Brief Article

Adult attachment and marital satisfaction: Evidence for dyadic configuration effects

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ABSTRACT

The relations between continuous ratings of four partnership-specific adult attachment prototype descriptions (Bartholomew & Horowitz, 1991) and relationship satisfaction were investigated in 333 married couples. Using multiple regression analysis, marital satisfaction could be predicted by the individual's own attachment, the partner's attachment, and the interaction between them. In general, secure attachment was related to higher, and insecure attachment to lower marital satisfaction. In specific dyadic configurations, however, the positive effects of secure and the negative effects of insecure attachment styles were either amplified or attenuated depending on the attachment of the spouse.

KEY WORDS: adult attachment • dyadix effects • marital satisfaction • married couples

Since the seminal publication by Hazan and Shaver (1987), a large number of studies have shown that individual differences in self-reported adult attachment are related to the quality and stability of romantic relationships, and numerous constructs have been identified that may be directly or indirectly responsible for the influence of attachment on the functioning of romantic relationships (see Feeney, 1999, for an overview). Although the adult attachment perspective has undoubtedly advanced our understanding of the dynamics of romantic relationships, our knowledge about the exact relation between adult attachment and the outcomes of variables of romantic relationships such as relationship satisfaction or stability is surprisingly limited.

Secure attachment has generally been found to correlate positively, and insecure attachment negatively, with relationship satisfaction and other

I thank Franz Neyer, Jens Asendorpf, and Iain Glen for critical comments on a draft of this article, and Eberhard Kästner, Almut Köppe, Doreen Prasse, and Ute Schlöricke for their help in collecting the data. All correspondence concerning this article should be addressed to Rainer Banse, Department of Psychology, University of York, Heslington, York YO10 5DD, UK [e-mail: r.banse@psychology.york.ac.uk]. Barbara Sarason was the Action Editor on this article.

 Vol. 21(2): 273–282. DOI: 10.1177/0265407504041388

aspects of relationship quality (e.g., Collins & Read, 1990; Simpson, 1990). Overall, the evidence for this relation has been fairly consistent, with effect sizes ranging from weak to moderate. However, most findings are based on self-reports of the same individuals and may be overestimated owing to shared method variance and response tendencies (e.g., consistency bias, social desirability). This problem can be avoided if the self-reported relationship quality of individuals is related to their romantic partners' attachment style. Several studies report evidence for such cross-correlations (e.g., Collins & Read, 1990; Lussier, Sabourin, & Turgeon, 1997; Simpson, 1990). However, romantic partners' attachment styles are in general substantially correlated. Therefore, it is not clear to what extent cross-correlations between partner's attachment and own relationship quality reflect a direct effect or rather an indirect effect that is mediated by the similarity of both partners' attachment styles. To disentangle direct and indirect effects, it is necessary to use multivariate data analysis methods such as hierarchical multiple regression analyses. Using this approach, Feeney (1994) found reliable negative partner effects of women's anxiety on husbands' satisfaction for marriages of various durations. Husbands' anxious attachment showed a partner effect only when marriages lasted longer than 20 years. In a sample of dating couples, Frazier, Byer, Fischer, Wright, and DeBord (1996) found the reverse result. Men's anxious attachment score was negatively related to women's relationship satisfaction, whereas women's anxious attachment showed no partner effect.

A particularly interesting kind of evidence for the relevance of the attachment construct is a demonstration of configurational or interaction effects of both partners' attachment styles. However, empirical evidence of this kind is scarce. Frazier et al. (1996) found that anxiously attached dating partners were marginally less satisfied if their partners were low in anxiety compared with those who had partners high in anxiety. In a sample of married couples, Feeney (1994) observed that anxiety in women reduced satisfaction in both partners only if the husbands were uncomfortable with closeness. Gallo and Smith (2001) report interaction effects between partners' attachment for two attachment dimensions (closeness and anxiety), whereas Jones and Cunningham (1996) found only attachment main effects, but no interactions.

Present research

Given the limited and somewhat inconsistent evidence, it seemed necessary to investigate the relation between adult attachment and relationship satisfaction using a methodology that is sufficiently sensitive to detect effects of individuals' attachment, partners' attachment, and their dyadic interaction effects on relationship satisfaction. The present study was originally planned to screen married couples for a subsequent laboratory observation study on attachment behavior (Banse, in preparation). However, the data set is interesting in its own right because the study contained several methodological features that were – in their combination – not realized before. These features were the use of continuous ratings (instead of

self-assignment to types) of Bartholomew's four attachment prototype items (instead of the three prototypes by Hazan & Shaver, 1987), and a sample of married couples (instead of dating partners) that was sufficiently large (333 couples) to investigate main effects and interaction effects of both partners' attachment styles using multivariate analysis. Although there is no reason to expect that attachment has fundamentally different effects in married couples than in dating couples, the theoretical and practical relevance of the attachment framework (e.g., for marital therapy) may be more obvious if such effects could be demonstrated in married couples.

Method

Sample

For an initial contact, the civil register office (*Landeseinwohnermeldeamt*) of the city of Berlin, Germany, provided us with the mailing addresses of 2000 women who were pre-selected to meet the following criteria: aged 25 to 35 years, married three years before, cohabited with their spouse in Berlin, and the age difference to the husband not exceeding 10 years. The women were sent a letter inviting them to participate with their husband in a study on personality matching and partnership. They were asked to independently fill in a short questionnaire. They had the opportunity to indicate their interest in a subsequent laboratory study by filling in their mailing address (that we were not allowed to file without prior written consent of the participants). In order to avoid discouraging participants at this first contact, only a short questionnaire assessing relationship satisfaction and adult attachment was included.

A total of 333 couples sent back completed questionnaires for both partners using a pre-stamped return envelope. When not taking into account a negligible proportion of mailings that were undeliverable or returned for one spouse only, the return rate was 16.7%. This is comparable with results of other studies using direct mailings to contact couples (e.g., 17.8% in Davila, Karney, & Bradbury, 1999; 18% in Kurdek, 1991). According to Karney and Davila (1995), it is to be expected that this sampling method leads to a self-selection bias toward higher education, income, and status. Given this possible selection bias and the fact that all couples live in a metropolitan area, the results of the present study cannot be generalized to the general population of German married couples.

Self-report measures

Marital satisfaction was assessed using the German translation (Sander & Böcker, 1993) of the Relationship Assessment Scale (RAS; Hendrick, 1988). The internal consistency of the seven items for the present sample was $\alpha = .89$ for wives and $\alpha = .84$ for husbands. Adult attachment was assessed using a partnership-specific adaptation of the four-item Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991; German translation by Doll, Mentz, & Witte, 1995; the modified relationship-specific item formulations can be obtained directly from the author). The answer format was a 5-point agreement scale, higher values indicated stronger agreement with the respective attachment description. The test-retest reliability of the RQ measure could be

TABLE 1
Means and standard deviations on adult attachment (RQ) and relationship satisfaction (RAS) scores

	Wife		Husband	
	M	*SD*	*M*	*SD*
Attachment				
Secure	4.08	0.98	4.08	0.95
Fearful	1.48	0.85	1.38	0.75
Preoccupied	1.48	0.91	1.57	0.93
Dismissing	2.07	1.17	2.05	1.11
Satisfaction	4.27	0.60	4.33	0.50

estimated using a second assessment of the RQ-measure for a sub-sample of 49 couples who participated in a subsequent laboratory study (retest interval 3–52 weeks, median 6.2 weeks). The retest-correlations were somewhat higher for wives (secure .65, fearful .79, preoccupied .82, and dismissing .75) than for husbands (secure .63, fearful .52, preoccupied .54, and dismissing .71). If one takes into account that there may be some reliable change in attachment over time, and that single-item measures show generally low reliability, the obtained test-retest reliabilities may be considered as marginally acceptable.

Results

Descriptive statistics and sampling bias

Descriptive statistics for the attachment and relationship satisfaction measures are provided in Table 1. No significant sex difference was found for any of the four attachment items. Husbands reported slightly higher relationship satisfaction than wives (*M*s 4.33 and 4.27, $t(332) = 2.63$, $p < .01$).

To evaluate possible biases of the present sample, the proportion of securely attached individuals and mean relationship satisfaction was compared to representative samples. For adult attachment, the proportion of secure individuals was used as a measure of central tendency that is at least roughly comparable across studies using different attachment measures and different answer scales. Individuals were identified as secure if the maximal score across all four attachment items was on the secure item or if the maximal score was tied between the secure and an insecure item (see Mickelson, Kessler, & Shaver, 1997). The proportion of secure individuals was 71.5% for wives and 73% for husbands. This proportion lay between the 61.4% observed for married or cohabiting individuals in a nationally representative sample in the U.S. (Mickelson et al., 1997), and the 82.6% secure wives and 81.7% secure husbands obtained in an almost complete community-based sample of newlyweds in a mid-sized urban area in the U.S. (Senchak & Leonard, 1992).

The mean score of relationship satisfaction (RAS) was compared to a subsample of individuals in steady romantic relationships from a German representative sample of young adults (for details, see Neyer, 2002). The mean values of relationship satisfaction in the present sample were higher than in the

TABLE 2
Correlations between spouses' attachment items (RQ) and relationship satisfaction (RAS) scores

	Wife				
	Secure	**Fearful**	**Preoccup.**	**Dismiss.**	**Satisfact.**
Wife					
Secure		–.36***	–.30***	–.17**	.43***
Fearful			.35***	.26***	–.46***
Preoccupied				.08	–.44***
Dismissing					–.40***
	Husband				
	Secure	**Fearful**	**Preoccup.**	**Dismiss.**	**Satisfact.**
Husband					
Secure		–.26***	–.23***	–.08	.37***
Fearful			.32***	.25***	–.41***
Preoccupied				.11*	–.51***
Dismissing					–.26***
	Husband				
	Secure	**Fearful**	**Preoccup.**	**Dismiss.**	**Satisfact.**
Wife					
Secure	.53***	–.23***	–.18**	–.05	.33***
Fearful	–.17**	.33***	.32***	.09†	–.28***
Preoccupied	–.17**	.29**	.18**	.13*	–.31***
Dismissing	–.14*	.18**	.24***	.39***	–.33***
Satisfaction	.30***	–.30***	–.47***	–.13*	.69***

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

representative sample for both women (*M*s 4.27 and 4.10, $t(621) = 3.45$, $p < .001$) and for men (*M*s 4.33 and 4.10, $t(322) = 4.38$, $p < .001$). However, the effect was not large (about .3 *SD* units), and may be partially due to the relatively low proportion of married couples in the representative sample. In summary, the present sample seems not to be strongly biased with respect to partner attachment and relationship satisfaction.

Relations between spouses' attachment

According to previous theoretical and empirical work on the measurement of attachment (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998), it was expected that the secure and reverse coded fearful items, as well as the dismissing and reverse coded preoccupied items, would form two scales that could be orthogonally arranged in Bartholomew's two-dimensional attachment model. However, this prediction was not confirmed by the intercorrelation matrix (Table 2). The secure item showed no stronger negative correlation with the fearful item than with the other two insecure attachment items. The

preoccupied and dismissing items were uncorrelated instead of strongly negatively correlated. The correlation pattern suggests a basic distinction between secure and insecure attachment, with an insecure pole subdivided into three distinct styles of insecure attachment. Because aggregation across items was not warranted by the data, all four items were retained for the analysis.

The analysis of cross-correlations produced a clear-cut pattern (Table 2). For husbands and wives, secure attachment was positively correlated with secure, and negatively with all three insecure attachment items of the spouse. Insecure attachment items, however, were generally positively correlated with the partner's insecure attachment items. Only the dismissing item of husbands was not significantly correlated with wives' secure, and only marginally with the wives' fearful item.

Attachment styles and marital satisfaction

For both wives and husbands, all four attachment items showed significant zero-order correlations with own relationship satisfaction. Compared with results reported in the literature, correlations were relatively large, ranging from –.26 for husbands' dismissing to –.51 for husbands' preoccupied item (all ps < .001). The cross-correlations between attachment items and partner's satisfaction were also all significant, with the smallest effect for husbands' dismissing ($r = –.13$, $p < .05$) and the largest for husbands' preoccupied item ($r = –.47$, $p < .001$).

To estimate the unique contributions of the four attachment items of both partners and their interaction in predicting marital satisfaction, hierarchical multiple regression analyses were conducted. This analysis takes into account the dependency of the four attachment items for each spouse, and also the dyadic dependency of both sets of items between spouses. The relation between relationship satisfaction and attachment was analyzed for wives and husbands separately. These analyses are not independent, but correlations between spouses were small enough to allow for gender specific results.

In a first step, marital satisfaction was regressed on the own four attachment items for each spouse. In a second step, the four attachment items of the partner were entered into the equation. Then, the 16 two-way interaction terms between attachment items of husbands and wives were entered in a third step. Because higher order interaction terms would further complicate an already complex regression model and also reduce the degrees of freedom available to test it, only two-way interactions were analyzed. With respect to the proportion of variance accounted for by interaction effects, this order of regression steps is conservative, because advantage is given to individual effects and partner effects. The reported beta-weights of the final regression equation, however, reflect the relation between relationship satisfaction and all three sets of predictor variables.

To calculate the interaction terms, all attachment items were z-transformed and each of the four items of wives was multiplied with each of the four items of husbands, yielding a total of 16 interaction terms (Cohen & Cohen, 1983). The standardized beta weights of the final equation as well as the multiple R and R^2 change of the three steps are reported in Table 3.

Except for the husbands' dismissing item, all attachment items were related to marital satisfaction for both husbands and wives. As in the bivariate analyses, secure attachment showed a positive, and fearful, preoccupied, and (wives') dismissing attachment a negative relation with marital satisfaction (for

TABLE 3
Hierarchical multiple regression of wives' and husbands' relationship satisfaction on their own attachment, partners' attachment, and their interaction

	Standardized βs				R	R^2 Change
Marital Satisfaction Wife	Secure	Fearful	Preocc.	Dismiss.		
Step 1 Attachment Wife	.18***	–.18***	–.26***	–.30***	.65***	.42***
Step 2 Attachment Husb.	.00	–.05	–.32***	.06	.70***	.07***
Step 3 Interaction Terms[a]						
W Secure × H	.01	.05	–.10*	.21***		
W Fearful × H	–.10*	.03	.05	.00		
W Preoccupied × H	.01	.01	.06	.10†		
W Dismissing × H	.02	.04	–.03	.10*	.76***	.09***
Marital Satisfaction Husband	Secure	Fearful	Preocc.	Dismiss.		
Step 1 Attachment Husb.	.14*	–.19***	–.40***	–.06	.63***	.39***
Step 2 Attachment Wife	.12*	.01	–.13**	–.17***	.66***	.04***
Step 3 Interaction Terms[a]						
W Secure × H	.12*	.02	–.16**	.09†		
W Fearful × H	.08	.07	.09	–.04		
W Preoccupied × H	.01	.01	.03	–.01		
W Dismissing × H	.01	.03	–.07	.03	.72***	.08***

[a]Regression coefficients for interaction terms refer to the cross product of wives' attachment items displayed in rows and husbands' attachment items displayed in columns.
† p <.10; * p < .05; ** p < .01; *** p < .001.

all betas, p < .001). The proportion of variance of marital satisfaction accounted for in Step 1 reached 42% for wives and 39% for husbands. Entering the partners' attachment items into the equation in Step 2 accounted for another 7% of the marital satisfaction variance for wives, which was mainly due to a significant negative beta for the husbands' preoccupied item. Entering the wives' attachment items accounted for an additional 4% of the variance in husbands' marital satisfaction, mainly due to the wives' secure, preoccupied, and dismissing attachment items.

Above and beyond the main effects of spouses' attachment, wives' marital satisfaction was negatively related to the interaction terms *Wife secure* × *Husband preoccupied* and *Wife fearful* × *Husband secure*. In both cases, the residual scores of wives' satisfaction (which were not predicted by attachment main effects) were particularly low if both spouses had scores above the median and higher if one spouse had low and the other high values or both had low values. Positive regression effects were found for the interaction term of the item *Husband dismissing* and the *Wife secure*, *preoccupied*, and *dismissing* items. In all three cases, wives' satisfaction was higher if both spouses had above median values than in couples in which one spouse had above and the other below median vales on the attachment items. Above and beyond own and partner's attachment main effects, the interaction terms accounted for a significant additional 9% of variance of wives' marital satisfaction. Husbands'

marital satisfaction was related to three interaction terms, all involving secure attachment in wives. High scores in the *Wife secure* item combined with high scores in the *Husband secure*, or in the *Husband dismissing* items, were related to a higher relationship satisfaction. High scores in the *Wife secure* item combined with high scores in the *Husband preoccupied* item, however, were related to a lower relationship satisfaction.

Discussion

The results of the present study show that relationship satisfaction in married couples can be accounted for by the individuals' own attachment to romantic partners, the partner's attachment style, and their combination. The observed relations are theoretically meaningful and go beyond a simple evaluative aspect of relationship quality. The presented evidence further corroborates that the adult attachment framework possesses strong explanatory power for a better understanding of the functioning of romantic relationships.

Compared with previous studies, zero-order correlations between attachment measures and own and partner's relationship satisfaction were consistent and relatively large. Apart from husbands' dismissing item, individual correlations were around .40 or higher, and cross-correlations around .30. For wives and husbands, the secure items were positively, and the fearful, preoccupied, and dismissing items negatively related to own and the partner's relationship satisfaction.

This pattern remained stable if individual and dyadic dependencies between attachment items were controlled for in hierarchical multiple regression analyses. The analysis of partner effects revealed three significant predictors. Husbands' preoccupied and wives' preoccupied and dismissing items accounted independently for variability in the relationship satisfaction of their partners. This finding is consistent with prior findings indicating that partners' relationship satisfaction is negatively influenced by the anxious–ambivalent attachment of women (Collins & Read, 1990; Feeney, 1994; Simpson, 1990), men (Frazier et al., 1996), or both (Gallo & Smith, 2001; Jones & Cunningham, 1996; Lussier et al., 1997). Contrary to the present results, however, negative effects of dismissing or avoidant attachment have only been previously reported for men, but not for women (e.g., Simpson, 1990).

The most interesting and suggestive result of this analysis is that the negative main effects of insecure attachment on marital satisfaction were at least partially compensated by positive effects of specific combinations of insecure attachment styles. Interestingly, all positive interaction effects included husbands' dismissing attachment. Preoccupied attachment in husbands, however, was related to low relationship satisfaction for both husbands and wives, and there is no apparent possibility for compensation, not even with a secure wife.

As noted previously (e.g., Feeney, 1994, 1999), the relation between

insecure attachment styles and relationship satisfaction seems to be influenced by gender. For a better understanding of the functionality of secure and insecure attachment in couples, it may therefore be helpful to widen the theoretical perspective by considering not only the functionality of attachment style combinations, but also the culturally shared norms and stereotypes that influence the demands that are placed on men and women in romantic relationships.

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