1, and extend them in three notable ways. First, given the cross-sectional nature of Study 1 that provided a “snapshot” understanding of the key associations at a given point in time, Study 2 utilized a longitudinal methodology, enabling us to examine the stability of intimates’ mate retention over time as well as the extent to which the associations between attachment insecurity and mate retention emerge over time. Moreover, Study 2 included reports of another negative partner-directed relationship behavior that is associated with attachment insecurity—psychological aggression, enabling us to examine whether attachment insecurity is uniquely associated with mate retention independent of other such partner-directed relationship behaviors. Finally, Study 2 included reports from both partners enabling us to examine the unique impact of intimates’ attachment insecurity and partner-directed mate retention for their partners’ outcomes (i.e., satisfaction).

Specifically, Study 2 utilized a 3-year longitudinal study of newlywed couples to explore (a) the extent to which intimates’ mate retention changes over time, (b) whether we could replicate the associations between attachment insecurity and mate retention from Study 1, (c) whether these associations emerge independent of other partner-directed relationship behaviors, and (d) whether intimates’ attachment insecurity impacts their partners’ relationship outcomes through their mate-retention behaviors.

Participants

Participants were 113 husbands and 108 wives (comprising 113 heterosexual newlywed couples) participating in a broader longitudinal study in North Texas (we excluded four wives who failed to complete the attachment insecurity measure at baseline and one wife who failed to complete the mate-retention measure at any assessment). As part of the broader study goals,

eligibility required that: (a) both couple members were not previously married, (b) couples had been married less than four months and both couple members could attend a laboratory session within the first four months of their marriage, (c) both couple members were at least 18 years of age, and (d) both couple members spoke English (to ensure questionnaire comprehension). Data collection was initially planned for 12 months but was extended one additional month to increase sample size.

On average, husbands and wives at baseline were 28.06 ($SD = 5.55$) and 26.83 ($SD = 4.81$) years of age, respectively. Seventy-one percent of husbands and 53% of wives were employed full time; 13% of husbands and wives were full-time students. Husbands' and wives' reported mean income was \$42,990 ($SD = \$47,162$) and \$30,160 ($SD = \$27,358$) per year, respectively. The sample was relatively diverse; 48% of husbands and wives self-identified as Caucasian, 28% of husbands and 26% of wives self-identified as African American, 16% of husbands and 17% of wives self-identified as Latino/a, 3% of husbands and 5% of wives self-identified as Asian, and 4% of husbands and wives self-identified as another race/ethnicity (one husband and wife did not provide their race/ethnicity). Couples had been together an average of 39.61 ($SD = 33.52$) months prior to marriage and 23% of couples had children.

Procedure and Measures

We recruited participants via letters sent to couples who had recently applied for marriage licenses in Dallas county (where the study took place). Given that a large number of couples registered for marriage licenses each month, we sent letters to 700 randomly selected couples each month. After enrolling in the study, we either mailed participants a packet of surveys to complete at home and bring with them to a corresponding laboratory session or emailed them a link to Qualtrics.com, where they completed surveys online prior to their session.

Packets included a consent form approved by the local human-subjects review board, measures assessing attachment insecurity, mate-retention behaviors, and marital satisfaction, additional measures beyond the scope of these analyses, and a letter instructing spouses to complete their surveys independently of one another. We compensated couples \$100 for completing this baseline assessment and corresponding lab session beyond the scope of the current analyses.

At approximately 6-month intervals across the next three years (i.e., five follow-up assessments), we re-contacted couples and again mailed packets of surveys that included mate retention and marital satisfaction measures, as well as a letter of instruction reminding spouses to complete their surveys independently. Each follow-up assessment resembled this format except for the final assessment, which did not include the mate-retention measure—in an effort to reduce participant burden and attrition, we drastically shortened the final assessment and thus this measure was excluded. We compensated couples \$30 for completing each follow-up assessment.

Attachment insecurity. We assessed intimates' attachment insecurity at baseline using the same measure that we used in Study 1: the ECR-R (Fraley et al., 2000). As in Study 1, we averaged the items comprising each subscale to create separate indices of attachment avoidance and attachment anxiety; higher values reflect greater attachment insecurity. Internal consistency was high (for husbands' and wives' attachment anxiety, $\alpha s \geq .94$; for husbands' and wives' attachment avoidance, $\alpha s \geq .93$).

Mate-retention behaviors. At baseline and the first four of the five follow-up assessments, we assessed participants' mate-retention behaviors using the same measure that we used in Study 1: the MRI-SF (Buss et al., 2008). As in Study 1, we averaged the items comprising each subscale to create separate indices of cost-inflicting and benefit-provisioning

mate retention; higher scores reflect more frequent mate retention. Across all assessments, internal consistency was high (for cost-inflicting, husbands' and wives' $\alpha \geq .86$; for benefit-provisioning, husbands' and wives' $\alpha \geq .75$).

Marital satisfaction. We assessed intimates' marital satisfaction at baseline and all follow-up assessments using three measures. The first measure was the Quality of Marriage Index (Norton, 1983), which is a 6-item measure assessing participants' agreement with general statements about their marriage. Five items require participants to respond according to a 7-point scale, and one item requires participants to respond according to a 10-point scale. The second measure was a version of the semantic differential (Osgood, Suci, & Tannenbaum, 1957), which requires intimates to rate their perceptions of their marriage on 7-point scales between 15 pairs of opposing adjectives (e.g., "Dissatisfied—Satisfied," "Good—Bad"). The third measure was the Kansas Marital Satisfaction Scale (Schumm et al., 1986), which is a 3-item measure assessing participants' agreement with general statements regarding the quality of their marriage, using a 7-point scale. For each measure, we reverse scored appropriate items and averaged across all items; higher scores on each measure reflect greater satisfaction with the marriage. Across all assessments, internal consistency for each of these measures was high (husbands' and wives' $\alpha \geq .92$). Not surprisingly, all three measures were highly correlated (all $r_s \geq .76$), and thus, to be most comprehensive, and to minimize the likelihood that results would be specific to one measure, we created a composite marital satisfaction index for each participant by standardizing their scores across all assessments and averaging those standardized scores.

Covariate. Prior research has demonstrated that attachment insecurity is associated with another notable partner-directed relationship behavior: psychological aggression (Gormley & Lopez, 2010; Péloquin, Lafontaine, & Brassard, 2011). To ensure that any associations between

attachment insecurity and mate retention are independent of such partner-directed behaviors, we assessed intimates' psychological aggression at baseline and the first four of the five follow-up assessments using the verbal aggression subscale of the Conflict Tactics Scales (Straus, 1979) and controlled for it in supplemental analyses. Despite often being referred to as "verbal aggression," this 7-item subscale includes items that assess both verbal aggression (e.g., "insulted or swore at spouse") and non-verbal aggression (e.g., "stomped out of the room, house, or yard") and thus can be conceptualized as psychological aggression more generally (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Participants indicated the frequency with which they performed seven behaviors during the past six months using a 4-point scale ranging from 0 = "Never" to 3 = "More [than twice]." We averaged participants' responses across all seven items; higher scores reflect more frequent psychological aggression. Across all assessments, internal consistency was high (husbands' and wives' $\alpha \geq .65$).

CHAPTER 3

RESULTS AND DISCUSSION

Study 1 Results

Descriptive Statistics and Preliminary Analyses

We first examined the descriptive statistics for and correlations among our independent variables (see Table 1). A few results are worth highlighting. First, participants reported attachment insecurity below the midpoint (4) of the scale [anxiety: $t(326) = -10.04, p < .001$; avoidance: $t(326) = -13.23, p < .001$], suggesting relatively secure attachment. Nevertheless, there was substantial variability in these reports. Moreover, male and female participants reported similar levels of attachment anxiety, $t(325) = -1.52, p = .130$, and attachment avoidance, $t(325) = 0.731, p = .465$, though single participants reported higher attachment anxiety ($M = 3.65, SD = 1.17$) and avoidance ($M = 3.60, SD = 1.00$) than did partnered participants (anxiety: $M = 2.95, SD = 1.37$; avoidance: $M = 2.75, SD = 1.19$), $t(325) = 9.85, p < .001$ and $t(325) = 10.84, p < .001$, respectively. It is also worth noting that, consistent with prior research (Del Giudice, 2011; Sibley et al., 2005), attachment anxiety and avoidance were positively associated, which supports our decision to examine the extent to which each is uniquely associated with mate retention. Second, participants reported engaging in both cost-inflicting and benefit-provision mate-retention behaviors at a frequency below the midpoint (1.5) of the scale [cost-inflicting: $t(326) = -38.39, p < .001$; benefit-provisioning: $t(326) = -3.18, p = .002$], and on average engaged in less frequent cost-inflicting than benefit-provisioning behaviors, $t(326) = 32.60, p < .001$. Although male and female participants reported similar frequencies of cost-inflicting behaviors, $t(325) = 0.93, p = .355$, men reported more frequent benefit-provisioning behaviors ($M = 1.52, SD = 0.47$) than did women ($M = 1.38, SD = 0.47$), $t(325) = 2.26, p = .025$.

Partnered and single participants reported similar frequencies of cost-inflicting, $t(325) = -1.64, p = .102$, and benefit-provisioning mate retention, $t(325) = -0.11, p = .915$. Moreover, both types of mate retention were positively associated, which supports our decision to examine the extent to which each is uniquely associated with attachment insecurity. Finally, consistent with prior work (Barbaro et al., 2018), attachment anxiety was positively associated with cost-inflicting mate retention, attachment avoidance was negatively associated with benefit-provisioning mate retention, and attachment avoidance was positively associated with cost-inflicting mate retention. Inconsistent with prior work (Barbaro et al., 2018), however, attachment anxiety was unassociated with benefit-provisioning mate retention.

Are People's Attachment Insecurity Associated with Their Cost-Inflicting and Benefit-Provisioning Mate Retention?

To examine the unique associations between each attachment insecurity facet and each mate retention facet, we conducted two regression analyses. In the first analysis, we regressed participants' cost-inflicting mate retention onto their attachment anxiety and attachment avoidance, controlling their benefit-provisioning mate retention (we standardized all predictor variables). Results demonstrated that cost-inflicting mate retention was uniquely positively associated with attachment anxiety, $\beta = 0.13$, 95% Confidence Interval (CI_{95%}) [0.09: 0.17], $t(323) = 6.06, p < .001$, effect-size $r = .32$, and avoidance, $\beta = 0.05$, CI_{95%} [0.01: 0.09], $t(323) = 2.30, p = .022$, effect-size $r = .13$. That is, relatively more anxious individuals and relatively more avoidant individuals engaged in more frequent cost-inflicting mate retention. We conducted two supplemental analyses to examine the robustness of these effects. First, we explored whether participant sex moderated the association between attachment anxiety and cost-inflicting mate retention; it did not, $\beta = 0.01$, 95% CI_{95%} [-0.11: 0.13], $t(320) = 0.11, p =$

.910. Second, we explored whether participant sex moderated the association between attachment avoidance and cost-inflicting mate retention; the Avoidance \times Sex interaction emerged as marginally significant, $\beta = -1.00$, $CI_{95\%} [-0.20: 0.01]$, $t(320) = -1.83$, $p = .069$, effect-size $r = .10$, such that a significant association emerged among men, $\beta = 0.13$, $CI_{95\%} [0.03: 0.22]$, $p = .008$, but not women, $\beta = 0.03$, $CI_{95\%} [-0.02: 0.08]$, $p = .223$. Given that we did not predict this interactive effect, however, and given that it did not replicate in Study 2 (as we describe in the next section), readers should interpret it with caution.

In the second analysis, we regressed participants' benefit-provisioning mate retention onto their attachment anxiety and attachment avoidance, controlling their cost-inflicting mate retention (we standardized all predictor variables). Results demonstrated that benefit-provisioning mate retention was uniquely negatively associated with attachment avoidance, $\beta = -0.13$, $CI_{95\%} [-0.18: -0.08]$, $t(323) = -5.46$, $p < .001$, effect-size $r = .29$, but unassociated with attachment anxiety, $\beta = -0.01$, $CI_{95\%} [-0.06: 0.04]$, $t(323) = -0.43$, $p = .665$. That is, relatively more avoidant individuals engaged in less frequent benefit-provisioning mate retention. We again conducted a supplementary analysis to explore whether participant sex moderated the association between attachment avoidance and benefit-provisioning mate retention; it did not, $\beta = 0.06$, $CI_{95\%} [-0.05: 0.17]$, $t(321) = 1.12$, $p = .263$.

Discussion

Study 1 provided preliminary evidence that attachment anxiety and attachment avoidance are uniquely associated with cost-inflicting and benefit-provisioning mate retention. Consistent with predictions and prior research (Barbaro et al., 2016, 2018), relatively more anxious individuals performed more frequent cost-inflicting mate-retention behaviors, and relatively more avoidant individuals performed less frequent benefit-provisioning mate-retention

behaviors. Inconsistent with predictions and some prior research (Barbaro et al., 2016; but also see Barbaro et al., 2018), however, relatively more avoidant individuals performed more (rather than less) frequent cost-inflicting mate-retention behaviors.

Study 2 Results

Descriptive Statistics and Preliminary Analyses

Descriptive statistics for and correlations among our baseline independent variables and covariate are presented in Table 2. A few results are worth highlighting. First, similar to Study 1, husbands and wives reported attachment insecurity below the midpoint (4) of the scale [husbands' anxiety, $t(112) = -14.37, p < .001$; husbands' avoidance, $t(112) = -17.65, p < .001$; wives' anxiety, $t(107) = -13.24, p < .001$; wives' avoidance, $t(107) = -16.24, p < .001$] that did not differ from one another [anxiety, $t(107) = -0.69, p = .494$; avoidance, $t(107) = -0.59, p = .554$]. Nevertheless, there was substantial variability in these reports.

Second, also similar to Study 1, husbands and wives reported engaging in cost-inflicting mate-retention behaviors at a frequency below the midpoint (1.5) of the scale [for husbands, $t(112) = -25.88, p < .001$; for wives, $t(107) = -25.97, p < .001$] and benefit-provisioning mate-retention behaviors at a frequency above the midpoint (1.5) of the scale [for husbands, $t(112) = 6.17, p < .001$; for wives, $t(107) = 4.11, p < .001$] that did not differ from one another (for cost-inflicting, $t(107) = 0.15, p = .880$; for benefit-provisioning, $t(107) = 1.63, p = .106$). Moreover, both husbands and wives engaged in less frequent cost-inflicting behaviors than benefit-provisioning behaviors (for husbands, $t(112) = 25.10, p < .001$; for wives, $t(107) = 26.16, p < .001$).

Third, consistent with the findings of Study 1, attachment anxiety was positively associated with attachment avoidance, and intimates' cost-inflicting mate retention was

positively associated with their benefit-provisioning mate retention. Fourth, both facets of husbands' and wives' attachment insecurity were positively associated with their cost-inflicting mate-retention behaviors (although the association between attachment avoidance and cost-inflicting mate retention was marginally significant among husbands). Fifth, husbands' and wives' attachment avoidance (but not attachment anxiety) was negatively associated with their benefit-provisioning mate-retention behaviors. Finally, the frequency of husbands' cost-inflicting and benefit-provisioning mate-retention behaviors were positively associated with the frequency of wives' cost-inflicting and benefit-provisioning mate-retention behaviors, respectively. It is worth noting, however, that these bivariate correlations do not account for shared variance across the two facets of attachment insecurity and the two facets of mate retention.

Does Intimates' Mate Retention Change Over Time?

We report the descriptive statistics for husbands' and wives' cost-inflicting and benefit-provisioning mate-retention behaviors at every assessment as well as the number of intimates who completed reports at each assessment in Table 3. As can be seen, at each assessment, husbands and wives engaged in less frequent cost-inflicting than benefit-provisioning mate retention. Moreover, the frequency with which intimates engage in each type of mate-retention behavior appeared to decline over the course of the study on average. Nevertheless, these means reflect the averages of only the intimates who participated in each assessment, which may be biased by attrition.

To properly model the average levels of such within-person changes for each type of mate retention, we tested for such change at the within-person level using 3-level growth-curve analyses using the HLM 7.03 computer program (Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2011). Specifically, we estimated the following Level 1 equation:

$$Y_{ii}(\text{Mate Retention}) = \pi_{0i}(\text{Intercept}) + \pi_{1i}(\text{Time}) + e_{ii},$$

[Equation 1]

where (a) Time was coded as the number of months since each couple's wedding date and thus could differ across couple members, alleviating the need for a separate-intercepts model (Kenny, Kashy, & Cook, 2006), (b) the level-2 Intercept was allowed to vary across individuals, and (c) husbands' and wives' shared variance was controlled at Level 3, where the level-3 Intercept was allowed to vary across couples (deviance tests that compared the fit of different models with various random effects indicated this was the best model; West, Welch, & Galecki, 2007). We used restricted maximum likelihood estimation and did not place any restrictions on the autoregressive error structures; this analysis uses empirical Bayes procedures to estimate within-person parameters even for people with missing data and thus estimated the average level of change for all intimates who completed at least two assessments (82%). We estimated this model twice: once examining within-person change in cost-inflicting mate retention and once examining within-person change in benefit-provisioning mate retention. As in Study 1, in order to isolate the unique variance associated with each type of mate retention, we controlled for benefit-provisioning mate retention when examining cost-inflicting mate retention and vice versa (standardized and entered uncentered at Level-1 and allowed to vary at Levels 2 and 3).¹

Results demonstrated that, at the start of their marriages, intimates on average engaged in relatively infrequent cost-inflicting mate retention, $\pi = 0.37$, $CI_{95\%} [0.30: 0.43]$, $t(112) = 11.32$, $p < .001$, that remained stable over time, $\pi = -0.001$, $CI_{95\%} [-0.004: 0.001]$, $t(428) = -1.13$, $p = .259$. In contrast, intimates on average engaged in relatively frequent benefit-provisioning behaviors at the start of their marriages, $\pi = 1.71$, $CI_{95\%} [1.64: 1.78]$, $t(428) = 49.58$, $p < .001$, that decreased

¹ Largely similar results emerged in analyses not controlling for the other type of mate retention.

over time, $\pi = -0.011$, $CI_{95\%} [-0.014: -0.008]$, $t(428) = -7.45$, $p < .001$, effect-size $r = .34$. A supplemental analysis demonstrated that husbands' and wives' rates of change did not differ (for cost-inflicting mate retention, $\pi = -0.001$, $CI_{95\%} [-0.004: 0.003]$, $t(427) = -0.35$, $p = .735$; for benefit-provisioning mate retention, $\pi = -0.003$, $CI_{95\%} [-0.008: 0.003]$, $t(427) = -1.00$, $p = .317$).

Is Intimates' Attachment Insecurity Associated with Their Average Cost-Inflicting and Benefit-Provisioning Mate Retention Across the Early Years of Marriage?

To examine whether intimates' attachment insecurity at baseline was associated with their average mate retention across the first two and one-half years of marriage, we estimated two models: one examining associations between intimates' attachment insecurity and cost-inflicting mate retention and one examining associations between intimates' attachment insecurity and benefit-provisioning mate retention. In the first model, we re-estimated Equation 1 using cost-inflicting mate retention as the dependent variable but additionally included intimates' attachment anxiety and avoidance (each standardized and entered uncentered) at the level-2 Intercept. Results of this analysis are reported in the top half of Table 4. As can be seen, although intimates' attachment avoidance was not significantly associated with their average cost-inflicting mate retention over time, more (versus less) anxious intimates engaged in more frequent cost-inflicting mate-retention behaviors across the first two and one-half years of marriage. We conducted two supplemental analyses to test the robustness of this effect. First, we examined whether it emerged independent of psychological aggression (entered grand-mean centered at Level 1); it did, $\beta = 0.09$, $CI_{95\%} [0.04: 0.14]$, $t(219) = 3.56$, $p < .001$, effect-size $r = .23$. Second, we explored whether participant sex moderated the effect; it did, $\beta = -0.09$, $CI_{95\%} [-0.15: -0.03]$, $t(217) = -2.83$, $p = .005$, effect-size $r = .19$. Specifically, the association was stronger among husbands, $\beta = 0.14$, $CI_{95\%} [0.07: 0.21]$, $p < .001$, than among wives, $\beta = 0.0490$,

CI_{95%} [-0.0001: 0.0981], $p = .047$. Given that this interactive effect did not emerge in Study 1, however, readers should interpret it with caution.

In the second model, we re-estimated Equation 1 using benefit-provisioning mate-retention behaviors as the dependent variable but, as in the first model, we additionally included intimates' attachment anxiety and avoidance (standardized and entered uncentered) at the level-2 Intercept. Results of this analysis are reported in the bottom half of Table 4. As can be seen, although intimates' attachment anxiety was not significantly associated with their average benefit-provisioning mate retention over time, more (versus less) avoidant intimates engaged in less frequent benefit-provisioning mate retention across the first two and one-half years of marriage. We again conducted two supplemental analyses to test the robustness of this effect. First, we examined whether it emerged independent of psychological aggression; it did, $\beta = -0.13$, CI_{95%} [-0.19: -0.06], $t(219) = -3.84$, $p < .001$, effect-size $r = .25$. Second, we explored whether participant sex moderated the effect; it did not, $\beta = 0.02$, CI_{95%} [-0.10: 0.14], $t(217) = 0.38$, $p = .703$.

Do Intimates' Mate-Retention Behaviors at a Given Assessment Predict Their Partners' Subsequent Satisfaction, Controlling Intimates' Attachment Insecurity?

To examine whether intimates' mate retention at a given assessment predicted changes in their partner's marital satisfaction at the subsequent assessment independent of intimates' attachment insecurity, we estimated the following level-1 equation of a lagged, 3-level model:

$$Y_{it}(\text{Partner Satisfaction at Time } n+1) = \pi_{0i}(\text{Intercept}) + \pi_{1i}(\text{Time}) + \pi_{2i}(\text{Cost-Inflicting Mate Retention at Time } n) + \pi_{3i}(\text{Benefit-Provisioning Mate Retention at Time } n) + \pi_{4i}(\text{Partner Satisfaction at Time } n) + e_{it},$$

[Equation 2]

where (a) Y represents individual i 's partner's marital satisfaction at the subsequent assessment, (b) Time was coded as the number of months since each couple's wedding date (entered grand-mean centered) and was included to control for changes in partner marital satisfaction over time, (c) both types of mate retention were standardized and entered uncentered, (d) Partner Satisfaction at Time n (i.e., the current assessment) was controlled so that the dependent variable could be interpreted in terms of change in partner satisfaction since the previous assessment, (e) the level-2 Intercept, Partner Satisfaction at Time n , and Cost-Inflicting Mate Retention at Time n estimates were allowed to vary across individuals, and (f) husbands' and wives' shared variance was controlled for at Level 3, where the level-3 Intercept and Benefit-Provisioning Mate Retention at Time n estimates were allowed to vary across couples (deviance tests indicated this was the best model; West et al., 2007). We additionally controlled both facets of intimates' attachment insecurity (each standardized and entered uncentered) on the level-2 Intercept.

The results of this analysis are displayed in Table 5. As can be seen, intimates who reported relatively more frequent cost-inflicting mate retention at a given assessment had partners who reported marginally greater declines in marital satisfaction six months later. In contrast, the frequency of intimates' benefit-provisioning mate retention at a given assessment was not significantly associated with their partners' marital satisfaction six months later. An exploratory supplemental analysis demonstrated that participant sex did not significantly moderate the association between intimates' cost-inflicting mate retention and changes in their partners' satisfaction, $\beta = 0.02$, $CI_{95\%} [-0.20: 0.24]$, $t(102) = 0.21$, $p = .835$.

Given that intimates' cost-inflicting mate retention marginally negatively predicted changes in their partners' marital satisfaction across a six month period of time, it seems likely

that such changes may have an additive effect such that intimates who perform relatively frequent (versus infrequent) cost-inflicting mate-retention behaviors across the course of the study may have partners who are relatively less satisfied at the end of the study (i.e., three years into their marriages). To examine this possibility, we regressed intimates' partners' marital satisfaction onto the Intercept and Time (recentered such that 0 represented 36 months since each couple's wedding date and thus the Intercept could be interpreted in terms of satisfaction at the end of the study) estimates at Level 1 of a 3-level model, where both level-2 estimates were allowed to vary across individuals and the level-3 Intercept was allowed to vary across couples. We additionally regressed both level-1 parameters onto intimates' mean cost-inflicting and benefit-provisioning mate retention across the course of the study (grand-mean centered) at Level 2, and controlled intimates' attachment insecurity (each standardized and entered uncentered) on the level-2 Intercept.

The results of this analysis are presented in Table 6. As can be seen, intimates who engaged in relatively more (versus less) frequent cost-inflicting mate retention over the course of the study had partners who were relatively less satisfied at the end of the study, which was independent of intimates' attachment insecurity and benefit-provisioning mate retention. Surprisingly, although benefit-provisioning mate retention was unassociated with changes in partner satisfaction across a six month period of time, it was positively associated with partner satisfaction across a three year period of time; intimates who engaged in relatively more (versus less) frequent benefit-provisioning mate retention over the course of the study had partners who were relatively *more* satisfied at the end of the study, which was independent of intimates' attachment insecurity and cost-inflicting mate retention. We again conducted supplemental analyses to explore whether participant sex moderated these associations; it did not (for cost-

inflicting mate retention, $\beta = -0.31$, $CI_{95\%} [-0.95: 0.32]$, $t(98) = -0.99$, $p = .327$; for benefit-provisioning mate retention, $\beta = 0.34$, $CI_{95\%} [-0.10: 0.78]$, $t(98) = 1.56$, $p = .122$).

Does Intimates' Mate Retention Mediate the Association Between Their Baseline Attachment Insecurity and Their Partners' Marital Satisfaction Three Years Later?

Given that the frequency of intimates' cost-inflicting mate retention across the first two and a half years of marriage predicted their partners' marital satisfaction at their 3-year wedding anniversary, we further examined whether intimates' average cost-inflicting mate retention mediated the association between their attachment insecurity at baseline and their partners' marital satisfaction three years later. Following Tofghi and MacKinnon's (2011) recommendation for testing mediation, we multiplied the association between intimates' attachment anxiety and their average cost-inflicting mate retention with the association between intimates' average cost-inflicting mate retention and their partners' satisfaction at the end of the study ($\beta = -0.27$, $SE = 0.09$) using RMediation. The corresponding $CI_{95\%} [-0.47: -0.10]$ indicated that intimates' cost-inflicting mate retention indeed mediated the association between their attachment anxiety and their partners' marital satisfaction three years later (see Figure 1). That is, relatively more (versus less) anxious intimates performed more frequent cost-inflicting mate retention across the first years of marriage, which predicted lower partner marital satisfaction at their 3-year wedding anniversary.

Next, we examined whether intimates' average benefit-provisioning mate retention mediated the association between their attachment avoidance at baseline and their partners' marital satisfaction three years later. Specifically, we multiplied the association between intimates' attachment avoidance and their average benefit-provisioning mate retention with the association between intimates' average benefit-provisioning mate retention and their partners'

satisfaction at the end of the study ($\beta = -0.08$, $SE = 0.05$). The corresponding $CI_{95\%} [-0.178: -0.001]$ indicated that intimates' benefit-provisioning mate retention indeed mediated the association between their attachment avoidance and their partners' marital satisfaction three years later (see Figure 1). That is, relatively more (versus less) avoidant intimates performed less frequent benefit-provisioning mate-retention behaviors across the first years of marriage, which predicted lower partner marital satisfaction at their 3-year wedding anniversary.

Discussion

Replicating and extending the results of Study 1, Study 2 used a 3-year longitudinal study of newlywed couples to demonstrate that intimates engage in consistent levels of cost-inflicting mate retention across the first two and one-half years of marriage, although their benefit-provisioning mate retention decreases over time. Nevertheless, the frequency with which intimates engaged in such behaviors depended on their attachment insecurity at the start of marriage; intimates with relatively high (versus low) attachment anxiety engaged in relatively more frequent cost-inflicting mate retention; intimates with relatively high (versus low) attachment avoidance engaged in relatively less frequent benefit-provisioning mate retention. Notably, these associations emerged independent of intimates' psychological aggression. Moreover, Study 2 demonstrated that intimates' attachment insecurity at the start of marriage was indirectly associated with their partners' marital satisfaction three years later through their cost-inflicting and benefit-provisioning mate-retention behaviors. Specifically, relatively more (versus less) anxious individuals had less satisfied partners three years into marriage due, in part, to their increased performance of cost-inflicting mate-retention behaviors. Similarly, relatively more (versus less) avoidant individuals had less satisfied partners three years into marriage due, in part, to their decreased performance of benefit-provisioning mate-retention behaviors.

General Discussion

According to attachment theory, working models of attachment influence how people respond to relationship threats. One such pervasive threat is the threat of partner defection. Individuals with more (versus less) attachment anxiety over-perceive the threat of partner defection and thus they may be more likely to engage in both positive and negative behaviors aimed at retaining their partners. Conversely, individuals with more (versus less) attachment avoidance under-perceive or ignore the threat of partner defection and thus they may be less likely to engage in both positive and negative behaviors aimed at retaining their partners. Given that such behaviors are often partner directed, it is likely that increases or decreases in such behaviors have implications for intimates' partners. We conducted two independent studies to examine this possibility. Study 1 utilized a sample of undergraduate students to examine the extent to which each facet of attachment insecurity is uniquely associated with each facet of mate retention. Results demonstrated that both facets of attachment insecurity were positively associated with cost-inflicting mate retention; attachment avoidance was also negatively associated with benefit-provisioning mate retention.

Study 2 utilized a 3-year longitudinal study of newlywed couples to replicate and extend these findings. Results demonstrated that intimates' cost-inflicting mate retention remained stable across the first two and one-half years of marriage, although their benefit-provisioning mate retention decreased over time. Moreover, intimates' attachment insecurity indirectly influenced their partners' marital satisfaction through their mate retention; relatively more (versus less) anxious intimates performed on average more frequent cost-inflicting mate-retention behaviors over time, which was associated with their partners' decreased satisfaction at the end of the study. Likewise, relatively more (versus less) avoidant intimates performed on

average less frequent benefit-provisioning mate-retention behaviors over time (though, unlike in Study 1, attachment avoidance was unassociated with cost-inflicting mate retention), which was also associated with their partners' decreased satisfaction at the end of the study. Notably, demonstrating that mate retention is unique from other, previously examined partner-directed behaviors (Gormley & Lopez, 2010; Péloquin et al., 2011), Study 2 additionally demonstrated that the associations between intimates' attachment insecurity and their mate retention emerged independent of intimates' psychological aggression.

It is worth highlighting that the associations between intimates' attachment insecurity and mate retention demonstrated in the current research appear robust. Indeed, they emerged in two independent studies that spanned both dating relationships and married couples, did not notably differ across men and women, emerged independent of psychological aggression, and partially replicated previous research (see Barbaro et al., 2016, 2018). Although we did not replicate the previously demonstrated positive association between attachment anxiety and benefit-provisioning mate retention or the previously demonstrated negative association between attachment avoidance and cost-inflicting mate retention (Barbaro et al., 2016, 2018), this may be due in part to our decision to examine only the unique associations between each facet of attachment insecurity and each facet of mate retention. Future research may benefit from examining precisely when and why these associations emerge.

Implications and Future Directions

The current research has several important theoretical and practical implications. Theoretically, this research provides empirical evidence in support of the vulnerability-stress-adaptation model of marriage (Karney & Bradbury, 1995). According to this model, intimates' enduring vulnerabilities influence notable relationship processes, which subsequently impact

relationship satisfaction—a critical determinant of relationship stability. In the current work, intimates' attachment insecurity was associated with the frequency with which they engaged in mate-retention behaviors. As other research has demonstrated (Buss, 1988; Buss & Shackelford, 1997), such behaviors help relationships to endure, which likely reinforces those behaviors. Indeed, in Study 2, intimates' cost-inflicting mate-retention behaviors remained stable across the first four years of marriage. Ironically, however, these reinforcing behaviors negatively impacted intimates' partners' relationship satisfaction. It is likely that such decreased satisfaction has downstream negative consequences for relationship stability. Although we did not explore such consequences in the current research, future research may benefit from doing so.

Moreover, this research is among the first to our knowledge to demonstrate the long-term implications of mate retention for intimates' partners' relationship outcomes. Given the interdependent nature of intimate relationships, and given the partner-directed nature of mate retention, intimates' mate retention should impact their partners. In the current research, intimates who engaged in more frequent cost-inflicting mate retention or less frequent benefit-provisioning mate retention had partners who reported relatively lower satisfaction over time (Study 2). It is worth noting that having a less satisfied partner may serve as an additional relationship threat that further activates intimates' working mental model of attachment that in turn exacerbates cost-inflicting mate retention for anxious individuals and decreases benefit-provisioning mate retention for avoidant individuals. Such behaviors would likely further decrease partner satisfaction, which would ultimately create a negative feedback loop that could result in relationship dissolution. Again, future research would benefit from examining this possibility.

This research also demonstrates the importance of isolating unique associations when

examining related constructs. To further our understanding of relationships and relationship processes, it is important to ensure to the best of our ability that any effects observed are not driven by another construct, especially when investigating interrelated traits and behaviors. For this reason, this is the first research to our knowledge that examined the unique associations between each facet of attachment insecurity and each facet of mate retention.

Practically, the current research underscores that mate-retention behaviors are not created equal, despite their shared goal of preventing partner defection. Specifically, the current research suggests that engaging in positive (benefit-provisioning) mate-retention behaviors and avoiding negative (cost-inflicting) mate-retention behaviors may be the most effective way for intimates to retain their partners while not threatening those partners' relationship satisfaction. Given intimates with more (versus less) attachment anxiety are more likely to engage in negative mate retention, interventions that teach intimates to channel their relationship anxiety away from negative mate retention and into positive mate retention could be beneficial. Similarly, given intimates with more (versus less) attachment avoidance are less likely to engage in positive mate retention, interventions that motivate typically avoidant intimates to engage in positive mate retention could be beneficial.

Although previous research (Simpson et al., 1992, 2002) has examined situations that activate individuals' working mental attachment models and elicit certain behaviors (e.g., support seeking, support giving), future research would benefit from examining specific situational factors that activate individuals' working mental attachment models and elicit increased mate-retention behaviors. In the current research, individuals' trait attachment insecurity (i.e., general level of attachment anxiety and avoidance) was associated with their mate-retention behaviors. It is possible, however, that such associations may be exacerbated by

the situational context, namely a situational context that represents a threat of partner defection. For example, discussions of partner infidelity or the presence of attractive alternatives may activate intimates' working models of attachment, which could subsequently produce even more mate-retention behaviors. Future research would benefit from examining this and other potential threats of partner defection that activate the attachment system.

Strengths and Limitations

Several strengths of this research enhance our confidence in the findings reported here. First, rather than using intimates' perceptions of their partners' satisfaction, Study 2 utilized partners' own reports of their satisfaction. Given that attachment insecurity biases intimates' perceptions of their relationship and their partner (Overall, Fletcher, Simpson, & Fillo, 2015), using partners' reports provided an unbiased assessment of partner satisfaction and allowed us to examine a real and consequential outcome. Second, rather than assessing all constructs cross-sectionally, Study 2 utilized a longitudinal design, which enabled us to examine the impact of intimates' mate retention stemming from attachment insecurity on partner relationship satisfaction over time. Finally, in Study 2, we demonstrated that the associations between intimates' attachment insecurity and their mate retention emerged independent of other partner-directed behaviors (i.e., psychological aggression), enhancing our confidence that observed associations are unique to mate retention.

Despite these strengths, several factors limit the interpretations of these findings until they can be replicated and extended. First, although similar patterns emerged among dating (Study 1) and married (Study 2) individuals, our samples were relatively young thus limiting the generalizability of our findings to other samples (e.g., older couples). Indeed, given that the perceived quality of alternative partners decreases and relationship commitment increases over

time (Rusbult, 1983), it is possible that the threat of alternative partners and partner defection declines in older couples, attenuating the associations between attachment insecurity and mate retention. Nevertheless, future research may benefit from examining the extent to which the associations demonstrated here emerge in samples of older, more established couples.

Second, we assessed self-reported mate retention (recalled across the previous six months) and it is possible that attachment insecurity is systematically associated with self-reporting or memory bias. For example, it is possible that individuals with more (versus less) attachment anxiety over-perceive the frequency with which they perform cost-inflicting mate-retention behaviors. Likewise, it is possible that individuals with more (versus less) attachment avoidance under-perceive the frequency with which they perform benefit-provisioning mate-retention behaviors. In the current research, however, self-reported mate retention predicted partner-reported marital satisfaction, providing preliminary support for the possibility that participants accurately reported their mate retention. Nevertheless, future research may benefit from examining the association between intimates' attachment insecurity and objectively assessed mate retention.

Third, we only assessed attachment insecurity at baseline. Although research shows that individuals' romantic attachment styles are largely stable across adulthood (Kirkpatrick & Hazan, 1994; Scharfe & Bartholomew, 1994), some individuals' attachment has a propensity to fluctuate over time (Davila, Burge, & Hammen, 1997). Thus, future research may benefit from examining whether such fluctuations are associated with fluctuations in intimates' mate retention. Finally, despite the longitudinal nature of Study 2, all data presented here is correlational and thus cannot support strong causal claims. Moreover, although we controlled for psychological aggression in Study 2, we were unable to account for other potential third

variables that could influence associations between attachment insecurity, mate retention, and partner satisfaction. Thus, future research may benefit from experimentally manipulating intimates' attachment (e.g., Gillath, Hart, Nofhle, & Stockdale, 2009) to examine its causal influences on mate retention and subsequent partner satisfaction.

Conclusion

The current research highlights the importance of utilizing dyadic methodologies to examine partner outcomes especially when studying partner-focused systems such as the attachment system and partner-directed behaviors such as mate retention. Romantic relationships are inherently interdependent and thus each couple member's behaviors directly and indirectly influence his or her partner's outcomes. Perceptions of partner defection can activate individuals' working models of attachment that, as the current research demonstrates, can influence the extent to which they perform mate-retention behaviors and their partners' subsequent relationship satisfaction. Overall, this work underscores the importance of examining aspects of each couple member in order to fully understand relationship functioning.

APPENDIX A

TABLE 1

Study 1: Descriptive Statistics for and Correlations Among Independent Variables

	(1)	(2)	(3)	(4)	<i>M</i>	<i>SD</i>
(1) Attachment Anxiety	--				3.26	1.33
(2) Attachment Avoidance	.40***	--			3.13	1.19
(3) Cost-Inflicting Mate Retention	.38***	.13*	--		0.58	0.43
(4) Benefit-Provisioning Mate Retention	.06	-.22*	.48***	--	1.41	0.48

Note. Higher scores reflect relatively more attachment anxiety and avoidance and more frequent cost-inflicting and benefit-provisioning mate retention.

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

APPENDIX B

TABLE 2

Study 2: Descriptive Statistics for and Correlations Among Independent Variables and Covariates Measured at Baseline

		(1)	(2)	(3)	(4)	(5)
(1) Attachment Anxiety		.17[†]	.50 ^{***}	.27 ^{**}	.04	.30 ^{**}
(2) Attachment Avoidance		.69 ^{***}	.14	.21 [*]	-.22 [*]	.26 ^{**}
(3) Cost-Inflicting Mate Retention		.48 ^{***}	.17 [†]	.49^{***}	.39 ^{***}	.40 ^{***}
(4) Benefit-Provisioning Mate Retention		-.06	-.31 ^{**}	.24 [*]	.36^{***}	.10
(5) Psychological Aggression		.14	.04	.23 [*]	.03	.50^{***}
Husbands:	<i>M</i>	2.34	2.29	0.41	1.79	0.87
	<i>SD</i>	1.23	1.03	0.45	0.49	0.69
	<i>N</i>	113	113	113	113	112
Wives:	<i>M</i>	2.46	2.39	0.41	1.69	1.15
	<i>SD</i>	1.21	1.03	0.44	0.48	0.71
	<i>N</i>	108	108	108	108	108

Note. Wives' correlations appear above the diagonal, husbands' correlations appear below the diagonal, and correlations between husbands and wives appear on the diagonal in bold.

[†] $p < .10$. ^{*} $p < .05$. ^{**} $p < .01$. ^{***} $p < .001$.

APPENDIX C

TABLE 3

Study 2: Descriptive Statistics for Husbands' and Wives' Cost-Inflicting and Benefit-Provisioning Mate Retention Across All Waves of Assessment

	Time 1	Time 2	Time 3	Time 4	Time 5
Cost-Inflicting Mate-Retention Behaviors					
Husbands					
<i>M</i>	0.41 _a	0.27 _a	0.28 _a	0.22 _a	0.21 _a
<i>SD</i>	(0.45)	(0.37)	(0.53)	(0.32)	(0.34)
<i>N</i>	113	63	53	47	40
Wives					
<i>M</i>	0.41 _a	0.26 _a	0.25 _a	0.22 _a	0.18 _a
<i>SD</i>	(0.44)	(0.40)	(0.32)	(0.28)	(0.28)
<i>N</i>	108	69	60	55	49
Benefit-Provision Mate-Retention Behaviors					
Husbands					
<i>M</i>	1.79 _b	1.53 _b	1.51 _b	1.47 _b	1.50 _b
<i>SD</i>	(0.49)	(0.55)	(0.53)	(0.50)	(0.52)
<i>N</i>	113	62	53	47	40
Wives					
<i>M</i>	1.69 _b	1.49 _b	1.41 _b	1.35 _b	1.32 _c
<i>SD</i>	(0.48)	(0.40)	(0.52)	(0.44)	(0.45)
<i>N</i>	108	68	60	55	49

Note. We did not assess mate retention at Time 6. Husbands' and wives' means in the same column with different subscripts differ at $p < .05$.

APPENDIX D

TABLE 4

Study 2: Associations Between Intimates' Baseline Attachment Insecurity, Average Cost-Inflicting Mate Retention, and Average Benefit-Provisioning Mate Retention

	β	$CI_{95\%}$	df	r
Cost-Inflicting Mate Retention				
Intercept	0.347***	(0.286: 0.408)	112	.73
Time	-0.001	(-0.004: 0.001)	428	.06
Benefit-Provisioning Mate Retention	0.117***	(0.083: 0.150)	112	.55
Attachment Anxiety	0.086**	(0.034: 0.139)	220	.22
Attachment Avoidance	-0.015	(-0.057: 0.026)	220	.05
Benefit-Provisioning Mate Retention				
Intercept	1.529***	(1.462: 1.595)	112	.98
Time	-0.011***	(-0.014: -0.008)	428	.34
Cost-Inflicting Mate Retention	0.228***	(0.168: 0.287)	112	.59
Attachment Anxiety	0.019	(-0.046: 0.085)	220	.04
Attachment Avoidance	-0.128***	(-0.192: -0.063)	220	.28

Note. Effect-size r is reported.

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

APPENDIX E

TABLE 5

Study 2: Associations Between Intimates' Mate Retention and Changes in Their Partners' Marital Satisfaction, Controlling Intimates' Attachment Insecurity

	β	$CI_{95\%}$	df	r
Intercept	-0.092	(-0.205: 0.021)	112	.15
Time	0.001	(-0.006: 0.008)	282	.02
Partner Marital Satisfaction at Time n	0.539***	(0.385: 0.693)	105	.57
Attachment Anxiety	0.022	(-0.052: 0.096)	105	.06
Attachment Avoidance	-0.044	(-0.117: 0.030)	105	.12
Cost-Inflicting Mate Retention at Time n	-0.115 [†]	(-0.242: 0.012)	105	.17
Benefit-Provisioning Mate Retention at Time n	0.013	(-0.089: 0.116)	112	.02

Note. Effect-size r is reported.

[†] $p < .10$. *** $p < .001$.

APPENDIX F

TABLE 6

Study 2: Associations Between Intimates' Average Mate Retention and Their Partners' Satisfaction Three Years into Marriage, Controlling Intimates' Baseline Attachment Insecurity

	β	$CI_{95\%}$	df	r
Intercept	-0.8130***	(-1.1499: -0.4761)	112	.42
Attachment Anxiety	-0.0806	(-0.1949: 0.0337)	101	.14
Attachment Avoidance	-0.0060	(-0.1058: 0.0938)	101	.01
Cost-Inflicting Mate Retention	-3.1426***	(-4.1250: -2.1603)	101	.54
Benefit-Provisioning Mate Retention	0.6157*	(0.0004: 1.2311)	101	.20
Time	-0.0277***	(-0.0369: -0.0186)	101	.52
Cost-Inflicting Mate Retention	-0.0910***	(-0.1193: -0.0628)	101	.54
Benefit-Provisioning Mate Retention	0.0123	(-0.0041: 0.0286)	101	.15

Note. Effect-size r is reported.

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

APPENDIX G

FIGURE 1

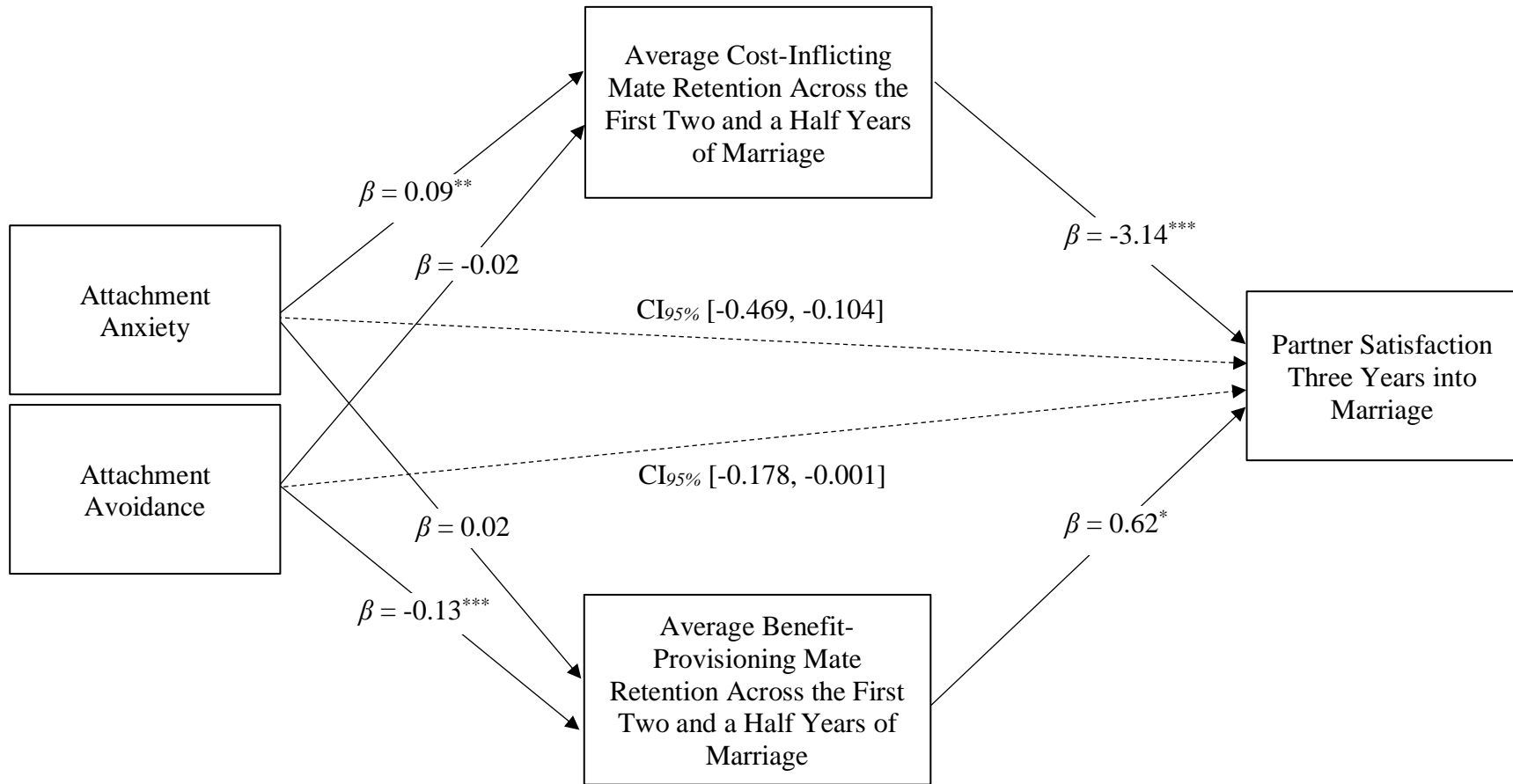


Figure 1. Intimates' cost-inflicting mate retention across the first two and one-half years of marriage mediated the association between their baseline attachment anxiety and their partners' satisfaction at their 3-year wedding anniversary. Likewise, intimates' benefit-provisioning mate retention across the first two and one-half years of marriage mediated the association between their baseline attachment avoidance and their partners' satisfaction at their 3-year wedding anniversary. * $p < .05$. ** $p < .01$. *** $p < .001$.

APPENDIX H

STUDY 1 IRB APPROVAL MEMOS AND CONSENT FORM

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 02/08/2018

To: Emma Altgelt

Address: 1107 W. Call Street, Tallahassee FL, 32306

Dept.: PSYCHOLOGY DEPARTMENT

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
Attachment Style and Mate Retention Behaviors

The application that you submitted to this office in regard to the use of human subjects in the research proposal referenced above has been reviewed by the Human Subjects Committee at its meeting on 02/08/2017

Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 02/07/2018 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition,

federal regulations require that the Principal Investigator promptly report, in writing, any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: **Andrea Meltzer, Advisor**
HSC No. 2016.20040

Office of the Vice President For Research
Human Subjects Committee
P. O. Box 3062742
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

RE-APPROVAL MEMORANDUM

Date: 03/16/2018

To: Emma Altgelt

Address: 1107 W. Call Street, Tallahassee FL, 32306

Dept.: PSYCHOLOGY DEPARTMENT

From: Thomas L. Jacobson, Chair

Re: Re-approval of Use of Human subjects in Research:
Attachment Style and Mate Retention Behaviors

Your request to continue the research project listed above involving human subjects has been approved by the Human Subjects Committee. If your project has not been completed by 03/13/2019, you are must request renewed approval by the Committee.

If you submitted a proposed consent form with your renewal request, the approved stamped consent form is attached to this re-approval notice. Only the stamped version of the consent form may be used in recruiting of research subjects. You are reminded that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report in writing, any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chairman of your department and/or your major professor are reminded of their responsibility for being informed concerning research projects involving human subjects in their department. They are advised to review the protocols as often as necessary to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

Cc:
HSC No. 2018.22903

INFORMED CONSENT

INTRODUCTION

You are invited to be in a research study examining various relationship behaviors and processes.

PROCEDURES

If you agree to be in this study, we would ask you to complete demographic information questions and survey questionnaires online. These initial questionnaires should take less than one hour to complete.

RISKS AND BENEFITS

This study involves no more than minimal risk. Some of the questions are personal in that they ask about you and your intimate relationships. In the event that you experience any emotional discomfort during your participation, you can contact the primary investigator (Emma Altgelt) listed below under Contact Information. Also, if you feel that you have been negatively impacted by this research, you may contact the FSU counseling services at (850)644-2003.

Benefits of participation include obtaining the satisfaction of knowing (a) that you participated in a study that will shed light on intimate relationships, and (b) that you are providing an invaluable contribution to the Psychology department by taking part in this study.

CONFIDENTIALITY

The records of this study will be kept private and confidential to the extent permitted by law. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely for an indefinite amount of time and only researchers will have access to the records.

COMPENSATION

You will receive one experimental credit for completing the demographic questions and online questionnaires.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at anytime without penalty.

CONTACT INFORMATION

If you have questions at any time about the study or the procedures you may contact the primary investigator, Emma Altgelt, Department of Psychology, Florida State University, or her graduate advisor, Dr. Andrea Meltzer, Department of Psychology, Florida State University for answers to questions about this research or your rights. If you have questions about your rights as a subject/participant in this research, or if you feel that you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Office of the Vice President for Research, by calling (850) 644-8633 or emailing humansubjects@magnet.fsu.edu.

CONSENT

I have read the above information. I agree to participate in this study. (By initialing below, you are agreeing to participate.)

APPENDIX I

STUDY 2 IRB APPLICATION, APPROVAL MEMOS, AND CONSENT FORM

1. Project Title and Identification

1.1 Project Title

Determining Health-Maintenance Goals in Marriage

Project is: Research Project

1.2 Principal Investigator (PI)

Name(Last name, First name MI): Meltzer, Andrea L	Highest Earned Degree: Doctorate
Mailing Address: 1107 W. Call Street	Phone Number:
	Fax:
University Department: PSYCHOLOGY DEPARTMENT	Email:
The training and education completed in the protection of human subjects or human subjects records: CITI	Occupational Position: Faculty

1.3 Co-Investigators/Research Staff

Name(Last name, First name MI): French, Juliana ; Co-Investigator	Highest Earned Degree: Master's Degree
Mailing Address: 1107 W. Call St.	Phone Number:
	Fax:
University Department: PSYCHOLOGY DEPARTMENT	Email:
The training and education completed in the protection of human subjects or human subjects records:	Occupational Position: Student
Name(Last name, First name MI): Altgelt, Emma ; Co-Investigator	Highest Earned Degree: Master's Degree

Mailing Address:	Phone Number:
	Fax:
University Department: PSYCHOLOGY DEPARTMENT	Email:
The training and education completed in the protection of human subjects or human subjects records:	Occupational Position: Student

The Florida State University
Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673, FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 8/31/2015

To: Andrea Meltzer

Address: 1107 W. Call Street

Dept.: PSYCHOLOGY DEPARTMENT

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
Determining Health-Maintenance Goals in Marriage

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and one member of the Human Subjects Committee. Your project is determined to be **Expedited** per 45 CFR § 46.110(7) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 8/29/2016 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is FWA00000168/IRB number IRB00000446.

Cc: **Jeannette Taylor, Chair**
HSC No. **2015.16267**

Office of the Vice President For Research
Human Subjects Committee
P. O. Box 3062742
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

RE-APPROVAL MEMORANDUM

Date: 06/23/2017

To: Andrea Meltzer

Address: 1107 W. Call Street

Dept.: PSYCHOLOGY DEPARTMENT

From: Thomas L. Jacobson, Chair

Re: Re-approval of Use of Human subjects in Research:
Determining Health-Maintenance Goals in Marriage

Your request to continue the research project listed above involving human subjects has been approved by the Human Subjects Committee. If your project has not been completed by 06/21/2018, you are must request renewed approval by the Committee.

If you submitted a proposed consent form with your renewal request, the approved stamped consent form is attached to this re-approval notice. Only the stamped version of the consent form may be used in recruiting of research subjects. You are reminded that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report in writing, any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chairman of your department and/or your major professor are reminded of their responsibility for being informed concerning research projects involving human subjects in their department. They are advised to review the protocols as often as necessary to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

Cc:
HSC No. 2017.21434

Office of the Vice President For Research
Human Subjects Committee
P. O. Box 3062742
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

RE-APPROVAL MEMORANDUM

Date: 04/19/2018

To: Andrea Meltzer

Address: 1107 W. Call Street

Dept.: PSYCHOLOGY DEPARTMENT

From: Thomas L. Jacobson, Chair

Re: Re-approval of Use of Human subjects in Research:
Determining Health-Maintenance Goals in Marriage

Your request to continue the research project listed above involving human subjects has been approved by the Human Subjects Committee. If your project has not been completed by 04/17/2019, you are must request renewed approval by the Committee.

If you submitted a proposed consent form with your renewal request, the approved stamped consent form is attached to this re-approval notice. Only the stamped version of the consent form may be used in recruiting of research subjects. You are reminded that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report in writing, any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chairman of your department and/or your major professor are reminded of their responsibility for being informed concerning research projects involving human subjects in their department. They are advised to review the protocols as often as necessary to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

Cc:
HSC No. 2018.23727

INFORMED CONSENT

You are invited to be in a research study of the early years of marriage. You were selected as a possible participant because you were recently married and responded to one of our solicitations. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Andrea L. Meltzer, Ph.D., Department of Psychology, Southern Methodist University.

Background Information:

The purpose of this study is to understand what the first few years of marriage are like.

Procedures:

If you agree to be in this study, we would ask you to do the following things:

(1) Complete survey questionnaires, either online or through the mail, once every six months for four years. Corresponding to your first session, these questionnaires will take approximately 3 hours to complete (these questionnaires should not be completed in one sitting but rather in one hour increments). The other seven times, these surveys should take approximately 2 hours to complete (these questionnaires do not have to be completed in one sitting). Some of the questions ask about sensitive/personal information such as routine sexual behavior and physical aggression toward the spouse.

(2) At the beginning of the study, attend a session on the campus of Southern Methodist University. During this laboratory session you will have conversations about topics you choose and answer questions about the conversations. Your discussions will be video-recorded. You will also have your photo taken, have your height and weight assessed, have your hand measured, and complete a variety of computerized assessments. The session should last approximately 2 hours.

(3) After this on-campus session, complete a short questionnaire every night for the 14 days following that session. Each questionnaire should take less than 5 minutes to complete.

Risks and benefits of being in the Study:

This study involves no more than minimal risks. Some of the questions are personal in that they ask about your relationship, problems with your relationship, and other personal problems. You will also be asked to discuss areas of disagreement with your partner. These activities may cause discomfort. If you do experience any discomfort, we encourage you to talk to us about it. If you continue to experience distress after that, we will provide you with contact information for clinical psychologists in the area.

The possible benefits of the study are that you will have a greater appreciation of your feelings about yourself, your partner, and your marriage. Further, the findings of this study may inform and improve existing interventions designed to improve and sustain marital quality.

Compensation:

You will receive payment for each of the assessments you complete. You will receive \$100 cash immediately following your on-campus session. This \$100 includes payment for the surveys completed before that session, as well as those completed at the session. You will receive \$1 for each page each of you completes of the daily dairy you will be asked to complete after each on-campus session. If you both complete all 14 days, you will receive \$35. This payment will be made in the form of a check mailed to you approximately 3 weeks after we receive your completed diaries. Finally, you will receive \$30 for the questionnaires you complete every six months. If you complete forms before your on-campus session but do not attend your session, you will be compensated \$30 for those surveys. This payment will also be made in the form of a check mailed to you approximately 3 weeks after we receive your completed questionnaires.

Confidentiality:

The records of this study will be kept private and confidential to the extent permitted by law. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships. If you do not complete a session you will not be paid for that session but will have the opportunity to participate at future sessions.

Contacts and Questions:

The researcher conducting this study is Dr. Andrea Meltzer. You may ask any question you have now. If you have a question later, you are encouraged to contact Dr. Meltzer at

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact the SMU IRB Chairman, Dr. Kyle Roberts, at

You will be given a copy of this information to keep for your records.

By clicking "Next," you are provide your consent to participate.

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Emma Elizabeth Altgelt grew up in San Antonio, Texas. She received a Bachelor of Science from Texas Christian University, a Master of Science from the University of Texas San Antonio, and is currently in the Doctoral Program at Florida State University. She studies social psychology, specifically romantic relationships from an evolutionary perspective, in Dr. Andrea Meltzer's lab.