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# Attachment and daily sexual goals: A study of dating couples

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## Abstract

This research provides the first empirical investigation of how both partners' attachment orientations contribute to daily sexual goals. Both members of 84 dating couples who attended a large urban university on the West Coast in the United States completed a measure of attachment orientation, and 1 member completed a measure of sexual goals for 14 consecutive days. Analyses showed that attachment anxiety was associated with engaging in sex to please one's partner and express love, whereas attachment avoidance was associated with engaging in sex to avoid negative relational consequences and was negatively associated with engaging in sex to express love. Daily sexual goals were also associated with the partner's attachment orientation. Gender moderated many of these associations. Theoretical and practical implications are discussed.

Close relationships, and romantic relationships in particular, are one of the most important sources of life satisfaction and emotional well-being across the life span (see reviews by Lucas & Dyrenforth, 2006; Myers, 2000). The importance of romantic relationships to well-being has led researchers to investigate which factors enhance relationship quality and stability. In the past couple of decades, researchers have focused considerable attention on people's attachment orientations in romantic relationships. Extensive research has shown that individuals who are securely attached to their partners experience high relationship satisfac-

tion and stability, whereas individuals who are less securely attached experience decreased levels of happiness and are less likely to stay together over time (Collins & Read, 1990; Hazan & Shaver, 1987; Simpson, 1990; see Shaver & Mikulincer, 2006a, for a review).

Attachment theorists have proposed that romantic love consists of three innate behavioral systems: attachment, caregiving, and sex (Bowlby, 1969/1982; Shaver, Hazan, & Bradshaw, 1988). Specifically, researchers suggest that the attachment system and the sexual system are closely linked (Shaver & Mikulincer, 2006b), such that sexual experiences can serve attachment functions by promoting proximity to a romantic partner and promoting bonding and intimacy in a relationship (Hazan & Zeifman, 1994; Schachner & Shaver, 2004). Given the theoretical overlap between the attachment system and the sexual system, recent research has begun to examine the role of attachment orientations in shaping individuals' sexual goals, attitudes, and behaviors (e.g., Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006; Davis, Shaver, & Vernon, 2004; Gentzler & Kerns, 2004; Impett & Peplau, 2002; Schachner & Shaver, 2004).

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Given the importance of sexual intimacy in enabling couples to maintain happy and long-lasting relationships (see review by Sprecher & Cate, 2004) as well as the specific role of sexual goals in promoting relationship satisfaction (Impett, Peplau, & Gable, 2005), it is especially useful to understand the various factors that influence the types of goals that people pursue in their sexual relationships. Indeed, several studies have begun to examine links between people's attachment orientations and sexual goals (e.g., Davis et al., 2004; Impett & Peplau, 2002; Schachner & Shaver, 2004). Much of this research has only focused on one partner's attachment orientation in the romantic couple. Given that people's own attachment orientations as well as their partner's attachment orientation may influence sexual goals in relationships, in this study, we examine the associations between *both* partners' attachment orientations and one partner's daily sexual goals in romantic relationships. In short, we have much to learn about how attachment orientations shape sexual goals in romantic relationships, knowledge that would be important both for expanding the range and utility of attachment theory in understanding processes in close relationships and for improving sexual and relationship functioning.

### *Attachment theory*

Bowlby (1969/1982, 1973, 1980) first proposed attachment theory as a way to explain the motivation of infants to rely on their caregivers. Hazan and Shaver (1987) extended the research on attachment to caregivers into the realm of romantic relationships, proposing that romantic partners can also serve as attachment figures. An important component of adult attachment theory is the idea that a romantic partner's responsiveness can shape an individual's interaction goals, relational cognitions, and interpersonal behavior. Individuals who have responsive and available attachment figures during times of need experience attachment security and optimal functioning. These individuals are able to develop positive internal working models of relationships (i.e., mental representations of how individuals and attachment figures should handle attachment-

related interactions). In contrast, individuals with attachment figures who are unresponsive, unavailable, and unreliable fail to develop attachment security and, instead, develop less than optimal strategies for dealing with stressful situations. These individuals have negative internal working models of relationships.

When attachment figures are not responsive during times of need, individuals can respond to this failure of the attachment system by engaging in secondary attachment strategies (Mikulincer & Shaver, 2007). Individuals may use *hyperactivating strategies* that attempt to get an unresponsive attachment figure to provide the desired proximity, support, and love. These strategies involve energetic, insistent attempts at attaining proximity that can become increasingly demanding (Shaver & Mikulincer, 2006a). These are often responses to an unpredictable attachment figure who is at times, but not always, responsive. In romantic relationships, these strategies often lead individuals to experience more passionate and obsessive romantic feelings. Their obsessive need for intimacy with a partner produces demands for security, clinging and intrusive behaviors, fears of rejection and abandonment, and efforts to minimize distance from their partners.

Individuals may also use *deactivating strategies* in response to an unresponsive attachment figure. Individuals use these strategies to deactivate the attachment system in order to avoid the frustration of having an unresponsive attachment figure and often use these strategies in response to an attachment figure who disapproves closeness and expressions of need. In romantic relationships, these individuals may appraise proximity as unlikely to alleviate their distress and therefore inhibit the attachment system by denying their attachment needs; avoiding intimacy, closeness, and dependence; and maximizing distance from their partners (Shaver & Mikulincer, 2006a).

Attachment researchers and theorists currently view individual differences in attachment orientations as a continuous two-dimensional model (Brennan, Clark, & Shaver, 1998; Brennan & Shaver, 1995; Fraley & Waller, 1998). One dimension, attachment anxiety, refers to an individual's fears that attachment figures will be unavailable and unsupportive

during times of need. Individuals who are high in attachment anxiety engage in behaviors in order to secure the proximity and supportiveness of others and use hyperactivating strategies when they experience distress. The second dimension, attachment avoidance, refers to an individual's general distrust that close others will be available and responsive during times of need. Individuals who are high in attachment avoidance attempt to create independence and emotional distance from attachment figures and employ deactivating strategies when their attachment system is activated. Individuals who report low levels of both anxiety and avoidance are securely attached.

Numerous studies have investigated the association between attachment orientations and the quality and stability of romantic relationships. Research has consistently shown that individuals with a secure attachment orientation report having more satisfying and stable relationships characterized by more commitment, intimacy, and trust than those higher in attachment avoidance or attachment anxiety (Hazan & Shaver, 1987; Kirkpatrick & Davis, 1994; Simpson, 1990; see Shaver & Mikulincer, 2006a, for a review). Individuals high in attachment avoidance generally experience less satisfying relationships than those low in attachment avoidance (Brennan & Shaver, 1995; Feeney, 1994; Simpson, 1990). Furthermore, avoidant individuals are also more likely than their securely or anxiously attached counterparts to initiate breakups due to fears that they are becoming too dependent on their romantic partners (e.g., Collins & Read, 1990; Hazan & Shaver, 1987; Kirkpatrick & Davis, 1994). In contrast, individuals high in attachment anxiety report being involved in less satisfying but relatively stable relationships (Campbell, Simpson, Boldry, & Kashy, 2005; Feeney, 1994; Kirkpatrick & Davis, 1994). The stability of these relationships arises from these individuals' high emotional needs that make breaking up unthinkable (e.g., Collins & Read, 1990; Kirkpatrick & Davis, 1994).

#### *Attachment orientations and sexual goals*

Individuals' attachment orientations also shape their attitudes and behaviors in sexual situa-

tions (e.g., Birnbaum et al., 2006; Gillath & Schachner, 2006; Tracy, Shaver, Albino, & Cooper, 2003), as well as their goals for engaging in sex (e.g., Davis et al., 2004; Impett & Peplau, 2002; Schachner & Shaver, 2004). Several studies have shown that attachment orientations affect the ways that individuals use sexual interactions to meet a variety of attachment-related needs. In a cross-sectional study of individuals in dating relationships, Impett and Peplau (2002) found that individuals high in attachment anxiety engaged in unwanted sex to prevent tension and their partner's loss of interest in the relationship, whereas individuals high in attachment avoidance engaged in unwanted sex out of a sense of obligation to their romantic partner. Schachner and Shaver (2004) found that individuals high in attachment anxiety often engaged in sex as a way to reduce insecurity and to increase intimacy. In contrast, individuals high in attachment avoidance were less likely to use sex as a way to increase intimacy but, instead, as a way to gain approval from their peers. In a large cross-sectional study of Internet respondents, Davis and colleagues (2004) found that anxious attachment was positively associated with engaging in sex to reduce feelings of insecurity about the relationship, to feel emotionally close to their partner, to gain reassurance about their partner's feelings and relationships, to increase their self-esteem, and to reduce stress. Attachment avoidance was also positively associated with engaging in sex to reduce insecurity and stress and was negatively correlated with engaging in sex to feel emotionally close to their partner and for reassurance. Cooper and colleagues (2006) found similar results in a longitudinal study of young adults in long-term relationships, demonstrating how attachment orientations in adolescence shaped the later development of sexual goals.

The results of these studies provide evidence that individuals' attachment orientations are associated with how they approach sexual intimacy and highlight the importance of investigating the link between the attachment and the sexual systems in romantic relationships. Based on prior research and theory, we predict that individuals high in attachment

anxiety will use sex as a proximity-seeking strategy to achieve their attachment-related goal of attaining closeness with their partner. Conversely, individuals high in attachment avoidance who have the goal of downregulating their attachment system may use sex for reasons such as seeking physical pleasure and stress relief that allows them to deal with attachment-activating threats without actually seeking proximity or asking for support.

### *The role of gender*

Although attachment theory does not propose different sexual motivational dynamics for women and men, research has fairly consistently documented gender differences in sexual goals. Across numerous studies, men report being more likely to engage in sex for physical gratification, whereas women report being more interested in the emotional and nurturing aspects of sex (see review by Impett & Peplau, 2006) consistent with both evolutionary (e.g., Buss, 2005) and social role (e.g., Eagly & Wood, 1999) perspectives on human sexuality. Previous research has produced mixed results concerning possible gender differences in associations between attachment orientations and sexual goals. Davis and colleagues (2004) did not find any interactions between gender and either attachment anxiety or avoidance in predicting sexual goals in a large Internet sample of individuals who had previously engaged in sexual intercourse. In contrast, Schachner and Shaver (2004) found that avoidant women were particularly unlikely to engage in sex to feel emotionally valued by their partners or to cope, whereas anxious women were more likely to use sex as a means to obtain and ensure their partner's affection. A study by Cooper and colleagues (2006) produced similar results concerning attachment anxiety, finding that anxiously attached women were more likely to engage in sex to secure and maintain their partner's approval than were less anxious women. Taken together, these studies suggest that the association between attachment orientations and sexual goals may be moderated by gender. In the current study, we will explore possible interactions between gender and attachment in predicting goals during daily sexual interactions.

### *Overview of the current research*

Although researchers have conducted several important studies to investigate the links between attachment and sexual goals, this research has been limited in two important ways. First, existing research linking attachment orientations with sexual goals has relied almost entirely on cross-sectional, retrospective reports (including Internet assessments) of sexuality and sexual behavior (e.g., Davis et al., 2004; Schachner & Shaver, 2004), with the exception of a longitudinal study by Cooper and colleagues (2006), which looked at the influence of attachment orientations measured in adolescence on the development of sexual goals in young adulthood. Second, most of these studies included only one member of the romantic couple, with very little research focusing on sexuality in a dyadic or relational context. A notable exception is a study Cooper and colleagues conducted, which found that women with anxious male partners were less likely to have sex to please or appease their partners. In more general research on romantic relationships, researchers have documented strong links between one person's attachment orientation and his or her partner's evaluation of and satisfaction with the relationship (e.g., Bpanse, 2004; Campbell, Simpson, Kashy, & Rholes, 2001; Campbell et al., 2005).

The current study addresses both these limitations by focusing on two central objectives. First, this study uses a daily experience method to obtain daily reports of sexual goals in dating relationships. We designed these daily reports to minimize retrospective bias and to provide more detailed, accurate information about the goals that people pursue during sexual interactions with a romantic partner. Indeed, no research has specifically examined the association between people's attachment orientations and aspects of their ongoing, daily sexual lives. Based on theory and previous research, we predicted that attachment anxiety would be positively associated with engaging in sex to satisfy the attachment needs of gaining reassurance of a partner's interest as well as promoting intimacy in the relationship. In contrast, we predicted that attachment avoidance would be negatively associated with engaging in sex to

promote intimacy in one's relationship and positively associated with engaging in sex out of a sense of obligation or to avoid conflict in the relationship. We will also explore possible interactions between gender and attachment in predicting goals during daily sexual interactions. For example, consistent with previous research, we predicted that anxiously attached women may be particularly likely to engage in sex to please their partners and maintain their partner's interest, whereas avoidant men may be particularly likely to engage in sex for individual-focused reasons such as to feel good about themselves and bolster their own self-image.

Second, both members of dating couples reported on their attachment style in order to examine the simultaneous contributions of both partners' attachment styles to daily sexual goals. One person's goals for sex may be associated not only with his or her own attachment style but also with the attachment style of the partner. Previous research has found that engaging in sex to pursue physical pleasure is not associated with attachment anxiety and only weakly associated with attachment avoidance (Davis et al., 2004; Schachner & Shaver, 2004). It is possible, however, that people with avoidant partners may be particularly likely to engage in sex to pursue their own pleasure, given that avoidant individuals are often emotionally detached during sex (Birnbaum et al., 2006) and are uncomfortable with physical closeness and intimacy (Hazan, Zeifman, & Middleton, 1994; Tracy et al., 2003). People with anxious partners may be particularly likely to engage in sex to avoid upsetting or disappointing their partners, for fear of further escalating their partner's anxiety. The current research extends previous research by investigating the associations between both partners' attachment orientations and daily sexual goals in dating relationships while also taking the gender of each of the partners into account.

## Method

The data for this study are from a larger study that included daily experience data from 121 participants and cross-sectional data from 84 of their romantic partners. More detailed infor-

mation about the parent study is provided in Impett and colleagues (2005). The current study includes data only from the 84 couples in which both partners provided data. Both members of the couple completed a standard measure of attachment orientation, and for 14 consecutive days, one member of the couple completed a measure of sexual goals each time he or she engaged in sexual intercourse with the partner.

## Participants and procedure

To obtain a sample of young dating couples, we relied on a convenience sample of undergraduate psychology students from the University of California, Los Angeles, a large urban university with an ethnically diverse student body in the United States. Eighty-four undergraduate students (47 women, 37 men) participated in a 14-day daily experience study and received credit toward psychology coursework in exchange for participation. Participants ranged in age from 17 to 38 ( $M = 20.3$ ,  $SD = 2.9$ ). The sample was ethnically diverse: 1% of the participants in the daily experience study were African American, 39% were Asian or Pacific Islander, 14% were Hispanic, 39% were Caucasian, and 6% self-identified as multiethnic or "other." All participants were currently involved in a dating relationship ( $M_{\text{LENGTH}} = 1$  year 7 months), were sexually active with their partner (although we did not recruit them based on this criterion), and were recruited for the study if they reported seeing their partner at least 5 days per week (i.e., no long-distance relationships). All participants self-identified as heterosexual.

During an initial session in the study, each participant was given 14 booklets, each containing the daily measures, 1 for each night of the week. A researcher then reviewed the procedures for completing the daily logs: Participants should begin completing their logs that evening (the day of the initial lab session), they should complete the logs before going to bed each night thereafter, their responses are anonymous and confidential, they should not discuss their logs with their partner, and they should leave the log blank if they miss a day.

To bolster and verify compliance with the daily schedule, participants returned completed logs every 2–3 days to a locked mailbox located outside the laboratory. As an incentive, each time participants handed in a set of logs on time, they received a lottery ticket for one of several cash prizes (US\$100, US\$50, US\$25) to be awarded after the study. We reminded participants who did not return a particular set of logs on time by phone or e-mail. We retained only those daily logs returned on time in the final data set. In total, participants completed 1,075 daily logs on time, an average of 12.8 days per person. Ninety percent of the participants completed all 14 daily reports on time.<sup>1</sup>

We asked all participants to return on the day after they completed their final log (i.e., Day 15) for an “exit” session. During this session, they handed in their last two or three daily logs, completed a short questionnaire about their experiences in the study, and were asked to take a short cross-sectional questionnaire to their partner to be completed privately at home and mailed back in exchange for a \$5 payment. Of the 121 individuals who participated in the parent study, 80% of their partners initially agreed to complete the take-home survey, and of those, 88% mailed their surveys back within 1 week. In total, 70% ( $N = 84$ ) of the partners completed the survey in a timely manner. We based all analyses in the current paper on the smaller number of couples in which both participants provided data. We should note that participants who provided partner data did not have partners who were

more (or less) anxious or avoidant than participants who provided partner data (both  $ps > .05$ ). In contrast to the study participants who completed a one-time measure of attachment style and daily measures of sexual goals for 14 days, their partners only completed the one-time measure of attachment style. The partners ranged in age from 16 to 41 ( $M = 20.7$ ,  $SD = 3.6$ ), and the ethnic breakdown was comparable to that reported for their partners.

#### *Person-level measure of attachment*

We assessed attachment anxiety and avoidance with the Experiences in Close Relationships Scale that Brennan and colleagues (1998) developed. Both members of the couple responded to such statements as follows: “I need a lot of reassurance that I am loved by my partner” (anxiety) and “I try to avoid getting too close to my partner” (avoidance) on 7-point scale (1 = *disagree strongly* to 7 = *agree strongly*). The reliability for both measures was high ( $\alpha s = .88$  and  $.89$  for attachment anxiety and  $\alpha s = .89$  and  $.92$  for attachment avoidance, for participants and their partners, respectively).

There were no significant correlations between couple members in either attachment anxiety ( $r = -.17$ ,  $p > .05$ ) or attachment avoidance ( $r = .10$ ,  $p > .05$ ). Consistent with previous research (Kirkpatrick & Davis, 1994), the participant’s attachment anxiety was positively correlated with his or her partner’s attachment avoidance ( $r = .30$ ,  $p < .01$ ); likewise, the participant’s attachment avoidance was positively associated with his or her partner’s attachment anxiety ( $r = .23$ ,  $p < .05$ ). Similar to previous research (Birnbau et al., 2006), men scored significantly higher on attachment avoidance ( $M = 2.51$ ,  $SD = 0.72$ ) than did women ( $M = 2.13$ ,  $SD = 0.69$ ),  $t(82) = 2.41$ ,  $p < .05$ . The men ( $M = 3.59$ ,  $SD = 1.04$ ) and the women ( $M = 3.47$ ,  $SD = 0.99$ ) in the sample did not significantly differ in attachment anxiety,  $t(82) = 0.55$ ,  $p = .59$ .

#### *Daily sexual goals*

Each day, participants in the daily experience study answered the following question: “Have

1. Stone, Shiffman, Schwartz, Broderick, and Hufford (2002) and others have criticized paper-and-pencil daily experience methods because of difficulties with confirming compliance rates. Three recent studies showed that paper-and-pencil and electronic forms of data collection yield comparable compliance rates and that compliance is more dependent on participant motivation than on the particular method of data collection (Green, Rafaeli, Bolger, Shrout, & Reis, 2006). As has been done in previous research (Gable, Reis, & Elliot, 2000), we enlisted participants as “co-experimenters” and took time in the initial session to interest and personally involve participants in the research. In addition, we instructed participants to return their daily surveys to the laboratory every 2–3 days instead of once a week, as is common in other daily diary studies (Birnbau et al., 2006). Thus, although we could not verify daily compliance, we feel confident that our research produced valid data.

you engaged in sexual activity with your partner since the last time you completed a daily survey?" If yes, they responded to a 10-item measure of sex goals, adapted from Cooper, Shapiro, and Powers (1998) and previously used by Impett and colleagues (2005). Participants rated the importance of 10 reasons in influencing their decision to engage in sex on 7-point scale (1 = *not at all important* to 7 = *extremely important*). The items were as follows: "To pursue my own sexual pleasure" (own pleasure), "To please my partner" (partner pleasure), "To feel good about myself" (feel good), "To enhance intimacy in my relationship" (intimacy), "To express love for my partner" (love), "To avoid conflict in my relationship" (conflict), "To prevent my partner from becoming upset" (partner upset), "To prevent my partner from getting angry at me" (partner anger), "To prevent my partner from losing interest in me" (lose interest), and "Because I felt obligated to engage in sex" (obligation).

## Results

### Data analysis plan

We used the Actor–Partner Interdependence Model (APIM; Kashy & Kenny, 2000) to assess the contribution of both partners' attachment orientations to daily sex goals. APIM allows for the estimation of both the effect that a person's independent variable has on his or her *own* dependent variable (known as an actor effect) and the effect that a person's independent variable has on his or her *partner's* dependent variable (known as a partner effect). The current study assessed both members of romantic couples in order to examine the actor and the partner effects of attachment dimensions on one member's daily sexual goals. The APIM assumes that data from two members of a couple are not independent and treats the dyad rather than the individual as the unit of analysis. Thus, we estimated actor and partner effects simultaneously. For example, an actor effect for anxiety in the present study assesses the types of sexual goals associated with highly anxious individuals compared to low-anxious individ-

uals, controlling for the person's own level of attachment avoidance and the partner's level of anxiety and avoidance. A partner effect for anxiety in the present study assesses whether persons with highly anxious partners differ in their sexual goals from persons with less anxious partners, controlling for the partner's level of avoidance and the actor's own anxiety and avoidance. In short, actor effects resemble the types of effects that are estimated by traditional data analytic techniques, but they control for the potential impact of the partner, whereas the partner effects model the interdependence that exists between both partners in the relationship.

We used hierarchical linear modeling (HLMwin version 6.0; Kenny, Kashy, & Bolger, 1998; Raudenbush & Bryk, 2002) to analyze the data, as other researchers using APIM with dyadic data have suggested (e.g., Campbell & Kashy, 2002; Kenny, Kashy, & Cook, 2006). Additionally, we assessed sexual goals on multiple days within person, and HLM addresses these nonindependent data. We coded gender as 0 = *men*, 1 = *women* and centered all Level 2 continuous predictor variables (i.e., attachment anxiety and avoidance) on the grand mean. Additionally, we analyzed both attachment dimensions simultaneously in order to control for their covariance. The equations testing the association between each partner's attachment anxiety and avoidance with each of the 10 sexual goals are as follows:

$$\begin{aligned} \text{Level 1} \quad Y &= \beta_0 + r \\ \text{Level 2} \quad \beta_0 &= \gamma_{00}(\text{actor anxiety}) \\ &\quad + \gamma_{01}(\text{partner anxiety}) \\ &\quad + \gamma_{02}(\text{actor avoidance}) \\ &\quad + \gamma_{03}(\text{partner avoidance}) \\ &\quad + \gamma_{04}(\text{gender}) + u_0. \end{aligned}$$

The Level 1 equation predicts the value of sexual goals ( $Y$ ) for a given couple from an average level term ( $\beta_0$ ; the intercept) and an error term ( $r$ ). In the Level 2 equation, the intercept is then estimated based on the individual's scores on the anxiety and avoidance attachment dimensions ( $\gamma_{00}$  and  $\gamma_{02}$ ), the individual's partner's scores on the anxiety and

avoidance attachment dimensions ( $\gamma_{01}$  and  $\gamma_{03}$ ), gender ( $\gamma_{04}$ ), and an error term ( $u_0$ ). In subsequent analyses, we also entered interaction terms of gender with the actor and the partner effects for both attachment anxiety and avoidance. In addition, we examined the models within men and women separately. Finally, we conducted all significance tests in HLM using robust standard errors, which adjust for nonnormal data.

### Results from actor-partner analyses

Table 1 displays the means and standard deviations for all attachment and daily sexual goals variables. Participants reported a total of 328 sexual interactions. On average, participants reported engaging in sexual intercourse on 3.9 days during the 2-week study ( $SD = 2.3$ , range = 1–10 days). Consistent with previous research, the most commonly reported sexual goals concerned pursuing one's own physical pleasure, pleasing one's partner, and expressing love and intimacy, while various avoidance-related motives were less common (e.g., Cooper et al., 1998; Cooper et al., 2006).

**Table 1.** Descriptive statistics for all study variables

	<i>M (SD)</i>	Range
Attachment orientations		
Actor anxiety	3.52 (1.01)	1.61–6.50
Actor avoidance	2.30 (0.73)	1.00–4.33
Partner anxiety	3.50 (1.04)	1.06–5.78
Partner avoidance	2.45 (1.01)	1.11–5.83
Daily sexual goals		
Partner pleasure	5.78 (1.02)	3.00–7.00
Love	5.72 (1.35)	3.00–7.00
Own pleasure	5.31 (1.18)	1.00–7.00
Intimacy	5.24 (1.48)	1.00–7.00
Feel good	3.42 (1.84)	1.00–7.00
Obligation	1.76 (1.18)	1.00–7.00
Conflict	1.76 (1.17)	1.00–7.00
Lose interest	1.67 (1.11)	1.00–6.00
Partner upset	1.63 (1.02)	1.00–6.50
Partner anger	1.47 (0.85)	1.00–6.50

*Note.* Means for daily sexual goals are aggregated across the 14-day study. All measures used a 7-point scale.

Table 2 displays the results of the initial analyses including the four actor-partner effects (i.e., effects for actor anxiety and avoidance and effects for partner anxiety and avoidance). Consistent with previous cross-sectional research, we found several significant actor effects. Actor anxiety was positively associated with engaging in sex to please one's partner, to enhance intimacy in the relationship, and to express love. In contrast, actor avoidance was negatively associated with engaging in sex to please one's partner, to enhance intimacy (marginally significant), and to express love; actor avoidance was positively associated with engaging in sex to avoid conflict, to avoid one's partner becoming upset, and to avoid one's partner becoming angry. In terms of partner effects, partner attachment anxiety was positively associated with engaging in sex to please one's partner (marginally significant). As predicted, partner attachment avoidance was positively associated with engaging in sex to pursue one's own pleasure. In addition, relationship length was not significantly associated with either partner's attachment anxiety or avoidance scores ( $r_s < .07$ ). Furthermore, all these and subsequent results were still significant after controlling for relationship length.

We then conducted an additional set of analyses in which we added gender as well as interactions between gender and each of the four actor-partner effects. Table 3 displays the results of these analyses. In order to understand the direction and meaning of these interactions, we conducted follow-up analyses separated by gender to test the simple effects (see Table 4). Starting with the results for men, actor anxiety was positively associated with engaging in sex to pursue one's own pleasure (marginal), to feel good about oneself, to please one's partner, and to enhance intimacy in the relationship and was negatively associated with engaging in sex out of feelings of obligation. Actor avoidance was positively associated with engaging in sex to feel good about oneself and to prevent one's partner from becoming upset. As for partner effects, partner anxiety for men was negatively associated with engaging in sex to please one's partner and to enhance intimacy (marginally

**Table 2.** Actor and partner effects of anxiety and avoidance predicting daily sexual goals

Predictor	Unstandardized HLM coefficients									
	Sexual goals									
	Own pleasure	Partner pleasure	Feel good	Intimacy	Love	Conflict	Partner upset	Partner anger	Lose interest	Obligation
Gender	-.01	-.25	.15	.19	.48 <sup>†</sup>	.12	.05	-.10	-.08	.22
Actor anxiety	-.05	.25*	.27	.33*	.28*	-.03	-.13	-.01	.19	.09
Actor avoidance	-.13	-.33*	.07	-.38 <sup>†</sup>	-.51**	.33*	.53***	.23*	.21	.18
Partner anxiety	.04	.17 <sup>†</sup>	.21	-.04	-.03	-.01	-.01	.08	.04	.25
Partner avoidance	.27**	-.08	.15	-.07	-.15	.03	-.01	-.04	-.01	-.08

Note. N = 84. Gender was coded as men = 0 and women = 1.

<sup>†</sup>p < .10. \*p < .05. \*\*p < .01. \*\*\*p < .001.

significant). Partner avoidance for men was positively associated with engaging in sex to pursue one’s own pleasure, to feel good about oneself, and to prevent one’s partner from losing interest (marginal).

Turning to the women in the sample, analyses revealed that actor anxiety was positively associated with engaging in sex to enhance intimacy in the relationship and to express love

for one’s partner. Actor avoidance was positively associated with engaging in sex to avoid conflict, to prevent one’s partner from becoming upset, and to prevent one’s partner from losing interest in the relationship; avoidance was negatively associated with engaging in sex to please one’s partner, to enhance intimacy in the relationship, and to express love for one’s partner. As for partner effects, partner

**Table 3.** Actor and partner effects of anxiety, avoidance, and interactions with gender in predicting daily sexual goals

Predictor	Unstandardized HLM coefficients									
	Sexual goals									
	Own pleasure	Feel good	Partner pleasure	Intimacy	Love	Conflict	Partner upset	Partner anger	Lose interest	Obligation
Gender	-.07	.09	-.24	.17	.49 <sup>†</sup>	.13	.04	-.10	-.14	.28
Actor anxiety	.26 <sup>†</sup>	.53**	.31**	.36*	.23	-.05	-.14	-.04	.37	-.28**
Actor avoidance	-.05	.81*	.08	.04	-.05	.09	.47*	.27	.01	.16
Partner anxiety	-.14	-.22	-.27*	-.43 <sup>†</sup>	-.21	.02	-.12	-.03	-.02	.07
Partner avoidance	.62**	.56*	.08	.15	-.37	.07	.19	.10	.51 <sup>†</sup>	-.10
Actor Anxiety × Gender	-.59*	-.40	-.04	.03	.12	.03	.07	.11	-.33	.82*
Actor Avoid × Gender	-.05	-.93*	-.43*	-.49	-.57 <sup>†</sup>	.32	.10	-.05	.25	.02
Partner Anxiety × Gender	.21	.54	.75***	.65*	.27	.03	.24	.22 <sup>†</sup>	.05	.47 <sup>†</sup>
Partner Avoid × Gender	-.36	-.51	-.17	-.29	.26	-.04	-.27	-.20	-.62*	-.07

Note. N = 84. The main effects shown above should only be interpreted within the context of the associated interaction effects.

<sup>†</sup>p < .10. \*p < .05. \*\*p < .01. \*\*\*p < .001.

**Table 4.** Actor and partner effects of anxiety and avoidance on daily sexual goals separated by gender

	Unstandardized HLM coefficients									
	Sexual goals									
	Own pleasure	Feel good	Partner pleasure	Intimacy	Love	Conflict	Partner upset	Partner anger	Lose interest	Obligation
<b>Men</b>										
Actor anxiety	.27 <sup>†</sup>	.53*	.31**	.36*	.24	-.06	-.14	-.04	.36	-.28*
Actor avoidance	-.06	.75*	.05	.04	-.05	.08	.45*	.27	.02	.16
Partner anxiety	-.15	-.25	-.26*	-.44 <sup>†</sup>	-.21	.02	-.11	-.03	-.02	.07
Partner avoidance	.62**	.62*	.06	.14	-.37	.07	.18	.09	.51 <sup>†</sup>	-.09
<b>Women</b>										
Actor anxiety	-.33	.13	.27	.39*	.35*	-.04	-.10	.06	-.01	.55
Actor avoidance	-.10	-.40	-.46*	-.58*	-.77**	.51*	.59**	.21	.38*	.16
Partner anxiety	.05	.29	.45***	.18	.05	.03	.10	.16*	.01	.53*
Partner avoidance	.27*	.05	-.09	-.14	-.11	.05	-.04	-.08	-.06	-.18

Note.  $N = 84$  (47 women, 37 men).

<sup>†</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

anxiety for women was positively associated with engaging in sex to please one's partner, to prevent one's partner from becoming angry, and out of feelings of obligation. Finally, partner avoidance for women was positively associated with engaging in sex to pursue one's own sexual pleasure.

## Discussion

Recent research has begun to investigate links between the attachment and the sexual systems in adult romantic relationships (e.g., Birnbaum et al., 2006; Cooper et al., 2006; Davis et al., 2004; Davis et al., 2006; Gillath & Schachner, 2006; Impett & Peplau, 2002; Schachner & Shaver, 2004). Much of this work has been largely cross-sectional and focused on one member of the couple. The current research sought to extend this important work by investigating the effects of a person's own attachment orientation (i.e., actor effects) and the effects of the partner's attachment orientation (i.e., partner effects) on sexual goals during daily sexual interactions.

### Actor effects

Consistent with previous cross-sectional research, we found several actor effects for anxiety

and avoidance. More specifically, a person's own attachment anxiety was positively associated with engaging in sex to please one's partner, to enhance intimacy in the relationship, and to express love (Davis et al., 2004; Schachner & Shaver, 2004). These findings are consistent with previous research documenting anxious individuals' needs for intimacy and closeness in their relationships (Shaver & Mikulincer, 2006a). They are also consistent with research by Davis and colleagues (2006) showing that anxiously attached individuals tend to perceive sexual desire as a sign of love and a "barometer" of relationship quality, making them relatively less likely to assert their own sexual needs and interests and more likely to defer to the partner's preferences (Davis et al., 2006).

Two of the actor effects for attachment anxiety were specific to the men in the sample. Men's attachment anxiety was positively associated with engaging in sex to feel good about oneself, a finding that is consistent with previous research showing that anxiously attached individuals use sex as a way to cope with stress and negative emotions (Davis et al., 2004; Schachner & Shaver, 2004). In addition, men who were higher in attachment anxiety were also less likely to engage in sex out of feelings of obligation than less anxious men. Perhaps

these men are less likely to engage in sex out of obligation because it indicates that they do not want to have sex with their partners, a feeling that is in contrast to their eager-to-please mentality.

A person's own attachment avoidance was negatively associated with engaging in sex to please one's partner, to enhance intimacy, and to express love and was positively associated with engaging in sex to avoid conflict and to prevent one's partner from becoming angry and upset. The finding linking attachment avoidance with a lessened likelihood of engaging in sex to promote intimacy and to express love is consistent with previous research documenting avoidantly attached individuals' desires to avoid intimacy and closeness (Shaver & Mikulincer, 2006a). Nevertheless, the association between attachment avoidance and engaging in sex to prevent a partner from becoming upset or angry suggests that avoidance does promote sexual goals related to avoiding negative repercussions in one's relationship.

There were a couple of actor effects for attachment avoidance that were specific to the participants of each gender. Attachment avoidance for men, but not women, was associated with engaging in sex to feel good about oneself, consistent with previous research showing that avoidant individuals are more likely to engage in sex as a way to reduce stress (Davis et al., 2004). These men may engage in sex to feel good about themselves as a way to avoid displaying their own distress or asking their partners for support (Simpson, Rholes, Oriña, & Grich, 2002), consistent with gender roles that prioritize the importance of self-reliance for men (Cross & Madson, 1997). Attachment avoidance for women, but not men, was positively associated with engaging in sex to prevent one's partner from losing interest in the relationship. Thus, in addition to engaging in sex to avoid conflict or to prevent a partner from becoming angry, more avoidant women used sex as a way to keep their partner's interest in the relationship, suggesting that avoidant women may be particularly likely to internalize gendered beliefs about the importance of sexuality to men's satisfaction in romantic relationships (Walker, 1997).

### *Partner effects*

This is the first study to examine the association between one person's attachment orientation and his or her partner's daily sexual goals. As predicted, both men and women with more avoidant partners were more likely to engage in sex to pursue their own sexual pleasure than individuals with partners who scored lower in attachment avoidance. This finding is consistent with previous research showing that avoidant individuals are relatively emotionally detached during sex and lack interest in sharing intimacy and affection (e.g., Birnbaum et al., 2006; Hazan et al., 1994). People may focus even more on pursuing self-interested sexual goals such as increasing their own sexual pleasure when they engage in sex with an emotionally detached partner. In addition, partner avoidance was also associated with engaging in sex to feel good about oneself for men but not for women. This result suggests that men with more avoidant partners may be particularly likely to engage in sex in pursuit of relatively self-focused goals such as pursuing their own pleasure or boosting their views of themselves.

Both men and women with more anxious partners were marginally more likely to engage in sex to please their partners than individuals with partners who scored lower in attachment anxiety. There were also several additional effects that were specific to men with more anxiously attached partners. Men with more anxious partners were less likely to engage in sex to please their partners and were marginally less likely to engage in sex to promote intimacy than men with partners who scored lower in attachment anxiety. Perhaps these men's intimacy and closeness needs are already adequately satiated, especially given their partner's insistent attempts to be close, making them less likely to engage in sex to please their partners or enhance intimacy in the relationship. It is also possible that men with more anxiously attached partners may be less likely to engage in sex for such partner-related goals due to annoyance or frustration with their clingy anxious partners than men whose partners scored lower on attachment anxiety. On the other hand, women with more

anxious partners were more likely to engage in sex to please their partners, to prevent their partners from becoming angry, and out of feelings of obligation than women with partners who scored lower in anxiety. These results suggest that when men are anxious, clingy, or excessively dependent, women may engage in sex to please and prevent them from becoming angry, sometimes out of obligation rather than genuine sexual desire and interest (Impett & Peplau, 2003). We should note that whereas women with more anxious partners engage in sex more often to please their partners, men with more anxious partners engage in sex less often to please their partners, pointing to important differences in the ways that men and women attempt to appease and soothe their anxiously attached partners.

#### *Theoretical and methodological contributions*

This study provides additional empirical evidence for the overlap between the attachment and the sexual systems (Bowlby, 1969/1982; Shaver et al., 1988). Individuals with different working models of attachment have different conceptualizations of, and goals for, sex that influence the nature and quality of their romantic relationships (Mikulincer & Shaver, 2007). Although we conceptualize these two systems as being distinct behavioral systems, the current research extends previous findings by documenting overlap between the two systems. Moreover, we suggest that sex may indeed be one way in which secondary strategies are executed within intimate relationships. Our research findings are also consistent with the idea that individuals higher in attachment anxiety use sex as a hyperactivating strategy. That is, these individuals engage in sex with their partner as a way to gain their desired proximity, love, and support. In contrast, individuals higher in attachment avoidance are less likely to engage in sex to promote intimacy than their less avoidant counterparts, a finding consistent with the idea that these individuals are more likely to downregulate their attachment system through deactivating strategies by not seeking proximity and intimacy from others. Our research also highlights

the important role that gender plays in the association between the attachment and the sexual systems. For example, both men and women who were higher in attachment anxiety engaged in sex to promote intimacy; however, being higher in attachment avoidance was not associated with the goal of promoting intimacy for men but was negatively associated with promoting intimacy for women. Findings such as this one suggest that the association between attachment orientations and sexual goals must consider the gender-specific functions that sex serves for men and women (see review by Impett & Peplau, 2006).

A major methodological strength of this research concerns the daily nature of data collection. Previous research has examined the link between attachment orientations and sexual goals using cross-sectional, retrospective designs (Davis et al., 2004; Schachner & Shaver, 2004). This is the first study to extend this research using a daily experience methodology in which participants reported on their sexual interactions shortly after they occurred. Sexual goals can vary from day to day, such that on some days, people engage in sex to pursue physical pleasure, while on other days, they engage in sex to promote intimacy or avoid conflict (Impett et al., 2005). The research design of the current study allowed for the simultaneous examination of dispositional variables (i.e., attachment orientations) and situational variables (i.e., daily variations in sexual goals) to provide a fuller and more nuanced understanding of the sexual lives of dating couples.

Another strength stems from the use of the APIM to examine the simultaneous influence of both partners' attachment orientations on daily sexual goals. Previous research has tended to focus on one member of the romantic couple, despite the dyadic nature of sexual experiences between couples. This study is part of an emerging area of research that uses the APIM and other dyadic analytic techniques to investigate how partners shape each other's goals, behaviors, and experiences (e.g., Banse, 2004; Campbell et al., 2001; Campbell et al., 2005). The results of this study suggest that information about both partners' attachment orientation is necessary for a more complete

understanding of how the attachment system influences goals within close relationships.

### *Implications, limitations, and future directions*

Both the attachment system and the sexual system play important roles in relationship functioning (Mikulincer & Shaver, 2007). Individuals with negative working models of relationships (i.e., those high in attachment anxiety or attachment avoidance) are more likely to experience dissatisfying relationships than individuals with positive working models. One reason why these individuals may feel so dissatisfied in their romantic relationships is because they are pursuing particular sexual goals, which lessen feelings of relationship satisfaction. Recent research has shown that engaging in sex in the pursuit of different goals is associated with the quality and stability of romantic relationships. For example, a recent daily experience study showed that on days when individuals engaged in sex to promote positive outcomes in their relationships such as intimacy and closeness, they reported increased relationship satisfaction (Impett et al., 2005). In contrast, on days when they engaged in sex to avoid negative outcomes such as conflict or a partner's disappointment, they reported less relationship satisfaction and more conflict. In addition, engaging in sex to avoid negative outcomes predicted decreased relationship satisfaction and more breakups 1 month later. Therapists attempting to help couples with relationship problems, including sexual problems, may benefit from considering how attachment orientations affect relationship and sexual functioning through their associations with people's goals for sexual intimacy. Furthermore, these findings highlight the necessity of considering the influence of gender when exploring how individual differences, such as attachment orientations, affect relationship goals and outcomes, especially when using these differences for practical purposes such as therapy.

Several limitations of this research and directions for future research deserve comment. First, the attachment framework used in this research should be extended to a broader

range of couples. Participants in this study were college students in dating relationships, and it will be important to replicate and extend these findings both to nonstudent samples and to married couples and others involved in relationships of greater duration and commitment. Long-term married couples may engage in sex less frequently than the young dating couples in this sample (see review by Willets, Sprecher, & Beck, 2004) or more frequently in pursuit of particular goals (e.g., out of a sense of obligation), but it remains an open question if attachment style would differentially predict sexual goals in a sample of married couples. It would also be interesting to extend this research to same-sex couples. We found that whereas women with more anxious male partners engaged in sex more often to please their partners, men with more anxious female partners engaged in sex less often to please their partners. If these findings reflect men's and women's feelings about what they can do to soothe an anxious partner (i.e., women give men the sex they want; men refrain from making sexual advances), then we would not expect these particular findings to extend to same-sex relationships. Research with same-sex couples is needed to explore this intriguing possibility. In addition, the couples in this study scored relatively low on the dimensions of attachment anxiety and attachment avoidance. Conducting a comparable study among distressed couples who may score higher on both these dimensions could reveal even stronger patterns of association. Finally, it will be important for future research to replicate these effects in other cultural contexts. In non-Western cultures that place a greater emphasis on group harmony and peaceful interpersonal relations, we might expect to see more reporting of sexual goals to avoid conflict or to prevent a partner from becoming upset.

Second, the measures of sexual goals included in the daily experience study were necessarily brief. The sex goals measure included only 10 items to capture possible reasons for engaging in sex (Impett et al., 2005). Many of the sexual goals measured in previous research (e.g., Davis et al., 2004; Schachner & Shaver, 2004) were not captured by our scale (e.g., to experience a sense of power in the

relationship). While this research was limited in its scope, the daily nature of the data collection provides the first assessment of how attachment orientations are associated with sexual goals during daily sexual interactions in romantic couples.

Third, although our theoretical framework proposes that attachment orientations shape sexual goals, our data do not provide a definitive test of this direction of causality. Other causal connections are possible. For example, research suggests that both early attachment experiences and later experiences within relationships can shape attachment orientations. Therefore, it is possible that sexual interactions may in fact be shaping working models of attachment, although researchers have shown attachment orientations to be fairly stable across the life span (Mikulincer & Shaver, 2007). Nevertheless, correlational data, such as those provided in our daily experience study, cannot disentangle these causal patterns. Future longitudinal research should examine the possibility that attachment orientations measured earlier in life (such as before young people become sexually active) influence the later development of particular sexual goals.

Although an important strength of this study was that it included attachment data from both members of the couple, future studies should also take both partners' sexual goals into account. Sexual goals are inherently different from goals in other domains such as academic achievement (e.g., Elliot, 2005) in that they require coordination with another person who has his or her own goals for sexual interactions. In order to address this complexity, it will be important for future research to collect daily sexuality data from both members of couples, sampling them at specific moments in their daily lives as well as over longer periods of time.

Another exciting direction for future research will be to explore the potential moderating role of daily events on the link between attachment orientations and sexual goals. Much of the motivation literature has viewed social motivation from a dispositional perspective, suggesting that social tendencies are stable across time. Other research, however, has

illustrated the importance of distinguishing between social motives and goals (e.g., Elliot, Gable, & Mapes, 2006; Gable, 2006). Motives are the underlying and dispositional wishes and desires that people possess, whereas goals are the short-term cognitive constructs representing areas in life toward which a person currently directs his or her energies (Gable & Strachman, 2007). We suggest that reasons for engaging in sex may vary from day to day and are more representative of goals than motives. Therefore, a research design that allows for the simultaneous examination of dispositional variables (such as attachment style) and situational variables (such as daily variations in relationship satisfaction) may provide a more complete picture of sexual goals in future research. For example, on days when feelings of relationship satisfaction are low, anxiously attached individuals' fear of abandonment may be particularly sensitive, and thus, their desire to engage in sex for partner approval may be even greater.

### *Concluding comments*

Despite the limitations, the current study makes a number of unique contributions to our understanding of the links between the attachment and the sexual systems by examining sexuality during ongoing sexual interactions and by measuring the attachment orientations of both members of romantic couples. Future research should continue to pay close attention to the dyadic aspects of attachment and sexuality in the lives of romantic couples.

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