

# Attachment orientations, sexual functioning, and relationship satisfaction in a community sample of women

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ABSTRACT

The current research focuses on the detrimental effects of attachment insecurities on sexuality and relationship quality. A community sample of 96 women completed self-report scales tapping attachment orientations; relationship satisfaction; sex-related affect and cognitions; and sexual functioning. Findings indicate that although both attachment anxiety and avoidance were associated with aversive sexual affect and cognitions, attachment anxiety was more detrimental to sexual functioning. In addition, only attachment anxiety was significantly associated with relational and sexual dissatisfaction, however, sexual satisfaction mediates the association between attachment anxiety and relationship satisfaction. The possibility that attachment orientations are associated with different strategies and interaction goals in the operation of the sexual system within romantic relationships is discussed.

KEY WORDS: attachment • relationship satisfaction • romantic relationships • sex • sexual functioning

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Attachment and sexual mating are distinct behavioral systems that evolved to serve different goals. The biological function of the attachment system is to protect a person from danger by assuring that he or she maintains proximity to a caregiver (Bowlby, 1969/1982), whereas the major function of the sexual system is to pass genes from one generation to the next (e.g., Buss & Kenrick, 1998). Although their behavioral manifestations may occur in

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isolation (e.g., sexual relations may occur without affectional bonding), in adulthood romantic partners typically function simultaneously as sexual partners and attachment figures (Hazan & Zeifman, 1994) and the smooth operation of the attachment system and the sexual system is crucial for maintaining satisfying relationships (Shaver & Mikulincer, in press). Indeed, growing empirical evidence points to a reciprocal relationship between these two systems: The quality of couples' sex life contributes to relationship satisfaction and stability (see Sprecher & Cate, 2004, for an extensive review) and attachment processes shape the way in which individuals construe their sexual interactions (see reviews by Feeney & Noller, 2004; Shaver & Mikulincer, in press). The current research expands the existing literature on the linkage between attachment and sexuality by examining the contribution of attachment orientations to sexual functioning and related affect and cognitions within women's ongoing romantic relationships. In addition, this research aimed to explore a potential mediating mechanism to explain the negative effects of attachment insecurities on relationship satisfaction.

### **Attachment orientations, romantic relationships, and sexual interactions**

According to attachment theory (Bowlby, 1969/1982, 1973), the quality of interactions with significant others in times of need shapes one's interaction goals as well as relational cognitions and behaviors: When the attachment figure is available and responsive, a sense of attachment security is attained, intimacy and nurturance become primary interaction goals, and positive relational cognitions are formed. When the attachment figure is physically or emotionally unavailable, the individual may adopt one of two major secondary attachment strategies, hyperactivation ('fight' responses that characterize anxious attachment) or deactivation ('flight' reactions that characterize avoidant attachment) of the attachment system (Main, 1990; Mikulincer & Shaver, 2003). The main goal of hyperactivation strategies, manifested in heightened desire for closeness and security, is to get an attachment figure to provide desired support and protection. Deactivation strategies serve the goal of distance and control in close relationships.

These differences in interpersonal goals may explain variations in the experience of romantic relationships (see Feeney, 1999, for a review) and sexual interactions (see review by Feeney & Noller, 2004). Consistent with their goals of maintaining intimate, faithful, and satisfying long-term relationships (Mikulincer & Shaver, 2003), securely attached people report preferring sexual activity in committed romantic relationships (e.g., Brennan & Shaver, 1995; Stephan & Bachman, 1999). As adolescents, securely attached individuals reported engaging in sexual intercourse mainly to express love for their partner (Tracy, Shaver, Albino, & Cooper, 2003). Tracy and colleagues also found that secure adolescents were more erotophilic. Correspondingly, they experienced fewer negative emotions as

well as more positive and passionate emotions during sexual activity than their insecure counterparts. Similarly, in adulthood, secure individuals have more positive sexual self-schemas (Cyranowski & Andersen, 1998) and report greater enjoyment of exploratory sexual activities with long-term partners (Hazan, Zeifman, & Middleton, 1994). Overall, these findings support the beneficial effects of attachment security in establishing long-term romantic relationships. Securely attached individuals' sense of sexual confidence, comfort with sexual intimacy, and enjoyment of sexual interactions may also contribute to their satisfying and long-lasting romantic relationships.

Previous empirical work also offers evidence for the involvement of secondary attachment strategies in the construal of romantic relationships and sexual interactions of insecurely attached people. Highly avoidant individuals' attempts to deactivate their attachment system are manifested in their relatively less stable relationships, which are characterized by fear of intimacy and low levels of emotional involvement, trust, cohesion, and satisfaction (e.g., Collins & Read, 1990; Hazan & Shaver, 1987; Kirkpatrick & Davis, 1994; Mikulincer & Florian, 1999; Shaver & Brennan, 1992). In line with their habitual seeking of physical and emotional distance from partners, highly avoidant individuals may limit intimacy in sexual activity by either abstaining from sexual activity (Kalichman et al., 1993; Tracy et al., 2003) or engaging in relatively emotionless sex (e.g., Brennan & Shaver, 1995; Gentzler & Kerns, 2004; Schachner & Shaver, 2002). Tracy et al. (2003) found that avoidant adolescents are relatively erotophobic, low in perceived sex drive, and less likely to enjoy sexual interactions. In adulthood, relatively avoidant participants tend to dismiss motives related to the promotion of emotional closeness while emphasizing motives related to partner manipulation and control; protection of the self from partners' negative affect; stress reduction; and prestige among peers (Cooper et al., 2006; Davis, Shaver, & Vernon, 2004; Schachner & Shaver, 2004). Hence, avoidant persons are less likely to enjoy affectionate activities (e.g., cuddling, kissing, hugging) and intimate copulatory positions (Brennan, Wu, & Loev, 1998; Hazan et al., 1994). In addition, highly avoidant persons report experiencing more negative emotions (Birnbaum & Gillath, *in press*) and greater detachment from the sexual event (Birnbaum & Reis, *in press*; Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, *in press*). In summary, people high in avoidance seem to paradoxically use sex to avoid closeness and to maximize control even in the most intimate interactions.

Chronic activation of the attachment system, in contrast, leads highly anxious persons to become obsessed with their romantic partner and exhibit clinging, intrusive, and controlling patterns of relational behaviors (e.g., Collins & Read, 1990; Hazan & Shaver, 1987) that may exacerbate relationship conflict (Downey, Freitas, Michaelis, & Khouri, 1998; Mikulincer & Shaver, 2003; Shaver & Mikulincer, *in press*). Hyperactivation strategies have also detrimental implications for the sexual realm. Highly anxious people's construal of sexual activities reflects their attempts to fulfill unmet attachment-related needs for security and love. As adolescents, highly

anxious persons are more likely to engage in sex to avoid abandonment (Tracy et al., 2003), which, in turn, leads to more unwanted sexual behaviors (e.g., Feeney, Peterson, Gallois, & Terry, 2000) and interferes with the experience of passionate emotions during sex (Tracy et al., 2003). Highly anxious adults score relatively high in erotophilia (Bogaert & Sadava, 2002). Accordingly, they report using sex as a means to achieve emotional intimacy, approval, and reassurance, to elicit a partner's caregiving behaviors, and to defuse a partner's anger (Cooper et al., 2006; Davis et al., 2004; Schachner & Shaver, 2004). Ironically, however, unfulfilled relational expectations or their inappropriate channeling into the sexual realm, when combined with worries about the partner's reactions, make anxiously attached persons more prone to disappointing and dissatisfying sexual interactions (Birnbaum & Gillath, in press; Birnbaum & Reis, in press; Brennan, Wu, & Loev, 1998). In turn, sexual frustration and dissatisfaction may lead to relationship conflict (e.g., Birnbaum et al., in press; Hartman, 1983; Hassebrauck & Fehr, 2002), thereby generating a self-amplifying cycle of relationship and sexual dissatisfaction, which may eventually destroy the romantic relationship.

### **The current research**

Although past studies focused on the detrimental implications of attachment insecurities for emotional and motivational aspects of sexuality, they attended minimally to the resultant sexual functioning. Furthermore, most of these studies' findings are limited to shorter duration college-student relationships. The current research adds to our understanding of the attachment–sexuality link within close relationships by examining the association between attachment orientations and sexual functioning, along with its cognitive and emotional components, in a community sample of women. Specifically, the present study's first goal is to examine how attachment orientations are associated with several areas of sexual functioning (e.g., orgasmic responsiveness, sexual arousal, intimacy during sexual intercourse), as well as related emotional and cognitive components of the sexual behavioral system. These components embody sexual experiences, feelings, expectations, and beliefs about the self, the sexual partner, and sexual activity with the partner (e.g., perceiving sexual partners as caring and responsive to one's needs, as well as experiencing detachment from the sexual event and partner). Based on attachment theory and research, this study hypothesized that although both anxiety and avoidance would be associated with aversive sexual affect and cognitions, attachment anxiety would be more detrimental to sexual functioning than attachment avoidance. This prediction is in line with the contention that attachment-related worries habitually experienced by anxiously attached persons during sexual intercourse may interfere with sexual functioning (Davis et al., 2004). In contrast, because highly avoidant persons tend to engage in sexual intercourse for relatively self-enhancing, relationship-irrelevant reasons (i.e.,

reasons other than intimacy and attachment; Cooper et al., 2006; Davis et al., 2004; Schachner & Shaver, 2004), avoidant persons' sexual functioning might be less impaired by negative relationship-based sexual cognitions.

The current study's second goal is to explore a potential mediating mechanism to explain the negative effects of attachment insecurities on relationship satisfaction. Previous studies have shown that both attachment avoidance and attachment anxiety are positively associated with negative sex-related feelings (e.g., Birnbaum & Gillath, in press; Birnbaum & Reis, in press). Furthermore, attachment insecurities are inversely associated with relationship quality (see review by Mikulincer & Shaver, 2003). However, little has been done to determine whether the negative effects of attachment insecurities on relationship satisfaction may be mediated (i.e., accounted for) by sexuality. As described earlier, previous findings (Birnbaum et al., in press; Davis et al., 2004; Schachner & Shaver, 2004) imply that attachment anxiety makes sex more relevant to relationship interactions than attachment avoidance. In other words, by subordinating sexual activity to the attachment system, anxious persons' hyperactivity approach may cause them to use sex as an indicator of their partner's feeling toward them (Davis et al., 2004) or even to confuse sex with love. Accordingly, this study hypothesized that sexual satisfaction would mediate the association between attachment anxiety and relationship satisfaction.

## Method

### Participants

Ninety-six Israeli women ranging from 24 to 67 years of age ( $M = 44.95$ ,  $SD = 11.88$ ) volunteered for the study without compensation. Participants were recruited from community centers in central Israel. All participants were currently involved in a romantic relationship with a male partner. Length of current relationship ranged from 3 to 540 months ( $M = 234$ ,  $SD = 162.74$ ). Of the participants, 16.7% were single, 69.8% were married, and 13.5% were separated, divorced, or widowed. Education level ranged from 9 to 22 years of schooling ( $M = 14.77$ ,  $SD = 2.57$ ).

### Measures and procedure

Participants were approached individually by a female recruiter and asked whether they would like to take part in a research study on sexuality within romantic relationships. All participants who agreed completed a randomly ordered battery of the following scales on an individual basis. Most participants completed the questionnaires in about 20 minutes.

**Attachment.** A Hebrew version of the Experience in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998) measured attachment orientations. This self-report scale consists of 36 items tapping the dimensions of attachment anxiety and avoidance. Participants indicated the extent to which each item was descriptive of their feelings in close relationships on a 7-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (7). Eighteen items tapped attachment anxiety (e.g., 'I worry about being abandoned'), and 18 items

tapped attachment avoidance (e.g., 'I get uncomfortable when a romantic partner wants to be very close'). The ECR was translated into Hebrew by Mikulincer and Florian (2000), who also validated its two-factor structure on an Israeli sample. In the current sample, reliability was strong for the anxiety ( $\alpha = .87$ ) and avoidance items ( $\alpha = .84$ ). Global attachment scores were computed by averaging the relevant items. Higher scores indicated greater attachment-related avoidance or anxiety. The correlation between the two dimensions was very small and statistically insignificant ( $r = .04$ ).

**Sexual functioning.** The Israeli Sexual Behavior Inventory (ISBI; Kravetz, Drory, & Shaked, 1999) assessed sexual functioning. This 13-item scale tapped four areas of sexual functioning: Sexual satisfaction (3 items, e.g., 'I feel satisfied with my sexual life'), sexual arousal (2 items, e.g., 'I feel aroused during sexual intercourse'), orgasmic responsivity (3 items, e.g., 'How frequently your sexual activities with your partner resulted in orgasm'), and intimacy during sexual intercourse (5 items, e.g., 'My partner and I display signs of affection during sexual intercourse'). Participants rated the extent to which these items were self-descriptive on a 5-point scale, ranging from 'Not at all' (1) to 'Very much' (5). All four dimensions exhibited strong reliability ( $\alpha = .80$  for sexual satisfaction,  $\alpha = .83$  for orgasmic responsivity,  $\alpha = .76$  for intimacy, and  $\alpha = .82$  for sexual arousal). Four scores were computed by averaging items in each dimension.

**Components of the sexual behavioral system.** A Hebrew version of the Women's Sexual Working Models Scale (WSWMS; Birnbaum & Reis, in press) assessed individual differences in the emotional, cognitive, and motivational components of the sexual behavioral system as it functions in long-term adult romantic relationships. This 24-item self-report scale taps five dimensions of women's mental representations of the sexual aspect of romantic relationships: (i) 'Guilt and Shame' includes sinful, shame, and guilty feelings related to sexual activity (6 items, e.g., 'Sexual activity makes me feel guilty'); (ii) 'Maintain the Bond' reflects the belief that sexual activity promotes closeness between partners and enhances their emotional bond (6 items, e.g., 'To me, sexual activity can strengthen a committed relationship'); (iii) 'Distancing/Distractioin' reflects indifference and detachment from the sexual event and partner caused by intruding thoughts (4 items, e.g., 'While having sex, I sometimes feel like I am not involved but instead I am watching myself from outside'); (iv) 'Caring Partner' taps the perception of the sexual partner as caring and responsive to one's needs (4 items, e.g., 'I feel that my partner is concerned and caring during sex'); and (v) 'Excitement' incorporates positive and arousing aspects of sexual activity (4 items, e.g., 'During sexual activity, I feel pleasantly excited'). Participants rated the extent to which each item characterized their feelings, expectations, and beliefs about sexual activity with a partner, on a 9-point scale, ranging from (1) 'Not at all characteristic' to (9) 'Very characteristic.' Birnbaum and Reis (in press) translated the WSWMS into Hebrew and also validated its five-factor structure on an Israeli sample. Reliabilities were adequate for the five dimensions of sexual working models ( $\alpha = .84$  for Guilt and Shame,  $\alpha = .80$  for Maintain the Bond,  $\alpha = .79$  for Distancing/Distractioin,  $\alpha = .66$  for Caring Partner, and  $\alpha = .69$  for Excitement). Scores were computed by averaging the items corresponding to each dimension.

**Relationship satisfaction.** A Hebrew version of the Relationship Assessment Scale (RAS; Hendrick, 1988) was used to measure relationship satisfaction. This scale consists of 7 items rated on a 5-point Likert scale (e.g., 'In general, how satisfied are you with your relationship?'). The RAS was translated into Hebrew by Birnbaum and Reis (in press), using the forward-backward translation technique. The RAS is unidimensional, and highly reliable ( $\alpha = .91$ ) in the current sample. Higher scores represented greater relationship satisfaction.

**Background.** These items asked about demographic and relationship information, including age, current relationship status, and length of current relationship.

## Results

Initially, zero-order correlations were computed among all major variables (i.e., attachment scores, sexual functioning, sexual working models, and relationship satisfaction; see Table 1). As expected, attachment anxiety was positively associated with Distancing/Distracton and with Guilt and Shame. In addition, attachment anxiety was negatively associated with Caring Partner, Sexual Intimacy, Sexual Arousal, and Orgasmic Responsivity, as well as sexual and relationship satisfaction. Attachment avoidance was negatively associated with Caring Partner, Maintaining the Bond, Excitement, Sexual Intimacy, and Sexual Arousal.

The associations between age, relationship length, and all the major variables were also examined (see Table 1). Participants' age correlated significantly with sexual arousal and attachment avoidance. Relationship length correlated significantly with sexual arousal, sexual intimacy, excitement, and with attachment avoidance. Accordingly, age and relationship length were statistically controlled in tests of the hypotheses.

To determine the degree to which variance in cognitive, affective, and behavioral aspects of sexuality can be explained by anxiety and avoidance over and above age and relationship length, a series of hierarchical multiple regression analyses was conducted. In each analysis, age and relationship length were entered in the first step. Attachment avoidance and attachment anxiety were entered in the second step. The interaction between attachment avoidance and attachment anxiety (as standard scores) was entered in the third step. Regression analyses revealed no meaningful interactions between attachment avoidance and attachment anxiety, hence, they are not reported (see Table 2).

Attachment avoidance was negatively related to relational aspects of sexuality, specifically, sexual intimacy, excitement, perception of the partner as caring, and the belief that sexual activity enhances the emotional bond. In addition, attachment avoidance was not significantly associated with sexual arousal, orgasmic responsivity, and sexual satisfaction, after controlling for attachment anxiety. Unexpectedly, attachment avoidance was not significantly associated with relationship satisfaction.

As predicted, attachment anxiety was more detrimental to sexual functioning and related affect and cognitions when compared with attachment avoidance. Attachment anxiety was positively associated with all the aversive cognitive and affective aspects of sexuality. Also as expected, the higher the anxiety, the lower the relationship and sexual satisfaction, as well as sexual intimacy, arousal, and orgasmic responsivity.

**TABLE 1**  
**Correlations among attachment, relationship satisfaction, sexual functioning, and sexual working models**

	ISBI												
	Avoid.	Age	Rel. Length	RAS	Sexual Sat.	Intimacy	Orgasm	Arousal	Guilt	Maint.	Distraction	Caring	Excit.
Anxiety	.04	-.09	-.12	-.35***	-.42***	-.36***	-.34***	-.36***	.47***	.13	.44***	-.24*	-.14
Avoidance		.30**	.24*	-.16	.03	-.27**	-.15	-.21*	.08	-.35***	.06	-.24*	-.25*
Age			.79***	.02	-.07	-.07	-.07	-.23*	.01	.15	.09	.11	-.14
Relationship Length				.02	-.10	-.23*	-.06	-.29**	-.09	.00	.07	.06	-.25*
RAS					.63***	.55***	.16	.43***	-.28**	.08	-.45***	.41***	.23*
Sexual Sat.						.46***	.34***	.55***	-.43***	-.07	-.58***	.31**	.25*
Intimacy							.39***	.47***	-.24*	.19	-.34***	.61***	.39***
Orgasm								.43***	-.42***	-.00	-.59***	.40***	.57***
Arousal									-.38***	.15	-.48***	.41***	.50***
Guilt										-.06	.51***	-.28**	-.27**
Maintaining											.00	.29**	.37***
Distraction												-.33***	-.45***
Caring													.48***

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .



**TABLE 2**  
**Regressions of sexual functioning, sexual working models, and relationship satisfaction on attachment scores, age, and relationship length**

	Step 1			Step 2		
	Age	Relationship Length		Anxiety	Avoidance	
	$\beta$	$\beta$	$R^2$	$\beta$	$\beta$	$R^2$ change
Relationship Satisfaction	.01	.01	.00	-.35***	-.16	.15***
<i>Sexual Functioning (ISBI)</i>						
Sexual Satisfaction	.02	-.11	.01	-.42***	.09	.18***
Sexual Intimacy	.29	-.46**	.08*	-.39***	-.24*	.21***
Orgasmic Responsivity	-.10	.04	.01	-.35***	-.12	.14**
Sexual Arousal	-.03	-.26	.08*	-.40***	-.13	.18***
<i>Sexual Working Models</i>						
Guilt and Shame	.16	-.21	.02	.39***	.04	.16***
Maintain the Bond	.37*	-.29	.05	.15	-.44***	.19***
Distraction/Distancing	.12	-.04	.01	.43***	.00	.18***
Caring Partner	.11	-.02	.01	-.27**	-.29**	.15***
Excitement	.14	-.36*	.07*	-.17	-.22*	.08*

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

In the current sample, relationship status was not significantly associated with attachment avoidance and attachment anxiety, possibly because all the respondents were currently involved in committed long-term relationships. Accordingly, performing the same analyses on a sample of married women only did not produce any meaningful changes in the pattern of these findings.

### Test of mediation

To determine whether sexual satisfaction mediated the association between attachment anxiety and relationship satisfaction, Baron and Kenny's (1986) regression procedure for testing mediation was employed. First, relationship satisfaction was regressed on attachment anxiety to establish that there was an association to be mediated. Attachment anxiety was a significant predictor of relationship satisfaction,  $\beta = -.35$ ,  $p < .001$ . Second, the hypothesized mediator, sexual satisfaction, also significantly predicted relationship satisfaction,  $\beta = .68$ ,  $p < .001$ . Third, attachment anxiety significantly predicted sexual satisfaction,  $\beta = -.42$ ,  $p < .001$ . Finally, the dependent variable (relationship satisfaction) was regressed simultaneously on both the independent variable (attachment anxiety) and the proposed mediator (sexual satisfaction). This analysis determines whether the association between attachment anxiety and relationship satisfaction could be accounted for by sexual satisfaction. The association between attachment anxiety and relationship satisfaction was reduced to nonsignificance ( $\beta = -.07$ ), after controlling for sexual satisfaction. A Sobel test found that this reduction was significant,  $Z = 3.82$ ,  $p < .001$ . These data meet all of Baron and Kenny's criteria for mediation and therefore support the hypothesis that sexual satisfaction mediates the association between attachment anxiety and relationship satisfaction.

## **Discussion**

The current study provides an extension of earlier work on the detrimental effects of attachment insecurities on sexuality in college students by exploring the contribution of attachment orientations to sex-related affect and cognitions, as well as the resultant sexual functioning, in a community sample of relatively older, partnered women. Furthermore, the present study explores a potential mediating mechanism to explain the negative effects of attachment anxiety on relationship satisfaction. The findings indicated that although both attachment anxiety and attachment avoidance were associated with aversive sexual affect and cognitions, attachment anxiety was more detrimental to sexual functioning than attachment avoidance. In addition, only attachment anxiety was significantly associated with relational and sexual dissatisfaction, with sexual satisfaction mediating the association between attachment anxiety and relationship satisfaction.

More specifically, attachment avoidance was mostly associated with relational aspects of sexuality: The higher the avoidance, the lower the sexual intimacy, arousal, and the excitement, as well as the perception of the partner as caring and the belief that sexual activity promotes closeness between partners. These findings fit well with the proposition that highly avoidant persons' sexuality reflects the interaction goal of limiting intimacy (e.g., Gentzler & Kerns, 2004). Indeed, prior studies have shown that highly avoidant persons are motivated by nonrelational goals in the sexual realm (Cooper et al., 2006; Davis et al., 2004; Schachner & Shaver, 2004). Accordingly, they are less likely to enjoy the affectional aspects of sex (Brennan, Wu, & Loev, 1998; Hazan et al., 1994) and more likely to engage in relatively emotion-free sex in the context of casual, short-term relationships (e.g., Brennan & Shaver, 1995; Gentzler & Kerns, 2004; Schachner & Shaver, 2002). The current study extends these studies by portraying the compatible cognitive and affective sexual manifestations of attachment avoidance in the context of ongoing adult romantic relationships.

The findings also indicated that attachment avoidance was not significantly associated with sexual and relational satisfaction. These findings ostensibly contradict past studies showing that attachment avoidance is inversely associated with both relationship satisfaction (see review by Mikulincer, Florian, Cowan, & Cowan, 2002) and sexual satisfaction (e.g., Tracy et al., 2003). Why is attachment avoidance, with its potential for aversive sex-related affect and cognitions, not associated with sexual dissatisfaction? Possibly, some of the tendencies associated with attachment avoidance may be less marked in older samples with respondents who are involved in long-term relationships. Given that highly avoidant women in the current study were currently involved in a highly committed relationship of greater duration, compared with women in many other attachment studies, it is quite likely that they perceived their relationship and sex life as more functional and satisfactory than the 'typical' highly avoidant participant. Most probably, because those who are dissatisfied break up with their relational partners before they get to the phase of extreme

relational and sexual dissatisfaction (Sprecher, 2002). Thus, in the current research, highly avoidant women's negative perception of the relational aspects of sexuality may be a mere reflection of their preference for relatively 'instrumental' sexual encounters over affectionate ones (e.g., Brennan & Shaver, 1995; Gentzler & Kerns, 2004; Schachner & Shaver, 2002) rather than an expression of distress or preoccupation with relational worries. This explanation is consistent with the finding that attachment avoidance was not associated with being distracted by relational concerns during sexual activity. Indeed, earlier work found that attachment avoidance was associated with more aversive profile of sex-related affect and cognitions (e.g., guilty feelings, intruding thoughts) in a sample of younger women, involved in shorter-duration relationships (Birnbaum & Reis, in press).

Importantly, the current findings expanded our knowledge of the detrimental effects of attachment anxiety on the quality of the relationship and sexual thoughts and beliefs. Specifically, attachment anxiety was associated with all the aversive cognitive and affective aspects of sexuality: The higher the anxiety, the lower the perception of the partner as caring and responsive to one's needs. In addition, the higher the anxiety, the greater the tendency to experience negative feelings (e.g., shame, guilt), as well as indifference, detachment, and distraction by relational concerns. The current findings imply that highly anxious persons' chronic relational worries may be diverted into the sexual realm in the form of negative affect and cognitive obstacles to erotic pleasure (e.g., preoccupation with pleasing the partner, interfering judgmental thoughts). This pattern may also reflect the inappropriate use of sex, a predominant route for seeking proximity, to serve highly anxious women's otherwise unmet needs for intimacy, closeness, reassurance, and caregiving (Cooper et al., 2006; Davis et al., 2004; Schachner & Shaver, 2004). When these endless needs are not satiated, highly anxious women may experience frustration and alienation from the sexual event and partner.

It is highly likely that this negative affective and cognitive 'profile' of attachment anxiety may hamper sexual functioning (e.g., Barlow, 1986; Birnbaum, Glaubman, & Mikulincer, 2001; Kaplan, 1974; Walen, 1980). Indeed, the findings indicated that attachment anxiety was negatively associated with all the areas of sexual functioning: The higher the anxiety, the lower the sexual satisfaction, sexual intimacy, arousal, and orgasmic responsivity. These findings suggest that due to chronic activation of the attachment system, highly anxious women may enter sexual activity with relational worries and sex-irrelevant intruding thoughts. Furthermore, they may experience sexual activity in terms of romantic rejection and lack of affection, which, in turn, may exacerbate their sex- and attachment-related worries. This self-exacerbating cycle of negative feelings and cognitions may, in turn, impair sexual functioning and lead to further relational difficulties.

The mediation test offers some support to the above sequence of psychological events and adds to our understanding of the functional significance of highly anxious women's sexuality within romantic relationships. Specifically, mediation results show that the effects of attachment anxiety on

relationship satisfaction may be accounted for by sexual satisfaction. These findings are in line with Davis et al.'s (2004) contention that highly anxious women may consider sexual satisfaction as a 'barometer' for the quality of their relationship. Alternatively, they may confuse sex with other relational aspects, such as love and caregiving. Attachment anxiety may therefore amplify the possible effects of both positive and negative sexual interactions on relationship satisfaction (Birnbaum et al., in press). Positive sexual interactions may temporarily satiate highly anxious women's unmet needs for greater security and reduce their chronic worries and dysfunctional behaviors, whereas frustrating sexual encounters may be perceived as an indicator of a partner's rejection, thereby exacerbating attachment insecurities and relational worries. Taken together, the current findings challenge Feeney and Noller's (2004) assertion that some of the detrimental effects of attachment anxiety may be less conspicuous in an older population. The overall aversive nature of the sexual correlates of attachment anxiety implies that deep-seated relational concerns and their sexual manifestations may not wane over time, unless levels of anxiety decrease by 'compensatory' sexual and/or relational interactions.

Some limitations of the present study should be highlighted. For one, this study's sample consisted only of women. In light of documented gender differences in sexual construal (e.g., Birnbaum & Laser-Brandt, 2002), the generalizability of the current findings to men is uncertain. More specifically, because women develop a more emotional-interpersonal orientation toward sex than do men (e.g., Birnbaum & Laser-Brandt, 2002; DeLamater, 1987; Gagnon & Simon, 1973), their sexual functioning may be more influenced by internal working models of interpersonal relationships (Bogaert & Sadava, 2002). Consequently, anxious persons' heightened relational reactions to sexual interactions may be more pronounced among women than men (Birnbaum et al., 2006). In addition, all participants were involved in romantic relationships. One may question whether diverse relational contexts and phases will affect the interplay between the attachment and sexual behavioral systems. For example, how will the pattern of association between attachment orientations, sex, and relationship quality be changed with the transition into the different subjective stages of a romantic relationship? Will the detrimental effects of attachment anxiety on sexual functioning be less pronounced in the context of dating relationships than in the context of more established relationships, where sex may be more a reflection of relationship quality than a maintenance strategy? Finally, the correlational and retrospective nature of this study has precluded drawing conclusions about the possible causal link between attachment orientations and sexual functioning and related cognitions. For example, it is quite likely that being high in attachment anxiety may make people more prone to disappointing and dissatisfying sexual interactions. It is nevertheless still possible that a history of painful or dysfunctional sexual experiences may generalize to global relationship anxiety.

Despite limitations, however, the present study provides new insight into the contribution of attachment orientations to the operation of the sexual

behavioral system within the context of adult ongoing romantic relationships. In particular, for highly avoidant women, sexual satisfaction and relational aspects are relatively disconnected, while for highly anxious women, they seem to be inseparable. These findings raise additional questions about the joint operation of attachment and sexual systems within romantic relationships. Clearly, further research is needed to address these questions and extend the robustness of the current findings by employing longitudinal and experimental designs in more diverse samples.

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