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*Journal of Social and Personal Relationships* 2013 30: 647 originally published online 21 November 2012  
DOI: 10.1177/0265407512465221

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# Insecure attachment predicts ambivalent social threat and reward perceptions in romantic relationships

Journal of Social and  
Personal Relationships  
30(5) 647–661

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DOI: 10.1177/0265407512465221

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## Abstract

Although theoretical perspectives on adult attachment forward relational ambivalence as a defining characteristic of at least some forms of insecurity, work demonstrating an ambivalent structure to the relational attitudes of insecure individuals has been rare. The current research examines the similarity and intensity of perceptions of social threat (i.e., concerns over rejection) and social reward (i.e., opportunities for intimacy) in romantic relationships. Using a sample of 1004 participants, evidence for relational ambivalence was found for both anxious and avoidant attachment. Individuals high in anxious attachment reported relatively similar and intense threat and reward perceptions, whereas individuals high in avoidant attachment showed evidence of similar, but not intense, threat and reward perceptions. Thus, the weighing of prospects for rejection and intimacy in romantic relationships arguably leads to what researchers traditionally think of as ambivalence for those high in attachment anxiety, but something more akin to indifference for those high in attachment avoidance. More broadly, this work provides a set of tools and methods for carefully examining ambivalence in close relationships.

## Keywords

Attachment, intimacy

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The current research examined the link between attachment insecurity and ambivalent perceptions of social threat and social reward in romantic relationships. Ambivalence involves the presence of strong positive and negative views on an issue simultaneously (Kaplan, 1972). The state of ambivalence is associated with notable emotional discomfort, especially when both positive and negative components of an attitude are accessible at once (Newby-Clark, McGregor, & Zanna, 2002). From its inception, attachment theory has suggested that individuals with more insecure, and particularly anxious, patterns of attachment are likely to hold ambivalent attitudes toward attachment figures (e.g., Bowlby, 1982). For example, one observation that emerged from the original strange situation task research of Ainsworth, Blehar, Waters, and Wall (1978) was that anxious babies often exhibited confused behavior on their mothers' return. Anxious babies were particularly likely to alternate between clinging to their mothers and pushing them away. Ainsworth concluded that anxiously attached children view their attachment figures as inconsistent and unpredictable; approaching the caregiver is sometimes rewarding, sometimes punishing, yet being separated from the caregiver feels dangerous. Indeed, these children were explicitly labeled as *anxious ambivalent*.

## Ambivalence and adult attachment

As researchers moved to examine the attachment patterns in adult romantic relationships, the notion of anxiously attached individuals holding ambivalent attitudes toward attachment figures (especially romantic partners) was retained (e.g., Collins & Read, 1990; Hazan & Shaver, 1987). Research on adult attachment has suggested that insecure patterns of attachment in adulthood can be characterized along two dimensions: anxiety and avoidance (for a review, see Mikulincer & Shaver, 2007). Anxiously attached individuals appear to be in a relatively chronic state of emotional distress, prompting a continual hypervigilance for threat and constant appeals to others for support (e.g., Feeney, 2004). Avoidantly attached individuals endorse independence and self-reliance and experience relatively low levels of intimacy and connection in their close relationships (e.g., Fraley & Davis, 1997).

Despite theorizing the theoretical importance of ambivalence toward romantic partners in attachment, there had been surprisingly little direct evidence for ambivalence toward romantic relationships among anxiously attached adults until recently. That is, the existing research generally failed to test for ambivalence with statistical methods developed in the attitudes literature and used as standards of evidence for ambivalence. This was despite a number of studies providing indirect support including research showing that anxiously attached individuals report potentially conflicting attitudes regarding topics ranging from feelings of gratitude and forgiveness (Mikulincer, Shaver, & Slav, 2006) to sex (Birnbau, Reis, Mikulincer, Gillath, & Orpaz, 2006).<sup>1</sup> For example, Joel, MacDonald, and Shimotomai (2011) explained the lack of a consistent relationship between anxious attachment and commitment to a romantic partner in terms of commitment ambivalence. In particular, these authors showed that anxiously attached individuals' perceptions of low positive regard from partners placed downward pressure on commitment which was cancelled out by feelings of needy dependence that placed

simultaneous upward pressure on commitment. Mikulincer, Shaver, Bar-On, and Ein-Dor (2010) recently addressed the lack of direct evidence for anxious ambivalence with an impressive series of studies. Their research showed that anxiously attached individuals report relatively strong positive and negative explicit attitudes toward closeness with a romantic partner and also evidence conflicting implicit approach and avoidance motives regarding romantic closeness.

In contrast to the attention given to anxious attachment, much less theoretical and empirical work has been directed at the possibility that individuals high in avoidant attachment may experience ambivalence. Given the tendency of those high in avoidance to inhibit experiences and expressions of emotional distress (e.g., Mikulincer, Gillath, & Shaver, 2002), it seems unlikely that avoidant individuals would be strong candidates for conscious experiences of relationship ambivalence. However, the combination of a strong, unmet need for belonging (Carvallo & Gabriel, 2006; MacDonald & Borsook, 2010) with powerful inhibitions in the approach of intimacy (Locke, 2008) may well provide the basis for some form of ambivalence toward romantic partners among those high in avoidant attachment. Mikulincer et al. (2010) failed to find consistent evidence of ambivalence on the part of those high in avoidant attachment. However, an important issue with their work is that their measure of ambivalence is difficult to interpret, as explained below.

## **Social threat and reward**

In the current research, we focus on the ambivalence that may arise from strong perceptions of important threats and rewards in romantic relationships. Research on the regulation of social behavior has arguably focused more exclusively on the influence of threat perceptions, such as rejection and negative evaluation (e.g., Arriaga, Slaughterbeck, Cappelz, & Hmurovic, 2007; Dandeneau, Baldwin, Baccus, Sakellaropoulou, & Pruessner, 2007; Murray, Holmes, & Collins, 2006). Of course, a body of research has centered on relationship rewards, such as closeness and intimacy (e.g., Aron et al., 2000), but there are very few studies that examine the simultaneous operation of threats and rewards in romantic relationship contexts (e.g., Lewandowski & Ackerman, 2006; Spielmann, MacDonald, & Tackett, 2012). In particular, little research has examined the possible tension that could result from being simultaneously concerned about both obtaining emotional rewards from one's partner and avoiding emotional threats from one's partner. According to research on ambivalence more generally, the tension that ambivalence creates can have a number of negative consequences, such as feelings of discomfort (van Harreveld, Rutjens, Rotteveel, Nordgren, & van der Pligt, 2009) and more extreme, inconsistent behavior (e.g., Armitage & Conner, 2000; Bell & Esses, 2002). Given that such consequences could well be damaging for romantic relationships, it is important to examine who might be vulnerable to feelings of ambivalence regarding their relationships.

In the current research, we sought to examine whether attachment insecurity would be associated with an ambivalent structure in attitudes regarding social threat and reward in romantic relationships. That is, we tested the question of whether higher degrees of attachment insecurity would be associated with ambivalent perceptions of social threat

(i.e., negative evaluation) and social reward (i.e., closeness and intimacy) in a romantic relationship. Consistent with Mikulincer et al. (2010), we hypothesized that anxious attachment would predict more ambivalent perceptions of social threat and reward regarding romantic partners. Our analyses for those high in avoidant attachment were more exploratory.

## Measurement of ambivalence

Various formulas exist for computing the overall ambivalence from separate positive (POS) evaluations and negative (NEG) evaluations (Thompson, Zanna, & Griffin, 1995); all yielding virtually identical results. Currently, the most popular formula is

$$\text{Ambivalence} = \text{POS}/2 + \text{NEG}/2 + \text{similarity} \quad (1)$$

where similarity is the inverse of the absolute difference between POS and NEG (i.e.,  $-|\text{POS} - \text{NEG}|$ ). Unfortunately, like all indices of overall ambivalence, this index is difficult to interpret because there are multiple ways a person could obtain a high score (Locke & Braun, 2009). That is, any component of the formula could be responsible for a higher ambivalence score. Higher ambivalence could be attributable to more POS, more NEG, more POS – NEG similarity, or some combination of these. Even within the similarity component of the formula, there are multiple ways a higher ambivalence score could result. Among people with stronger POS than NEG evaluations (*POS > NEG respondents*), experiencing either more NEG or less POS increases similarity. For example, if the average scores for POS > NEG respondents are 6 on a 7-point POS scale and 3 on a 7-point NEG scale, an individual may score higher on the similarity component of the formula (and thus higher in ambivalence) either from a 5 on POS or a 4 on NEG. That is, two respondents can have identical similarity scores, but for two different reasons. Conversely, among people with stronger POS than NEG evaluations (*NEG > POS respondents*), experiencing either more POS or less NEG increases similarity. If researchers only report differences in overall ambivalence, then we cannot identify which (or which combination) of these processes explains the differences.

For example, Mikulincer et al. (2010, studies 1, 2, and 4) asked participants to pull a lever or push a lever upon recognizing words, including words related to closeness (e.g., “hug”). To assess ambivalence toward closeness, they applied equation (1) to participants’ reaction times to closeness words, with pulling speed as the “POS” (approach) response and pushing speed as the “NEG” (avoidance) response. They found that greater attachment anxiety predicted greater ambivalence toward closeness (especially after imagining a relationship beginning or ending). However, because they only reported overall ambivalence, we do not know whether anxious participants showed more ambivalence because they pulled quicker, pushed quicker, or showed more similar pushing and pulling speeds. Moreover, if they showed greater response similarity, was that because (a) among people who pushed quicker than they pulled, the more anxious pushed slower or pulled quicker (either will increase response similarity) or (b) among people who pulled quicker than they pushed, the more anxious pulled slower or pushed quicker (again, either will increase response similarity), or both? Answering these questions would provide a more complete understanding of the processes underlying ambivalence.

In the current study, we examine the effects of attachment style on social threat and reward perceptions. To facilitate comparison of our results with those of prior studies, we will report how attachment influences overall reward–threat ambivalence as defined in equation (1); but to identify precisely why insecure attachment styles do and do not predict ambivalence, we will also conduct more detailed analyses. Locke and Braun (2009) have offered one analytic procedure that distinguishes the potential sources of ambivalence; however, their procedure is most applicable when (a) ambivalence is conceptualized as a predictor variable and (b) the numbers of POS > NEG respondents and NEG > POS respondents are not too imbalanced. In our current study, (a) ambivalence about one’s current relationship (a state) is conceptualized as the outcome rather than the predictor of attachment style (a trait) and (b) POS > NEG respondents far outnumbered NEG > POS respondents. Therefore, we could not use Locke and Braun’s analytic procedure. Nonetheless, we accomplished the same ends by testing the effects of attachment on each distinct component of ambivalence (POS, NEG, and Similarity), and also testing these effects separately in the subsample of POS > NEG respondents and subsample of NEG > POS respondents. The current research was conducted using three samples, which we combined into one study for the sake of brevity.

## Methods

### Participants

Participants in all samples self-identified as currently being in a romantic relationship. Sample 1 consisted of 80 individuals (65 women and 15 men) recruited from the University of Toronto psychology participant pool with an average age of 20 years old (range = 18–37) and an average relationship duration of 20 months (range = 1–192 months). We recruited participants in samples 2 and 3 for studies on romantic relationships through online bulletin boards, such as craigslist.org. In exchange for participation, we entered participants into a draw for a \$50 Amazon.com gift certificate. Sample 2 participants were 133 individuals (106 women, 26 men, and 1 gender not identified) with an average age of 31.5 years (range = 14–61 years) and an average relationship length of 33 months (range = 0–251 months). Sample 3 participants were 798 individuals (610 women, 172 men, and 16 gender not identified) with an average age of 26.4 years (range = 17–65 years) and an average relationship duration of 15.5 months (range = 0–532 months). The three samples did not differ significantly on anxious attachment, social threat, or social reward. There was some difference between samples on avoidant attachment,  $F(2, 1006) = 3.92, p = .02$ , with sample 3 ( $M = 3.30$ ) scoring significantly higher than sample 1 ( $M = 3.11$ ) but neither differing significantly from sample 2 ( $M = 3.21$ ).

### Measures

**Attachment Style Questionnaire.** The attachment style questionnaire (Feeney, Noller, & Hanrahan, 1994) is a 40-item questionnaire with scales designed to measure the two attachment dimensions. Anxious attachment is measured with 13 items (e.g., “I find that

**Table 1.** Zero-order correlations among (and descriptive statistics for) the measures.

	Anxious attachment	Avoidant attachment	Reward	Threat
Anxious attachment	–			
Avoidant attachment	.49	–		
Reward	–.09	–.24	–	
Threat	.44	.31	–.05	–
<i>M</i>	3.21	3.28	4.27	2.75
<i>SD</i>	.85	.65	.74	.91
<i>N</i>	1009	1009	1004	1004

Note. Attachment scores represent mean ratings on 1–6 scales. Reward and threat scores represent mean ratings on 1–5 scales. All *rs* (except that between reward and threat) are significant at  $p < .01$ .

others are reluctant to get as close as I would like”), Cronbach’s  $\alpha = .87$ . Avoidant attachment is measured with 16 items (e.g., “I find it difficult to depend on others”), Cronbach’s  $\alpha = .82$ . Responses were provided on a six-point scale (1 = *totally disagree* to 6 = *totally agree*)

*Perceptions of social threat and reward in relationships.* The social threat and reward scales for current romantic relationships (STARS-RC) were devised by Spielmann, MacDonald, and Tackett (2012). The STARS-RC assesses perceived social threat with six items (e.g., “I worry what my partner thinks about me”), Cronbach’s  $\alpha = .82$  and perceived social reward with nine items (e.g., “My partner and I have a meaningful connection”), Cronbach’s  $\alpha = .90$ . Participants responded on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*). We used these scales to compute each participant’s *Similarity* and *Ambivalence* scores as follows: Similarity =  $- | \text{Social Threat} - \text{Social Reward} |$ ; Ambivalence =  $\text{Threat}/2 + \text{Reward}/2 + \text{Similarity}$ .

## Procedure

Sample 1 participants arrived at the laboratory for a study on romantic relationships. After completing a questionnaire package, including the measures listed above, participants were thanked and debriefed. Online participants (samples 2 and 3) completed the questionnaires over the Internet as part of a larger package of relationship-relevant surveys.<sup>2</sup>

## Results

Table 1 shows descriptive statistics and correlations for all the study measures. All of the analyses below involved regression of the outcome variable on (standardized) attachment anxiety and attachment avoidance simultaneously. (We also tested the anxiety  $\times$  avoidance interaction, but omitted it from the following analyses because it yielded no significant effects.) Of the 1004 usable participants, there were 122 Threat > Reward respondents, 862 Reward > Threat respondents, and 20 respondents who perceived equal levels of threat and reward. Threat > Reward respondents reported

**Table 2.** Effects of attachment anxiety and avoidance on relationship threat, reward, and ambivalence.

	Anxiety			Avoidance		
	<i>b</i>	<i>SE</i>	<i>sr</i> <sup>2</sup>	<i>b</i>	<i>SE</i>	<i>sr</i> <sup>2</sup>
Threat > reward participants						
Threat	.26*	.11	.04	-.11	.11	.01
Reward	.20 <sup>†</sup>	.11	.03	-.04	.11	.00
Similarity	-.10	.11	.01	.12	.11	.01
Ambivalence	.15	.11	.02	.00	.11	.00
Reward > threat participants						
Threat	.39**	.03	.12	.07 <sup>†</sup>	.03	.00
Reward	.11**	.04	.01	-.21**	.04	.04
Similarity	.26**	.04	.05	.20	.04	.03
Ambivalence	.36**	.03	.10	.12*	.03	.01
All participants						
Threat	.39**	.03	.11	.12**	.03	.01
Reward	.03	.04	.00	-.25**	.04	.05
Similarity	.26**	.03	.05	.24*	.03	.04
Ambivalence	.36**	.03	.10	.16**	.03	.02

*SE*: standard error.

Note. *bs* are standardized regression coefficients; *sr*<sup>2</sup> shows the proportion of variance uniquely explained by that predictor.

<sup>†</sup>*p* < .10.

\**p* < .05.

\*\**p* < .005.

more attachment insecurity than Reward > Threat respondents (logistic regression *bs* for anxiety and avoidance = .48 and .59, standard errors (*SEs*) = .12, and *p*<sub>WaldS</sub> < .001).

First, we tested effects of attachment insecurity on ambivalence and its components among Threat > Reward respondents. Table 2 shows the results. Avoidance did not predict perceived threat or reward and consequently also did not predict similarity or overall ambivalence. Greater anxiety predicted greater threat and marginally greater reward. Among Threat > Reward respondents, similarity is related positively to reward but negatively to threat; because anxiety elevated threat more than reward, anxious people did not experience greater threat–reward similarity or greater overall ambivalence.

Next, we tested the effects of attachment insecurity among Reward > Threat respondents. Table 2 (rows 7–10) shows the results. Among Reward > Threat respondents, more threat or less reward increases reward–threat similarity. Although anxiety increased perceived rewards (thereby reducing similarity), it elevated perceived threats (thereby increasing similarity) even more; thus, the net effect of anxiety on similarity was positive. Avoidance predicted marginally greater threat and significantly less reward. Consequently, avoidance also predicted greater similarity, but for different reasons than did anxiety: whereas anxiety increased reward–threat similarity by heightening perceived threats, avoidance increased reward–threat similarity primarily by



reducing perceived rewards. Both anxiety and avoidance predicted overall ambivalence; however, anxiety was the stronger predictor because anxiety was positively related to all three elements of ambivalence (threat, reward, and similarity), while avoidance was significantly positively related to only one element of ambivalence (and was negatively related to others).

Finally, we tested the effects of attachment insecurity in the complete sample. Table 2 (rows 12–1512) shows the results. Because 86% of all the participants were Reward > Threat respondents, these results closely mirrored those just reported for Reward > Threat respondents. Perceived threat was positively related to anxiety and, to a lesser extent, avoidance. Perceived reward was negatively related to avoidance and unrelated to anxiety. Finally, similarity was positively related to both anxiety and avoidance. In total, anxiety had strong positive associations with two of the three elements of ambivalence; avoidance was also positively associated with two elements of ambivalence but was negatively associated with the third element. Consequently, both anxiety and avoidance predicted overall ambivalence, but anxiety was the stronger predictor.

## Discussion

### *Summary of results*

To summarize, both attachment anxiety and (to a lesser degree) attachment avoidance predicted more ambivalence toward one's current relationship among respondents who perceived more rewards than threats in their relationship (and the large majority of respondents, even insecure ones, perceived more rewards than threats). Closer analysis of these respondents showed that anxiety and avoidance predicted ambivalence for different reasons. Anxiety increases ambivalence mainly because it increases perceived threats, thereby increasing the intensity of feelings about the relationship and elevating the level of perceived threats closer to the level perceived rewards. In contrast, avoidance increases ambivalence mainly because it decreases perceived rewards, thereby reducing the level of perceived rewards close to the level of perceived threats. The study's large sample size provides particularly high degrees of confidence to these findings.

**Attachment anxiety.** Our findings for attachment anxiety—i.e., anxiety mainly amplifies social threat perceptions, and as a consequence increases reward–threat similarity and ambivalence—are consistent with previous findings. Several studies have reported that anxious attachment more strongly predicts perceptions of social threats than social rewards (e.g., Spielmann, Maxwell, MacDonald, & Baratta, 2013). Locke (2008) found that during interactions with a romantic partner, attachment anxiety predicted experiencing more intense interpersonal approach and avoidance goals, and generally had stronger effects on goals to avoid threats (i.e., *not* to feel rejected) than goals to approach rewards (i.e., to feel warmly connected). Across six studies, Mikulincer et al. (2010) found that anxiously attached individuals experienced more ambivalence toward their romantic partners and toward closeness more generally; however, as noted earlier, their

studies reported only overall ambivalence, which may reflect several distinct processes. Our data added to the previous findings, suggesting that the primary source of romantic ambivalence for most anxious individuals is intense threat perceptions, with similarity between approach and avoidance tendencies being a secondary consequence.

*Attachment avoidance.* The current data also revealed an association between avoidant attachment and ambivalence, although a weaker association than that between ambivalence and anxiety, and one driven primarily by a dampening of perceived rewards. Given that the avoidant form of ambivalence involves high similarity, but not strong intensity, it is possible that avoidants are attempting to assume a position of indifference. Perceptions of reward that far outstrip perceptions of threat may provide relational approach motivation that avoidants would find dangerously incompatible with their deeper fears of abandonment. Spielmann, Maxwell, et al. (2013) argue that individuals high in avoidant attachment may distort perceptions of reward potential downward in order to provide a justification for social withdrawal that does not require them to consciously access feelings of threat. Indeed, avoidant attachment only predicts lower social reward perceptions in contexts where there is some potential for approach motivation (e.g., evaluating future romantic partners) but not when approach is unlikely (e.g., evaluating past romantic partners; Spielmann, Maxwell, et al., 2013). These data suggest that the low-reward perceptions associated with avoidants' indifference may be a defense against the approach of closeness. On the other hand, perceptions of threat that far outstrip perceptions of reward are likely to stir up unwanted negative feelings for individuals high in avoidant attachment, as well as providing a signal of emotional investment in the relationship (i.e., caring enough to worry). A variety of studies have demonstrated the tendency of avoidantly attached individuals to minimize negative thoughts and feelings (e.g., Mikulincer et al., 2002). The current research suggests the possibility that avoidantly attached individuals in romantic relationships may seek to find a tepid balance between threat and reward perceptions that signals a limited degree of caring and provokes little in the way of either fear or approach motivation.

Previous literature provides little support for the link between avoidance and ambivalence. Mikulincer et al. (2010, study 4) did find that, after thinking about relationship dissolution, greater attachment avoidance predicted greater implicit ambivalence toward interpersonal distance; however, avoidance was unrelated to ambivalence in Mikulincer et al.'s other studies. Perhaps the link between avoidance and overall ambivalence has proved fragile because attachment avoidance, being a deactivating style (Mikulincer & Shaver, 2007), yields a less easily measured and more easily hidden form of ambivalence than the "intense" form of ambivalence associated with the hyperactivating anxious style. Specifically, although avoidance increases certain components of overall ambivalence (i.e., the balance between perceived rewards and threats), it also deflates other components (i.e., the overall intensity of perceived reward). When these components are combined into a single index of overall ambivalence, they partially counterbalance. The effects of avoidance on these distinct components of ambivalence are best revealed when (as in the current study) the components are analyzed separately.

## Explaining ambivalence

The data reported here are important because ambivalence is so central to theorizing about attachment insecurity; yet, to our knowledge the Mikulincer et al. (2010) work is the only other article providing direct evidence for an ambivalent structure to the attitudes of insecure individuals toward their romantic relationships. That is, although the attitudes literature provides a clear road map for examining ambivalence, the formulas developed in that literature have scarcely been applied to research on attachment in romantic relationships. Thus, our data provide important confirmation that ambivalence is an important feature of the experience of attachment insecurity in the romantic relationship context. Furthermore, our work shows that this ambivalent structure generalizes to a conflict between fears for rejection and hopes for connection.

The current data extend the Mikulincer et al. (2010) work in two key ways. First, by more closely examining the components of ambivalence, the present data allow sharper resolution on how attachment insecurity relates to ambivalence. In the case of anxiously attached individuals, they more closely match the high degree of relationship reward that most people in relationships perceive with relatively high feelings of threat that are more unique to attachment anxiety. The result is an ambivalence marked not only by similarity in attitude valence but also by relatively high degrees of intensity. Second, and relatedly, this focus on similarity and intensity components reveals a form of ambivalence applicable to those high in attachment avoidance that was mostly undetected in the Mikulincer et al. (2010) work. That is, the relatively low reward perceptions of avoidant individuals led to similar, but not intense, relational attitudes. This dynamic appears ripe for future research.

One explanation for why insecure people, on average, experience more ambivalence is that their ambivalence is an *indirect* consequence of the *direct* effect of attachment anxiety on perceived threat and attachment avoidance on perceived reward. The argument is that perceiving more threat or less reward creates more ambivalence among people who perceive more reward than threat; and because most people—even insecure people—report that their current romantic relationship offers more rewards than threats, *on average* perceiving more threats or fewer rewards predicts experiencing more ambivalence.

A second explanation for why insecure people experience more ambivalence is that insecurity directly evokes ambivalence; in essence, insecure people do not just *get* ambivalent, they *are* ambivalent. That is, in insecure people, experiencing more rewards than threats makes rewards less salient or threats more salient, whereas experiencing more threats than rewards makes threats less salient or rewards more salient. (A complementary hypothesis is that secure people are *unambivalent*: experiencing more rewards than threats makes them more dismissive of threats, whereas experiencing more threats than rewards makes them more dismissive of rewards.) Indeed, Mikulincer et al. (2010) demonstrated that priming the approach of closeness strengthened avoidance of closeness among anxious individuals, and vice versa.

The best evidence of insecurity directly evoking ambivalence in our data would have been attachment insecurity predicting ambivalence among Threat > Reward (as well as Reward > Threat) respondents. We did not find such evidence, but that may have been

because Threat > Reward respondents were fewer in number and typically reported threats that just barely exceeded rewards (resulting in little variance in threat–reward similarity). The reason is obvious: in relationships, there is no limit to how much rewards can exceed threats, but typically there is a limit to how much threats can exceed rewards before the relationship ends. To produce distributions of threats and rewards better suited to the constraints of ambivalence analyses, future research may need to study types of relationships that are more likely to persist when social threats exceed social rewards (e.g., work relationships and kinship relationships). Another solution (similar to that employed in studies 5 and 6 of Mikulincer et al., 2010) is to test the effects of experimentally priming rewarding or threatening relationship experiences, and observing whether activation consciously or unconsciously spreads to competing experiences – that is, whether priming rewards also primes threats or priming threats also primes rewards.

The preceding explanations (i.e., indirect and direct effects) for why insecure people experience more ambivalence are not mutually exclusive. Furthermore, which explanation is more accurate is irrelevant for the practical purpose of predicting the experience of ambivalence. After all, the large majority of people view their romantic relationships as, on balance, more rewarding than threatening, and, among that large majority, both explanations agree that more insecure people will experience more ambivalence. On the other hand, from both a theoretical and a clinical perspective, which explanation is more accurate is relevant. If the ambivalence is simply a secondary effect of feeling threatened, then interventions to help alleviate ambivalence should focus on reducing perceived threats; but if ambivalence is a primary or core feature of insecure attachment, then interventions should focus on reducing the entanglement of rewards and threats; for example, a cognitive therapist might help a client identify and challenge the mediating automatic thoughts, such as “this intimacy is too good to be true, so an argument is sure to follow.”

This consideration may have special relevance in the case of individuals high in avoidant attachment. Arguably, avoidants’ sense of dissatisfaction in romantic relationships may be helped by leading them to acknowledge feelings of intimacy they normally suppress or ignore. However, if defensive inhibition of intimacy perception is a tool for minimizing both feelings of threat and relational ambivalence, such reward appreciation may release a flood of confusing, aversive feelings for individuals high in avoidance. In essence, breaking down avoidants’ first line of defense (i.e., minimization of rewards) may leave them with the intense feelings of ambivalence common to those high in anxious attachment.

### *Future research directions*

The current data add further support to the utility of the social threat/reward conceptualization. Although one can certainly conceptualize the threats and rewards of relationships in a multitude of ways, existing research has shown the utility of operationalizing threat and reward in terms of rejection risk and intimacy potential, respectively. Research from this framework has proven useful in predicting outcomes such as romantic interest in partners varying in responsiveness (Spielmann, Maxwell, et al., 2013) and attachment to ex-romantic partners (Spielmann, MacDonald, & Tackett,

2012), and commitment in current romantic pairings (Gere, MacDonald, Joel, Spielmann, & Impett, in press). Perhaps the greatest potential of the social threat/reward distinction lies in examining the interplay between threat and reward. By providing measures of key threats and rewards in relationships, the scales our laboratory has developed for these studies provide a useful tool for examining relational ambivalence dynamics with the most advanced statistical techniques identified in the attitudes literature.

Future research would benefit from extending those techniques to key relational outcomes. For example, do ambivalent levels of social threat and reward perceptions translate into consciously experienced ambivalence? Perhaps the hyperactivating tendencies of anxious individuals lead to higher levels of felt ambivalence than is warranted by objective ambivalence indicators, whereas the deactivating tendencies of avoidants may lead to little consciously experienced ambivalence. Furthermore, do similarity and/or intensity of social threat and reward perceptions have measurable implications for outcomes such as satisfaction, commitment, and approach motivation?

More generally, the ambivalence literature appears to be an underutilized resource for understanding complex relationship dynamics. For example, this literature suggests that ambivalent individuals tend to search for evidence to help reduce their ambivalence, which leaves them vulnerable to biased information-processing strategies (Brownstein, 2003) and environmental influences (Hodson, Maio, & Esses, 2001). Relational ambivalence may similarly predict greater susceptibility to day-to-day stressors or the opinions of others. Ambivalence is also associated with decision-making avoidance (Anderson, 2003); when an individual is faced with a difficult choice, that person often attempts to postpone making their decision for as long as possible. High levels of relational ambivalence may lead individuals to avoid making, or even discussing, important relational decisions. Finally, van Harreveld, van der Plicht, and de Liver (2009) argued that the ambivalence shares an important relationship with anticipatory regret. That is, ambivalent individuals often wrestle with decisions because they anticipate regretting their choices (Joel, MacDonald, & Plaks, 2012). Thus, anticipatory regret may be an important mediator of effects of relational ambivalence. All of these hypotheses appear easily testable with the tools and methods outlined in the current article.

Overall, our studies appear to confirm existing literature suggesting that the secure attachment is tied to low levels of ambivalence in romantic partners. The current research appears to support the theoretical tradition of framing ambivalence as an important aspect of the experience of individuals high in anxious attachment. Somewhat unexpectedly, this work also provides some support for the notion that avoidantly attached individuals experiencing a similarity in social threat and reward perceptions that may form a sort of low-intensity ambivalence or indifference. Thus, although we can confirm a relationship between attachment insecurity and relational ambivalence, further work is needed to clarify this relationship.

## **Funding**

This work was funded by a Social Sciences and Humanities Research Council of Canada grant to the first author.

## Notes

1. In the context of attitudes toward parents, Maio, Fincham, and Lycett (2000) examined the nature of individuals' positive and negative attitudes toward their parents and found that secure attachment (as measured by endorsement of a secure prototype as self-descriptive) was related to lower levels of ambivalence across two studies. The direct evidence for more anxious styles was mixed, with one study showing fearful attachment (consistent with high anxiety and high avoidance) predicting higher ambivalence, but one study showing preoccupied attachment (high anxiety and low avoidance) predicting lower ambivalence. Arguably, these data provide better evidence of an effect of high avoidance, rather than high anxiety, on ambivalence. However, no relationship between dismissing attachment (low anxiety and high avoidance) and ambivalence was found in either study. Although consistent with the theoretical postulate that less secure attachment is related to ambivalence toward attachment figures, this work leaves unclear specific contributions of anxious and avoidant attachment.
2. Samples 1 and 2 also provided the data used in studies 2 and 4 of Spielmann, MacDonald, and Tackett (2012).

## References

- Ainsworth, M. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum.
- Anderson, C. J. (2003). The psychology of doing nothing: Forms of decision avoidance result from reason and emotion. *Psychological Bulletin*, *129*, 139–166.
- Armitage, C. J., & Conner, M. (2000). Attitudinal ambivalence: A test of three key hypotheses. *Personality and Social Psychology Bulletin*, *26*, 1421–1432.
- Aron, A., Norman, C. C., Aron, E. N., McKenna, C., & Heyman, R. E. (2000). Couples' shared participation in novel and arousing activities and experienced relationship quality. *Journal of Personality and Social Psychology*, *78*, 273–284.
- Arriaga, X. B., Slaughterbeck, E. S., Catezza, N. M., & Hmurovic, J. L. (2007). From bad to worse: Relationship commitment and vulnerability to partner imperfections. *Personal Relationships*, *14*, 389–409.
- Bell, D. W., & Esses, V. M. (2002). Ambivalence and response amplification: A motivational perspective. *Personality and Social Psychology Bulletin*, *28*, 1143–1152.
- Birnbaum, G. E., Reis, H. T., Mikulincer, M., Gillath, O., & Orpaz, A. (2006). When sex is more than just sex: Attachment orientations, sexual experience, and relationship quality. *Journal of Personality and Social Psychology*, *91*, 929–943.
- Bowlby, J. (1982). *Attachment and loss: Vol 1. Attachment* (2nd ed.) New York, NY: Basic Books.
- Brownstein, A. L. (2003). Biased predecision processing. *Psychological Bulletin*, *129*, 545–568.
- Carvalho, M., & Gabriel, S., (2006). No man is an island: The need to belong and dismissive avoidant attachment style. *Personality and Social Psychology Bulletin*, *32*, 697–709.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, *58*, 644–663.
- Dandeneau, S. D., Baldwin, M. W., Baccus, J. R., Sakellaropoulos, M., & Pruessner, J. C. (2007). Cutting stress off at the pass: Reducing vigilance and responsiveness to social threat by manipulating attention. *Journal of Personality and Social Psychology*, *93*, 651–666.

- Feeney, J. A. (2004). Hurt feelings in couple relationships: Towards integrative models of the negative effects of hurtful events. *Journal of Social and Personal Relationships*, 21, 487–508.
- Feeney, J. A., Noller, P., & Hanrahan, M. (1994). Assessing adult attachment. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp. 128–152). New York, NY: Guilford Press.
- Fraley, R. C., & Davis, K. E. (1997). Attachment formation and transfer in young adults' close friendships and romantic relationships. *Personal Relationships*, 4, 131–144.
- Gere, J., MacDonald, G., Joel, S., Spielmann, S. S., & Impett, E. A. (in press). The independent contributions of social reward and threat perceptions to romantic commitment. *Journal of Personality and Social Psychology*.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Hodson, G., Maio, G. R., & Esses, V. M. (2001). The role of attitudinal ambivalence in susceptibility to consensus information. *Basic and Applied Social Psychology*, 23, 197–205.
- Joel, S., MacDonald, G., & Plaks, J. E. (2012). Attachment anxiety uniquely predicts regret proneness in close relationship contexts. *Social Psychological and Personality Science*, 3, 348–355.
- Joel, S., MacDonald, G., & Shimotomai, A. (2011). Conflicting pressures on romantic relationship commitment for anxiously attached individuals. *Journal of Personality*, 79, 51–71.
- Kaplan, K. J. (1972). On the ambivalence-indifference problem in attitude theory and measurement: A suggested modification of the semantic differential technique. *Psychological Bulletin*, 77, 361–372.
- Locke, K. D. (2008). Attachment styles and interpersonal approach and avoidance goals in everyday couple interactions. *Personal Relationships*, 15, 359–374.
- Locke, K. D., & Braun, C. C. (2009). Ambivalence versus valence: Analyzing the effects of opposing attitudes. *Social Cognition*, 27, 89–104.
- Lewandowski, G. W., & Ackerman, R. A. (2006). Something's missing: Need fulfillment and self-expansion as predictors of susceptibility to infidelity. *The Journal of Social Psychology*, 146(4), 389–403.
- MacDonald, G., & Borsook, T. K. (2010). Attachment avoidance and feelings of connection in social interaction. *Journal of Experimental Social Psychology*, 46, 1122–1125.
- Maio, G. R., Fincham, F. D., & Lycett, E. J. (2000). Attitudinal ambivalence toward parents and attachment style. *Personality and Social Psychology Bulletin*, 26, 1451–1464.
- Mikulincer, M., Gillath, O., & Shaver, P. R. (2002). Activation of the attachment system in adulthood: Threat-related primes increase the accessibility of mental representations of attachment figures. *Journal of Personality and Social Psychology*, 83, 881–895.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press.
- Mikulincer, M., Shaver, P., & Slav, K. (2006). Attachment, mental representations of others, and gratitude and forgiveness in romantic relationships. In M. Mikulincer & G. S. Goodman (Eds.), *Dynamics of romantic love: Attachment, caregiving, and sex* (pp. 190–215). New York, NY: Guilford.
- Mikulincer, M., Shaver, P. R., Bar-On, N., & Ein-Dor, T. (2010). The pushes and pulls of close relationships: Attachment insecurities and relational ambivalence. *Journal of Personality and Social Psychology*, 98, 450–468.

- Murray, S. L., Holmes, J. G., & Collins, N. L. (2006). Optimizing assurance: The risk regulation system in relationships. *Psychological Bulletin*, *132*, 641–666.
- Newby-Clark, I. R., McGregor, I., & Zanna, M. P. (2002). Thinking and caring about cognitive inconsistency: When and for whom does attitudinal ambivalence feel uncomfortable? *Journal of Personality and Social Psychology*, *82*, 157–166.
- Spielmann, S. S., MacDonald, G., & Tackett, J. L. (2012). Social threat, social reward, and regulation of investment in romantic relationships. *Personal Relationships*, *19*, 601–622.
- Spielmann, S. S., Maxwell, J. A., MacDonald, G., & Baratta, P. L. (2013). Don't get your hopes up: Avoidantly attached individuals perceive lower social reward when there is potential for intimacy. *Personality and Social Psychology Bulletin*, *39*, 91–107.
- Thompson, M. M., Zanna, M. P., & Griffin, D. W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 361–386). Hillsdale, NJ: Erlbaum.
- van Harreveld, F., Rutjens, B. T., Rotteveel, M., Nordgren, L. F., & van der Pligt, J. (2009). Ambivalence and decisional conflict as a cause of psychological discomfort: Feeling tense before jumping off the fence. *Journal of Experimental Social Psychology*, *45*, 167–173.
- van Harreveld, F., van der Pligt, J., & de Liver, Y. N. (2009). The agony of ambivalence and ways to resolve it: Introducing the MAID model. *Personality and Social Psychology Review*, *13*, 45–61.