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Attachment predicts transgression frequency and reactions in romantic couples' daily life

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Abstract

This study examined associations between individual differences in romantic attachment and transgression frequency and reactions in daily life. Data from both members of the heterosexual relationship was collected to examine how a persons' attachment orientation influenced their own and their partner's perceived transgressions and reactions to these transgressions. Across ten days, one hundred thirty-nine heterosexual couples reported on perceived transgressions by their partner. If transgressions occurred, they also reported on subsequent reactions such as forgiveness and rumination. Actor-Partner Interdependency Models (APIMs) were used to investigate actor and partner effects of attachment-anxiety and attachment-avoidance on the number of experienced transgressions and reactions to transgressions. Attachment-anxiety was not predictive with respect to any of the outcomes of interest. Higher attachment-avoidance predicted fewer transgressions and more revenge in reaction to transgressions in men, but not in women. Higher levels of attachment-avoidance predicted more avoidance and rumination following a transgression. Additionally, a partner effect from attachment-avoidance to avoidant reaction was observed. Findings are discussed regarding how attachment may account for differences in appraisal processes and emotion regulation strategies when confronted with relational transgressions.

Keywords: Romantic attachment; transgressions; forgiveness; rumination; APIM; count models

At times, everyone feels hurt by his or her romantic partner. However, individuals differ in their report of and response to reported transgressions by their partners. Attachment orientations to romantic partners, or the generalized expectations and evaluations people hold about their relationships, may play an important role for acknowledgement of and reactions to relational transgressions in romantic relationships, as attachment orientations are relevant predictors of interpersonal perceptions, appraisals and functioning in social interactions (Kafetsios & Nezlek, 2002; Sheinbaum et al., 2015). In the current work, we examined (a) how individual differences in romantic attachment relate to perceived transgressions caused by the partner in everyday life, and (b) how individual differences in romantic attachment orientations relate to reactions after experiencing a transgression. This study examined the role of both partners´ attachment-anxiety and attachment-avoidance for the perception of partner transgression frequency and how attachment orientations are associated with different reactions to these transgressions in romantic couples.

Individual differences in attachment orientations can be conceptualized along the dimensions of attachment-anxiety and attachment-avoidance (Brennan, Clark, & Shaver, 1998; Fraley, Heffernan, Vicary, & Brumbaugh, 2011). Attachment-anxiety is characterized by an extreme desire for closeness combined with the tendency to fear rejection and abandonment by one's partner, leading to increased vigilance to threat-related cues in close relationships. Highly anxious individuals tend to experience more intense negative emotions and more variable "highs and lows" within their relationships than those low in anxiety (Cooper, Totenhagen, McDaniel, & Curran, 2017). In contrast, attachment-avoidance refers to the discomfort that some individuals feel in situations of emotional closeness. Individuals with higher levels of attachment-avoidance tend to dislike and avoid emotional intimacy (Shaver & Mikulincer, 2005). In contrast to higher levels of attachment-anxiety, individuals higher in avoidance tend to engage in defensive processes to suppress emotional reactions and

engagement with relationship partners to avoid further frustration (Mikulincer & Shaver, 2005).

Attachment and Perceived Transgression Frequency

Attachment orientations play a primary role in interpersonal stress situations, including conflicts and disagreements in romantic relationships (Campbell, Simpson, Boldry, & Kashy, 2005). Given the research on perceptions of conflict as a function of attachment orientations in romantic relationships, there is a strong reason to assume that attachment orientations similarly account for the perception of partner transgressions (Feeney & Karantzas, 2017). The defining aspect of a relational transgression is the emotional experience of hurt and/or angry feelings in the individual due to a specific relational event (Feeney, 2005; Vangelisti, 2009). This inner emotional state may or may not be disclosed to one's partner, and hence may or may not involve disagreement, making it distinguishable from relational conflict (Feeney & Karantzas, 2017). Compared with conflicts and disagreements, transgressions may reflect subtler or less salient forms of relationship disruptions, yet their consequences can be profound for relationship functioning and stability (Fincham, 2000). It thus seems important to address this topic from an attachment theoretical perspective, advancing our understanding of how transgressions are perceived and dealt with in couples.

To better understand the factors driving forgiveness within romantic relationships, it is valuable to initially identify factors guiding the perception of relational transgressions within romantic partners. Previous empirical evidence demonstrates that attachment-anxiety is associated with heightened detection of relational threats, while in contrast, attachment-avoidance is predictive for the dismissal of threatening events (Ein-Dor, Mikulincer, & Shaver, 2011; Sheinbaum et al., 2015). Individual differences in attachment orientations are systematically related to how individuals attribute partner behaviors (Domingue & Mollen, 2009; Pietromonaco & Feldman Barrett, 1997). The way individuals appraise ambiguous relational events determines whether they perceive these events as relational transgressions

from their partners (Collins, Ford, Guichard, & Allard, 2006; Vangelisti, 2009). For example, an individual with a relatively secure attachment should be less inclined to attribute a partner's potentially hurtful behavior as intentional acts aiming to devalue the relationship.

Hence, attachment orientations may determine a threshold at which individuals judge conflicts or negative events in their relationship as transgressive, which should be differentially related to attachment-anxiety and attachment-avoidance. Attachment-anxiety manifests in exaggerating the presence and seriousness of relationship-threatening events, given the fact that anxious individuals tend to overemphasize their own and their relationship's vulnerability (Mikulincer & Shaver, 2005; Shaver et al., 2009). Individuals with greater attachment-anxiety show hypersensitivity to relationship threats, signs of rejection or devaluation from their partners, as they are in constant concern to detect relationship threats as congruent to their expectations and beliefs on attachment bonds (Collins et al, 2006; Fraley, Niedenthal, Marks, Brumbaugh, & Vicary, 2006). Thus, individuals with greater attachment-anxiety should report more transgressions in their relationships than securely attached individuals would. In contrast, attachment-avoidance manifests in the tendency to inhibit acknowledgment of relationship threats. Defensive exclusion during information processing (e.g., perception, encoding, appraisal), memorization and retrieval (Chun, Shaver, Gillath, Mathews, & Jorgensen, 2015; Fraley & Brumbaugh, 2007) leads to higher emotional inhibition and suppression in avoidant individuals. Hence, avoidant individuals tend to be kept from noticing their own attachment-related distress, and may report fewer transgressions in their relationships.

However, feeling hurt is not only a matter of perceiving certain events as hurtful (*intrapersonal appraisal*), but also a consequence of actual behaviors of one partner inflicted upon the other (*interpersonal interaction*; Brassard, Lussier, & Shaver, 2009; Karantzas, Feeney, Gonvalces, & McCabe, 2014). For example, research has shown that individuals with higher attachment insecurities are more likely to display behaviors that could be perceived as

transgressive by the other partner such as giving less support and caregiving, less accommodating and compromising behaviors, or dysfunctional and offending expressions of anger (Li & Chan, 2012). Hence, being in a relationship with a partner high in attachment-anxiety or attachment-avoidance should confront individuals significantly more often with hurtful partner behavior, manifesting in partner effects of attachment on transgression frequency.

Attachment and Reactions to Perceived Transgressions

Individual differences in attachment orientations may also affect how romantic partners respond to transgressions. How people behave when faced with a partner transgression determines whether hurt and conflict in a relationship can be resolved or whether they escalate and lead to deterioration of relational bonds. For example, research has shown that having secure attachment orientations (i.e., lower attachment-anxiety and attachment-avoidance) is associated with higher abilities to cope with relational stressors (Van Monsjou et al., 2015) and more adaptive strategies to resolve relational conflict (Creasey & Hesson-McInnis, 2001). One adaptive strategy for dealing with interpersonal transgressions is forgiveness. Indeed, recent research has evidenced associations between attachment orientations and forgiveness in both situational and dispositional forms (e.g., Kimmes & Durtschi, 2016; Lawler-Row, Hyatt-Edwards, Wuensch, & Karremans, 2011).

Forgiving reactions take place on three motivational dimensions (Hoyt, Fincham, McCullough, Maio, & Davila, 2005): avoidance (to avoid both physical and psychological contact with the offender), revenge (to have feelings of righteous indignation and to see harm done to the offender), and benevolence (complaisant and positive feelings and behaviors towards the offender). Taking revenge on one's partner includes any attempt to "even the score" and intentionally harm one's partner as a response to the experienced transgression. Avoidance manifests in withdrawal, escaping and distancing behaviors, and resigning from any kind of behavior that fosters intimacy and closeness. Being and feeling benevolent

towards one's partner includes overt sign of goodwill and positive feelings towards one's partner. When people forgive relational transgressions, they become less avoidant, less vengeful, and more benevolent toward their partner who hurt them (Fincham, 2000).

A final reaction to consider is whether individuals ruminate about a given transgression. Rumination about a transgression can be understood as the opposite of forgiveness. Transgression-related rumination is defined as maladaptive and excessive focus on negative thoughts and feelings about a past transgression and tends to perpetuate and exacerbate psychological pain and anger that the offence has caused (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). Extensive rumination about a transgression has been shown to be obstructive for letting go of negative feelings toward the offender and developing more benevolent feelings (Barber, Maltby, & Macaskill, 2005; Paleari, Regalia, & Fincham, 2005). Like forgiveness, rumination is closely related with attachment. Several studies evidenced that greater attachment-anxiety is related to greater ruminative tendencies (e.g., Chung, 2014).

Attachment-avoidance and anxiety are likely to be associated with these four post-transgression reactions. First, avoidant attachment is defined by a desire to distance oneself in the relationship, and thus should be associated with greater avoidance in the face of a transgression. Second, high levels of attachment-avoidance should be related to higher levels of revenge motivation. Revenge is typically associated with hostile attitudes and behaviors towards one's partner, characteristic to those emotional reactions of individuals high in avoidance when confronted with negative relational events (Mikulincer & Shaver, 2005). Third, higher levels of attachment-anxiety and attachment-avoidance should be associated with lower levels of benevolence. Benevolence reflects a security-based attachment-strategy, guided by positive assumptions on self and other. Individuals with greater attachment-anxiety should be overwhelmed with intense negative emotions associated with the transgressions, struggling to overcome hurt feelings and replace those with benevolent feelings towards the offender, simultaneously accounting for stronger transgression-related rumination (Campbell

et al., 2005; Overall, Girme, Lemay, & Hammond, 2014). Individuals with greater attachment-avoidance should display less goodwill towards one's partner, prioritizing self-reliance and emotional detachment subsequent to transgressive events rather than strengthening benevolent interactions within the partner to restore harmony and closeness (cf. Mikulincer & Shaver, 2005).

Importantly, even though forgiveness and rumination reflect intrapersonal processes, they take place in a dyadic context. It is not only one's own attachment orientation that manifests in individual's reactions to perceived partner transgressions, but also the couple's dyadic adjustment. Empirical studies evidenced that a person's attachment affects how his or her partner reacts to negative relational events (Feeney, 2005; Nisenbaum & Lopez, 2015). However, to the best of our knowledge, no study yet evidenced these partner effects of attachment in terms of forgiveness and rumination. Thus, it is important to examine these contributions of each person's attachment orientation to his or her partner's typical reactions to perceived transgressions (partner effects). We assume that irrespective of a person's own attachment insecurity, partner effects of attachment insecurity should affect forgiving reactions and transgression-related rumination. Individuals with greater attachment-avoidance or attachment-anxiety show and less sensitive responsiveness and availability, lower relational skills in terms of empathy and perspective taking (Chung, 2014; Kimmes & Durtschi, 2016), as well as a lower ability to self-disclose (Mikulincer & Nachshon, 1991). Under stress and conflict, these lower relational skills in one partner foster negative reciprocity and trigger negative responses in the other partner (cf. Li & Chan, 2012). Along with that, both deactivating and hyperactivating strategies in dealing with one's partner's transgression-related distress are self-oriented and not attuned to partner needs, escalating conflict and making it more difficult to negotiate a resolution (Mikulincer & Shaver, 2005).

Present Study and Hypotheses

The current study sought to thoroughly examine the associations between attachment-orientations, perceived transgressions, and reactions to transgressions among relationship dyads. The study aims at advancing the present research on adult attachment by focusing on event sampling of situations when romantic partners perceive relational disruptions in their everyday life. Perceived transgressions and reactions were asked daily across two weeks. Daily sampling allows for reduced retrospective bias and increased ecological validity, capturing aspects of a couples' everyday life (Reis, 2012). The present study had two objectives. First, we examined how individual differences in romantic attachment orientations relate to frequency of perceived partner transgressions. We hypothesize that attachment-anxiety is associated with a higher frequency of perceived transgressions while attachment-avoidance is associated with a lower frequency of perceived transgressions. Second, we examined how individual differences in romantic attachment orientations relate to reactions to transgressions. We hypothesized that, at the individual level, attachment-anxiety and attachment-avoidance are associated with lower forgiving reactions, while only attachment-avoidance should predict increased revenge and avoidance while attachment-anxiety should predict higher rumination following a partner transgression. Moreover, partner effects of attachment should predict less adaptive reactions to perceived transgressions in terms of lower forgiveness and higher rumination. In that sense, the relative absence of attachment-avoidance and attachment-anxiety in individuals should facilitate forgiveness and prevent transgression-related rumination in their partners.

For both objectives, we examined associations on a dyadic level, as all constructs of interest listed above are dyadic in nature. Relational transgressions and forgiveness in romantic relationships are inherently interpersonal (cf. Fincham, 2000) and involve both members of the dyad. It was a primary goal of the study to rule out that perceived transgression frequency and subsequent reactions to these transgressions can be explained by relational constructs such as relationship satisfaction, relationship duration, or each partners'

general tendency to forgive. Accordingly, we examined the link between our constructs of interests after controlling for (a) the couples' relationship duration, (b) both partners' relationship satisfaction, as previous studies indicate, that relationship satisfaction is closely related to perception of conflict and dealing with negative relational events, with those being highly satisfied reporting less transgressions while showing more effective coping (Brassard et al., 2009, Karantzas, et al., 2014; Totenhagen, Butler, Curran, & Serido, 2016), (c) both partners' dispositional forgivingness in order to test whether attachment-orientations predict actual forgiveness in relevant situations above and beyond trait-levels of forgivingness. Finally, we also controlled for the number of diary entries provided for each participants to guarantee that findings of the study are independent from the participants varying levels of compliance.

Method

Participants and Procedure

Data from a daily diary study of US-adults over 10 days were used to examine attachment orientations and daily transgressions. Participants were recruited in dyads (friends or romantic partners). Though we sampled dyads regardless of sexual orientation, only few homosexual couples participated, which prevented analyses in this sample given limited power. Out of 178 dyads we therefore excluded 30 dyads of friends, 8 homosexual couples and 1 dyad in which only one partner participated in the end-of-day surveys following the initial survey, resulting in a final sample of 139 dyads (N = 278 individuals). The mean age of participants was 46.2 years (SD = 14.4). The mean relationship duration was 18.5 years (SD = 13.6). In the sample, 53.2% held a university degree as highest level of education. Regarding participants' ethnicity, 84.5% of the sample was Caucasian, 2.5% African or African-American, 6.5% Latin or Latin-American, 5.4% Asian or Asian-American and 1.1% indicated "other". In the sample, 73.7% was currently employed, with 9% being full-time students.

Participants were recruited through the survey-based research platform Qualtrics (www.qualtrics.com) in exchange for survey rewards equivalent to $20 for the initial survey and $75 for the daily follow-up per dyad. First, participants completed an initial survey with demographic variables and individual differences measures. Second, participants were asked to complete an end-of-day survey including the assessment of transgressions each day from Monday to Friday over two weeks. On average, participants provided data in 75.74% of the measurement occasions of the daily diary survey.

Individual Differences Measures

Romantic partner attachment orientations. The romantic-partner subscale of the Experiences in Close Relationships-Relationship Structures questionnaire (ECR-RS; Fraley et al., 2011) was used to assess individual differences in attachment orientations towards a romantic partner at baseline measurement. Respondents answered each of the nine items using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale assesses two dimensions of attachment orientation: Attachment-anxiety addresses the issues of being rejected or neglected by one's partner with three items (e.g., "I'm afraid this person may abandon me"). Attachment-avoidance assesses the comfort with emotional intimacy with one's partner with six items (e.g., "I don't feel comfortable opening up to this person"). Higher scores correspond to greater anxiety and avoidance, respectively. The alpha reliability estimate for attachment-avoidance was .92 and for attachment-anxiety was .91.

Daily Diary Measures

Number of perceived partner transgressions. At the end of day, participants were asked "Did your partner hurt or anger you in the past 24 hours?" (*no* = 0, *yes* = 1). The daily occurrences of perceived transgressions were summed up across the 10 days, resulting in a count variable reflecting the total number of transgressions for each individual. Individual counts can range from 0 (indicating no transgressions at all) to 10 (indicating transgressions on every single day).

Reactions to perceived partner transgressions. If participants perceived a partner transgression, they were asked about four typical reactions: revenge, avoidance, benevolence, and rumination. Revenge, avoidance, and benevolence were measured with items from the work by Hoyt, Fincham, McCullough, Maio, and Davila (2005). Four items were used to measure the avoidant reactions toward the partner (e.g., "I kept my distance for a long time", "I didn't want to have anything to do with him/her"). Two items (e.g., "I found a way to make him/her regret it", "I found a way to even the score") were used to measure revengeful reactions. Three items were used to measure benevolent reactions toward the partner (e.g., "I didn't hold it against him/her for long", "I forgave him/her pretty easily"). The items were rated using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Two items ("Thoughts and feelings about how he/she hurt me kept running through my head", "I found it difficult not to think about the hurt that he/she caused me") were used to assess transgression-related rumination (McCullough, Orsulak, Brandon & Akers, 2007). The items were rated on a 6-point scale ranging from 0 (*never*) to 5 (*extremely often*). Intraindividual means were calculated for all four reactions.

Control Variables

Four variables were used as controls in all models. First, we controlled for the number of diary as an individual-level variable to account for potential individual differences in study compliance. Second, we controlled for relationship duration as a dyad-level variable. Research has shown that attachment orientations are related to relationship duration and that attachment bonds in intimate partners develop with time (e.g., Fraley & Davis, 1997). Third, we aimed to show that attachment orientations are valuable predictors of transgression frequency and reactions to transgressions in daily life in dyads with varying levels of relationship satisfaction and thus controlled for relationship satisfaction, assessed by the Relationship Assessment Scale (RAS; Hendrick, Dicke, & Hendrick, 1998) at baseline measurement. Respondents answered each item using a 5-point Likert-type scale ranging

from 1 (*low*) to 5 (*high*). Hence, the higher the score, the more satisfied the respondent is with his/her relationship. The alpha reliability estimate was .91.

Fourth, we controlled for dispositional partner forgivingness using the Marital Forgiveness Scale (MFS; Fincham & Beach, 2002) at baseline measurement in order to be able to provide evidence, that attachment orientations predict daily reactions to transgressions above and beyond trait levels of forgivingness in romantic partners. Participants responded to each item using a 6-point Likert-type scale from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores on the MFS are indicative of a greater tendency to be generally forgiving with one's a partner. The alpha reliability estimate was .83.

Analytic Strategy

We estimated a series of Actor-Partner Interdependence Models (APIMs; Cook & Kenny, 2005). The APIM is an analytical framework to describe interdependent outcomes within dyads while controlling for nonindependence of observations. We estimated APIMs that included the four predictor variables (attachment-avoidance and attachment-anxiety for males and females) and outcomes for both partner. In the APIM framework we estimated actor effects that represent associations between an individual's attachment orientations and his or her dependent variable, and partner effects that capture the associations between the individual's attachment orientations and the partner-reported dependent variable (cf. Cook & Kenny, 2005). We controlled for the number of diary entry, relationship duration, relationship satisfaction, and dispositional romantic forgiveness. To ensure comparability of the estimates of the predictor and control variables, all variables were standardized before entering into the models.

The analyses were conducted in two steps. First, we ran a model to test whether attachment predict the number of perceived partner transgressions in daily life. Because the number of perceived partner transgressions is a count variable that had a low arithmetic mean (see Figure 1), OLS-regression analyses will most certainly produce biased results of model

estimation (cf. Hilbe, 2011). Therefore, we used a negative binomial (NB) model to analyze count data[1]. Note that the (raw) coefficients of the NB model need to be exponentiated (i.e., calculated with the inverse link function) to get estimates on the original scale of the outcome (rate ratios), as negative binomial models connect predictors to dependent variables via a natural logarithm link function and therefore raw coefficients are on the log scale (Atkins & Gallop, 2007). Second, we tested four models to test whether attachment predicts reactions to perceived partner transgressions (with regard to benevolence, avoidance, revenge, and rumination). For these models, normal OLS-regression was employed.

Subsequently, we tested whether the regression coefficients were equal between intimate partners (i.e., women and men). For that purpose, we conducted model comparisons between a constrained model with equal regression coefficients for men and women and one wherein coefficients were estimated freely across gender. For each question below, we will report coefficients of the constrained model unless the freely estimated model provided a significantly better fit. For the count models, this comparison was based on Akaike information criterion (AIC) because chi-square and related fit statistics are not available for count data. Comparing goodness of fit through AIC is common practice in count regression (cf. Hilbe, 2011). For those models based on OLS-regression, comparisons were made by applying a nested chi-square difference test ($\Delta\chi^2$). All analyses were performed with Mplus 7.31 (Muthén & Muthén, 1998-2012), accounting for the presence of missing data by maximum likelihood (ML) algorithm. We examined the chi-square (χ^2; except for the count model), the comparative fit index (CFI), the Akaike information criterion (AIC), and root-mean square error of approximation (RMSEA) statistics, including the 90% confidence intervals.

Results

Table 1 includes descriptive statistics and zero-order correlations among the study variables. Age was positively associated with relationship length, and negatively with

attachment-anxiety. Likewise, relationship length was negatively associated with attachment-anxiety. Gender was not significantly associated with any variables. Finally, dispositional partner forgivingness was positively related with relationship satisfaction and negatively with attachment-avoidance and attachment-anxiety.

Model Selection and Gender (Non-)Equivalence

As a first step, we tested whether the associations between attachment, transgression frequency and each of the four reactions to transgression were equivalent across gender. As can be seen from Table 2, for benevolence, avoidance and rumination we found that the constrained model, with all regression paths set equal across gender, fit the data significantly better than the model that freely estimates parameters separately for men and women. This means that gender does not significantly moderate the effects of attachment predicting benevolence, avoidance, and rumination. Hence, the reported estimates for actor and partner effects are equal across gender when reporting results on benevolence (M4), avoidance (M6) and rumination (M10).

However, we found gender non-equivalence when examining the role of attachment on transgression frequency and revenge. As shown in Table 2, for transgression frequency and revenge, we found that the unconstrained model with all regression paths estimated freely for men and women fit the data significantly better. Differential effects of gender are captured by separate estimates for actor and partner effects in men and women in perceived transgression frequency (M1) and revenge (M7).

Does Attachment Predict Perceived Transgression Frequency?

We found significant actor effects of attachment-avoidance on the number of perceived transgressions in men (Table 3). The rate ratio (RR) of 0.84 (p = .04) reflects that men one *SD* above the mean of attachment-avoidance report 16% less transgressions than those men who are average on avoidance. In line with our hypotheses, higher levels of attachment-avoidance predicted fewer perceived transgressions in men. However, this effect did not reach

significance for women. Attachment-anxiety did not significantly predict higher numbers of perceived transgression, neither for men nor for women.

Does Attachment Predict Reactions to Perceived Transgressions?

We found no significant effects of attachment-anxiety or attachment-avoidance on benevolent reactions (Table 4). However, significant actor and partner effects of attachment-avoidance were found for avoidant reactions. Higher levels of actor ($\beta = .33$, $p < .001$) and partner ($\beta = .37$, $p < .001$) attachment-avoidance were associated with greater avoidance in response to transgressions Moreover, we found a significant actor effect of attachment-avoidance on ruminative reactions ($\beta = .36$, $p < .001$). Higher levels of attachment-avoidance predict higher levels of rumination about the transgression for men and women.

Significant actor ($\beta = .44$, $p < .01$) and partner ($\beta = .40$, $p < .01$) effects of attachment-avoidance were also found for revenge in men, but not in women. Higher actor and partner levels of attachment-avoidance in males predict higher levels of vengeful feelings and thoughts towards his partner. Attachment orientations did not significantly predict revenge in women. For complete results see Table 4.

Discussion

This study extended previous research by examining how attachment orientations in one partner predicted their own and their romantic partners' perception of transgressions, and reactions to these transgressions in everyday life. Consistent with our hypothesis, we found that higher attachment-avoidance was related to a lower number of perceived transgressions in men, though the effect was not significant for women. Partner levels of attachment did not predict the number of perceived transgressions. We found that higher attachment-avoidance was related to more avoidant, revengeful (only for men), and ruminative reactions. In contrast to our hypothesis, attachment-anxiety was not predictive of any of the outcomes of interest.

Attachment orientations were differentially related to perceived transgression frequency. On the one hand, we did not find evidence for an association between attachment-

anxiety and the number of experienced transgressions. Campbell and colleagues (2005) found that attachment-anxiety is positively related to the frequency of perceived conflict in a romantic relationship, underlining the notion that highly anxious individuals may *overdetect* potential cues given their strong motivation to identify abandonment or rejection from their partners. However, this effect was not evident for perceived transgressions in the current work. Alternatively, rather than the absolute amount of days on which transgressions were perceived, it may rather be the variability of perceiving transgressions across time and situations that may be predicted from individual differences in attachment-anxiety. With regard to perceived conflict and further important relational constructs such as relationship satisfaction, closeness or commitment, recent findings indicate that while attachment-avoidance predicts average levels of conflict, attachment-anxiety predicts daily variability in these outcomes (Cooper et al., 2017; Totenhagen et al., 2016). Same processes are highly likely to operate with regard to perceiving transgressions as discrete events within a romantic relationship. Hypervigilance and pronounced mood swings may in that sense rather cause pronounced variability in perceiving partner transgressions, leaving average tendencies (as measured in the current study) potentially unaffected.

On the other hand, we found evidence for a negative association between attachment-avoidance and the number of perceived transgression in men. The more avoidant the male partners were, the fewer transgressions they perceived. This finding supports the notion that attachment-avoidance shapes construal of relationship experiences via defensive processes, which has been studied with experimental designs and under controlled conditions (Chun et al., 2015; Collins et al., 2006; Fraley & Brumbaugh, 2007; Fraley et al., 2000). In contrast to the hypotheses, partner levels of attachment did not predict the number of perceived transgressions. Results suggest that higher levels of attachment insecurity do not account for a higher number of perceived transgressions in one's partner. Even though previous studies evidenced that attachment insecurities manifest in dysfunctional relationship behaviors (which

raise the likelihood of generating hurt feelings in the other partner; Kilmann, Finch, Parnell, & Downer, 2013; Li & Chan, 2012), this association did not become apparent in our results.

However, findings indicate that women's perceived transgression frequency did not vary based on their level of attachment-avoidance. Given that we did not anticipate gender differences, it was surprising this association with avoidance did not hold for women. This differential gender effect though echoes previous studies by showing that attachment-avoidance may manifest differently in women and men (e.g., Li & Fung, 2014). Before one could further speculate about gender differences, this differential association for males and females merits replication and attention in future research (cf. Del Giudice, 2011).

A key question for the current study was whether attachment orientations would shape reactions when a transgression is perceived. Similar to perceived transgression frequency, attachment-anxiety had no association with post-transgression reactions. This may stem from complex and conflicted patterns of relational experience and behavior that are characteristic for attachment-anxiety. Potentially, attachment-anxiety does not predispose a person to be less forgiving in general, but more unpredictable in his or her relational strategies due to the conflicting impulses associated with attachment-anxiety. On the one hand, the more a person is anxiously attached, the more he or she should be drawn to immediate and even premature attempts to forgive due to predominant concerns about abandonment and loss of one's partner (McNulty, 2010). On the other hand, attachment-anxiety is associated with escalating conflict and intensifying negative emotions that accompanies the experienced transgression, impeding forgiveness (Campbell et al., 2005; Overall et al., 2014). Again, these conflicting impulses in those with greater attachment-anxiety may overall account for increased variability and may cancel out leading to no clear association with post-transgression outcomes (cf. Cooper et al., 2017; Totenhagen et al., 2016).

In line with our hypotheses, attachment-avoidance was significantly associated with several reactions in response to a transgression. Attachment-avoidance predicted avoidant

reactions both in terms of actor and partner effects, indicating that rejecting closeness and intimacy impedes forgiveness in a relationship, irrespective if attachment-avoidance stems from the partner that felt transgressed or the partners from whom the transgression was perceived. Results indicate that distancing strategies following a transgression can be driven by one's own as well as by one's partner's levels of attachment-avoidance. Furthermore, we found that men with higher levels of attachment-avoidance showed more vengeful reactions. In addition, we also found a partner effect of attachment-avoidance on vengeful reactions for men. However, attachment-avoidance did not predict revengeful reactions in women. This finding is consistent with research showing gender differences in revenge (Ghaemmaghami, Allemand, & Martin, 2011; Miller, Worthington & McDaniel, 2008). Taking revenge in a response to hurt feelings reinforces and prolongs hurt and negative affect in a relationship. Amongst many other factors, revenge may then account for the frequently observed relation between attachment-avoidance and negative relationship outcomes such as decreased relationship satisfaction, mutual trust and caring or even the occurrence of physical and psychological aggression (Li & Chan, 2012).

In addition, greater attachment-avoidance predicted more ruminative reactions, in contrast with our hypothesis. Furthermore, greater attachment-anxiety did not predict heightened rumination about the transgression. These findings ran counter to the extant literature that has suggested attachment-anxiety, but not attachment-avoidance was associated with stronger ruminative tendencies at the dispositional level (Chung, 2014). However, in the current study, we did not assess dispositional rumination but looked at immediate rumination following an actually experienced transgression. When measured as a reaction to a relational transgression, rumination may also feature aspects of detachment and deactivation which are characteristic for attachment-avoidance (Mikulincer & Nachshon, 1991; Reynolds, Searight, & Ratwik, 2014). Rumination is often self-focused and stands in contrast to emotion regulation strategies based on positive reciprocity and interpersonal exchange (cf. Nolen-

Hoeksema et al., 2008). Transgression-related rumination may indicate withdrawn cognitive engagement with the experienced transgression that might also go hand-in-hand with unforgiving reactions such as exacting revenge, which was also found to be related to attachment-avoidance. Finally, even though some of the control variables were significantly related to the outcomes of interest, the associations between attachment-avoidance and perception of transgressions as well as subsequent reactions did hold. As a finding, this demonstrates once more the high relevance of attachment-orientations for relationship repair processes for couples during relational distress.

Taken together, greater attachment-avoidance was predictive of more "unforgiving" reactions to transgressions. In that sense, lower levels of avoidance might function as a resource, which allows romantic partners to overcome transgressions quite easily. Both partners' attachment-avoidance seem crucial, emphasizing reciprocity and dyadic exchange processes in coping with relational transgressions in romantic partnership. Research has shown that forgiveness in the person that felt hurt is eased if the "offender" apologizes, openly expresses empathy and self-discloses about inner states of mind (Fincham, 2000). The stronger an individual's attachment-avoidance, the less likely these intimacy-creating overtures are shown, making it more difficult to be forgiving with a more avoidant partner. Results indicate that heightened levels of attachment-avoidance in only one partner of the dyad interrupt benign cycles of relationship maintenance.

Limitations, Contributions, and Conclusion

The present study is limited in ways that should promote future research. In this study, we assessed transgression frequency in terms of the number of days on that transgressions were perceived (sum-score across days) and post-transgression reactions (mean across days, when transgressions were perceived). In future studies, assessing more detailed information on precursors, consequences, and of the transgressive event itself with extended sampling duration would allow for more in-depth analyses on how attachment orientations may

manifest in perception of partner transgressions. In addition, future studies should make use of a fully dyadic approach when measuring transgressions and not only ask if individuals have experienced a transgression, but also ask whether they have actively transgressed against their partner. This information then could be used to address issues of similarity and synchronicity of self and partner perspectives on transgressions in daily life. It would be also important to consider interaction effects of both partners' attachment orientation on the perception and reaction towards transgressions. In line with that, we assessed the reactions to transgressions only one time per day. It would be worthwhile to follow each experienced transgression with multiple repeated assessments.

Despite these limitations, the present work makes novel contribution to the field in at least two ways. First, it addresses the role of attachment in the context of interpersonal functioning in romantic relationships by linking attachment orientations to transgressions situated in couple's authentic life. By examining potential outcomes of attachment in *life as it is lived* in romantic partners, this strategy of daily sampling moves attachment research once more from lab to life (Reis, 2012). Second, we employed advanced analytic strategies (count models) to predict transgression frequency. These strategies are appropriate to study infrequent behavioral outcomes; but they are still relatively seldom used in psychological research (Atkins & Gallop, 2007; Hilbe, 2011). Moreover, we adapted this modeling approach to the field of dyadic data analyses. Especially when studying events of low frequency such as transgressions (see Figure 1), count modeling is a methodologically adequate and rigorous approach to examine these, on average, rarely occurring, but nonetheless important features of romantic relationships.

In addition, the results underline the predictive value of individual differences in attachment orientations for perceiving and dealing with relational transgression, even after including several control variables, such as relationship duration, relationship satisfaction or dispositional levels of partner forgivingness. Results once more demonstrate the value of

using attachment theory as a framework to understand dyadic relationship repair processes in couples' everyday life. In that sense, our results suggest that practitioners should be particularly mindful of accounting for both partner's attachment orientations when working with clients on relational transgressions and ways of overcoming past transgressions.

The present study supports the assumption that individual differences in attachment orientations are important in the context of perceiving and dealing with transgressions in romantic relationships in daily life. Results support the notion that forgiveness in romantic couples is a dyadic process, strongly affected by interpersonal exchange processes and the amount of attachment-avoidance in both partners. This is in line with previous research, evidencing detrimental effects of attachment-avoidance for dyadic adjustment and adaptive relationship processes. Finally, an enhanced understanding of those factors that influence both the perception of transgressions and the reactions thereafter has clinical relevance and implication for both counseling and therapy with couples and individuals. When working on transgression-related repair processes in a couple, both partners' attachment-avoidance seem to be worth considering, as no matter if avoidance is displayed by the actor or partner, it is able to shun closeness within a dyad after the occurrence of hurt feelings. However, the complex implications of attachment-anxiety for couple dynamics that may have not been fully captured with the research design of the current study should not be ignored in future research and clinical practice. To date, several attachment theory-informed programs helping clients overcome hurt feelings in romantic relationships have been developed (e.g., Zuccarini, Johnson, Dalgleish, & Makinen, 2013). These programs may further benefit from having both partners actively involved, reflecting upon their attachment orientations and how this might affect how they perceive and deal with transgressions in their relationships, both as *actor* and *partner*.

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Table 1. Descriptive Statistics and Zero-Order Correlations among the Study Variables

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.	Age	-										
2.	Gender	-.08	-									
3.	Relationship duration	.73**	.01	-								
4.	Attachment-avoidance	.10	-.11	.03	-							
5.	Attachment-anxiety	-.12*	-.04	-.19**	.51**	-						
6.	Marital forgiveness	.64	-.19	.10	-.42**	-.30**	-					
7.	Relationship satisfaction	-.06	-.02	-.02	-.65**	-.45**	.47**	-				
8.	Benevolence	.04	-.08	.16	-.17*	-.24**	.09	.17*	-			
9.	Avoidance	-.07	-0.2	-13	.50**	.34**	-.33**	-34**	-27**	-		
10.	Revenge	-.12	-.14	-.18*	.40**	.29**	-.24**	-22**	-.18*	.82**	-	
11.	Rumination	-.13	-.10	-.16	.44**	.23**	-.29**	-.24**	-.14	.75**	.67**	-
M		46.23	-	18.44	2.29	2.40	4.60	4.18	3.24	2.30	1.82	2.40
SD		14.35	-	13.49	1.23	1.66	0.92	0.84	1.64	1.41	1.35	1.38

Note. N = 139 dyads; men = 1, women = 0; * = $p < .05$; ** = $p < .01$.

Table 2. Model Fits of APIMs

Model	Outcome	χ^2 (df)	AIC	CFI	RMSEA (90% CI)	Δ Models	$\Delta\chi^2$ (Δdf)
M1	*Transgression Frequency* [a]	-	4484.99	-	-	-	-
M2	Transgression Frequency [b]	-	4508.84	-	-	*M1* – M2	-
M3	Benevolence [a]	0.00 (0)	-	1.00	.00 [.00 - .00]	-	-
M4	*Benevolence* [b]	6.81 (11)	-	1.00	.00 [.00 - .06]	M3 – *M4*	36.81 (11)
M5	Avoidance [a]	0.00 (0)	-	1.00	.00 [.00 - .00]	-	-
M6	*Avoidance* [b]	11.37 (11)	-	1.00	.02 [.00 - .09]	M5 – *M6*	11.37 (11)
M7	*Revenge* [a]	0.00 (0)	-	1.00	.00 [.00 - .00]	-	-
M8	Revenge [b]	20.18 (11)	-	0.88	.08 [.01 - .13]	*M7* – M8	20.18* (11)
M9	Rumination [a]	0.00 (0)	-	1.00	.00 [.00 - .00]	-	-
M10	*Rumination* [b]	3.82 (11)	-	1.00	.00 [.00 - .00]	M9 – *M10*	3.82 (11)

Note. N = 139 dyads; [a] = Unconstrained model; [b] = all regression coefficients are constrained to be equal for men and women. χ^2 (df) = chi square and degrees of freedom; AIC = Akaike Information Criterion; CFI = comparative fit index; RMSEA = root mean squared of approximation; 90% CI = 90% confidence intervals for RMSEA; Δ Models =comparison of models; $\Delta\chi^2$ (Δdf) = difference in chi square; italic letters mark superior fit as indicated by model comparison. *p < .05; **p <.01.

Table 3. Results from M1 on Transgression Frequency

Outcome	Predictor	b	95% CI	RR
Transgression Frequency ♂	AV ♂	-0.18*	[-0.32 - -0.04]	0.84
	ANX ♂	-0.09	[-0.19 - 0.01]	0.92
	AV ♀	-0.04	[-0.17 - 0.10]	0.96
	ANX ♀	-0.04	[-0.11 - 0.03]	0.96
	NDE ♂	-1.56**	[-1.96 - -1.16]	0.21
	RAS♂	-0.26*	[-0.39 - -0.12]	0.77
	MF♂	-0.11	[-0.23 - 0.02]	0.90
	RAS ♀	0.07	[-0.09 - 0.24]	1.08
	MF ♀	-0.12	[-0.23 - -0.01]	0.89
	RD	-0.08	[-0.21 - 0.05]	0.92
Transgressions Frequency ♀	AV♀	-0.01	[-0.19 - 0.18]	0.94
	ANX♀	-0.01	[-0.13 - 0.11]	0.90
	AV♂	-0.06	[-0.26 - 0.14]	1.00
	ANX♂	-0.17	[-0.32 - 0.03]	0.99
	NDE♀	-0.70**	[-0.06 - -0.23]	0.34
	RAS♀	0.83	[-0.79 - -0.62]	0.98
	MF♀	-0.43	[-0.20 - 0.12]	0.89
	RAS♂	-0.20	[-0.27 - 0.07]	0.77
	MF♂	-0.13	[-0.26 - -0.01]	0.95
	RD	-0.02	[-0.15 - 0.11]	0.85

Note. N = 139 dyads; b = unstandardized b, from which Rate Ratios can be calculated; RR= Rate Ratio; ♀ = women; ♂ = men; NDE = number of diary entries; MF = marital forgivingness; RD = Relationship duration; RAS = Relationship satisfaction; bold letters highlight significant results. *p < .05; **p < .01.

Table 4. Results from M4, M6, M7 and M10 on Reactions to Transgressions

Model	Outcome	Predictor	β	95% CI
M4	Benevolence	Avoidance self	-0.02	[-0.20 - 0.16]
		Anxiety self	-0.10	[-0.24 - 0.02]
		Avoidance partner	-0.16	[-0.36 - 0.03]
		Anxiety partner	-0.07	[-0.21 - 0.08]
		RAS self	-0.06	[-0.22 - 0.11]
		MF self	-0.06	[-0.20 - 0.09]
		RAS partner	-0.00	[-0.17 - 0.17]
		MF partner	0.23	[-0.09 - 0.37]
		RD	0.11	[-0.04 - -0.27]
		NDE self	0.10	[0.01 - -0.20]
		NDE partner	-0.05	[-0.05 - 0.15]
M6	Avoidance	Avoidance self	0.33**	[0.18 - 0.48]
		Anxiety self	0.10	[-0.02 - 0.23]
		Avoidance partner	0.37**	[0.20 - 0.53]
		Anxiety partner	0.00	[-0.13 - 0.12]
		RAS self	0.11	[-0.04 - 0.25]
		MF self	-0.11	[-0.23 - 0.02]
		RAS partner	0.14	[-0.01 - 0.29]
		MF partner	-0.19	[-0.31 - -0.07]
		RD	-0.12	[-0.26 - 0.02]
		NDE self	0.03	[-0.06 - 0.12]
		NDE partner	0.06	[-0.03 - 0.15]
M7	Revenge ♂	Avoidance ♂	0.44**	[0.19 - 0.69]
		Anxiety ♂	0.05	[-0.13 - 0.24]
		Avoidance ♀	0.40**	[0.18 - 0.63]
		Anxiety ♀	-0.09	[-0.24 - 0.06]
		RAS ♂	0.11	[-0.14 - 0.36]
		MF ♂	-0.09	[-0.29 - 0.11]
		RAS ♀	0.33*	[0.11 - 0.54]
		MF ♀	-0.19	[-0.35 - -0.03]
		RD	-0.09	[-0.24 - 0.07]
		NDE ♂	0.24*	[0.09 - 0.38]
		NDE ♀	-0.06	[-0.20 - 0.08]
M7	Revenge ♀	Avoidance ♀	0.17	[-0.07 - 0.41]
		Anxiety ♀	0.08	[-0.09 - 0.25]
		Avoidance ♂	0.26	[-0.03 - 0.54]
		Anxiety ♂	-0.14	[-0.35 - 0.06]
		RAS ♀	0.30*	[0.07 - 0.53]
		MF ♀	-0.13	[-0.31 - 0.06]
		RAS ♂	0.03	[-0.25 - 0.31]
		MF ♂	-0.38*	[-0.58 - -0.18]
		RD	-0.30*	[-0.47 - -0.13]
		NDE ♀	0.03	[-0.14 - 0.19]
		NDE ♂	0.14	[-0.01 - 0.30]

M10	Rumination	Avoidance self	0.36**	[0.21	-	0.52]
		Anxiety self	0.01	[-0.12	-	0.14]
		Avoidance partner	0.17	[0.00	-	0.35]
		Anxiety partner	0.10	[-0.03	-	0.23]
		RAS self	0.17	[0.02	-	0.32]
		MF self	-0.07	[-0.20	-	0.07]
		RAS partner	0.03	[-0.13	-	0.19]
		MF partner	-0.12	[-0.25	-	0.01]
		RD	-0.14	[-0.29	-	0.00]
		NDE self	0.02	[-0.08	-	0.12]
		NDE partner	0.06	[-0.04	-	0.15]

Note. N = 139 dyads; ♀ = women; ♂ = men; NDE = number of diary entries; MF = marital forgivingness; RD = Relationship duration; RAS = Relationship satisfaction. *p < .05, **p < .01.

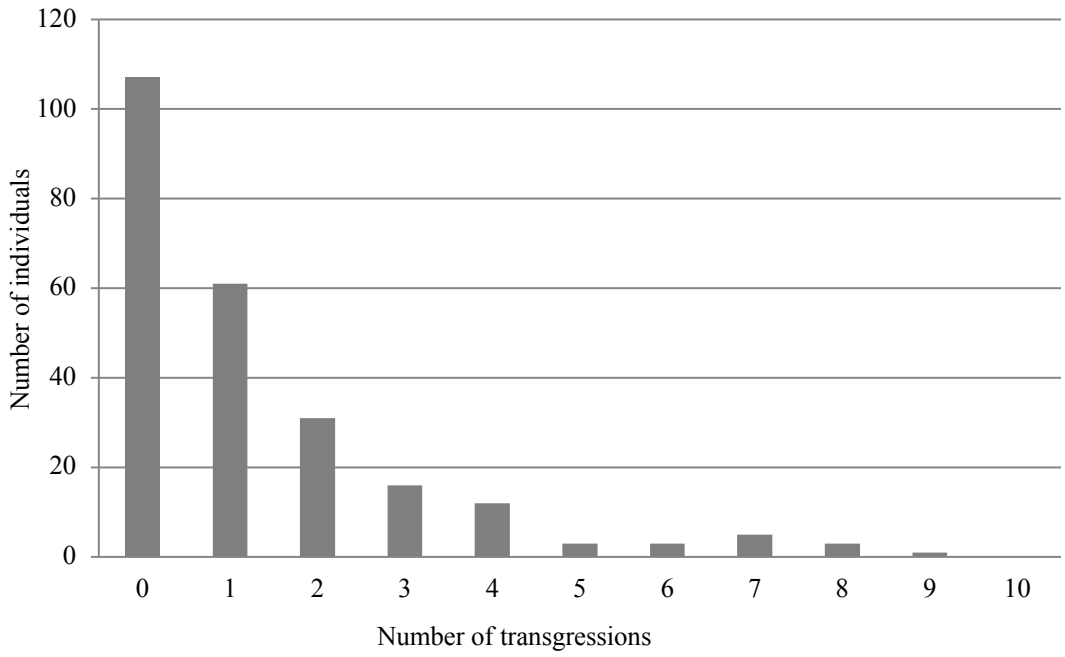

Figure 1. Frequency of transgressions (*N* = 139 dyads, with n = 139 woman and n = 139 men); mean number of transgressions is 1.32 (*SD* = 1.82).

Footnotes

[1] Negative binomial models estimate the log of the expected counts, given the value of the predictor variable. They have maximal statistical power while maintaining the proper Type 1 error rate, when the outcome is a count with a low arithmetic mean. Coefficients in count models represent the difference in the expected log-count of one level in the predictor variable compared with another in the predictor. To facilitate interpretation, coefficients can be transformed to Rate ratios (RRs). RRs are the exponentiated coefficients of the model parameters and are much more intuitive to interpret than raw coefficients (representing log-counts). The link function relates the metric of the predicted counts to the metric of observed counts. Rate Ratios of the predictors indicate the expected difference of the outcome based on changes in one or more explanatory predictors.