

# The Influence of Early Experiences and Adult Attachment on the Exhibition of the Sexual Double Standard

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**Abstract** The sexual double standard is the phenomenon whereby men and women are judged differently for the same sexual behavior. The purpose of the present study was to investigate the potential relationship between life history theory, attachment theory and the sexual double standard. Life history theory posits that one's upbringing (e.g., quality of early relationship with one's parents) may have implications for one's future mating strategies, especially for women. Furthermore, adult attachment orientation often influences individuals' feelings toward sexual behavior. To address the relationship between these variables, we had participants complete questionnaires regarding their early relationships with their parents and their current attachment regarding romantic partners. Participants then evaluated a target individual who reported having 1 or 12 sexual partners ( $N = 154$ ). Results showed that female participants' early relationships with their parents and their current attachment avoidance predicted their exhibition of the double standard. Results are discussed in the context of theoretical and empirical implications.

**Keywords** Sexual double standard · Attachment theory · Life history theory · Sexual activity

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## Introduction

The sexual double standard is the phenomenon whereby men are evaluated positively and women are evaluated negatively for identical sexual activity (Greene and Faulkner 2005; Marks and Fraley 2005). Although several factors have been found to influence the exhibition of the sexual double standard, such as cognitive load and social interaction (Marks 2008; Marks and Fraley 2007), to date only a few studies have investigated the influence of individuals' personal characteristics (e.g., sexist attitudes, Zaikman and Marks 2014; hostile sexism, Rudman and Fetterolf 2014) in their endorsement of the double standard. Although these previous studies have provided important insight into how various factors may play a role in people's judgments regarding others' sexual activities, there are still potential factors that remain to be explored. Specifically, both early relationships with one's parents and one's current attachment orientation have the potential to affect endorsement of the double standard, as both have been found to relate to a variety of sexual thoughts and behaviors. For instance, early experiences with one's caregiver have been shown to relate to attitudes towards pair bonding (Belsky et al. 1991), sexual practices (Quinlan 2003) and perceptions of "appropriate" sexual behaviors (Mendle et al. 2009). Additionally, adult attachment orientation has been found to influence first impressions of others' behaviors in romantic relationships (Brumbaugh and Fraley 2007) and expectations of romantic partners and their behavior in relationships (Cassidy and Shaver 1999; Hazan and Shaver 1987). The present research aims to investigate whether the quality of one's close relationships in both childhood and adulthood influence the manifestation of the sexual double standard.

There are numerous potential negative health, safety, and social implications of the sexual double standard. For example, when a woman (instead of a man) initiates a date, rape myths and date rape are considered more acceptable (Emmers-Sommer et al. 2010; Muehlenhard et al. 1985), viewpoints that could have a devastating impact on a woman deciding whether to share her rape experience or pursue charges against an assailant. Also, women who support the traditional sexual double standard display less sexual assertiveness which then leads to decreased relationship satisfaction (Greene and Faulkner 2005). Men who were described as engaging in sexual activity with a superior (e.g., a teacher) were described with more positive words (e.g., "lucky" and "brave" than women who did the same; Howell et al. 2011). Additionally, women are judged more negatively than men for providing a condom during a sexual encounter (Young et al. 2010) and, if women endorse the double standard, they perceive more barriers to condom use (Lefkowitz et al. 2014). If women perceive more barriers to condom use, they may be less likely to use them—a decision that could potentially lead to unwanted pregnancies or sexually transmitted diseases. Given these findings, it is important to further understand what factors may make an individual more or less likely to exhibit these disparate views on sexually active women versus sexually active men. The primary goal of this research is to further our understanding of the sexual double standard by examining whether key relationships—specifically, with parents and romantic partners—can affect individuals' exhibition of the double standard.

## Early Parental Relationships

Life history theory (Belsky et al. 1991) posits that children's early experiences can have both physiological and behavioral implications. For instance, research has shown a significant association between parental warmth and children's risk-taking behaviors later in life, such that high levels of parental warmth were associated with less alcohol consumption and drug use and less use of physical violence as a response to conflicts (Ivan and Bereczkei 2006). Importantly, family history also can influence children's orientations towards future reproductive strategies, especially for women (Mendle et al. 2009; Mustanski et al. 2007; Rodgers et al. 1999).

More specifically, when women grow up in single-parent households or households where relationships with parents (especially fathers) are strained, they tend to anticipate that future romantic relationships may not last (Belsky et al. 1991). They tend to adopt a present-oriented time perspective, which leads to an earlier onset of sexual activity (Belsky et al. 2007; Ellis and Garber 2000) and increased frequency of sexual risk taking behaviors (Belsky et al. 2010). For instance, women whose parents separated were more than four times as likely to engage in sexual intercourse at an earlier age and have a greater-than-average number of sexual partners when compared with women who grew up with both a mother-figure and father-figure present (Quinlan 2003). Moreover, there is a correlation between father absence and daughters' earlier onset of sexual activity and teenage pregnancy (Ellis et al. 2003). These discrepancies may be explained by differences in mating effort strategies (i.e., whether to pursue a short or long term relationship). Researchers have posited that growing up without a biological father present may signal to a developing woman that two parents are not necessary for child rearing and survival, which might then cue a "mating effort strategy" consisting of early maturation and a tendency to seek out short-term partners (Belsky et al. 1991; Quinlan 2003).

Although life history theory has primarily focused on girls' relationships with their fathers, research has shown that girls' relationships with their mothers and boys' relationships with their parents impact developmental outcomes as well. Recent research found that girls with absent mothers exhibited similar developmental patterns as girls with absent fathers (Belsky et al. 2007; Quinlan 2003). Moreover, results of a longitudinal study showed that girls with harsh mothers reached menarche earlier than those with less harsh mothers, which led to more sexual risk taking (Belsky et al. 2010). In boys, research shows that both physical and emotional distance from parents and high levels of familial conflict increase maturation (Kim et al. 1997). Furthermore, males who were raised without both of their biological parents present developed exaggerated and stereotypical masculine behavior. These individuals then were less likely to seek lasting pair bonds and were more likely to initiate intercourse at an earlier age compared to their counterparts who grew up in intact families (Belsky et al. 1991).

Importantly for the present research, in addition to these effects on one's own behavior, family history also can affect perceptions of "appropriate" sexual behaviors in others (Mendle et al. 2009). Specifically, girls raised in single-parent

households are more likely to not only engage in more sexually risky behaviors than those raised in two-parent households (Belsky et al. 2010), but also to believe that sexual activity outside of one's marriage is normal and acceptable (Mendle et al. 2009). Although these previous studies were not focused specifically on the exhibition of the double standard, the findings do support a basic notion that people who have unstable early relationships are more likely to participate in risky behaviors of their own and to be more accepting of others' sexual activity. In other words, it is possible that women who had a strained early upbringing, either due to a parental absence or poor relationship with a caregiver, may in turn be more accepting of high numbers of sexual partners in general and therefore will be less likely to exhibit the double standard. Importantly, because life history theory posits that girls essentially learn expectations for future romantic relationships from their experiences during early childhood, it is plausible that women who report poorer early relationships will judge men with a high number of sexual partners more negatively than women with a high number, as this increased sexual activity could indicate the potential problems with cheating and untrustworthiness that they have learned to anticipate.

### **Early Parenting and Adult Attachment**

Research also has revealed a direct connection between early parenting and adult attachment orientation (e.g., Chisholm et al. 2005). Individuals' early experiences in life with risky and uncertain relationships can lead them to perceive relationships in general in a more skeptical and cautious manner, which can lead to an insecure (i.e., highly anxious and/or highly avoidant) attachment orientation later in life. In fact, women who had problematic and stressful relationships early in life were more likely to identify with an insecure adult attachment orientation (Chisholm et al. 2005). However, given that attachment orientation is considered to be only moderately stable throughout one's life (Fraley 2002) and can vary due to life circumstances (Waters et al. 2000), it is valuable to examine how adult attachment, in addition to one's early experiences with parents, may influence people's perceptions of others.

### **Adult Attachment**

Attachment theory (Bowlby 1973) posits that children develop consistent ways of interacting with their primary caregiver based on how this caregiver interacts with them. According to attachment theory, adults' early attachment relationships provide the basis for their working models of relationships by teaching them what to expect from others, including future romantic partners (Cassidy and Shaver 1999; Hazan and Shaver 1987). Currently, researchers conceptualize adult attachment as continuous on two dimensions: anxiety and avoidance. Highly anxiously attached individuals cling to their partners, need a great deal of intimacy, and frequently doubt their partners' love and support. Highly avoidantly attached individuals are reluctant to be close to their partners, trust them, or rely on them. Those who are low on both dimensions are comfortable relying on their partners and are confident in

their romantic relationships (Fraley et al. 2000). Research suggests a small gender difference in attachment in college populations, with males being higher in avoidance and lower in anxiety than females (Del Giudice 2011). Additionally, research suggests that anxiety and avoidance are moderately stable throughout an adult's life, even in different close relationships, such as those with parents or best friends (Fraley et al. 2011b; Fraley and Waller 1998). Importantly, attachment orientation influences adults' interactions with close others, such as how they perceive emotions (Fraley 2002; Fraley et al. 2006), communicate (Anders and Tucker 2000) and encode emotional information (Fraley et al. 2000). In terms of romantic relationships, attachment has been found to affect interpretations of ambiguous situations, such that a highly anxious individual is likely to take his or her partner's casual mention of an ex as evidence that the partner is cheating, whereas an individual lower in anxiety would not view this mention as a threat (Turan and Vicary 2010; Vicary and Fraley 2007).

In romantic relationships, highly avoidant and highly anxiously attached individuals approach sexual activity in distinct ways. Highly avoidant people tend to either completely disregard sexual activity or to engage in it purely for physical pleasure rather than emotional intimacy (Brassard et al. 2007). Even in a monogamous relationship, highly avoidant individuals tend to not be as affected by problems in their sex lives; they may simply disengage (Birnbau 2010). On the other hand, the sexual behavior and motives of highly anxious people tend to be complicated. They often use sex as a tool to influence their partners' emotions and behavior, especially when they feel that their relationships are threatened (Birnbau 2010). Importantly for the current study, anxiously attached people tend to disapprove of sex outside of a committed relationship (Brassard et al. 2007). One possible explanation for this finding is their tendency to believe that their partners are going to abandon them (Hazan and Shaver 1987).

Given that individual differences in attachment can affect one's evaluation of a situation and factors related to romantic relationship functioning, it is also plausible that attachment orientation affects how strongly people ascribe to the sexual double standard. In other words, people's working models of attachment may relate to how they view others' sexual activities. Finally, attachment plays a larger role in the development of first impressions in romantic contexts than in familial contexts (Brumbaugh and Fraley 2007), suggesting that romantic attachment, compared to familial attachment, may be the more reliable predictor of a person's judgment of others' sexual activity. Specifically, it is the quality of the maternal relationship, rather than the paternal relationship, that is associated with the quality of adult romantic relationships (Doyle et al. 2009).

## Current Research

The purpose of the present study was to determine the relationship between life history, adult attachment, and the sexual double standard. To examine the sexual double standard, we asked participants to evaluate a target person who had either 1 or 12 sexual partners in their lifetime. Previous research investigating the double standard also used 12 partners, as 12 was considered to be a high, but believable,

number of partners (e.g., Marks and Fraley 2005; Zaikman and Marks 2014). Participants also completed questionnaires to assess their early upbringing experiences and current attachment orientation. Because information about a target's sexual activity can influence judgments in domains that are not directly related to morality (e.g., Gentry 1998), participants evaluated targets' popularity, values, success and intelligence (Marks 2008; Marks and Fraley 2005, 2007; Zaikman and Marks in press; Zaikman et al. in press).

Although there is evidence to support the idea that early parental relationships can impact men's development (Kim et al. 1997), most research has focused primarily on the effects of rearing experiences on females' maturation, reproductive strategies and sexual development (e.g., Belsky et al. 2007; Quinlan 2003). Therefore, our hypotheses regarding the effect of early parental relationships on the sexual double standard will focus on women.<sup>1</sup> Adult attachment is expected to be equally relevant for men and women. Thus, we will hypothesize regarding these factors for both male and female participants. Finally, it is important to note that there is some inconsistency regarding the influence of participant gender on attitudes toward sexuality. Some studies found that male participants have more general permissive attitudes than female participants (e.g., Petersen and Hyde 2010; Sprecher 1989), while another study found no gender differences (e.g., Zaikman and Marks in press). Consequently, we will analyze male and female participants separately.

**H1-Early Relationship with Father** Women who did not have close relationships with their fathers growing up tend to crave meaningful connections with men; however, they also tend to believe that men are uncaring and emotionally inaccessible (Burns 2008; Wassil-Grimm 1995). It stands to reason that men who engage in sexual activity with many different women may be seen as particularly emotionally unreliable and untrustworthy. Thus, we hypothesize that female participants who had poor relationships with their fathers will rate male targets with 12 partners more negatively than female targets with 12 partners (i.e., the reverse double standard), while those who had positive relationships with their fathers will either display the traditional double standard (i.e., women with 12 partners will be rated more negatively than men with 12 partners) or judge men and women similarly.

**H2-Early Relationship with Mother** Quality of relationship with the mother affects women's sexual risk-taking behaviors (Belsky et al. 2010). Because women who have poor relationships with their mothers take more sexual risks (Belsky et al. 2010), they may be more accepting of other women doing the same. Thus, we hypothesize that female participants who had poor relationships with their mothers will rate female targets with 12 partners more positively than male targets with 12 partners (again, the reverse double standard). We expect that those who had more positive relationships with their mothers will exhibit the traditional double standard or no double standard.

**H3-Adult Avoidant Attachment** Sex is not a deeply meaningful issue for many highly avoidant individuals, and they are likely to be more accepting of casual sex

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<sup>1</sup> Similar analyses examining male participants' early maternal and paternal relationships revealed no influence on the exhibition of the sexual double standard.

(Brassard et al. 2007; Gentzler and Kerns 2004). Also, avoidant individuals tend to report fantasizing about engaging in casual sex outside of a romantic relationship, and, as such, highly sexually active targets may be particularly appealing to them (Brennan and Shaver 1995). Thus, we hypothesize that highly avoidant individuals will evaluate opposite-gender targets with 12 partners more positively than same-gender targets with 12 partners, more so than will less avoidant individuals.

**H4-Adult Anxious Attachment** Anxiously attached individuals experience a great deal of pathological jealousy in romantic relationships (e.g., Costa et al. 2015). Given this increased jealousy, anxious men and women alike have reasons to judge highly sexually active women and men, respectively, more harshly than their highly sexually active counterparts. Men may view highly sexually active women as potentially unfaithful partners, and therefore evaluate them in a negative light, because men's jealousy is primarily triggered by perceived sexual infidelity (Buss et al. 1992). Similarly, highly anxious women may judge highly sexually active men more harshly because they view these men as less likely to be faithful to them. Thus, we hypothesize that highly anxious men will exhibit the traditional double standard (i.e., rate male targets with 12 partners more positively than female targets with 12 partners), while highly anxious women will exhibit the reversed double standard (i.e., rate female targets with 12 partners more positively than male targets with 12 partners), more so than will less anxious people (H4a).

Alternatively, anxious individuals' heightened jealousy may cause them to view highly sexually active targets of the same gender as competitors (Buss et al. 1992). If a man has had sex with many women, any of these women could be carrying his child, for whom the anxiously attached man would have to invest resources in protecting (Duntley and Buss 2011). Similarly, women may view highly sexually active women as potential competitors for mates, which would concern them because they have traditionally relied on men to provide resources (Buss et al. 1992). Thus, our alternative hypothesis is that highly anxious men will exhibit the reverse double standard, while highly anxious women will exhibit the traditional double standard, more so than will less anxious people (H4b).

If hypothesis 4a is supported, the pattern of results would suggest that fear of sexual infidelity may influence the sexual double standard in highly anxiously attached people. Support for hypothesis 4b would indicate that competition for resources may be a more viable explanation for anxious individuals' beliefs. These competing hypotheses reflect different expressions of the intense jealousy that anxiously attached individuals experience.

## Method

### Design

We employed a 2 (target gender) by 2 (target's number of sexual partners: 1 or 12) between-subjects design. Quality of early relationships with parents and current

attachment orientation (i.e., anxiety and avoidance levels) were entered as predictors of participants' evaluations of the target person. Participants' previous sexual history was entered as a covariate for examination of early relationships with parents.

## Participants

Participants were 210 undergraduates from a large Southwestern university who participated in exchange for course credit in their introductory psychology course. Forty-six participants were excluded from the analysis due to failing the two manipulation check questions designed to determine whether the participants noticed the gender and the number of sexual partners of the target person. Eight participants were excluded due to experiment error. Two additional participants were excluded from the analysis because their answers to the open-ended question (number of previous sexual partners) were more than three and a half standard deviations from the mean. The final sample consisted of 154 participants (65.6 % female). The median age was 19 ( $M = 20.33$ ,  $SD = 4.73$ ) and only four participants identified as non-heterosexual.<sup>2</sup>

## Measures

### *Attachment History Questionnaire (AHQ)*

Participants completed the AHQ (Pottharst 1990), which measures the quality of participants' early relationships with their parents. For this study, eight specific questions were selected—four regarding maternal relationships and four regarding paternal relationships. Sample items include, “How often did you feel loved or cared for by your mother?”, and “When you needed him, did your father spend time with you when he was home?”. Participants rated their agreement with each statement on 7-point scale, from (1) *Never* to (7) *Always*. Higher scores indicated warm and positive relationships with the relevant parent, while lower scores indicated relationships that were strained or absent. Both subscales showed high reliability (AHQ father  $\alpha = .91$ ; AHQ mother  $\alpha = .95$ ; see Table 1 for means and standard deviations).

### *Experiences in Close Relationships-Relationship Structures Questionnaire (ECR-RS)*

To assess current attachment, participants completed the ECR-RS (Fraley et al. 2011a; see Table 1 for means and standard deviations), which assesses romantic attachment with nine items regarding one's romantic partner. As is standard in the ECR-RS, participants who did not have a romantic partner were asked to answer in regards to how they would feel in a romantic relationship or how they have felt in

<sup>2</sup> When non-heterosexual participants were excluded from analyses, the pattern of results did not change. Therefore, non-heterosexual individuals were included in the final analyses.



**Table 1** Means and standard deviations of the variables

	Female participants			Male participants		
	<i>n</i>	<i>M (SD)</i>	95 % CI	<i>n</i>	<i>M (SD)</i>	95 % CI
AHQ father	101	24.73 (4.44)	[23.85, 25.60]	52	24.19 (5.3)	[22.70, 25.68]
AHQ mother	101	20.54 (8.37)	[18.89, 22.20]	50	20.54 (7.04)	[18.54, 22.54]
Partner avoidance	96	2.34 (1.27)	[2.09, 2.60]	53	2.42 (1.25)	[2.07, 2.76]
Partner anxiety	99	3.18 (2.10)	[2.76, 3.60]	52	3.14 (1.72)	[2.66, 3.62]
Participant's # sexual partners	99	3.44 (3.95)	[2.66, 4.23]	49	4.61 (6.15)	[2.85, 6.38]
Perceptions of target	95	120.00 (14.10)	[117.13, 122.87]	53	119.36 (11.79)	[116.11, 122.61]

one in the past. Sample items include, “It helps to turn to this person in times of need,” “I talk things over with this person”, and “I worry that this person won’t care about me as much as I care about him or her” (Fraley et al. 2011a, b). Participants rated each statement on a 7-point scale, (1) *Strongly disagree* to (7) *Strongly agree*. Higher scores indicate higher avoidance or anxiety. Reliability was as follows: avoidance with partner (6 items,  $\alpha = .87$ ) and anxiety with partner (3 items,  $\alpha = .90$ ).

### Personal Sexual History

Participants provided information regarding their sexual history by answering: “With how many people have you engaged in sexual intercourse?”. Standardized scores were computed and outliers (defined as 3.5 standard deviations or more from the mean) were not included in analyses ( $n = 2$ ).

### Sexual Double Standard Perceptions

Following their viewing of the Facebook results page (described below), participants answered 36 evaluative statements used in previous sexual double standard research (Marks and Fraley 2005). Responses were recorded on a Likert-type scale, from (1) *Strongly disagree* to (5) *Strongly agree*. Sample items include, “People like this person”, “This person has a good job”, “This person performs well in everything he/she does”, and “This person is immoral” (reverse scored). Higher scores indicate a more positive rating of the target person. Cronbach’s alpha for the present sample’s was .90. See Table 1 for means and standard deviations, and Table 2 for correlations between all variables.

### Procedure

After completing the AHQ, ECR-RS and sexual history questionnaire, participants viewed output from a purported personality quiz said to have been administered on

**Table 2** Correlations between variables

	1	2	3	4	5	6
AHQ father	–	.43*	–.05	–.02	.08	–.08
AHQ mother	.20	–	–.21*	–.09	–.18	.21*
Partner avoidance	–.05	–.12	–	.60*	.12	–.18
Partner anxiety	–.08	–.06	.56*	–	.09	.11
Participant's # sexual partners	.14	–.04	.14	.02	–	.06
Perceptions of target	.11	–.01	–.40*	–.26	.03	–

Intercorrelations for female participants ( $n = 101$ ) is presented above the diagonal, and intercorrelations for male participants ( $n = 53$ ) are presented below the diagonal

\*  $p < .05$

Facebook as part of a prior study. The output consisted of a results page that was supposedly given to an individual who participated in the prior study. The target individual's answers were included in the results. Importantly, the target's gender and number of sexual partners were among the information presented. The target individual was fictitious and no picture was used. Participants were randomly assigned to one of four conditions. Specifically, they viewed information stating that the target individual was either a man or a woman who had either one sexual partner or 12 sexual partners. Participants in all groups saw Facebook results pages that were identical except for the gender of the fictional person and the number of sexual partners.

Participants then completed the sexual double standard perceptions questionnaire evaluating the target person. The Facebook results page was available for reference on the computer screen while they completed the evaluation measure. Finally, participants were debriefed and thanked for their participation.

## Results

### Quality of Early Relationship with Father: Female Participants

In order to determine whether participants' quality of early relationship with their fathers relates to the exhibition of the sexual double standard (indicated by the sexual double standard perceptions scale), hierarchical regression was performed. The quality of relationship with father score was centered in relation to its mean and the conditions were dummy coded such that the "target female" condition was coded "1" and the "target male" condition was coded "0". The "target 12 partners" condition was coded "2" and the "target 1 partner" condition was coded "1". In Step 1, the total evaluative score was regressed on target gender, target number of sexual partners, quality of relationship with the father and participant's previous number of sexual intercourse partners. In Step 2, the interactions between target gender and target partners, quality of relationship and target gender, and quality of relationship and target partners were entered. In Step 3, the three way

interaction between quality of relationship, target partners and target gender was entered. There were no multicollinearity violations; all VIFs were under 5.

We hypothesized that female participants who had poor early relationships with their fathers would rate male targets with 12 partners more negatively than female targets with 12 partners, while those with positive early paternal relationships would exhibit the opposite pattern (H1). The three way interaction between target partner, target gender and females' AHQ score for father [ $b = -.80$  (see Table 3)] explained an additional 4.9 % of the variance beyond Step 2,  $F_{change}(1,84) = 4.69$ ,  $p = .033$ . Simple slope analyses revealed that female participants with poor paternal relationships rated male targets with 12 partners more negatively than female targets with 12 partners,  $t = -2.88$ ,  $p = .005$ , while those scoring high on the AHQ father scale rated female targets with 12 partners more negatively than male targets with 12 partners (see Fig. 1). Results also revealed that female participants with poor paternal relationships rated female targets with 12 partner more positively than female targets with 1,  $t = -2.85$ ,  $p = .006$ , while those with positive paternal relationships rated female targets with 1 partner more positively than female targets with 12 partners. As such, hypothesis 1 was supported.

### Quality of Early Relationship with Mother: Female Participants

Analyses were conducted in the manner described above in order to examine the relationship between females' early relationships with their mothers (as indicated by scores on the mother subsection of the AHQ) in relation to the manifestation of the sexual double standard. We hypothesized that female participants with poor

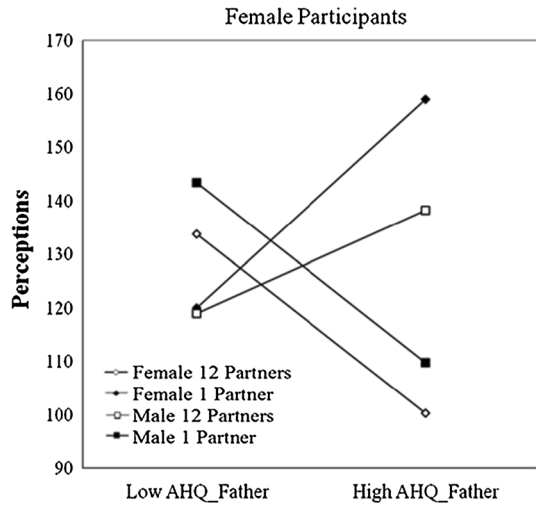
**Table 3** Hierarchical linear regression: predicting evaluative score on perceptions as function of condition and female participants' AHQ father score (12 vs. 1 partners)

Predictor	Perceptions			
	$\Delta R^2$	<i>B</i>	$\beta$	95 % CI <i>B</i>
Step 1	.04			
Target gender		.32	.01	[-5.58, 6.22]
Target partner		-5.10	-.18 <sup>†</sup>	[-10.98, .77]
AHQ father		-1.10	-.07	[-4.24, 2.05]
Participant's previous sexual intercourse		.88	.04	[-3.49, 5.19]
Step 2	.03			
Target gender $\times$ target partner		-6.10	-.35	[-17.94, 5.74]
Target gender $\times$ AHQ father		2.50	.09	[-4.69, 9.68]
Target partner $\times$ AHQ father		-2.47	-.25	[-8.88, 3.95]
Step 3	.05			
Target gender $\times$ target partner $\times$ AHQ father		-15.64	-.80*	[-30.00, -1.28]
Total $R^2$	.12			

*N* = 93, *CI* confidence interval

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

**Fig. 1** Female participants' evaluations as a function of target gender, target number of sexual partners (1 vs. 12) and participants' AHQ father scores. Higher scores on AHQ-father indicate more warm and positive relationships with the father. Higher scores on the perceptions scale indicate more positive evaluations of the target individual.  $N = 90$



maternal relationships would rate female targets with 12 partners more positively than male targets with 12 partners, while those with positive maternal relationships would exhibit the opposite pattern (H2). The three way interaction between target gender, target partners and women's maternal relationships, [ $b = .76$  (see Table 4)] explained an additional 3.0 % of the variance beyond Step 2,  $F_{change}(1,84) = 2.88$ ,  $p = .093$ . Simple slope analysis revealed that, contrary to our expectations, female

**Table 4** Hierarchical linear regression: predicting evaluative score on perceptions as function of condition and female participants' AHQ mother (12 vs. 1 partners)

Predictor	Perceptions			
	$\Delta R^2$	$B$	$\beta$	95 % CI $B$
Step 1	.08			
Target gender		.69	.03	[-5.07, 6.46]
Target partner		-4.94	-.18 <sup>†</sup>	[-10.68, .80]
AHQ mother		2.97	.22*	[.18, 5.75]
Participant's previous sexual intercourse		1.60	.08	[-2.72, 5.91]
Step 2	.02			
Target gender $\times$ target partner		-6.35	-.37	[-17.96, 5.27]
Target gender $\times$ AHQ mother		-.12	-.01	[-5.78, 5.54]
Target partner $\times$ AHQ mother		1.16	.14	[-4.50, 6.82]
Step 3	.03			
Target gender $\times$ target partner $\times$ AHQ mother		9.41	.76 <sup>†</sup>	[-1.61, 20.43]
Total $R^2$	.13			

$N = 93$ ,  $CI$  confidence interval

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

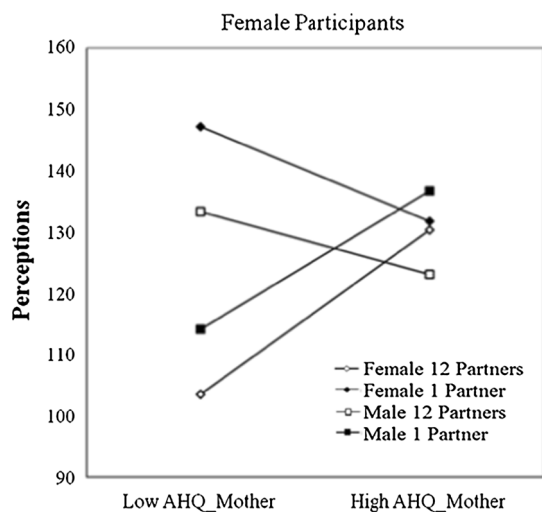
participants with poor maternal relationships rated male targets with 12 partners more positively than female targets with 12 partners,  $t = 2.31$ ,  $p = .023$ , while female participants with positive maternal relationships rated female targets with 12 partners more positively than male targets with 12 partners (see Fig. 2). Results also revealed that female participants with poor maternal relationships rated female targets with 1 partner more positively than female targets with 12,  $t = 2.69$ ,  $p = .009$ . Hypothesis 2 was not supported.

### Adult Attachment with Romantic Partner

We predicted that highly avoidant individuals, compared to less avoidant individuals, would evaluate opposite-gender targets with 12 partners more positively than same-gender targets with 12 partners (H3). For female participants, the three way interaction between target partner, target gender and avoidance score with partner [ $b = -.81$  (see Table 5)] explained an additional 3.6 % of the variance beyond Step 2,  $F_{change}(1,81) = 3.52$ ,  $p = .064$ . Simple slope analyses revealed that female participants scoring higher on avoidance with the romantic partner rated male targets with 12 partners more positively than female targets with 12 partners,  $t = -2.48$ ,  $p = .015$ , while female participants scoring lower on avoidance with the romantic partner rated female targets with 12 partners more positively than male targets with 12 partners (see Fig. 3). Other findings revealed that female participants scoring high on avoidance with the partner rated female targets with 1 partner more positively than female targets with 12,  $t = -2.71$ ,  $p = .008$ . Male participants' adult attachment with their romantic partner was not related to the exhibition of the sexual double standard. Hypothesis 3 was partially supported.

For anxiously attached men and women, we predicted a set of competing hypotheses: highly anxious men would exhibit the traditional double standard and highly anxious women would exhibit the reverse double standard (H4a) more so

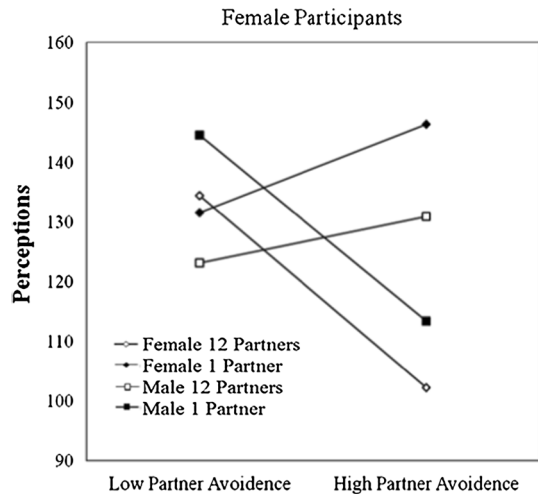
**Fig. 2** Female participants' evaluations as a function of target gender, target number of sexual partners (1 vs. 12) and participants' AHQ mother scores. Higher scores on the AHQ-mother indicate more warm and positive relationships with the mother. Higher scores on the perceptions scale indicate more positive evaluations of the target individual.  $N = 92$



**Table 5** Hierarchical linear regression: predicting evaluative score on perceptions as function of condition and female participants' avoidance score with partner (12 vs. 1 partners)

Predictor	Perceptions			
	$\Delta R^2$	<i>B</i>	$\beta$	95 % CI <i>B</i>
Step 1	.14			
Target gender		.35	.01	[−5.42, 6.12]
Target partner		−5.62	−.20 <sup>†</sup>	[−11.34, .10]
Partner avoidance		−5.01	−.37*	[−8.61, −1.59]
Partner anxiety		4.26	.32*	[.92, 7.60]
Step 2	.01			
Target gender × target partner		−4.68	−.26	[−16.48, 7.11]
Target gender × partner avoidance		.74	.04	[−5.05, 6.54]
Target partner × partner avoidance		−1.00	−.11	[−6.76, 4.75]
Step 3	.04			
Target gender × target partner × partner avoidance		−10.71	−.81 <sup>†</sup>	[−22.06, .64]
Total $R^2$	.18			

N = 90, CI confidence interval

<sup>†</sup>  $p < .10$ ; \*  $p < .05$ **Fig. 3** Female participants' evaluations as a function of target gender, target number of sexual partners (1 vs. 12) and participants' avoidance with partner. Higher scores on partner avoidance indicate more avoidance. Higher scores on the perceptions scale indicate more positive evaluations of the target individual. N = 85

than would less anxious people, or highly anxious men would exhibit the reverse double standard and highly anxious women would exhibit the traditional double standard (H4b) more so than would less anxious people. Neither of the competing hypotheses 4 was supported, as no other three way interactions were observed for either male or female participants.

## Discussion

The goal of this research was to examine the relationship between early rearing experiences, adult attachment, and the exhibition of the sexual double standard. We studied these relationships by examining participants' early relationships with their mother and father and their adult attachment with romantic partners. Our first hypothesis was supported; female participants who reported poorer early relationships with their fathers rated male targets with a high number of sexual partners more negatively than female targets with a high number of sexual partners. One plausible explanation for this finding is that women who had more negative early paternal relationships believe that men, especially those who engage in high levels of sexual activity, are uncaring and emotionally inaccessible (Burns 2008; Wassil-Grimm 1995). Essentially, they may have learned that men are untrustworthy and unreliable, which would lead them to judge men with greater sexual experience more negatively compared to women with similar sexual experience. Furthermore, participants who had positive relationships with their fathers evaluated males with 12 partners more favorably than females with 12 partners, and they evaluated females with 1 partner more favorably than females with 12 partners (i.e., the sexual double standard). Therefore, Hypothesis 1 was supported.

Hypothesis 2 was rejected; female participants who had poor early relationships with their mothers rated male targets with 12 partners more positively than female targets with 12 partners. Conversely, female participants who had positive relationships with their mothers rated female targets with 12 partners more positively than male targets with 12 partners. Research has shown that women who have negative early maternal relationships develop sooner and tend to engage in risky sexual behaviors (Belsky et al. 2010). We hypothesized that these women might identify with the highly sexually active female target and therefore not judge her harshly. However, it may be the case that these women instead saw the female target as sexual competition and thus condemned the target for engaging in high levels of sexual activity.

It is also important to note that women were influenced differently by early maternal relationships and early paternal relationships. Poor relationships with their fathers led women to evaluate highly sexually active men more negatively than highly sexually active women, while poor relationships with their mothers led them to evaluate highly sexually active women more negatively than highly sexually active men. This suggests that women may be more critical of a target person's sexual activity after having a poor early relationship with a parent of the target person's same gender. In other words, it seems that these negative experiences early in one's life translate, not surprisingly, to perceptions of other individuals of the same gender.

Hypothesis 3 was partially supported; women's avoidant attachment was related to the traditional double standard. Specifically, women who were more avoidantly attached to their partners rated male targets with 12 partners more positively than their female counterparts. Women who were less avoidantly attached, on the other hand, rated female targets with 12 partners more positively than male targets with

12 partners. Avoidantly attached women may view males with more partners as better potential mates because such males would not expect them to be in an emotionally close, monogamous relationship. Indeed, avoidant individuals desire to maintain independence within their romantic relationships (Mikulincer and Shaver 2007), usually exhibit less interest in and attentiveness to their partners (Guerrero 1996), and are more likely to have positive attitudes towards consensual non-monogamous relationships (Moors et al. 2014). Surprisingly, we did not observe similar results for male participants. One potential explanation for this finding is that men, relative to women, tend not to strongly associate sexual activity with emotions (Ganong and Larson 2011; Hiller 2004). It is possible that even male participants who were low in avoidance did not feel strongly about their partner's sexual history (or did care but suppressed the emotion; Marks and Vicary in press), rendering the interaction between participant gender, target gender, and target's number of partners non-significant.

Furthermore, our results showed that a poor early maternal relationship relates to similar perceptions of sexual activity as avoidance with romantic partner. Women who had poor early maternal relationships and women who had greater avoidance with their romantic partners evaluated male targets with 12 partners more positively than their female counterparts. This is consistent with previous attachment research indicating that it is the quality of the relationship with the mother, rather than with the father, that is associated with the quality of later friendships and romantic relationships (Doyle et al. 2009).

Hypothesis 4 was not supported; individuals' attachment anxiety was not related to the sexual double standard. This result suggests that anxious individuals may not view highly sexually active individuals as potentially unfaithful partners or competitors. Alternatively, it is possible that the results supporting the competing hypotheses did emerge; however, they canceled each other out. Future research could explore additional variables that may differentiate the views of anxious individuals from those of less anxious individuals, such as jealousy (e.g., Sharpsteen and Kirkpatrick 1997).

It is important to note that the results of the present study provide insight into not only the exhibition of the sexual double standard, but also life history theory and attachment theory. Although previous studies have found that one's early upbringing can affect one's views and judgments of other individuals (e.g., Belsky et al. 1991), no studies to date had explored how this quality of upbringing influences judgments of men's versus women's sexual activity. In other words, although the core tenant of life history theory is that early experiences affect one's future reproductive outlook and experiences, it was not previously clear whether these experiences also shaped how positively or negatively women viewed other women's and men's sexual experiences. This study is the first to provide insight into this question. Additionally, although much research has been conducted on the relationship between attachment orientation and sexual experiences (e.g., Birnbaum 2010; Brassard et al. 2007), no research had examined the relationship between attachment and the judgment of men's versus women's sexual experiences.



## Limitations and Future Directions

Although the study provided a novel look into various factors that may influence the double standard, the study also had several limitations worth noting. First, we relied on self-report measures of attachment history and adult attachment. Participants may misremember the nature of their childhood parental relationships, or they may find it difficult to report their attachment with romantic partners if they are not currently in a relationship. Although the AHQ and ECR-RS are validated measures with good psychometric properties (Fraley et al. 2011a, b; Pottharst 1990), future research could benefit from direct observations of participants' interactions with important figures in their lives.

Second, participants evaluated target individuals who were presented to them under the guise of feedback from a Facebook application. This is noteworthy because online interactions and relationships differ from in-person interactions and relationships (Ivcevic and Ambady 2012). However, one major reason for these differences is the ability to selectively present aspects of oneself online in order to portray the self positively (e.g., Manago et al. 2008; Qui et al. 2012). Because our target individuals were open about their sexual history even when that history may lead to negative evaluations, self-presentational bias is less of a concern and therefore our participants' impressions of online individuals may not differ drastically from in-person impressions.

Third, our results may not generalize to people who are not heterosexual and/or those who were not raised by a mother and father. For example, avoidantly attached women who are attracted to other women may exhibit the reverse double standard, such that they judge women with many partners positively because such women would be less likely to expect emotional closeness and commitment in a relationship. Furthermore, individuals who were raised by a same-gender couple or by more than two adults may have had more complex, nuanced early relationships with their caregivers than those who were raised in more traditional households. It would be valuable to conduct future research in this area with participants of varying sexual orientations, gender identities, and early rearing experiences.

In future studies, it would be interesting to determine whether other individual difference variables influence the exhibition of the double standard, such as one's personality characteristics and media exposure. It would also be worthwhile to further investigate our finding that attachment anxiety did not relate to the exhibition of the double standard. Is it truly the case that anxiety is not relevant, or did two competing results cancel each other out? One potential way to investigate this idea would be to collect qualitative data regarding the topic or to prime participants with various cheating scenarios and determine if their resultant exhibition of the double standard was influenced by the thought of infidelity.

## Conclusion

The sexual double standard has a profound impact on women's health and safety (e.g., Emmers-Sommer et al. 2010; Muehlenhard et al. 1985; Young et al. 2010), yet little research to date has focused on identifying the variables that may make an

individual more or less likely to exhibit the double standard. This research identified several ways in which one's own early parental relationships and romantic attachment orientation impact whether he or she judges men and women differently based on their sexual experiences.

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### Compliance with Ethical Standards

**Conflict of interest** All of the authors (Yuliana Zaikman, Erin Vogel, Amanda Vicary and Michael Marks) declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in our study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Moreover, this article does not contain any studies with animals performed by any of the authors.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

## References

- Anders, S. L., & Tucker, J. S. (2000). Adult attachment style, interpersonal communication competence, and social support. *Personal Relationships*, 7(4), 379–389. doi:[10.1111/j.1475-6811.2000.tb00023.x](https://doi.org/10.1111/j.1475-6811.2000.tb00023.x).
- Belsky, J., Steinberg, L., & Draper, P. (1991). Childhood experience, interpersonal development, and reproductive strategy: An evolutionary theory of socialization. *Child Development*, 62, 647–670. doi:[10.2307/1131166](https://doi.org/10.2307/1131166).
- Belsky, J., Steinberg, L. D., Houts, R. M., Friedman, S. L., DeHart, G., Cauffman, E., et al. (2007). Family rearing antecedents of pubertal timing. *Child Development*, 78, 1302–1321. doi:[10.1111/j.14678624.2007.01067.x](https://doi.org/10.1111/j.14678624.2007.01067.x).
- Belsky, J., Steinberg, L., Houts, R. M., HalpernFelsher, B. L., & NICHD Early Child Care Research Network US. (2010). The development of reproductive strategy in females: Early maternal harshness rightwards-arrow earlier menarche rightwards-arrow increased sexual risk taking. *Developmental Psychology*, 46, 120–128. doi:[10.1037/a0015549](https://doi.org/10.1037/a0015549).
- Birnbaum, G. E. (2010). Bound to interact: The divergent goals and complex interplay of attachment and sex within romantic relationships. *Journal of Social and Personal Relationships*, 27, 245–252. doi:[10.1177/0265407509360902](https://doi.org/10.1177/0265407509360902).
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Brassard, A., Shaver, P. R., & Lussier, Y. (2007). Attachment, sexual experience, and sexual pressure in romantic relationships: A dyadic approach. *Personal Relationships*, 14, 475–493.
- Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin*, 21, 267–283. doi:[10.1177/0146167295213008](https://doi.org/10.1177/0146167295213008).
- Brumbaugh, C. C., & Fraley, R. C. (2007). Transference of attachment patterns: How important relationships influence feelings toward novel people. *Personal Relationships*, 14, 513–530.
- Burns, V. E. (2008). Living without a strong father figure: A context for teen mothers' experience of having become sexually active. *Issues in Mental Health Nursing*, 29, 279–297. doi:[10.1080/01612840701869692](https://doi.org/10.1080/01612840701869692).
- Buss, D. M., Larsen, R. J., Westen, D., & Semmelroth, J. (1992). Sex differences in jealousy: Evolution, physiology, and psychology. *Psychological Science*, 3, 251–255. doi:[10.1111/j.1467-9280.1992.tb00038.x](https://doi.org/10.1111/j.1467-9280.1992.tb00038.x).

- Cassidy, J., & Shaver, P. R. (1999). *Handbook of attachment: Theory, research, and clinical applications*. New York, NY: Guilford Press.
- Chisholm, J. S., Quinlivan, J. A., Petersen, R. W., & Coall, D. A. (2005). Early stress predicts age at menarche and first birth, adult attachment, and expected lifespan. *Human Nature*, 16, 233–265. doi:[10.1007/s12110-005-1009-0](https://doi.org/10.1007/s12110-005-1009-0).
- Costa, A. L., Sophia, E. C., Sanches, C., Tavares, H., & Zilberman, M. L. (2015). Pathological jealousy: Romantic relationship characteristics, emotional and personality aspects, and social adjustment. *Journal of Affective Disorders*. doi:[10.1016/j.jad.2014.11.017](https://doi.org/10.1016/j.jad.2014.11.017).
- Del Giudice, M. (2011). Sex differences in romantic attachment: A meta-analysis. *Personality and Social Psychology Bulletin*, 37(2), 193–214. doi:[10.1177/0146167210392789](https://doi.org/10.1177/0146167210392789).
- Doyle, A. B., Lawford, H., & Markiewicz, D. (2009). Attachment style with mother, father, best friend, and romantic partner during adolescence. *Journal of Research on Adolescence*, 19, 690–714. doi:[10.1111/j.1532-7795.2009.00617.x](https://doi.org/10.1111/j.1532-7795.2009.00617.x).
- Duntley, J. D., & Buss, D. M. (2011). Homicide adaptations. *Aggression and Violent Behavior*, 16, 399–410. doi:[10.1016/j.avb.2011.04.016](https://doi.org/10.1016/j.avb.2011.04.016).
- Ellis, B. J., Bates, J. E., Dodge, K. A., Fergusson, D. M., Horwood, L. J., Pettit, G. S., et al. (2003). Does father absence place daughters at special risk for early sexual activity and teenage pregnancy? *Child Development*, 74, 801–821. doi:[10.1111/14678624.00569](https://doi.org/10.1111/14678624.00569).
- Ellis, B. J., & Garber, J. (2000). Psychosocial antecedents of variation in girls' pubertal timing: Maternal depression, stepfather presence, and marital and family stress. *Child Development*, 71, 485–501. doi:[10.1111/1467-8624.00159](https://doi.org/10.1111/1467-8624.00159).
- Emmers-Sommer, T. M., Farrell, J., Gentry, A., Stevens, S., Eckstein, J., Battocletti, J., et al. (2010). First date sexual expectations: The effects of who asked, who paid, date location, and gender. *Communication Studies*, 61, 339–355. doi:[10.1080/10510971003752676](https://doi.org/10.1080/10510971003752676).
- Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality and Social Psychology Review*, 6, 123–151. doi:[10.1207/S15327957PSPR0602\\_03](https://doi.org/10.1207/S15327957PSPR0602_03).
- Fraley, R. C., Garner, J. P., & Shaver, P. R. (2000a). Adult attachment and the defensive regulation of attention and memory: Examining the role of preemptive and postemptive defensive processes. *Journal of Personality and Social Psychology*, 79(5), 816–826. doi:[10.1037/0022-3514.79.5.816](https://doi.org/10.1037/0022-3514.79.5.816).
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011a). The experiences in close relationships—relationship structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, 23(3), 615–625. doi:[10.1037/a0022898](https://doi.org/10.1037/a0022898).
- Fraley, R. C., Niedenthal, P. M., Marks, M., Brumbaugh, C., & Vicary, A. (2006). Adult attachment and the perception of emotional expressions: Probing the hyperactivating strategies underlying anxious attachment. *Journal of Personality*, 74(4), 1163–1190. doi:[10.1111/j.1467-6494.2006.00406.x](https://doi.org/10.1111/j.1467-6494.2006.00406.x).
- Fraley, R. C., Vicary, A. M., Brumbaugh, C. C., & Roisman, G. I. (2011b). Patterns of stability in adult attachment: An empirical test of two models of continuity and change. *Journal of Personality and Social Psychology*, 101, 974–992.
- Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological model. In J. A. Simpson, W. S. Rholes, J. A. Simpson, & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 77–114). New York, NY: Guilford Press.
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000b). An item-response theory analysis of self report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350–365.
- Ganong, K., & Larson, E. (2011). Intimacy and belonging: The association between sexual activity and depression among older adults. *Society and Mental Health*, 1, 153–172. doi:[10.1177/2156869311431612](https://doi.org/10.1177/2156869311431612).
- Gentry, M. (1998). The sexual double standard. The influence of number of relationships and level of sexual activity on judgments of women and men. *Psychology of Women Quarterly*, 22, 505–511.
- Gentzler, A. L., & Kerns, K. A. (2004). Associations between insecure attachment and sexual experiences. *Personal Relationships*, 11, 249–265.
- Greene, K., & Faulkner, S. L. (2005). Gender, belief in the sexual double standard, and sexual talk in heterosexual dating relationships. *Sex Roles*, 53, 239–251. doi:[10.1007/s11199-005-5682-6](https://doi.org/10.1007/s11199-005-5682-6).
- Guerrero, L. K. (1996). Attachment-style differences in intimacy and involvement: A test of the four-category model. *Communication Monographs*, 63, 269–292.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.

- Hiller, J. (2004). Speculations on the links between feelings, emotions and sexual behaviour: Are vasopressin and oxytocin involved? *Sexual and Relationship Therapy*, 19, 1468–1479.
- Howell, J. L., Egan, P. M., Giuliano, T. A., & Ackley, B. D. (2011). The reverse double standard in perceptions of student-teacher sexual relationships: The role of gender, initiation, and power. *Journal of Social Psychology*, 151, 180–200. doi:[10.1080/00224540903510837](https://doi.org/10.1080/00224540903510837).
- Ivan, Z., & Bereczkei, T. (2006). Parental bonding, risk-taking behavior and life history theory. *Journal of Cultural and Evolutionary Psychology*, 4, 267–275. doi:[10.1556/JCEP.4.2006.3-4.5](https://doi.org/10.1556/JCEP.4.2006.3-4.5).
- Ivcevic, Z., & Ambady, N. (2012). Personality impressions from identity claims on Facebook. *Psychology of Popular Media Culture*, 1, 38–45. doi:[10.1037/a0027329](https://doi.org/10.1037/a0027329).
- Kim, K., Smith, P. K., & Palermiti, A. (1997). Conflict in childhood and reproductive development. *Evolution and Human Behavior*, 18, 109–142.
- Lefkowitz, E., Shearer, C., Gillen, M., & Espinosa-Hernandez, G. (2014). How gendered attitudes relate to women's and men's sexual behaviors and beliefs. *Sexuality and Culture*, 18, 833–846. doi:[10.1007/s12119-014-9225-6](https://doi.org/10.1007/s12119-014-9225-6).
- Manago, A. M., Graham, M. B., Greenfield, P. M., & Salimkhan, G. (2008). Self-presentation and gender on MySpace. *Journal of Applied Developmental Psychology*, 29, 446–458. doi:[10.1016/j.appdev.2008.07.001](https://doi.org/10.1016/j.appdev.2008.07.001).
- Marks, M. J. (2008). Evaluations of sexually active men and women under divided attention: A social cognitive approach to the sexual double standard. *Basic and Applied Social Psychology*, 30, 84–91. doi:[10.1080/01973530701866664](https://doi.org/10.1080/01973530701866664).
- Marks, M. J., & Fraley, R. C. (2005). The sexual double standard: Fact or fiction? *Sex Roles*, 52, 175–186. doi:[10.1007/s11199-005-1293-5](https://doi.org/10.1007/s11199-005-1293-5).
- Marks, M. J., & Fraley, R. C. (2007). The effect of social interaction on the sexual double standard. *Social Influence*, 2, 29–54.
- Marks, M. J. & Vicary, A. M. (in press). The interplay and effectiveness of implicit and explicit avoidant defenses. *Journal of Social and Personal Relationships*.
- Mendle, J., Harden, K. P., Turkheimer, E., Van Hulle, C. A., D'Onofrio, B. M., Brooks-Gunn, J., et al. (2009). Associations between father absence and age of first sexual intercourse. *Child Development*, 80, 1463–1480. doi:[10.1111/j.1467-8624.2009.01345.x](https://doi.org/10.1111/j.1467-8624.2009.01345.x).
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford.
- Moors, A. C., Conley, T. D., Edelstein, R. S., & Chopik, W. J. (2014). Attached to monogamy? Avoidance predicts willingness to engage (but not actual engagement) in consensual non monogamy. *Journal of Social and Personal Relationships*, 32, 1–19. doi:[10.1177/0265407514529065](https://doi.org/10.1177/0265407514529065).
- Muehlenhard, C. L., Friedman, D. E., & Thomas, C. M. (1985). Is date rape justifiable? The effects of dating activity, who initiated, who paid, and men's attitudes toward women. *Psychology of Women Quarterly*, 9, 297–309. doi:[10.1111/j.14716402.1985.tb00882.x](https://doi.org/10.1111/j.14716402.1985.tb00882.x).
- Mustanski, B. S., Viken, R. J., Kaprio, J., Winter, T., & Rose, R. J. (2007). Sexual behavior in young adulthood: A population-based twin study. *Health Psychology*, 26, 610–617.
- Petersen, J. L., & Hyde, J. S. (2010). A meta-analytic review of research on gender differences in sexuality, 1993–2007. *Psychological Bulletin*, 136, 21–38. doi:[10.1037/a0017504](https://doi.org/10.1037/a0017504).
- Pottharst, K. (1990). The search for methods and measures. In K. Pottharst (Ed.), *Explorations in adult attachment* (pp. 9–37). New York: Peter Lang.
- Qui, L., Lin, H., Leung, A. K., & Tov, W. (2012). Putting their best foot forward: Emotional disclosure on Facebook. *Cyberpsychology, Behavior, and Social Networking*, 15, 569–572. doi:[10.1089/cyber.2012.0200](https://doi.org/10.1089/cyber.2012.0200).
- Quinlan, R. J. (2003). Father absence, parental care, and female reproductive development. *Evolution and Human Behavior*, 24, 376–390. doi:[10.1016/S1090-5138%2803%2900039-4](https://doi.org/10.1016/S1090-5138%2803%2900039-4).
- Rodgers, J. L., Rowe, D. C., & Buster, M. (1999). Nature, nurture, and first sexual intercourse in the USA: Fitting behavioral genetic models to NLSY kinship data. *Journal of Biosocial Science*, 31, 29–41.
- Rudman, L. A., & Fetterolf, J. C. (2014). Gender and sexual economics: Do women view sex as a female commodity? *Psychological Science*, 25, 1438–1447. doi:[10.1177/0956797614533123](https://doi.org/10.1177/0956797614533123).
- Sharpsteen, D. J., & Kirkpatrick, L. A. (1997). Romantic jealousy and adult romantic attachment. *Journal of Personality and Social Psychology*, 72, 627–640. doi:[10.1037/0022-3514.72.3.627](https://doi.org/10.1037/0022-3514.72.3.627).
- Sprecher, S. (1989). Premarital sexual standards for different categories of individuals. *Journal of Sex Research*, 26, 232–248. doi:[10.1080/00224498909551508](https://doi.org/10.1080/00224498909551508).

- Turan, B., & Vicary, A. M. (2010). Who recognizes and chooses behaviors that are best for a relationship? The separate roles of knowledge, attachment, and motivation. *Personality and Social Psychology Bulletin*, 36, 119–131.
- Vicary, A. M., & Fraley, R. C. (2007). Choose your own adventure: Attachment dynamics in a simulated relationship. *Personality and Social Psychology Bulletin*, 33, 1279–1291.
- Wassil-Grimm, C. (1995). *Where's daddy? How divorced single widowed mothers can provide what's missing when dad's missing*. New York: The Overlook Press.
- Waters, E., Merrick, S., Treboux, D., Crowell, J., & Albersheim, L. (2000). Attachment security in infancy and early adulthood: A twenty-year longitudinal study. *Child Development*, 71, 684–689. doi:[10.1111/1467-8624.00176](https://doi.org/10.1111/1467-8624.00176).
- Young, M., Penhollow, T. M., & Bailey, W. C. (2010). Hooking-up and condom provision: Is there a double standard? *American Journal of Health Studies*, 25, 156–164.
- Zaikman, Y., & Marks, M. J. (2014). Ambivalent sexism and the sexual double standard. *Sex Roles*, 71, 333–344. doi:[10.1007/s11199-014-0417-1](https://doi.org/10.1007/s11199-014-0417-1).
- Zaikman, Y. & Marks, M. J. (in press). The influence of physical appearance and personality on the exhibition of the sexual double standard. *Sexuality and Culture*. doi:[10.1007/s12119-015-9319-9](https://doi.org/10.1007/s12119-015-9319-9).
- Zaikman, Y., Marks, M. J., Young, T. M., & Zeiber, J. A. (in press). Gender role violations and the sexual double standard. *Journal of Homosexuality*.