

Associations of Attachment Anxiety and Avoidance With Male- and Female-Perpetrated Sexual Coercion in Romantic Relationships

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Few studies have investigated the associations between romantic attachment dimensions and sexual coercion perpetration. The present study aimed to address methodological limitations in previous studies, and to more accurately identify the associations between romantic attachment and sexual coercion perpetration in romantic relationships. Data from 284 individuals (56% men) were secured via an online self-report survey. Participants completed assessments of romantic attachment to their current romantic partner, and reported the frequency with which they perpetrated 34 acts of sexual coercion against their romantic partner. Attachment anxiety was a positive predictor of sexual coercion perpetration for men and women. Additionally, for men only, the association between attachment anxiety and sexual coercion perpetration was stronger for individuals with greater attachment avoidance. The results of the study present a clearer picture of the associations between attachment and sexual coercion, and accord with modern theoretical perspectives positing that romantic attachment regulates reactions to acute and ongoing relationship threats.

Keywords: romantic attachment; sexual coercion; close relationships; perpetration; evolutionary psychology

People sometimes use physical force to engage in sexual behavior with an intimate partner. Between 9% and 26% of women report rape by their male partner, for example (Finkelhor & Yllo, 1985; Goetz & Shackelford, 2006; Hadi, 2000; Russell, 1982). Subtle (non-physical) coercion, such as verbal manipulation or threats, however, is more common than physical force when attempting to engage in sexual behavior (Shackelford & Goetz, 2004). Sexual coercion, broadly defined, refers to pressure (e.g., threats of violence, emotional manipulation, physical force) directed by one person toward another to engage in sexual behavior (Koss & Oros, 1982). Because of the breadth with which sexual coercion is operationalized across studies, prevalence estimates of sexual

coercion perpetration range considerably. Sexual coercion may be defined as individual differences in power (Birbaum, Weisberg, & Simpson, 2011), showing displeasure at a rejection of an attempted kiss (Koss et al., 2007), or using physical force to engage in sexual behavior with a victim (Shackelford & Goetz, 2004). Published estimates of sexual coercion range from 33% to 82% (Barbaro, Pham, & Shackelford, 2015; Goetz & Shackelford, 2006, 2009; Jenkins & Aubé, 2002; Russell & Oswald, 2001; Shook, Gerrity, Jurich, & Segrist, 2000).

Adult attachment theory (Fraley & Shaver, 2000; Simpson & Belsky, 2016) is a guiding framework for investigating whether individual differences in romantic attachment predict sexual coercion perpetration. Romantic attachment bonds are suggested to facilitate the maintenance of pair-bonds between romantic partners (Fraley & Shaver, 2000; Hazan & Diamond, 2000; Shaver, Hazan, & Bradshaw, 1988) by regulating and motivating cognitive, affective, and behavioral responses to potential threats to a romantic pair-bond, which may include cues of partner infidelity or relationship dissolution (Barbaro, Boutwell, Barnes, & Shackelford, 2017; Barbaro, Sela, Atari, Shackelford, & Zeigler-Hill, 2018; Hazan & Diamond, 2000; Kruger et al., 2013). Attachment bonds to romantic partners are conceptualized along two dimensions of attachment anxiety and attachment avoidance (Brennan, Clark, & Shaver, 1998; Fraley & Shaver, 2000; Fraley, Waller, & Brennan, 2000). Each attachment dimension is associated with unique cognitive and behavioral patterns in response to threats in a relationship context (Shaver & Mikulincer, 2008).

Attachment anxiety—characterized by hyperactivation of the attachment system (Cassidy, 2000)—is associated with increased sexual motivation (Davis, Shaver, & Vernon, 2004), chronic jealousy (Sharpsteen & Kirkpatrick, 1997), and hypervigilance to cues of rejection and abandonment by a romantic partner (Mikulincer & Shaver, 2007). In contrast, attachment avoidance—characterized by hypoactivation of the attachment system (Cassidy, 2000)—is associated with attempts to evade emotional and physical intimacy with a romantic partner (Shaver & Mikulincer, 2008), and with excessive self-reliance and independence (Edelstein & Shaver, 2004). Individual differences in attachment bonds to a romantic partner influence the extent to which present and future risks of pair-bond threats (actual or imagined) are monitored and evaluated (Fraley & Shaver, 2000; Hazan & Diamond, 2000; Kirkpatrick, 1998), subsequently motivating behavioral responses that function to prevent or correct for threats to the pair-bond (Barbaro et al., 2018; Kruger et al., 2013).

The romantic attachment system regulates emotional and behavioral actions and reactions toward a romantic partner as a function of acute (Kruger et al., 2013) or ongoing relationship threats (Barbaro et al., 2018). Anticipated or ongoing threats to a romantic relationship (e.g., partner infidelity) disrupt the interdependent partnership between a man and woman and divert shared resources (e.g., economic, emotional, physical) outside of the romantic dyad (Buss, 2017). One potential behavioral response to a relationship threat (actual or imagined) is sexual coercion (Goetz, Shackelford, & Camilleri, 2008; Shackelford & Goetz, 2004). The present study investigates how individual differences in romantic attachment may predict sexual coercion perpetration, specifically within romantic relationships—a context in which romantic attachment is most relevant (Kirkpatrick, 1998). We argue that attachment anxiety may be an important predictor of sexual coercion perpetration in romantic relationships for several reasons. Attachment anxiety is associated with (a) efforts to maintain proximity to a romantic partner (Rholes & Simpson, 2004), which would afford greater vigilance of potential intrasexual threats to the relationship;

(b) the use of controlling and coercive behavior to elicit support from a partner (Shaver & Mikulincer, 2008), which could serve to strengthen the emotional bond with a partner (even if temporarily); (c) the deployment of negative partner-directed behaviors (Barbaro, Pham, Shackelford, & Zeigler-Hill, 2016), which could deter the partner from engaging in subsequent behaviors that would elicit a negative response; and (d) the use of sex as a manipulative strategy (Davis et al., 2004), which could serve to increase sexual access to a romantic partner.

A few studies have investigated whether individual differences in romantic attachment predict sexual coercion perpetration. In a recent review of the literature, Karantzas et al. (2016) identified only eight empirical studies directly assessing the association between attachment and sexual coercion perpetration, broadly defined. The results across the studies were mixed with regard to how attachment dimensions are related to sexual coercion perpetration. Some studies report an association between attachment avoidance and sexual coercion perpetration (e.g., Schachner & Shaver, 2004); other studies report an association between attachment anxiety and sexual coercion perpetration (e.g., Brassard, Shaver, & Lussier, 2007), whereas still other studies report no association of either attachment dimension with sexual coercion perpetration (e.g., Kalichman et al., 1994). Karantzas et al. (2016) concluded, however, that attachment avoidance is more consistently associated with sexual coercion perpetration than is attachment anxiety. This conclusion, however, is based on the results of studies that used measures of power and control that had no direct connection to sexual behavior (Birnbaum et al., 2011; Schachner & Shaver, 2004), rather than measures of sexual coercion (even broadly defined), specifically.

There are several limitations of previous research that were not addressed by Karantzas et al. (2016). First, attachment bonds are partner-specific (i.e., attachment *bonds*—an individual's emotional attachment to their current partner only), rather than partner-general (i.e., attachment *styles*—an individual's aggregate attachment bond to partners, in general) (Barry, Lakey, & Orehek, 2007; Cook, 2000; Fraley, Heffernan, Vicary, & Brumbaugh, 2011). Assessment of an individual's attachment to a specific romantic partner is more predictive of affect about, and behavior toward, that partner, than are assessments of attachment to romantic partners, in general. Published reports (see Karantzas et al., 2016, for overview), however, typically assess attachment to romantic partners generally, rather than to a specific romantic partner, thereby reducing the predictive accuracy of the associations between attachment and sexual coercion. Second, some measures of sexual coercion used in previous reports do not assess only sexual coercion; some of these measures include assessments of perceived power or control over romantic partners that are unrelated to sexual behavior (e.g., Birnbaum et al., 2011; Davis et al., 2004; Schachner & Shaver, 2004), thereby reducing the construct validity of sexual coercion. Third, some previous reports assessed general sexual coercion perpetration history (e.g., Sexual Experiences Survey; Kalichman et al., 1994; Smallbone & Dadds, 2000, 2001; Tracy, Shaver, Albino, & Cooper, 2003), which does not allow for an understanding of how features of a specific romantic relationship influence sexual coercion perpetration against a specific individual; whereas another study assessed sexual coercion with a single-item measure (Brassard et al., 2007), thereby constraining variability and reducing the ability to detect accurate associations with attachment predictors.

The current study was designed to address limitations of the available literature (see Karantzas et al., 2016, for review). First, because romantic attachment *bonds* are most predicative of partner-specific outcomes (Barry et al., 2007; Cook, 2000; Fraley et al.,

2011), the present study assessed attachment dimensions specific to the current romantic partner (e.g., Barbaro et al., 2016, 2018; Orehek, Vazeou-Nieuwenhuis, Quick, & Weaverling, 2017). Second, research has typically assessed sexual coercion perpetration with either the Sexual Experiences Survey or the Conflict Tactics Scale. Each of these measures is limited with regard to assessment of sexual coercion by a current romantic partner (reviewed in Shackelford & Goetz, 2004). The Sexual Experiences Survey (Koss & Oros, 1982) assesses lifetime prevalence of sexual coercion perpetration, and therefore does not allow researchers to determine whether an individual has perpetrated sexual coercion against one or multiple partners. The Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) includes only seven items referring to sexual coercion, and these items are too broad to delineate different types of threats and subtleties used to sexually coerce a partner. The current study uses the Sexual Coercion in Intimate Relationships Scale (SCIRS; Shackelford & Goetz, 2004). The SCIRS was developed to assess sexual coercion specifically in the context of a current romantic relationship, and assesses a range of behaviors from subtle, non-physical sexual coercion (e.g., threats, emotional manipulation) to partner rape by physical force. Finally, only individuals currently in a romantic relationship were recruited to ensure accurate assessment of romantic attachment bonds and to ensure that sexual coercion perpetration by men and women was specific to a current romantic partner.

The established associations between attachment anxiety and controlling and coercive behavior, more generally (including physical and psychological aggression; Barbaro et al., 2018; Davis et al., 2004; Shaver & Mikulincer, 2008), suggest that, within romantic relationships, attachment anxiety may be a strong predictor of sexual coercion perpetration. We therefore hypothesized that attachment anxiety will have a direct, positive association with sexual coercion perpetration (Hypothesis 1). Karantzas et al. (2016), however, suggested that attachment avoidance may motivate sexual coercion perpetration as a means to exert domination and control over a romantic partner (*cf.* Goetz & Shackelford, 2009). The associations between attachment avoidance and sexual coercion reported in Karantzas et al. more accurately reflect an association between attachment avoidance and individual differences in power motivations, which are not necessarily directly linked with sexual behavior. Despite a lack of a clear relationship between attachment avoidance and sexual coercion (i.e., the range of non-physical sexual coercion, such as threats or emotional manipulation to gain sexual access, to partner rape by physical force), attachment avoidance may augment the association between attachment anxiety and sexual coercion perpetration. Attachment avoidance, specifically, is associated with individual differences in power and control motivations, more generally, and therefore attachment avoidance may exacerbate the association between attachment anxiety and sexual coercion, perhaps lowering inhibitions for perpetrating violence. Therefore, we hypothesized that attachment anxiety and attachment avoidance may interact to predict sexual coercion perpetration, such that increases on both attachment dimensions will be positively associated with sexual coercion perpetration (Hypothesis 2). Perpetrator sex (male, female) is examined as a potential moderator of the associations outlined in the study hypotheses, given documented sex differences on measures of romantic attachment (Del Giudice, 2011), and given sex differences in the likelihood of sexual coercion perpetration (Barbaro & Shackelford, *in press*; Karantzas et al., 2016), and motivations for sexual coercion perpetration (Goetz et al., 2008).

METHOD

Participants

We secured data from 284 individuals (56% men) in a committed, heterosexual, romantic relationship, and residing in the United States via MTurk. Participants' mean age was 31.9 years ($SD = 8.6$), and the mean relationship length was 55.9 months ($SD = 75.8$). The racial composition of the sample was 48.1% White, 33.5% Asian, 7.4% Black, 10.6% American Indian or Alaska Native, and 0.4% Native Hawaiian or Other Pacific Islander. MTurk is a crowdsourcing website increasingly used by psychological researchers. Researchers can collect survey data in exchange for monetary compensation (see Procedure). Participants recruited via MTurk are more socioeconomically and ethnically diverse than traditional internet or college samples (Casler, Bickel, & Hackett, 2013). Data collected via MTurk are of equal quality to data collected by other internet methods and from college undergraduates in person (Buhrmester, Kwang, & Gosling, 2011; Casler et al., 2013). All study procedures outlined below were approved by the university at which the research was conducted.

Procedure

Eligible prospective participants viewed an advertisement for the study on MTurk's job listings. Those interested in and eligible to participate were provided a link to an informed consent statement about the study. Those who agreed to participate could access and complete the survey, and those who did not agree to participate were exited from the study. We implemented recommended MTurk filters (Peer, Vosgerau, & Acquisti, 2013) such that individuals could only participate if they had successfully completed 95% of at least 500 accessed MTurk jobs. Participants were compensated \$0.50 for completing the study.

Materials

To assess romantic attachment, participants completed the Experiences in Close Relationships Scale-Revised (ECR-R; Fraley et al., 2000), a 36-item measure assessing attachment bonds along the dimensions of anxiety and avoidance. Participants were instructed to respond to statements as they relate to their current romantic partner on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Statements in the ECR-R were modified to be partner-specific, rather than partner-general. For example, the statement "When I show my feelings for *romantic partners*, I'm afraid they will not feel the same about me" was modified to "When I show my feelings for *my romantic partner*, I'm afraid my partner will not feel the same about me" (emphasis added). Composite scores were calculated for each participant by averaging their responses to the 18 anxiety items ($\alpha = .94$) and the 18 avoidance items ($\alpha = .92$).

The SCIRS (Shackelford & Goetz, 2004) was used to assess participants' use of sexually coercive acts in their current romantic relationship. The SCIRS asks how often the participant performed 34 sexually coercive acts in the past month. Participants respond to each item on a 6-point scale (0 = *act never occurred*; 1 = *act occurred 1 time*; 2 = *act occurred 2 times*; 3 = *act occurred 3 to 5 times*; 4 = *act occurred 6 to 10 times*; 5 = *act occurred 11 or more times*). Responses to each statement were coded as the midpoint of the response category the participant reported (see Barbaro et al., 2015). For example, if the participant reported an act occurring "3–5 times in the past month," the response was

coded as occurring four times in the past month. The SCIRS is comprised of three subscales (i.e., Commitment Manipulation: e.g., “I told my partner that if she loved me she would have sex with me”; Defection Threat: e.g., “I threatened to have sex with another woman if my partner did not have sex with me”; and Resource Manipulation/Violence: e.g., “I withheld benefits that my partner depends on to get her to have sex with me,” “I threatened to physically force my partner to have sex with me); however, because the subscales are highly correlated (e.g., $r_s > .50$; Barbaro et al., 2015; Shackelford & Goetz, 2004), overall composite scores were calculated by averaging the recoded response category midpoints to yield a composite score for each participant for sexual coercion perpetration ($\alpha = .99$). In this sample, 58.7% of the respondents reported at least one instance of a sexually coercive act, and 38.9% of respondents (50.9% of male respondents, and 23.4% of female respondents) reported at least one instance of the most severe form of sexual coercion asked about on the SCIRS (“I physically forced my partner to have sex with me”).

RESULTS

Descriptive statistics and bivariate correlations between the study variables are presented in Table 1. The outcome variable (sexual coercion perpetration) was positively skewed, such that 41.3% of participants reported zero instances of perpetrating sexual coercion. We therefore performed a square-root transformation to reduce the skew of the outcome variable (bivariate correlations between the original variable and the transformed variable, and attachment dimensions, are included in Table 1).

A series of moderated multiple regression analyses were performed to test the study hypotheses. First, we conducted a moderated multiple regression analysis to test whether attachment anxiety, attachment avoidance, and participant sex interacted to predict sexual coercion perpetration (see Table 2). In step one, we entered participant's age, partner's age, and relationship length as control variables, given that previous research has identified these variables as demographic predictors of relationship aggression (e.g., Daly & Wilson, 1988; Shackelford, Buss, & Peters, 2000), and each was significantly correlated with sexual coercion perpetration in this sample ($r = -.30, -.35, \text{ and } -.27$, respectively; $p_s < .001$). In step two, we entered attachment anxiety, attachment avoidance, and participant sex to test for main effects. In step three, we entered all two-way interactions (attachment anxiety \times participant sex, attachment avoidance \times participant sex, and attachment anxiety \times attachment avoidance). In step four, we entered the three-way interaction (attachment anxiety \times attachment avoidance \times participant sex). Supporting Hypothesis 1, there was a main effect of attachment anxiety on sexual coercion perpetration. A two-way interaction emerged between attachment anxiety and participant sex, but this was qualified by a three-way interaction between attachment anxiety, attachment avoidance, and participant sex.

To deconstruct the three-way interaction, we first conducted two moderated multiple regression analyses—one for men and one for women (see Table 3). In step one, we entered participant's age, partner's age, and relationship length as control variables. In step two, we entered attachment anxiety and attachment avoidance to test for main effects. In step three, we entered the two-way interaction between attachment anxiety and attachment avoidance. Attachment anxiety remained a significant predictor of male- and female-perpetrated sexual coercion, supporting Hypothesis 1. For men, however, this main effect was

TABLE 1. Bivariate Correlations and Descriptive Statistics for Study Variables

All Participants				
	1	2	3	4
1. Attachment Anxiety	–			
2. Attachment Avoidance	.58	–		
3. Sexual Coercion Perpetration	.59	.32	–	
4. Sexual Coercion Perpetration—SQRT	.61	.36	.99	–
Mean	3.49	2.94	1.58	1.47
<i>SD</i>	1.46	1.06	2.40	0.65
Male Participants				
1. Attachment Anxiety	–			
2. Attachment Avoidance	.62	–		
3. Sexual Coercion Perpetration	.64	.35	–	
4. Sexual Coercion Perpetration—SQRT	.67	.40	.99	–
Mean	3.64	3.02	1.92	1.57
<i>SD</i>	1.37	0.90	2.55	0.67
Female Participants				
1. Attachment Anxiety	–			
2. Attachment Avoidance	.54	–		
3. Sexual Coercion Perpetration	.51	.30	–	
4. Sexual Coercion Perpetration—SQRT	.52	.32	.99	–
Mean	3.30	2.84	1.15	1.34
<i>SD</i>	1.55	1.22	2.13	0.59

Note. All correlations significant at $p < .001$. SQRT = square root transformed variable.

qualified by a two-way interaction between attachment anxiety and attachment avoidance, supporting Hypothesis 2.

We conducted simple slopes analyses (Aiken, West, & Reno, 1991) to deconstruct the two-way interaction. The simple slopes tests were conducted using values one standard deviation above and below the mean for the variables representing attachment anxiety and attachment avoidance. For men scoring one standard deviation above the mean on attachment anxiety, attachment avoidance positively predicted sexual coercion perpetration ($\beta = .29$, $t = 2.17$, $p < .05$), but negatively predicted sexual coercion perpetration for men scoring one standard deviation below the mean on attachment anxiety ($\beta = -.23$, $t = -2.41$, $p < .05$). For men scoring one standard deviation above the mean on attachment avoidance, attachment anxiety positively predicted sexual coercion perpetration ($\beta = .98$, $t = 8.06$, $p < .001$), and positively predicted sexual coercion perpetration for men scoring one standard deviation below the mean on attachment avoidance ($\beta = .48$, $t = 4.89$, $p < .001$). The predicted values for this interaction are displayed in Figure 1.

TABLE 2. Summary of Three-Way Moderated Regression Analysis Predicting Perpetration of Sexual Coercion

Variable	<i>B</i> (<i>SE</i>)	β	<i>t</i>
$R^2 = .13, F(3, 268) = 13.15^{***}$			
Participant age	.001 (.009)	.01	.09
Partner age	-.02 (.008)	-.30	-2.57*
Relationship length	-.001 (.001)	-.11	-1.48
$\Delta R^2 = .26, \Delta F(6, 268) = 36.49^{***}$			
Participant age	.004 (.008)	.05	.48
Partner age	-.01 (.007)	-.14	-1.30
Relationship length	.000 (.001)	-.02	-.32
Participant sex	.11 (.07)	.09	1.57
Attachment Anxiety	.24 (.03)	.55	8.58^{***}
Attachment Avoidance	.003 (.04)	.01	.10
$\Delta R^2 = .04, \Delta F(9, 268) = 6.56^{***}$			
Participant age	.002 (.008)	.02	.20
Partner age	-.008 (.007)	-.12	-1.10
Relationship length	.000 (.001)	-.04	-.61
Participant sex	.12 (.07)	.10	1.80
Attachment Anxiety	.16 (.04)	.36	4.26^{***}
Attachment Avoidance	.08 (.05)	.13	1.58
Sex \times Anxiety	.19 (.05)	.30	3.65^{***}
Sex \times Avoidance	-.09 (.08)	-.10	-1.25
Anxiety \times Avoidance	.06 (.02)	.14	2.43*
$\Delta R^2 = .01, \Delta F(10, 268) = 5.22^*$			
Participant age	.002 (.008)	.03	.30
Partner age	-.008 (.007)	-.12	-1.13
Relationship length	.000 (.001)	-.04	-.71
Participant sex	.02 (.08)	.02	.26
Attachment Anxiety	.16 (.04)	.35	4.31^{***}
Attachment Avoidance	.05 (.05)	.08	.94
Sex \times Anxiety	.21 (.05)	.33	3.96^{***}
Sex \times Avoidance	-.02 (.08)	-.02	-.29
Anxiety \times Avoidance	.02 (.03)	.05	.81
Sex \times Anxiety \times Avoidance	.12 (.05)	.17	2.29*

Note. Predictor variables mean centered prior to analyses. Dependent variable was square-root transformed prior to analyses. * $p < .05$. ** $p < .01$. *** $p < .001$.

TABLE 3. Summary of Two-Way Moderated Regression Analysis, for Men and Women, Predicting Perpetration of Sexual Coercion

Variable	Men			Women		
	<i>B</i> (<i>SE</i>)	β	<i>t</i>	<i>B</i> (<i>SE</i>)	β	<i>t</i>
	$R^2 = .12, F(3, 148) = 6.79^{***}$			$R^2 = .10, F(3, 119) = 4.07^{**}$		
Participant age	-.01 (.01)	-.06	-.38	-.006 (.01)	-.11	-.52
Partner age	-.02 (.01)	-.24	-1.57	-.006 (.01)	-.11	-.56
Relationship length	-.001 (.001)	-.09	-.91	-.001 (.001)	-.13	-1.22
	$\Delta R^2 = .35, \Delta F(5, 148) = 46.64^{***}$			$\Delta R^2 = .17, \Delta F(5, 119) = 13.34^{***}$		
Participant age	.001 (.01)	.01	.08	.003 (.01)	.05	.25
Partner age	-.01 (.01)	-.12	-.96	-.01 (.01)	-.13	-.70
Relationship length	.000 (.001)	.001	.02	.000 (.001)	-.06	-.58
Attachment Anxiety	.34 (.04)	.68	8.25^{***}	.16 (.04)	.42	4.10^{***}
Attachment Avoidance	-.05 (.06)	-.06	-.74	.03 (.05)	.06	.59
	$\Delta R^2 = .04, \Delta F(6, 148) = 10.83^{**}$			$\Delta R^2 = .004, \Delta F(6, 119) = .60$		
Participant age	.002 (.01)	.02	.20	.002 (.01)	.04	.19
Partner age	-.01 (.01)	-.11	-.93	-.01 (.01)	-.12	-.65
Relationship length	.000 (.001)	-.03	-.38	.000 (.001)	-.06	-.61
Attachment Anxiety	.36 (.04)	.73	9.02^{***}	.16 (.04)	.42	4.08^{***}
Attachment Avoidance	.02 (.06)	.03	.36	.05 (.05)	.10	.88
Anxiety \times Avoidance	.14 (.04)	.24	3.29^{**}	.02 (.03)	.07	.78

Note. Predictor variables mean centered prior to analyses. Dependent variable was square-root transformed prior to analyses. * $p < .05$. ** $p < .01$. *** $p < .001$.

DISCUSSION

The current study investigated the associations between romantic attachment bonds and sexual coercion perpetration against a romantic partner. It was hypothesized that attachment anxiety would have a direct, positive association with sexual coercion perpetration (Hypothesis 1), and that attachment anxiety and attachment avoidance may interact to predict sexual coercion perpetration (Hypothesis 2). Participant sex was also explored as a potential moderator for both hypotheses. The results provide support for Hypothesis 1 in that, for both men and women, attachment anxiety was a direct, positive predictor of sexual coercion perpetration. The results also revealed an interaction between attachment anxiety and attachment avoidance for men, but not women. Decomposition of the two-way interaction for men supported Hypothesis 2—that the association between attachment anxiety and sexual coercion perpetration is stronger for individuals who score relatively higher on attachment avoidance.

The results of the current study accord with theoretical perspectives on romantic attachment (Fraley & Shaver, 2000; Hazan & Diamond, 2000) that propose that the romantic attachment system maintains pair-bonds by regulating emotional and behavioral reactions to acute or ongoing relationship threats (Barbaro et al., 2016, 2018; Kruger et al., 2013). Attachment anxiety, in particular, has been demonstrated to be associated with

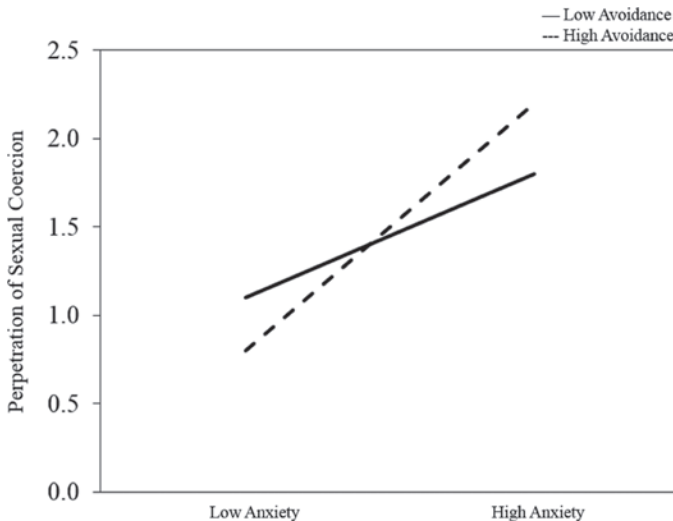


FIGURE 1. Simple slopes plots for the two-way interaction between attachment anxiety and attachment avoidance predicting male-perpetrated sexual coercion. Low = -1 standard deviation from the mean. High = $+1$ standard deviation above the mean. Predictor variables mean centered prior to analyses. Dependent variable was square-root transformed prior to analyses.

hypervigilance to relationship threats (Rholes & Simpson, 2004), interpreting ambiguous situations as relationship threats (Kruger et al., 2013), and difficulty disengaging from cues of relationship threats (Mikulincer, Gillath, & Shaver, 2002). These characteristics of attachment anxiety have been proposed to manifest as intense efforts to obtain reassurance from and restore contact with a relationship partner (Davis, Shaver, & Vernon, 2003). More anxiously attached individuals are more likely to use coercive behaviors in general (Barbaro et al., 2016, 2018; Mikulincer & Shaver, 2007), and sexual behaviors (Davis et al., 2004) in particular, as a means to reduce relationship insecurities and to secure assurance of a partner's love and availability. It is therefore reasonable to expect that attachment anxiety may increase the probability of sexual coercion perpetration. This may be especially the case for more subtle (non-physical) forms of sexual coercion, given that anxiously attached individuals are more likely to also use guilt-inducing strategies to elicit attention and affection from their partner (Overall & Lemay, 2015; Overall, Girme, Lemay, & Hammond, 2014).

Results of the current study also document that attachment avoidance moderates the association between attachment anxiety and sexual coercion perpetration for men only. The direct association between attachment avoidance and sexual coercion perpetration is often explained as more avoidantly attached individuals using sexual coercion to fulfill sexual desires, or as a means to maintain power and dominance over a partner (Karantzas et al., 2016; Schatzel-Murphy, Harris, Knight, & Milburn, 2009). As discussed in the introduction, however, the empirical support identifying attachment avoidance as an independent predictor of sexual coercion perpetration, rather than general power and control motivations, is less than compelling within an attachment theoretical framework. Moreover, that attachment avoidance is associated with sexual coercion perpetration does not accord with general understandings of attachment theory, in that attachment avoidance is associated with autonomy from romantic partners and lesser sexual motivation (Brassard

et al., 2007)—which would be incompatible with using sexual coercion as a means to obtain sexual access.

The results of the current study suggest, instead, that attachment avoidance may be predictive of sexual coercion only in conjunction with relatively high attachment anxiety, such that attachment avoidance appears to exacerbate the direct effect of attachment anxiety on sexual coercion perpetration. This finding suggests that men who score high on both attachment anxiety and attachment avoidance (which can be mapped onto the “fearful-avoidant” attachment style in the four-category attachment framework; Bartholomew & Horowitz, 1991) are the most likely to perpetrate sexual coercion against a romantic partner. It may be that the emotional distance and lesser relationship commitment characteristic of more avoidantly attached individuals (Dewall et al., 2011) and male-typical sexual strategies (Buss & Schmitt, 1993; Del Giudice, 2009) exacerbates sexually coercive motives for those with greater attachment anxiety. Men and women in this sample reported generally equal instances of sexual coercion (see Table 1). Men, however, were twice as likely to report the most severe act of sexual coercion: partner rape by physical force. The moderating effect of attachment avoidance for men may exacerbate the association between attachment anxiety and sexual coercion, perhaps lowering inhibitions for perpetrating relatively more severe acts of violence (e.g., emotional manipulation versus using physical force).

It is important to note, however, that the interaction between attachment anxiety and avoidance emerged for men, but not women. Men are more likely than women to score higher on attachment avoidance (Del Giudice, 2011) and measures of sexual permissiveness (Jackson & Kirkpatrick, 2007)—which is often associated with attachment avoidance (Schmitt, 2005). Alternatively, then, the moderating effect of attachment avoidance on sexual coercion perpetration may be a consequence of the covariation of attachment avoidance with other male-typical sexual traits and strategies (e.g., unrestricted sociosexuality, personality features). This finding and our suggested explanations should be interpreted cautiously, however, and warrants replication in subsequent research. At the least, the documented sex difference in the current study with regard to how romantic attachment predicts sexual coercion, and that men are more likely to report more severe acts of sexual coercion than women, highlight the importance of assessing male and female perpetration in future research, and assessing the severity of perpetrated acts.

Research and Clinical Implications

The current study contributes important data to the literature on the associations between attachment dimensions and sexual coercion perpetration. Given the relatively high rates of reported instances of sexual coercion perpetration by men and women, a clear empirical understanding of how individual differences contribute to such behaviors is warranted. The current study was designed to address methodological limitations—particularly with regard to measurement and operationalization of the target variables—of previous reports on the associations between romantic attachment and sexual coercion perpetration (see Karantzas et al., 2016 for review). The SCIRS (Shackelford & Goetz, 2004) used in the current research is a more comprehensive inventory of sexually coercive behaviors than measures used in previous investigations (i.e., Sexual Experiences Survey; Conflict Tactics Scale). The SCIRS captures behaviors ranging from subtle, non-physical coercive propositions (e.g., “If you love me you will have sex with me”) to forceful physical acts (e.g., “Physically forced my partner to have sex”), rather than relying on a limited set of behav-

iors or a single-item assessment. The findings of the current study therefore afford a clearer picture of how romantic attachment is associated with a range of sexual coercive behaviors that may be particularly common in romantic relationship contexts (Goetz, Shackelford, Romero, Kaighobadi, & Miner, 2008).

The current study also investigated sexual coercion perpetration against a specific romantic partner, rather than lifetime prevalence of perpetration or behaviors perpetrated across multiple victims. Committed relationships are, unfortunately, a common context for aggression, as evidenced by reports that nearly one-quarter of women are raped by an intimate partner (Finkelhor & Yllo, 1985; Goetz & Shackelford, 2006), and that extreme forms of violence such as homicide most often occur between current or former romantic partners (Daly & Wilson, 1988). Given the prevalence of aggression between romantic partners, it is important to empirically investigate whether predictors of aggressive or coercive behaviors are similar or different across relationship contexts—for instance, between mere acquaintances or between romantic partners. The current study offers a more directed investigation of the associations between romantic attachment and sexual coercion perpetration against romantic relationship partners. Examinations of how attachment manifests as aggressive behaviors toward partners and non-partners are equally important endeavors (Barbaro, Parkhill, & Nguyen, 2018) that should be pursued to afford application of findings across diverse contexts and populations.

Romantic attachment predicts several classes of aggressive behavior toward partners, including controlling behaviors (Barbaro et al., 2016, 2018; Shaver & Mikulincer, 2008) and physical violence (Gormley, 2005, for review). Identifying an individual's attachment bond to a romantic partner may therefore be useful for developing preventative therapies with regard to sexual coercion perpetration. Anxiously attached individuals, for instance, are more likely to misperceive ambiguous “threats” to their relationship (Kruger et al., 2013), which then motivates controlling and coercive behaviors in an attempt to elicit validation and support from a partner (Shaver & Mikulincer, 2008). Knowledge that these misperceptions and motivations underlie the association between attachment and sexual coercion perpetration can be applied to high-risk men and women. For example, therapy with individuals exhibiting relationship-related anxiety may be most effective if efforts are focused on cognitive reframing of anxiety-provoking situations; similar therapeutic techniques have been shown to be effective for anxiety-related disorders in adults (Hofmann & Smits, 2008). Early identification of individuals exhibiting insecure attachment bonds can make preventative efforts to reduce severe partner aggression (e.g., rape) more effective.

Limitations and Future Directions

The results of the current research are correlational and cross-sectional in nature, and therefore cannot support strong statements of causality. For example, sexual coercion perpetration may result in greater attachment anxiety over time, or there may be a bidirectional relationship between romantic attachment and sexual coercion perpetration. Future research investigating the influence of romantic attachment on sexual coercion in intimate relationships would benefit from employing experimental or longitudinal designs to assess directionality of effects. For example, participants could be asked to write about a specific time when they felt anxiety (vs. security) about their relationship with their current partner and then assess the participant's endorsement of employing various sexually coercive behaviors. Longitudinal designs would also be profitable for investigating how sexual coercion perpetration progresses in romantic relationships over time.

The current study is limited to claims of how romantic attachment is associated with sexual coercion perpetration, but not sexual coercion victimization. Empirical reports on perpetration and victimization of general aggression suggest that involvement with aggressive behavior as a perpetrator or victim is correlated, such that an individual is more likely to be a victim of aggression if they previously perpetrated aggression, and vice versa—known as the “victim-offender overlap hypothesis” (Barnes & Beaver, 2012). With regard to attachment, specifically, more anxiously attached individuals may be motivated to perpetrate sexual coercion to feel closer to a partner, and may also be more likely to be the victim of sexual coercion to elicit validation from a partner (Gormley, 2005; Karantzas et al., 2016). Future research would benefit from securing data on perpetration and victimization within romantic relationships to investigate whether attachment anxiety underlies both perpetration and victimization.

CONCLUSIONS

The current study examined the associations between the romantic attachment dimensions of anxiety and avoidance, and perpetration of sexual coercion against romantic partners. The results suggest that, for men and women, attachment anxiety is a direct, positive predictor of sexual coercion perpetration. Additionally, for men only, the results indicate that the association between attachment anxiety and sexual coercion perpetration is stronger for individuals with relatively greater attachment avoidance. The present study contributes important empirical data to the existing, but limited, literature on how individual differences in romantic attachment bonds are related to sexual coercion perpetration. Additionally, the study addresses methodological limitations of the existing literature by employing a more comprehensive measure of sexual coercion, examining perpetration by both men and women, and examining sexual coercion against a specific partner in a romantic relationship. The results of the current study highlight the role of attachment dynamics as a robust predictor of relationship violence.

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