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The (bidirectional) associations between romantic attachment orientations and mate retention behavior in male-female romantic couples

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ABSTRACT

Attachment orientations of anxiety and avoidance are associated with many important romantic relationship outcomes. An evolutionary perspective has informed research on the associations between attachment orientations and mate retention behaviors, which individuals perform to retain their romantic partner and maintain their relationship. In the current article, we report two dyadic studies ($n = 104$, United States; $n = 978$, Germany, Switzerland, Austria) that evaluated: (1) whether bivariate associations between attachment orientations and mate retention domains are replicable; (2) whether an individual's attachment orientation predicts their partner's mate retention behaviors; and (3) whether, over time, mate retention behaviors predict attachment orientations within couples. Results of both studies replicated previous bivariate associations between attachment anxiety and cost-inflicting mate retention behaviors. Longitudinal dyadic data from Study 2 demonstrated that cost-inflicting mate retention behaviors, specifically, predict future attachment anxiety in romantic partners. These results contribute to the emerging body of research addressing the associations between attachment orientations and mate retention behaviors, and suggest an important (bidirectional) role of attachment anxiety in predicting negative partner-directed behaviors in romantic relationships.

1. Introduction

Adult attachment theory (Fraley, 2019; Fraley & Shaver, 2000) provides a framework for understanding how attachment orientations may influence cognitive, affective, and behavioral outcomes in adult romantic relationships. Adult attachment theory was derived from seminal attachment work on infant-parent attachment relationships (Bowlby, 1982) that have a deep evolutionary history, especially among mammals. Attachments, or the complex emotional bond between two individuals, are motivating forces that promote behaviors to ensure the availability and responsiveness of an attachment figure (i.e., parent or romantic partner).

Scientists working from an evolutionary perspective on adult attachment have suggested that, in humans, adaptations for romantic attachments in adulthood were "co-opted" from infant attachments via natural selection over human evolutionary history (Hazan & Diamond, 2000). This hypothesis has been developed from the key observed similarities between infant attachment characteristics and romantic attachment characteristics. For example, the categories of attachment used to characterize infants (i.e., anxious, avoidant, disorganized, secure) map onto the dimensional model of attachment orientations (i.e., anxious and avoidant) used to characterize adult romantic attachments (Brennan, Clark, & Shaver, 1998). The defining characteristics of an attachment bond between infants and parents and between romantic partners also show considerable similarity, such that both types of attachment bonds are characterized by proximity maintenance, separation distress, safe haven, and secure base (Bowlby, 1982; Hazan & Zeifman, 1999). Because evolution via natural selection operates on existing genetic variation in a population and, therefore, builds adaptations from material (available cognitive adaptations; genetic variants) present in the population, it is therefore reasonable to hypothesize that natural selection co-opted these features of infant attachment adaptations for the purpose of forming and maintaining attachments between romantic partners (Fraley & Shaver, 2000; Hazan & Diamond, 2000; Hazan & Zeifman, 1999).

Adult attachment theory (Fraley, 2019; Fraley & Shaver, 2000) holds

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the general consensus that the cognitive mechanisms that underpin romantic attachment were co-opted from infant attachment mechanisms over human evolutionary history, and that romantic attachments are specialized to facilitate the maintenance of adult pair-bonds. However, there remains considerable debate as to the hypothesized selection pressures underlying adult attachment (see Barbaro, 2020, for extended discussion) and how adult attachments develop across the lifespan (see Fraley, 2019, for extended discussion). Despite these ongoing debates, there is robust evidence that adult attachment orientations are strongly predictive of romantic relationship behaviors (see references below), that specific attachments to a particular romantic partner are more predictive than generalized attachment "styles" (see Barry, Lakey, & Orehek, 2007; Sibley, Fischer, & Liu, 2005), and that full-fledged attachment bonds that display the core features of attachment relationships take up to two years to fully develop (similar to infants; see Groh et al., 2014) and are only observed between infants and parents and between romantic partners (Hazan & Diamond, 2000; Hazan & Zeifman, 1999), all suggestive of specialized activation of attachment cognitive mechanisms within specific contexts with specific partners, rather than a generalized personality-like attachment trait.

These attachment orientations to romantic partners are most often conceptualized along the dimensions of attachment anxiety and attachment avoidance (Brennan et al., 1998; Fraley & Shaver, 2000; Fraley, Waller, & Brennan, 2000), each manifesting differently within romantic relationships. Attachment anxiety reflects hyperactivation of the romantic attachment system, characterized by attempts to maintain proximity to a romantic partner, and an overdependence on a partner for stability, security, and reassurance (Cassidy, 2000). More anxiously attached individuals are hypervigilant to cues of rejection by a partner (Rholes & Simpson, 2004), have difficulty disengaging from cues indicative of relationship distress (Mikulincer, Gillath, & Shaver, 2002), and report higher likelihood that their partner will commit infidelity (Barbaro, Sela, Atari, Shackelford, & Zeigler-Hill, 2019). More anxiously attached individuals may deploy controlling or coercive behaviors in response to cues of rejection to elicit support and investment from a romantic partner (Mikulincer & Shaver, 2007).

Attachment avoidance, in contrast, reflects hypoactivation of the romantic attachment system, characterized by attempts to evade emotional intimacy with, and physical proximity to, a romantic partner (Cassidy, 2000). More avoidantly attached individuals emphasize independence and self-reliance in relationships to facilitate decreased partner dependence and proximity-seeking behaviors (Edelstein & Shaver, 2004). More avoidantly attached individuals are also more likely to discount information about, and cues to, relationship threats (Dykas & Cassidy, 2011; Kruger et al., 2013). Put differently, those with higher attachment avoidance are less likely to perceive threats than are those with higher attachment anxiety, and are thus less perceptive of relationship threats overall (Barbaro et al., 2019; Kruger et al., 2013).

Romantic attachment orientations are hypothesized to facilitate the maintenance of pair-bonds between romantic partners (Fraley & Shaver, 2000) by regulating and motivating cognitive, affective, and behavioral responses to potential threats to the attachment bond (Barbaro et al., 2019). Anticipated or ongoing threats to a romantic relationship (e.g., partner infidelity) can disrupt the interdependent partnership between two individuals and trigger partner-directed behaviors in response to threats (Barbaro et al., 2019). Threats to a pair-bond can be exogenous (e.g., mating competitors), or endogenous (e.g., reduced relationship satisfaction). Threats may be acute (e.g., a present competitor), ongoing (e.g., chronic jealousy), or perceived (e.g., suspicion of partner's activities). The romantic attachment system therefore may play a motivating role in addressing threats to a pair-bond, in part, by regulating mate retention behaviors (Barbaro, 2020).

Mate retention behaviors (Buss, 1988) are characterized as a broad suite of behaviors individuals perform to maintain a romantic relationship. Both men and women perform mate retention behaviors, which may serve a variety of functions, from reducing the likelihood of a romantic partner's infidelity or dissolution of the established relationship to maintaining a partner's relationship satisfaction and decreasing the attractiveness of alternative potential mates (Buss, 1988; Buss, Shackelford, & McKibbin, 2008). Whereas much of the work on mate retention behaviors has focused on infidelity-based cues that predict greater frequency of mate retention behaviors, the results of several recent studies suggest that individual difference factors, such as attachment orientations, also are strong predictors of men's and women's mate retention behaviors (Altgelt & Meltzer, 2019; Barbaro et al., 2019; Barbaro, Pham, Shackelford, & Zeigler-Hill, 2016).

Research investigating consequences of attachment orientations on partner perceptions demonstrates that attachment anxiety and attachment avoidance are associated with perceptions of partner infidelity (Kruger et al., 2013)—which have a known association with mate retention behaviors (Barbaro et al., 2019; Buss, 2018)—such that greater attachment anxiety (indicative of hyperactivation of the relationship-threat monitoring system) is associated with greater perceived infidelity-type behaviors, even when behaviors are ambiguous. This model rests on the hypothesis that adult attachment relationships, and the corresponding cognitive adaptations, operate similarly to infant-parent attachment relationships (Bowlby, 1982), such that perceptions of an attachment figure's behavior motivate actions to address and correct those perceptions (see Fraley & Shaver, 2000). Within the context of romantic relationships, an individual evaluates the extent to which a partner is invested, committed, and available in their relationship; if the partner is perceived to not be invested, committed, and available, anxiety is likely to be experienced, which can motivate a range of behaviors to alleviate that anxiety and promote partner availability. The mate retention hypothesis of attachment (see Barbaro, 2020) proposes that mate retention behaviors (Buss et al., 2008) are a primary manifestation of the romantic attachment system.

Testing this model, Barbaro et al. (2016) hypothesized that attachment anxiety and attachment avoidance are associated with performance frequencies of mate retention behaviors. The results of survey studies conducted with men and women residing in the United States (Barbaro et al., 2016) and in Iran (Barbaro et al., 2019) suggest that, overall, attachment anxiety is associated with more frequent performance of mate retention behaviors (see also, Altgelt & Meltzer, 2019). Attachment anxiety, in particular, is a robust predictor of the frequency with which both men and women perform negative mate retention behaviors, which include manipulation and aggression, collectively referred to as cost-inflicting mate retention behaviors (Altgelt & Meltzer, 2019; Barbaro et al., 2016, 2019). In a subsequent study (Barbaro et al., 2019), it was found that an individual's perception of their partner's potential infidelity mediates the association between attachment anxiety, specifically, and performance frequencies of mate retention behaviors. Longitudinal research (Altgelt & Meltzer, 2019) has further shown that attachment anxiety predicts cost-inflicting mate retention behaviors, which decreases marital satisfaction across three years – an endogenous threat that may trigger a continued cycle of increased attachment anxiety.

Results of these studies collectively show that adult attachment orientations—and attachment anxiety, specifically—are related to both men's and women's performance of partner-directed behaviors in a romantic relationship context. The aim of the current research was to investigate associations between attachment orientations and mate retention behaviors in a dyadic context to evaluate: (1) the bivariate associations between attachment orientations and mate retention domains, replicating previous work; (2) whether an individual's attachment orientation predicts their partner's mate retention behaviors; and (3) whether, over time, mate retention behaviors influence attachment orientations within couples. Both studies reported here test for sex differences in associations in an exploratory manner given the inconsistency of sex differences across previous studies (see, Altgelt & Meltzer, 2019; Barbaro et al., 2016, 2019). To achieve these aims, we used data from two dyadic studies, both of which were part of larger research

projects. Study 1 is a cross-sectional dyadic study that includes data from male-female romantic couples recruited from a public state university in the midwestern United States, which served as an initial investigation into the dyadic associations between attachment orientations and mate retention behaviors. Study 2 is a high-powered longitudinal dyadic study that includes data from male-female romantic couples recruited from Germany, Switzerland, and Austria, which afforded a novel investigation of the bidirectional associations between attachment orientations and mate retention behaviors. Supplemental information (e.g., lists of study measures, analysis code, and preprint) for both studies are available on OSF (osf.io/56g3b/). A limited dataset for Study 1 is also available on OSF; instructions for requesting a limited dataset from a secure repository for Study 2 are also available on OSF.

2. Study 1: USA replication and dyadic pilot

2.1. Participants

Participants had to meet three criteria to be eligible to participate: (1) currently in a male-female, committed, sexually active relationship, (2) for at least three months, and (3) be between the ages of 18 and 35 years. Participants were recruited from a state university in the midwestern United States using two methods. First, flyers advertising the study were posted around the university's campus on bulletin boards. Second, the study was advertised to students enrolled in eligible courses via the university's participant subject pool.

One hundred four participants (52 male, 52 female) participated in the study. An a priori power analysis indicated that approximately 180 participants (90 dyads) would be needed to detect actor and partner effects of moderate size in accordance with prior research (0.20–0.30; Barbaro et al., 2016, 2019) at 80% power given an alpha of 0.05 using a two-tailed test. Data collection was open for two years (through summer 2019) at which point it was necessary to close the study, with the sample size at 104 participants. Participants were, on average, 20.59 years of age ($SD = 3.06$) and had been in their current romantic relationship for, on average, 20.88 months ($SD = 19.21$). Participants' race/ethnicity options align with the US Census options and participants identified as follows: 81.7% White, 9.6% Asian, 6.7% Black or African American, 1.9% American Indian or Alaskan Native, and 5.8% Hispanic or Latino.

2.2. Procedure

Prospective participants either contacted the laboratory via email to select an open timeslot for participation or selected an open timeslot from the university research participation website. The lead researcher then followed up via email with prospective participants to confirm they met eligibility requirements. Upon arrival at the laboratory, members of each dyad were directed to separate research rooms, where they read a description of the procedures of the study and the potential risks of participating, and provided their informed consent to participate. Participants completed in about one hour a survey, hosted by Qualtrics, on a desktop computer. Upon completion of the survey, participants originating from the psychology subject pool received research participation credits for their eligible psychology course. All other participants received $10USD compensation. The Institutional Review Board Oakland University approved all study procedures prior to data collection.

2.3. Measures

For brevity, we describe here only the measures included in the current analysis, but a full list of measures used in the study are available on OSF. To assess romantic attachment, participants completed the Experiences in Close Relationships Scale-Revised (ECR-R; Fraley et al., 2000), a 36-item measure assessing attachment bonds along the dimensions of anxiety and avoidance. Participants were instructed to respond to statements as they relate to their current romantic partner on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Statements in the ECR-R were modified to be partner-specific, rather than partner-general. For example, the statement, "When I show my feelings for romantic partners, I'm afraid they will not feel the same about me" was modified to, "When I show my feelings for my romantic partner, I'm afraid my partner will not feel the same about me". Composite scores were calculated for each participant by averaging their responses to the 18 anxiety items ($\alpha = 0.91$) and the 18 avoidance items ($\alpha = 0.90$).

Participants completed the Mate Retention Inventory-Short Form (MRI-SF; Buss et al., 2008) a 38-item measure assessing performance frequencies of mate retention behaviors over the previous one year. Participants were instructed to report how often during the past one year they performed each mate retention behavior using a 4-point scale (0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *often*). Following Miner, Starratt, & Shackelford, 2009; see also Barbaro et al., 2016), we constructed composite scores for benefit-provisioning mate retention behaviors ($\alpha = 0.79$) and cost-inflicting mate retention behaviors ($\alpha = 0.88$). Categorization of mate retention behaviors into domains can be found in Table 1.

Table 1
Strategies, example items, categories and domains of mate retention behavior as measured with the mate retention inventory-short form.

Domain and category	Tactic	Example item
Cost-Inflicting Domain		
Direct Mate Guarding	Vigilance	"Snooped through my partner's personal belongings"
	Mate concealment	"Did not take my partner to a party where other men would be present"
	Monopolization of time	"Insisted that my partner spend all her free time with me"
Intersexual negative inducements	Jealousy induction	"Insisted that my partner spend all her free time with me"
	Punishment of a mate's infidelity threat	"Became angry when my partner flirted too much"
	Emotional manipulation	"Pleaded that I could not live without my partner"
	Commitment manipulation	"Told my partner that we needed a total commitment to each other"
	Derogation of competitors	"Pointed out to my partner the flaws of another man"
Intrasexual negative inducements	Derogation of mate	"Told other men my partner was a pain"
	Intrasexual threats	"Stared coldly at a man who was looking at my partner"
	Violence against rivals	"Got my friends to beat up someone who was interested in my partner"
Benefit-Provisioning Domain		
Positive inducements	Resource display	"Bought my partner an expensive gift"
	Sexual inducements	"Performed sexual favors to keep my partner around"
	Appearance enhancements	"Made myself extra attractive for my partner"
	Love and care	"Complimented my partner on her appearance"
	Submission and debasement	"Gave in to my partner's every wish"
Public signals of possession	Verbal possession signals	"Bragged about my partner to other men/women"
	Physical possession signals	"Put my arm around my partner in front of others"
	Possessive ornamentation	"Asked my partner to wear my ring"

Note. The example items displayed here are formulated for the ratings of a male partner in a male-female relationship.

2.4. Analysis plan

Actor-Partner Interdependence Models (APIMs) were tested via multilevel modeling with restricted maximum likelihood estimation (Kenny, Kashy, & Cook, 2006) in SPSS 25 to examine whether participants' attachment orientations along the dimensions of anxiety and avoidance predicted their own and their partner's reported frequency of using benefit-provisioning and cost-inflicting mate retention behaviors. APIMs are a statistical technique used with non-independent data (such as members of a romantic couple) to estimate cross-partner effects within dyads. Standard analysis techniques, such as multiple regression, use independent data to estimate the effect of an individual's score on one measure on the same individual's score on another measure. APIMs estimate this individual effect – referred to as an *actor effect* – but additionally estimate *partner effects*: the effect of an individual's score on one measure on their partner's score on another measure. Because our aim is to examine how attachment orientations impact mate retention outcomes in a dyadic context, the APIMs used here and in Study 2 afford estimation of how individual traits are associated with their own and their partners' behavior.

For each mate retention domain (i.e., benefit-provisioning and cost-inflicting), the data were first investigated for distinguishability between the members of a dyad to test whether there was an effect of participant sex within the dyad. If dyads were distinguishable, exploratory analyses were conducted to examine whether the actor and/or partner effects varied with participant sex. If dyads were not distinguishable by sex, then APIMs were conducted following procedures for indistinguishable dyads (Kenny et al., 2006). In either case, both actor effects and partner effects were estimated in all models. An actor effect refers to the association between an individual's score on a predictor variable and the same individual's score on an outcome variable. A partner effect refers to the association between an individual's score on a predictor variable and their partner's score on an outcome variable—a unique effect tested in APIMs and a reason why dyadic data are so valuable. Last, the proportion of variance in mate retention behaviors accounted for by actor and partner attachment orientations was calculated.

2.5. Results

Descriptive statistics and bivariate correlations are presented in Table 2. All variables were grand mean centered prior to analyses and participant sex was effects coded (Kenny et al., 2006). We first conducted distinguishability analyses to evaluate the effect of including participant sex in the model to determine whether it is important to distinguish between men and women when investigating actor and partner effects of the associations between attachment orientations and benefit-provisioning mate retention behaviors. Distinguishability analyses compare two nested APIMs—one that includes sex and one that does not include sex—and then uses a χ^2 test to assess whether the model fit is significantly different between the models. If the analysis is not significant, this suggests that the inclusion of sex does not impact the models and, therefore, the more parsimonious of the models should be used (i.e., a model in which members of the dyads are indistinguishable on the variable of sex).

For benefit-provisioning mate retention behaviors, the distinguishability analysis indicated no significant difference in fit between the models (χ^2 (6) = −5.44, p = .49). Therefore, we proceeded with an APIM for indistinguishable dyads (Kenny et al., 2006). Table 3 shows the regression coefficients for the actor and partner effects of attachment orientations on benefit-provisioning mate retention. Results show no significant actor or partner effects of attachment anxiety and avoidance on benefit-provisioning mate retention behaviors.

To determine the appropriate APIM analyses for cost-inflicting mate retention behaviors, we first conducted distinguishability analyses to evaluate the effect of including sex in the model. The distinguishability analysis indicated no significant difference in fit between the distinguishable and indistinguishable models (χ^2 (6) = 5.81, p = .44). Therefore, we proceeded with an APIM for indistinguishable dyads (Kenny et al., 2006).

Table 3 shows the regression coefficients for the actor and partner effects of attachment orientations on cost-inflicting mate retention. Results show a significant actor effect of attachment anxiety on cost-inflicting mate retention behaviors such that an individual's attachment anxiety predicted performance of their cost-inflicting mate retention behaviors. Neither actor effects of attachment avoidance nor partner effects of attachment anxiety or avoidance on cost-inflicting mate retention behaviors were significant (see Fig. 1).

We conducted further analyses to determine the proportion of variance in cost-inflicting mate retention behaviors that was explained by the model. The approach compares two nested APIMs —a *full model* in which all effects are included and an *empty model* that does not include the effects of interest (Kenny et al., 2006). Results of these analyses indicated that, when considered together, actor and partner effects of attachment orientations explained a significant proportion of the variance in cost-inflicting mate retention behaviors, *pseudo*-R^2 = 16.53%, χ^2 (4) = 20.66, $p \leq 0.001$.

Table 2
Correlations and descriptive statistics for study variables (Study 1).

	1	2	3	4	5	6
1 Anxiety	−0.01	**0.50**	0.20	**0.48**	**−0.28**	−0.14
2 Avoidance	**0.72**	**0.39**	0.15	**0.43**	**−0.32**	−0.23
3 Benefit-provisioning	0.06	−0.03	0.03	**0.64**	−0.01	0.15
4 Cost-inflicting	**0.29**	0.22	**0.61**	**0.30**	−0.037	−0.20
5 Relationship duration	0.22	**−0.28**	0.07	0.065	–	0.25
6 Age	**−0.48**	**−0.34**	**−0.34**	**−0.38**	0.14	**0.66**
M (SD) Female	2.33 (0.98)	1.85 (0.73)	1.60 (0.39)	0.53 (0.46)	20.60 (19.07)	20.13 (2.71)
M (SD) Male	2.40 (0.99)	2.07 (0.82)	1.71 (0.45)	0.53 (0.39)	21.18 (19.55)	21.06 (3.35)

Note. Correlations above the diagonal are within female partners; correlations below the diagonal are within male partners. On the diagonal in grey are between-partner correlations. Correlations in bold are significant ($p < .05$).

Table 3
APIM coefficients for Study 1.

	B (SE)	*p*	95% CI	*β* (SE)	*p*	95% CI
Cost-inflicting mate retention behaviors						
Actor effects						
Attachment anxiety	**0.14 (0.06)**	**0.02**	[0.03, 0.25]	**0.32 (0.13)**	**0.02**	[0.06,0.59]
Attachment avoidance	0.08 (0.07)	0.26	[−0.06, 0.21]	0.14 (0.12)	0.26	[−0.11, 0.39]
Partner effects						
Attachment anxiety	0.01 (0.06)	0.86	[−0.10, 0.12]	0.02 (0.13)	0.88	[−0.24, 0.29]
Attachment avoidance	−0.03 (0.07)	0.61	[−0.17, 0.10]	−0.06 (0.12)	0.61	[−0.31, 0.18]
Benefit-provisioning mate retention behaviors						
Actor effects						
Attachment anxiety	0.06 (0.06)	0.32	[−0.06, 0.17]	0.14 (0.13)	0.32	[−0.13,0.40]
Attachment avoidance	0.03 (0.07)	0.72	[−0.12, 0.17]	0.05 (0.13)	0.72	[−0.21, 0.31]
Partner effects						
Attachment anxiety	−0.02 (0.06)	0.71	[−0.14, 0.09]	−0.05 (0.13)	0.71	[−0.32, 0.22]
Attachment avoidance	−0.07 (0.07)	0.36	[−0.21, 0.08]	0.05 (0.13)	0.72	[−0.39, 0.14]

Effects in bold are significant ($p < .05$)

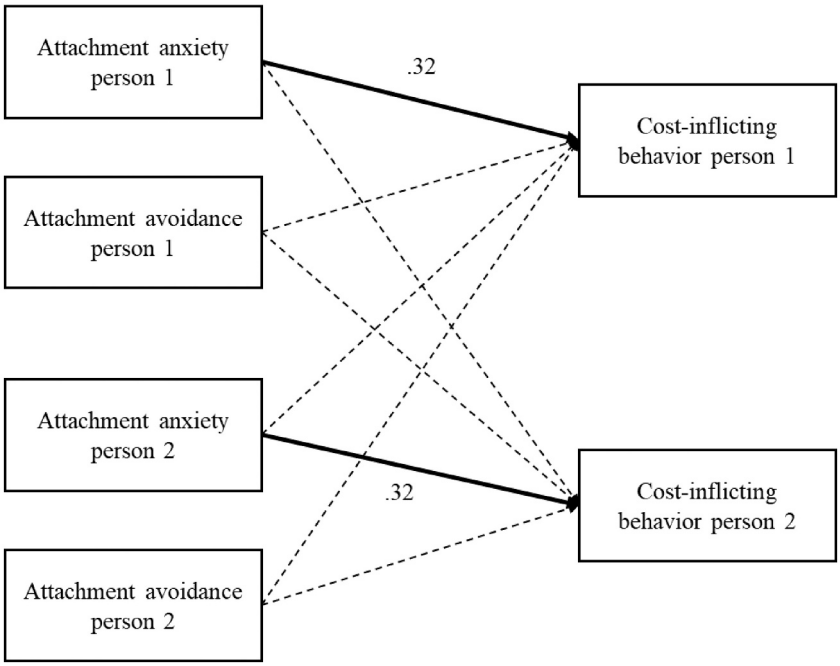

Fig. 1. Standardized effect estimates for cost-inflicting mate retention behaviors, Study 1. Dashed line = non-significant effects. See Table 3 for all effect estimates.

2.6. Discussion

Results of Study 1 replicate results of cross-sectional studies in a dyadic context documenting an association between attachment anxiety and cost-inflicting mate retention behaviors, such that individuals with greater attachment anxiety perform more frequent cost-inflicting behaviors. This association appears robust, having been found in six unique samples, including this one (see Altgelt & Meltzer, 2019; Barbaro et al., 2016, 2019). No effects of attachment avoidance were demonstrated in this study. Although previous studies show such effects, they are inconsistent in nature and across sex (e.g., Barbaro et al., 2016, 2019). The results of Study 1 nonetheless should be interpreted cautiously given that the sample size did not reach the a priori target to achieve 80% power. Study 2 addresses this problem by using a high-powered longitudinal sample to evaluate the associations between attachment orientations and mate retention behaviors.

3. Study 2: Replication and extension in German-speaking countries

3.1. Procedure

We used data from the *Processes in Romantic Relationships and Their Impact on Relationship and Personal Outcomes (CouPers)* study, a multi-wave longitudinal online study of romantic couples conducted at the University of Basel, Switzerland, between 2016 and 2018 (see also Bühler et al., 2020 for additional details of the CouPers study and sample). The primary purpose of the study was to investigate associations between personality and romantic relationship outcomes. We used G*Power 3 to calculate the appropriate sample size for the study (Faul, Erdfelder, Lang, & Buchner, 2007), and determined that a final sample of 537 couples would provide sufficient power to test our primary hypotheses. Participants were recruited from the student population, the local community, and via Facebook advertisements targeted at residents of Germany, Switzerland, and Austria who reported being in a relationship. Eligibility to participate was dependent on being over 18 years old, having a partner over 18 years old also willing to participate, a relationship duration of at least one month, and an ability to respond to German-language surveys.

The study consisted of four waves. Each wave included 14 days of online daily surveys with an additional battery of surveys on day 1 and day 14. Waves 1 to 3 were separated by an interval of about six months; waves 3 and 4 were separated by an interval of about 12 months. Participants entered wave 1 in one of 12 monthly cohorts. In subsequent waves, participants were permitted to move to a different cohort (if their partner also moved) or to skip a wave if they were unable to participate at the scheduled time. Participants were permitted to participate as singletons if their initial relationship ended, and new partners were invited to join the study. Participants were compensated with a shopping or cinema voucher with a value of 20 EUR/CHF per wave if they completed the extensive surveys on days 1 and 14 and at least seven of the 14 daily surveys. Participants received personalized feedback on a selected measure if they requested it. Ethical approval for the study was granted by the ethics committee of the Department of Psychology at the University of Basel, Switzerland.

3.2. Participants

For this article, we analyzed data from waves 2 and 4 in which adult attachment and mate retention behaviors were measured—hereafter referred to as T1 and T2 (approximately 18 months after T1). A total of 1224 participants provided data at T1 and T2. In a few cases, participants reported their sex inconsistently across waves. Participants' sex was set as either male or female based on the majority of their reports. We excluded from the analysis participants who reported being single (n = 75), those whose partners did not participate (n = 133), and those who were in a same-sex relationship (n = 38), leaving 978 participants comprising 489 couples. We excluded same-sex couples because we used dyadic models in which sex distinguishes between partners and a primary aim of the study was to replicate previous research in male-female couples. At wave 1, the mean age of female participants was 31.38 years (SD = 13.38) and the mean age of male participants was 33.59 years (SD = 13.86). The average relationship duration across both partners was 8.78 years (SD = 10.67). Participants reported their marital status using options from the Swiss census. Non-married participants comprised 59.3% of the sample; other participants were married (34.8%), in a

registered partnership (1.6%), divorced (3.4%), separated (0.3%) or widowed (0.6%). Participants reported residing in Germany (57.1%), Switzerland (30.8%), Austria (11.9%), or other countries (0.2%).

3.3. Measures

Attachment orientation was measured on the first diary day of T1 and T2 with the German-language version of the Experiences in Close Relationships–Relationship Structures (Ehrenthal, Dinger, Lamla, Funken, & Schauenburg, 2009; Fraley, Heffernan, Vicary, & Brumbaugh, 2011) which consists of 9 items. Three items assess anxiety (e.g., "I often worry that my partner doesn't really care for me.") and six items assess avoidance (e.g., "I prefer not to show my partner how I feel deep down."). Each statement was rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses were averaged such that higher scores represented higher anxiety or avoidance. The reliabilities of the anxiety scale (for female partners: $\alpha = 0.76$ at T1 and $\alpha = 0.74$ at T2; for male partners: $\alpha = 0.71$ at T1 and $\alpha = 0.76$ at T2) and the avoidance scale (for female partners: $\alpha = 0.75$ at T1 and $\alpha = 0.74$ at T2; for male partners: $\alpha = 0.78$ at T1 and $\alpha = 0.75$ at T2) were acceptable.

Mate retention behavior was assessed on the last diary day of T1 and T2 with the Mate Retention Inventory–Short Form (MRI-SF; Buss et al., 2008) in a German version prepared for this study (see Appendix A). In translating the MRI-SF from English to German, we followed the procedure described by Borsa, Damásio, and Bandeira (2012) and included eight steps: (1) two translators produced independent translations of the inventory; (2) the translators met and, with a native English speaker, discussed and synthesized their translations; (3) a bilingual researcher with knowledge of the original inventory compared the original with the synthesized translation, and made amendments; (4) a small sample of respondents from the target population identified difficult or confusing items, (5) one of the translators incorporated the respondents' suggestions; (6) two new translators unfamiliar with the inventory produced independent back-translations; (7) the author of the original survey compared the original with the back-translations, and suggested amendments; (8) one of the translators and one of the back-translators met to incorporate the author's amendments when appropriate and produced a final German version.

The MRI-SF used in Study 2 used the same response scale and categorization of tactics as described in Study 1 (see Table 1). Reliability for cost-inflicting mate retention behavior for female partners at T1, $\alpha = 0.79$ and at T2, $\alpha = 0.78$; for male partners at T1, $\alpha = 0.83$ and at T2, $\alpha = 0.84$. Reliability for benefit-provisioning mate retention behavior for female partners at T1, $\alpha = 0.79$ and at T2, $\alpha = 0.81$; for male partners at T1, $\alpha = 0.80$ and T2 $\alpha = 0.82$.

3.4. Analysis plan

The APIM was extended to test the bidirectional, longitudinal effects between attachment insecurity and mate retention behavior while controlling for the variables' respective stabilities. Specifically, we computed four models: The first set of models included cost-inflicting mate retention behavior with either attachment anxiety (model one) or attachment avoidance (model two). In the second set of models, we included benefit-provisioning mate retention behavior with either attachment anxiety (model three) or attachment avoidance (model four). As an example, the first model is illustrated in Fig. 2. We controlled for each partner's age and the couple's relationship duration in all models.[1]

We computed the four APIMs with the lavaan package (Rosseel, 2012) in *R* (R Development Core Team, 2016). These models are saturated with zero degrees of freedom (*dfs*). We tested, however, whether the actor, partner, and stability effects could be set as equal across male and female partners. This would lead to a maximum of 8 *dfs*. To examine the model fit of the constrained models, we considered the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR) as indicators of model fit. A good model fit is indicated with CFI ≥ 0.97, RMSEA ≤ 0.05, and SRMR ≤ 0.05, while an acceptable model fit is indicated with CFI ≥ 0.95, RMSEA ≤ 0.08, and SRMR ≤ 0.10 (Schermelleh-Engel, Moosbrugger, & Müller, 2003). To test whether the models are not significantly worse than the saturated model, we used the test of small difference in fit (MacCallum, Browne, & Cai, 2006).

Based on previous research, we expected small to medium actor and partner effects (Altgelt & Meltzer, 2019; Barbaro et al., 2016, 2019). Hence, for the post hoc power analysis, we used the APIM Power tool developed by Ackerman et al. (2016) and expected actor effects of 0.25 and partner effects of 0.15, with a correlation of 0.20 for the predictor variables and 0.30 for the error terms of the outcome variables. With a sample of 489 couples, the study was well powered to find the expected actor effects (power of >0.999) and partner effects (power of 0.999). We note, however, that the models of the present study include more variables as in a basic APIM and, therefore, the power estimation is an approximation.

3.5. Results

Descriptive statistics and bivariate correlations are presented in Table 4. The results of the four longitudinal APIMs are displayed in Table 5. In all four models, the effects for female and male partners were set as equal without reducing the model fit. All models provided good fit (for model fits and model comparison, see Table 6). In the first model, including attachment anxiety and cost-inflicting mate retention behaviors, we found a small but significant actor effect of cost-inflicting behaviors on later attachment anxiety and vice versa. This effect indicates that within romantic couples, more frequent use of cost-inflicting behaviors predicted higher attachment anxiety, and higher attachment anxiety predicted more frequent use of cost-inflicting behaviors 18 months later. Also, a significant partner effect was found for cost-inflicting behaviors, indicating that the more frequent use of cost-inflicting behaviors by one partner predicted the more frequent use of cost-inflicting behaviors by the other partner after 18 months. No significant partner effects were found between attachment anxiety and cost-inflicting behaviors.

In the second model, including attachment avoidance and cost-inflicting mate retention behaviors, a significant actor effect emerged between attachment avoidance and later cost-inflicting behavior. More avoidant individuals reported more frequent use of cost-inflicting behaviors 18 months later. Also, a significant positive partner effect emerged between one partner's cost-inflicting behaviors at T1 and the other partner's cost-inflicting behaviors at T2: If one partner made frequent use of cost-inflicting behaviors, the other partner used them more frequently 18 months later. No significant partner effects emerged for attachment avoidance and no significant actor or partner effects emerged between cost-inflicting behaviors and later avoidance across time.

The third model included attachment anxiety and benefit-provisioning mate retention behaviors. Aside from the stability effects, we found no actor effects between anxiety and benefit-provisioning behaviors. However, we found three significant partner effects between attachment anxiety and benefit-provisioning behaviors, indicating that one partner's attachment anxiety at T1 predicted the other partner's attachment anxiety at T2, one partner's benefit-provisioning behaviors at T1 predicted the other partner's benefit-provisioning behaviors at T2, and one partner's attachment anxiety predicted the other partner's benefit-provisioning behaviors. The last result indicates that

[1] The participants' age and the couples' relationship duration were divided by 100 for the analyses to reach variances comparable in size with the other study variables.

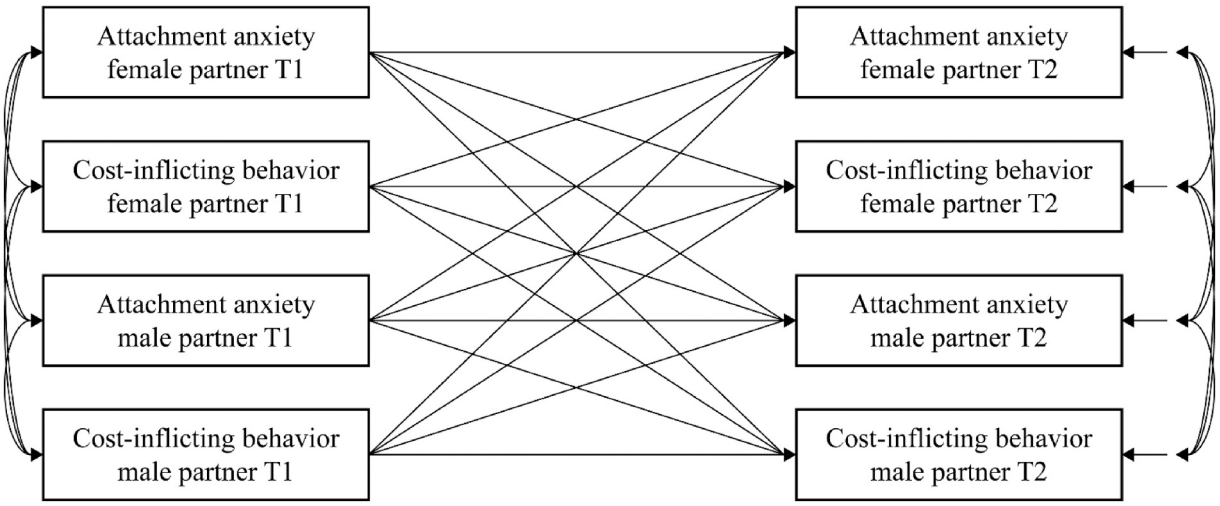

Fig. 2. Example APIM with attachment anxiety and cost-inflicting mate retention behavior of both partners as predictors at T1 and as outcome variables at T2 (Study 2). The model also controlled for both partners' age and the couple's relationship duration (not shown).

Table 4
Correlations and descriptive statistics for study variables (Study 2).

	1	2	3	4	5	6	7	8	9	10
1 Anxiety T1	**0.18**	**0.63**	**0.31**	**0.22**	**0.40**	**0.38**	0.03	0.00	**−0.11**	−0.07
2 Anxiety T2	**0.53**	**0.19**	**0.26**	**0.32**	**0.30**	**0.34**	0.03	0.00	−0.02	0.02
3 Avoidance T1	**0.42**	**0.28**	**0.30**	**0.54**	**0.19**	**0.17**	**−0.15**	**−0.14**	0.02	0.02
4 Avoidance T2	**0.27**	**0.42**	**0.57**	**0.21**	**0.10**	**0.14**	**−0.14**	**−0.16**	0.08	**0.12**
5 Cost-inflicting T1	**0.33**	**0.29**	**0.20**	**0.18**	**0.18**	**0.70**	**0.31**	**0.17**	**−0.17**	**−0.22**
6 Cost-inflicting T2	**0.30**	**0.29**	**0.21**	**0.20**	**0.60**	**0.31**	**0.27**	**0.30**	**−0.23**	**−0.26**
7 Benefit-provisioning T1	**0.11**	0.06	**−0.15**	**−0.11**	**0.41**	**0.33**	**0.31**	**0.69**	**−0.28**	**−0.26**
8 Benefit-provisioning T2	0.08	−0.01	**−0.12**	**−0.19**	**0.30**	**0.32**	**0.70**	**0.36**	**−0.24**	**−0.20**
9 Relationship duration	0.00	**−0.11**	−0.03	0.02	**−0.20**	**−0.19**	**−0.23**	**−0.18**	–	**0.81**
10 Age	0.02	−0.04	0.00	0.03	**−0.25**	**−0.20**	**−0.18**	**−0.16**	**0.79**	**0.96**
M female partner (*SD*) female partner	2.22 (1.23)	2.10 (1.25)	1.94 (0.90)	1.92 (0.94)	0.32 (0.25)	0.29 (0.23)	1.38 (0.39)	1.36 (0.41)	105.35 (128.05)	31.83 (13.38)
M male partner (*SD*) male partner	2.11 (1.14)	2.10 (1.18)	2.13 (0.93)	2.12 (0.96)	0.28 (0.27)	0.25 (0.26)	1.39 (0.41)	1.41 (0.43)	105.35 (128.05)	33.59 (13.86)
Cohen's |*d*|	0.07	0.01	**0.18**	**0.18**	**0.13**	**0.16**	0.02	**0.11**	–	**0.49**

Note. Correlations above the diagonal are within female partners; correlations below the diagonal are within male partners. On the diagonal in grey are between-partner correlations. Correlations and Cohen's *d* in bold are significant ($p < .05$).

Table 5
Longitudinal APIM coefficients for Study 2.

	Actor effect			Partner effect		
Effects	*B* (SE)	*p*	95% CI	*B* (SE)	*p*	95% CI
Cost-inflicting MRB						
Anxiety ➜ anxiety	**0.55 (0.03)**	**<0.001**	[0.49, 0.61]	0.05 (0.03)	0.08	[−0.01, 0.11]
MRB ➜ anxiety	**0.43 (0.14)**	**0.002**	[0.16, 0.71]	−0.01 (0.14)	0.94	[−0.28, 0.26]
Anxiety ➜ MRB	**0.02 (0.01)**	**<0.001**	[0.01, 0.03]	0.00 (0.01)	0.56	[−0.01, 0.01]
MRB ➜ MRB	**0.55 (0.03)**	**<0.001**	[0.50, 0.60]	**0.09 (0.03)**	**<0.001**	[0.04, 0.14]
Avoidance ➜ avoidance	**0.54 (0.03)**	**<0.001**	[0.49, 0.60]	0.02 (0.03)	0.44	[−0.04, 0.08]
MRB ➜ avoidance	0.15 (0.11)	0.15	[−0.06, 0.36]	0.16 (0.10)	0.12	[−0.04, 0.37]
Avoidance ➜ MRB	**0.02 (0.01)**	**0.03**	[0.001, 0.03]	0.00 (0.01)	0.94	[−0.01, 0.01]
MRB ➜ MRB	**0.58 (0.02)**	**<0.001**	[0.53, 0.63]	**0.09 (0.02)**	**<0.001**	[0.04, 0.14]
Benefit-provisioning MRB						
Anxiety ➜ anxiety	**0.58 (0.03)**	**<0.001**	[0.53, 0.64]	**0.06 (0.03)**	**0.04**	[0.003, 0.11]
MRB ➜ anxiety	0.01 (0.09)	0.89	[−0.16, 0.18]	−0.02 (0.09)	0.80	[−0.19, 0.15]
Anxiety ➜ MRB	0.00 (0.01)	0.97	[−0.02, 0.02]	**−0.02 (0.01)**	**0.04**	[−0.04, −0.001]
MRB ➜ MRB	**0.69 (0.03)**	**<0.001**	[0.64, 0.74]	**0.07 (0.03)**	**0.01**	[0.02, 0.13]
Avoidance ➜ avoidance	**0.55 (0.03)**	**<0.001**	[0.49, 0.61]	0.04 (0.03)	0.20	[−0.02, 0.10]
MRB ➜ avoidance	−0.09 (0.07)	0.20	[−0.22, 0.05]	0.02 (0.07)	0.83	[−0.12, 0.15]
Avoidance ➜ MRB	−0.01 (0.01)	0.33	[−0.03, 0.01]	0.00 (0.01)	0.77	[−0.03, 0.02]
MRB ➜ MRB	**0.70 (0.03)**	**<0.001**	[0.64, 0.75]	**0.07 (0.03)**	**0.01**	[0.02, 0.12]

Note. All effects were set as equal across female and male partners. Effects in bold are significant ($p < .05$).

Table 6
Model comparison and model fit of actor-partner interdependence models with and without equality constraints across partners (Study 2).

Models	Model comparison			Model fit of constrained model		
	Critical $\Delta\chi^2$	Observed $\Delta\chi^2$	*p*	CFI	RMSEA	SRMR
Anxiety and cost-inflicting MRB	19.594	10.198	0.441	0.998	0.024	0.016
Avoidance and cost-inflicting MRB	15.507	6.515	0.590	1.000	0.000	0.014
Anxiety and benefit-provisioning MRB	17.618	9.189	0.429	0.999	0.017	0.016
Avoidance and benefit-provisioning MRB	15.507	3.001	0.934	1.000	0.000	0.009

the more anxiously attached one partner was, the less frequent the other partner used benefit-provisioning behaviors, independent of partner sex.

The fourth and final model included attachment avoidance and benefit-provisioning mate retention behaviors at T1 and T2. No significant actor effects between attachment avoidance and benefit-provisioning behaviors were found. As in the third model, benefit-provisioning behaviors showed partner effects such that if one partner showed more frequent use of benefit-provisioning, the other partner also showed more frequent use of benefit-provisioning 18 months later, independent of partner sex. No other partner effects were found.

3.6. Discussion

The results of Study 2 provide further evidence for the robust association between attachment anxiety and cost-inflicting mate retention behaviors. The longitudinal design of the study allowed for a novel investigation of the associations between attachment orientations and mate retention behaviors over time. The results demonstrate that, within the dyadic context, there is a bidirectional association such that greater attachment anxiety predicts greater frequency of subsequent cost-inflicting mate retention behaviors, and greater frequency of cost-inflicting mate retention behaviors predicts greater subsequent attachment anxiety. Cost-inflicting mate retention behaviors appear particularly influential in romantic contexts, with results showing partner effects such that an individual's use of cost-inflicting mate retention behaviors predicts their partner's subsequent use of cost-inflicting mate retention behaviors.

4. General discussion

The current research adds to the growing body of research investigating the evolutionary operation of attachment orientations in a romantic relationship context (see Altgelt & Meltzer, 2019; Barbaro et al., 2016, 2019; Kruger et al., 2013). We sought to replicate and extend the existing research investigating the associations between attachment orientations and mate retention behaviors in a dyadic context. The aim of the current research was to investigate the associations between attachment orientations and mate retention behaviors in a dyadic context to evaluate: (1) the bivariate associations between attachment orientations and mate retention domains, replicating previous work; (2) whether an individual's attachment orientation predicts their partner's mate retention behaviors; and (3) whether, over time, mate retention behaviors influence attachment orientations within couples.

With regard to aim 1, results of both studies replicated previously documented bivariate associations between attachment anxiety and cost-inflicting mate retention behaviors (see Barbaro et al., 2016, 2019), whereas associations between attachment avoidance and mate retention behaviors were inconsistent. With regard to aim 2, we found little evidence for partner effects in our samples, such that weak or null associations were found between an individual's attachment orientations and their partner's mate retention behaviors. Finally, with regard to aim 3, longitudinal dyadic data from Study 2 provides novel insights into this domain by demonstrating that cost-inflicting mate retention behaviors, specifically, predict future attachment anxiety in romantic partners, suggesting a feedback loop effect between attachment anxiety and cost-inflicting behaviors. The results also demonstrate that both cost-inflicting and benefit-provisioning mate retention behaviors are predictive over time within couples, such that the frequency of mate retention behaviors at time 1 are positively correlated with future mate retention behaviors.

4.1. Research implications

The results of the current studies further clarify the robust associations between attachment orientations and mate retention behaviors in a more ecologically valid context. Previous research has shown consistent associations between attachment anxiety and cost-inflicting mate retention behaviors, but the associations between attachment avoidance and mate retention behaviors were inconsistent across samples. The current research shows mostly null associations between attachment avoidance and mate retention behaviors in an ecologically realistic dyadic context. These null results indicate that attachment avoidance—characterized by hypoactivation of the romantic attachment system—is likely to decrease relationship maintenance motivation, broadly, which is consistent with diverse results across psychological studies that show attachment avoidance is associated with increased attraction to alternative mates (DeWall et al., 2011), commitment aversion (Birnie, Joy McClure, Lydon, & Holmberg, 2009), and more promiscuous dating behaviors (Kim & Miller, 2020).

Models from both studies did not corroborate previous reports of sex differences in the associations between attachment orientations and mate retention behaviors (see Barbaro et al., 2016, 2019). Although we did not find sex differences in the nature of the associations, evolutionary theoretical perspectives on romantic attachment (see Barbaro, 2020) suggest sex differences with regard to *activation cues* of the attachment system may differ between men and women (see Kruger et al., 2013). Given the importance of attachment anxiety for predicting subsequent cost-inflicting mate retention behaviors, future research might investigate anxiety- producing cues, which Sexual Strategies Theory (Schmitt & Buss, 2003) and Parental Investment Theory (Trivers, 1972) predict should differ between men and women. For instance, cues of emotional distancing may be more provoking for women, whereas cues of sexual straying may be more provoking for men (see Buss, 2019).

The mate retention hypothesis of romantic attachment (Barbaro, 2020) proposes that activation of the attachment system occurs in response to relationship threats: endogenous or exogenous threats to the stability of the pair-bond that negatively affect investment of resources into the romantic relationship. Results of Study 2 showing that cost-inflicting behaviors predict subsequent higher levels of attachment anxiety suggest that a negative feedback loop may occur in relationships characterized by early levels of attachment anxiety such that cost-inflicting behaviors serve as an endogenous relationship threat, producing higher attachment anxiety, which may lead to decreased relationship satisfaction for partners (see also Altgelt & Meltzer, 2019), further facilitating cost-inflicting behaviors. Continued longitudinal research in which the relationship outcomes of attachment anxiety within relationships are examined could clarify the operation of the proposed feedback loop of attachment anxiety and cost-inflicting mate retention behaviors.

4.2. Limitations

Study 1 is underpowered to detect the presumed effect sizes for the associations between attachment orientations and mate retention behaviors. Because of the small sample size in Study 1, null partner effects should be interpreted with caution. Study 2, however, is highly powered to detect small effect sizes for both actor and partner effects. Study 2 includes the largest sample used to date to test associations between attachment orientations and mate retention behaviors. The high-powered dyadic design of Study 2 provides smaller standardized coefficients than previous reports (Barbaro et al., 2016, 2019) and Study 1, as is expected as sample sizes increase. Future research should use the effect sizes reported here in Study 2 as the benchmark for power analyses when conducting research in this domain.

Finally, the current research relied on self-report measures with the goal of providing evidence of an association, without directed focus on the mechanisms of the association. Given that this is an emerging body of work, these methods have been adequate to establish benchmarks for parameter estimates on which future research can be based. Future research could focus on the nature of the associations between attachment orientations and mate retention behaviors by employing experimental designs to identify the mechanistic nature of these associations, including testing for sex differences in the attachment system activation cues (see also Kruger et al., 2013). Moreover, additional longitudinal research might explore the novel bidirectional associations found in Study 2 to better understand the feedback cycle of endogenous threats within a dyadic context.

4.3. Conclusion

We demonstrate that attachment anxiety is associated with cost-inflicting mate retention behaviors in a dyadic context, which suggests that hyperactivation of the romantic attachment system is an important predictor of subsequent negative partner-directed behaviors. Study 2 additionally provides novel insight into the bidirectional nature of these associations as they unfold over time in romantic relationships. Specifically, cost-inflicting mate retention behaviors appear to serve as an input to the threat-detection monitoring components of the romantic attachment system, suggesting a negative feedback loop that warrants continued investigation. Effects of attachment avoidance were not consistently found, nor were sex differences in the magnitude of the associations between attachment orientations and mate retention behaviors. These results contribute to the emerging body of work on the associations between attachment orientations and mate retention behaviors, and provide additional empirical support for the mate retention hypothesis of romantic attachment (Barbaro, 2020).

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Appendix A. MRI-SF (man with female partner, self-report version)

We provide the German version of the MRI-SF as used in Study 2. We refer readers to Buss et al., 2008 for the English version.

Anleitung: Es folgt eine Liste von Handlungen oder Verhaltensweisen. In dieser Studie sind wir an den Handlungen interessiert, die Menschen im Rahmen ihrer Beziehung mit ihrem romantischen Partner durchführen

Bitte geben Sie für jede Handlung an, wie häufig Sie die Handlung im LETZTEN Jahr durchgeführt haben.

0 = Habe ich noch nie gemacht.
1 = Habe ich selten gemacht.
2 = Habe ich manchmal gemacht.
3 = Habe ich oft gemacht.

1. Rief meine Partnerin an, um sicher zu gehen, dass sie dort ist, wo sie sagte, dass sie sein würde.
2. Nahm meine Partnerin nicht zu einer Party mit, bei der andere Männer anwesend waren.
3. Bestand darauf, dass meine Partnerin ihre gesamte Freizeit mit mir verbrachte.
4. Unterhielt mich an einer Party mit einer anderen Frau, um meine Partnerin eifersüchtig zu machen.
5. Wurde wütend, als meine Partnerin zu viel mit anderen flirtete.
6. Flehte meine Partnerin an, dass ich ohne sie nicht leben könnte.
7. Sagte meiner Partnerin, dass wir uns einander völlig verpflichten müssten.
8. Wies meine Partnerin auf die Schwächen eines anderen Mannes hin.
9. Kaufte meiner Partnerin ein teures Geschenk.
10. Erbrachte sexuelle Gefälligkeiten, um meine Partnerin bei mir zu halten.
11. Machte mich selbst „besonders attraktiv “für meine Partnerin.
12. Machte meiner Partnerin Komplimente für ihr Aussehen.
13. Fügte mich jedem Wunsch meiner Partnerin.
14. Erzählte meinen gleichgeschlechtlichen Freunden, wie sehr meine Partnerin und ich verliebt sind.
15. Legte meinen Arm in Gegenwart anderer um meine Partnerin.
16. Bat meine Partnerin, meinen Ring zu tragen.
17. Erzählte anderen Männern, dass mir meine Partnerin auf die Nerven ging.
18. Starrte einen Mann kalt an, der meine Partnerin anschaute.
19. Brachte meine Freunde dazu jemanden zu verprügeln, der an meiner Partnerin interessiert war.
20. Spionierte in den persönlichen Sachen meiner Partnerin herum.
21. Führte meine Partnerin aus einer Veranstaltung weg, in der andere Männer zugegen waren.
22. Verbrachte meine gesamte Freizeit mit meiner Partnerin, damit sie sich mit niemand anderem treffen konnte.
23. Zeigte Interesse an einer anderen Frau, um meine Partnerin wütend zu machen.
24. Drohte mich zu trennen, falls meine Partnerin mich jemals betrügen würde.
25. Sagte meiner Partnerin, dass ich von ihr abhängig sei.
26. Bat meine Partnerin mich zu heiraten.
27. Erzählte meiner Partnerin, dass ein anderer Mann dämlich sei.
28. Führte meine Partnerin in ein nettes Restaurant aus.
29. Hatte eine physische Beziehung mit meiner Partnerin, um unsere Beziehung zu vertiefen.
30. Ich achtete darauf, gut für meine Partnerin auszusehen.
31. Zeigte grössere Zuneigung für meine Partnerin.
32. Stimmte allem zu, was meine Partnerin sagte.
33. Gab mit meiner Partnerin bei anderen Männern an.
34. Hielt die Hand meiner Partnerin während andere Männer dabei waren.
35. Gab meiner Partnerin Schmuck um zu signalisieren, dass sie vergeben ist.
36. Erzählte anderen Männern, dass meine Partnerin keine nette Person sei.
37. Warf einem Mann einen drohenden Blick zu, als er meine Partnerin anschaute.

Habe einen Mann geschlagen, der meine Partnerin anmachte.

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