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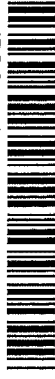
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A Mediation Hypothesis to Account for the Sex Difference in Reported Number of Sexual Partners: An Intrasexual Competition Approach

Peter K. Jonason, MA

ABSTRACT. Men may gauge their own status by comparing themselves to other men in terms of how many sexual partners they have had. In so doing, men who have had more sexual partners appear to have higher status than a man with fewer past sexual partners. In Study 1, men were more likely than women to use their perceived amount of sexual success as a means of assessing status: accounting for the sex difference in reported number of sex partners. In Study 2, men viewed sexual success as more prestigious than women, as demonstrated experimentally. Men may be more likely to boost reports about their sex life both in real-life and in surveys as functions of (1) their perception that with more sex comes more prestige and (2) the desire to enhance their perceived status among others. doi:10.1300/J514v19n04_05 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2007 by The Haworth Press. All rights reserved.]

KEYWORDS. Intrasexual competition, sex differences, short-term mating, sexual partners

The question has been asked many ways and many times: how many sex partners do you have. Logic alone would predict that men and women would report approximately the same amount of lifetime sex partners. However, previous research has shown that men and women's reported number of sexual experiences are not equal (Brown & Sinclair, 1999; Pedersen, Miller, Putcha-Bhagavatula, & Yang, 2002). For instance, the number of individuals who participate in casual sex is not equal in self-reports (men report more partners than women), but must be equal in reality,

since a man and a woman must both be present in a heterosexual sexual experience (Greiling & Buss, 2000). While the number of sexual partners should be approximately equal, there may be influences of attitudes about sex that lead to this discrepancy (Schmitt, 2005).

A number of explanations have been garnered to explain this discrepancy. Researchers have found that men report they have had sex at an earlier age than women, and thus have more sexual partners (Elo, King, & Furstenberg, 1999; Kenrick, Gabrielidis, Keefe, & Cornelius, 1996). This, however, is an inade-

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quate and unlikely explanation because women tend to date older men. Some have argued that as a result of men being more assertive when it comes to sex, men should then report greater success in sex (Byers & Heinlein, 1989; Grauerholz & Serpe, 1985; O'Sullivan & Byers, 1993). It may also be the case that reported number of sex partners is caused by difference between men and women in how they define what it means to have sex (Sanders & Reinisch, 1999). Researchers have also argued that this discrepancy is the result of social desirability effects: in attempt to conform to normative expectations, men and women may report different numbers of sex partners (Alexander & Fisher, 2003; Meston, Heiman, Trapnell, & Paulhus, 1998).

However, most social desirability explanations are female-centric, focusing on women's tendency to underreport. It may also be the case that men *overreport* their sexual success, and this study is attempting to address this understudied explanation in the literature. Men may overreport because having sexual intercourse is perceived differently by men than women, in essence they have different attitudes about sex. For example, prior research indicates that men tend to use large round numbers when estimating their sexual success (Wiederman, 1997). Brown and Sinclair (1999) have shown that men and women report the same number of sex partners when they use the same method for recalling their number of partners, but men are not likely to use the same strategies as women. This may be because men view sexual success as more prestigious than women, and are thus more inclined to estimate and round up than attempt to count by recall.

Among primates and humans, the ascension to status holds higher reproductive returns for males than it does for females. "High status entails greater access to desirable things" (Henrich & Gil-White, 2001, p. 166), in this case, sexual access to women (Buss, 1989). In humans, status can be broken into two categories: dominance and the type of social status focused on presently, prestige. A dominant man uses physical force, or agonistic behaviors, to achieve and maintain power. A prestigious man uses nonagonistic means to achieve social status is admired, is

used as a role-model, and is viewed as having more status in some relevant domain (Henrich & Gil-White, 2001). In relation to reported number of sexual partners, prestige may be a specification of social desirability for men.

By being sexually successful, a man may gain prestige among other men because he advertises an ability to gain sexual access to a rare commodity: that commodity being women. Since women are more selective in mating (Trivers, 1972) and tend to have greater power to dictate the terms of sexual relationships (Baumeister, 2000), information about a man's sexual success may be important in influencing other men's evaluation of how attractive he and other men are to women. Women have more control over their sexual success than men because, according to sexual economics, women are the commodity that men compete over for access (Baumeister & Vohs, 2004).

One behavior in which individuals vary, men in particular, is sexual success. Sexual success refers to the amount of sexual partners one has. For instance, more attractive men reported greater amounts of sexual partners than less attractive men (Gangestad, 1993). These differences in sexual success may track to real differences between men, and thus may be informative to other men in intrasexual assessments.

Because of the influence of women, a sexually successful man can be inferred to have something that the less sexually successful man does not. Individuals often only have access to indirect knowledge about others in the mating field (Uller & Johansson, 2003), and in this case, about the sexual success of other men. The more directly observable domains men use to gain prestige (or to be perceived as such) are, for example, musculature (Jonason, 2007), size (Crosbie, 1979), and physiognomic maturity (Keating, 1985). In the case of sexual success men rarely get firsthand knowledge of another man's sexual success. At best, it may come through self-reports, but this is potentially vulnerable to biases in reporting.

Men may use information about their own sexual experiences and those of others to gauge their relative status and approval (Li & Kenrick, 2006). The general argument is that

sexual success of an individual man with multiple women can lead to more prestige among other men. It is predicted that men will be more likely than women to view sexual success with a status orientation. Similarly, it is predicted that males will assign more prestige to a man who has had many sex partners over a man who has had fewer sex partners.

Sexual success should not function as a method for women to choose mates. Women prefer men who will devote resources to them for long-term relationships (Buss, 1989) and highly physically attractive men for short-term relationships (Li & Kenrick, 2006). A pattern of short-term mating may alert women to a man's sexual intention. While not all women desire long-term relationships, women tend to want them much more than men do (Schmitt, Shackelford, & Buss, 2001). This tendency in men is less attractive to women because women have a higher level of obligatory investment in their sexual encounters and thus would be wearier about a short-term mating man (Buss & Schmitt, 1993; Trivers, 1972). It is predicted that women will prefer a person with fewer sexual partners for a long-term relationship to men. Conversely, men may be attracted to a woman who has had more sexual partners for a short-term relationship because it suggests that the relationship will escalate to sex sooner (Kenrick, Sundie, Nicastle, & Stone, 2001). It is also predicted that men will prefer a person with more sexual partners for a short-term relationship to women.

Operationally, those who view sexual activity with a status orientation should feel proud, powerful, and have a sense of accomplishment after sex. Men may be more likely than women to feel this way because sexual success is related to potential reproductive success; they have passed the tests that women use as mechanisms of sexual-partner selection. As a result, the apparent sex difference in reported number of partners may be accounted for by a mediator (Baron & Kenny, 1986): holding a status orientation towards sexual success. It is predicted that the degree to which participants associate status with sexual success will predict their reported amounts of sexual experiences.

When competing for the respect of others, bragging about one's sexual success may be a

method to advertise or inflate one's prestige. In the case of sexual success, men should brag more to other men than to women. Buss (1981), has already demonstrated that men are more likely to boast about their accomplishments than women. Gilmore (1988) reported a large degree of sexual bragging among male fraternity members. However, intersexual sexual bragging from men to women may alert a woman to a man's less than attractive qualities as already discussed. Sexual activity is a common topic for gossip among women as well (Miller, 2000). While research in the past suggested that men brag about their sex-life, the research focused on male participants (Gilmore, 1988). It is predicted that individuals (men and women) who have a status orientation towards sex will talk about their sex-life more.

The current study attempts to demonstrate how an attitudinal factor (how much individuals perceive sex in relation to status) can explain the apparent sex difference in reported number of sex partners that has to date been inadequately explained for male respondents. This study also attempts to examine how number of sex partners affects ratings of prestige affects for male and female targets. Finally, this study examines how the number of sex partners affects interest in pursuing the target for long-term and short-term romantic relationships.

METHODS

Study 1

Participants completed a number of scales designed to address perceived sexual success, amount of sex-talk, and to what degree they held attitudes about sex relating to status. Participants also completed a brief demographic questionnaire.

Participants

The sample consisted of 303 participants (49% women) from a mid-sized New England college who volunteered for participation in exchange for extra credit in their communication classes. The mean age of the participant

was 21 years old ($SD = 4.35$; $Range = 18-51$). Ninety-five percent of the sample reported that they were heterosexual; the remaining 5% did not report a sexual orientation.

Measures

Participants' perceived amount of sexual success was a 5-item measure. These items asked about how sexually successful participants were. Items asked how much participants agreed with statements (1 = not at all; 5 = very much) such as 'I have had many sexual partners,' 'I have had a lot of sex,' and 'I am sexually experienced.' The items were averaged to create a single measure for perceived sexual success (Cronbach's $\alpha = .85$).

Sexual bragging or sex-talk was assessed with a 2-item measure. This scale assessed how much participants agreed with statements that asked how often they talked about and bragged about their sex life (1 = not at all; 5 = very much). The items were averaged to create a single measure for amount of sex-talk ($\alpha = .86$).

Participants' attitudes towards sexual success as it relates to prestige were measured using a 4-item scale. These items asked how proud or powerful participants felt after sexual experiences (1 = not at all; 5 = very much). The measure also asked how strong a sense of accomplishment and success participants felt after sex (1 = not at all; 5 = very much). The items were averaged to create a single measure for status orientation towards sex ($\alpha = .95$).

RESULTS

Male participants were more likely than female participants to report higher levels of sexual success ($t(303) = -4.29, p < .01, d = .35$; $M_{Male} = 3.06, SD_{Male} = .95, M_{Female} = 2.59, SD_{Female} = .95$). There was no significant sex difference in the amount of sex-talk between men and women. Whether participants view sexual success with a status orientation was correlated with their reported amount of sex-talk ($r(300) = .49, p < .01$). As predicted, male participants were more likely than female participants to view sexual success with a status orientation ($t(303) = -7.65, p < .01, d =$

$.63$; $M_{Male} = 3.05, SD_{Male} = 1.07, M_{Female} = 2.11, SD_{Female} = 1.07$).

To test this mediator hypothesis, the procedure recommended by Baron and Kenny (1986) was followed. The sex of the participant significantly predicted reported sexual success ($\beta = -.24, t(299) = -4.29, p < .01$). Sex of participant was a significant predictor of having a status orientation to sex ($\beta = -.41, t(298) = -7.65, p < .01$). Holding a status orientation towards sex significantly predicted ratings of sexual success ($\beta = .52, t(298) = 10.45, p < .01$). A multiple regression was run where sex of participants and participants' degree of a status orientation to sex indicated that sex no longer significantly predicted reported sexual success ($\beta = -.02, t(298) = -.33, ns$) but status orientation remained significant ($\beta = .51, t(298) = 8.33, p < .01$). To verify that the relationship was a mediator and not a moderator, an interaction term was created for participants' sex and how much they viewed sexual success as prestigious; it was not a significant predictor of perceived sexual success. If this were the case it would have suggested that this variable was a moderator and not a mediator (Baron & Kenny, 1986). According to the Baron and Kenny (1986) method, these results support the mediator role of a status orientation to sex between sex of participants and reported sexual success. A Sobel's t test was run to determine if the mediation effect was significant and it was (Sobel's $t = 6.17, p < .01$). There was almost complete mediation (Baron & Kenny, 1986). Figure 1 depicts these variables and shows that the sex difference in reported amounts of sexual success may be the result of participants' attitudes towards sex, and men may be more likely to have a status orientation towards sex because of its usefulness in intrasexual competition assessments.

DISCUSSION

The discrepancy in men's and women's reports of their amount of sexual success may be more accurately explained by the mediator variable: how much individuals view sexual success with a status orientation. In the past, men have reported that they have had more sexual partners than women. This, however,

does not make logical sense and seems to be accounted for in the mediation analyses as presented in Figure 1. It may have been in past studies, as this study suggests, that men are more likely to have a status orientation towards sex. This orientation should lead men, and some women, to report more sexual success. However, these results are limited in that they are correlational. Study 2 will use experimental procedures to further test whether men perceive sexual success as more prestigious than women.

Study 2

In this study, participants were presented with two individuals: one male and one female. These individuals were hypothetical targets that varied on the amount of sex partners that they had. Participants reported how much prestige they thought these individuals had and how likely they were to date them for short-term and long-term relationships. This addressed the related question of how number of sex partners affects dating choices, and thus between-sex assessments. Participants then completed a demographic questionnaire.

Participants

The sample consisted of 110 participants (48% men) from a mid-sized Southwestern United States university who volunteered for participation in exchange for course credit in their psychology classes. The mean age of the participant was 22 years old ($SD = 3.97$; $Range = 18-40$). 98% of the sample reported

that they were heterosexual; the remaining 2% did not report a sexual orientation.

Procedure and Materials

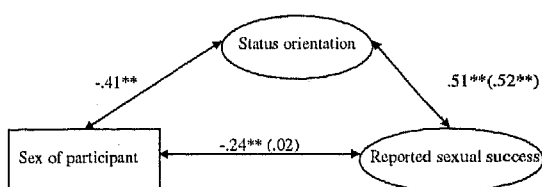
A 2 (sex of participant: male vs. female) \times 2 (condition: target had 5 or 50 sex partners) \times 2 (sex of target: male vs. female) mixed design was used to test the hypothesis that sexual success is prestigious to men. Each participant assessed a female and a male target to assess intrasexual and intersexual judgments of targets with low or high amounts of sexual partners. In the low condition, the target had 5 sex partners and in the high condition, target had 50 sex partners. Within each condition participants rated one female and one male target (counterbalanced). Participants read and signed an informed consent, completed the measure for the condition first (discussed below), demographics, and finally they were debriefed.

In the 5 sexual partners condition ($n = 50$), participants were asked a series of questions that followed a description of both a male and a female hypothetical person. The description read: John (Sarah) has had 5 sex partners.

In the 50 sexual partners condition ($n = 60$), participants were asked the same series of questions that followed a description of a hypothetical male and female. The description read: John (Sarah) has had 50 sex partners.

The measures used in the experiment were designed to assess male and female intrasexual assessments of prestige for each condition. The male-items asked (1 = not at all; 5 = very much): how much do you respect him, how much do you look up to him, how much do you want to be like him, how much do you want to emulate him, how much status does he have, how attractive is he to women, how much prestige does he have, how cool is this person (Cronbach's $\alpha = .93$). The female-items were the same but they were feminized to fit with the sex of the target ($\alpha = .85$). Each condition was also accompanied by two questions, four in total, which asked whether the participants would consider the hypothetical person as a short-term romantic partner or a long-term romantic partner (1 = not at all; 5 = very much).

FIGURE 1. Mediator analysis using Betas for the relationship between sex of participant and reported sexual success controlling for the degree to which participants held a status-orientation to sex.



Note: $** p < .01$.

Note: The coefficients in parentheses reflect partialled coefficients.

RESULTS

Male participants were more likely than female ones to rate sexual success as prestigious ($F(1, 104) = 12.93, p < .01, \eta^2 = .11$). The 50 sexual partners target was rated as more prestigious than the 5 sex partners target ($F(1, 104) = 43.91, p < .01, \eta^2 = .30$). There was a significant interaction for sex by condition ($F(1, 104) = 15.28, p < .01, \eta^2 = .13$), where males rated the 50 sex partner target as the most prestigious. There was a significant three-way interaction between sex, condition, and sex (see Figure 2) of target ($F(1, 104) = 6.63, p = .01, \eta^2 = .06$) on prestige ratings. Men rated both other men and women with more sexual partners as having more prestige than women rated either the 5 or the 50 sexual partners target. Men rated the male target with 50 sex partners as the most prestigious. Women rated target women with more sexual partners as having less status and those with fewer as having more status. When males and females rated the 5 sex partner target, they assigned similar levels of prestige.

The amount of sexual partners the hypothetical person had affected whether participants would consider her/him for a long-term romantic relationship (*LTR*) or a short-term romantic relationship (*STR*). When comparing relationship-type by sex for each condition separately, men preferred the high-partnered hypothetical woman for a short-term over a long-term relationship ($t(29) = -2.46, p = .018, d = .25; M_{STR} = 2.73, SD_{STR} = 1.44, M_{LTR} = 2.23, SD_{LTR} = .144$), and women preferred the low-partnered hypothetical man for a long-term over a short-term partner ($t(30) = 2.04, p = .05, d = .30; M_{STR} = 1.39, SD_{STR} = .72, M_{LTR} = 1.77, SD_{LTR} = 1.02$). Women only mildly preferred the hypothetical man with 50 partners for a short-term partner compared to a long-term partner and men only slightly preferred the hypothetical target with 5 sexual partners for a long-term partner to a short-term one.

GENERAL DISCUSSION

Research regarding the sex differences in reported amount of sexual partners has consistently shown that women report fewer partners.¹ Most authors have attributed this to social desirability. Authors have argued that women are less likely to report the actual number of sexual partners they have had because women are discouraged in Western societies from having many sexual partners. In essence, this explanation focuses on the female side of the sexual double standard. However, this is only one way of looking at the problem.

While men did report more sexual success than women, in the present study the idea of sexual success as prestigious suggests a new conclusion. If men are more likely to view sex with a status orientation and to report more sexual success, then men may report more sexual partners because they want to appear as though they have high status. Men may be more likely to bolster their sexual prowess in order to bolster others' perceptions of their status. Men may report more sexual experiences as a function of Western society's emphasis on men's sexuality as a status-indicator (the male side of the sexual double standard) as well as for biological reasons. It is also evident that some women have a status orientation towards sex. This may be accounted for by the fact that there are some women in sexuality studies who have indicated using a short-term mating strategy (Schmitt, 2003).

In this study, sexual success was viewed as more prestigious among men. Sexual success comparisons are an indirect method because the information only can come from self-report over actual firsthand knowledge. Men must trust the other men's report and assume that women only mate with attractive and higher status men (Gangestad, 1993; Renninger, Wade, & Grammer, 2004). Behavioral outcomes, such as sexual success, may act as proxies for intrasexual competition comparisons in the absence of more objective and apparent measures, such as musculature (Jonason, 2007) as measures of status and attractiveness. The relationship here is not perfect because men can have sexual experiences that do not function to enhance their status at all or as much, for example, visiting

prostitutes (Einon, 1994) or engaging in sex with a less attractive woman.

When individuals use the same method for the recollection of their number of sex partners they report equal numbers (Brown & Sinclair, 1999). However, men may be unlikely to use the same method for recalling their number of sex partners as women (Brown & Sinclair, 1999). This was not only supported in the results about status-orientation and sexual success, but also when assessing sexual bragging. In Study 1, those who had a status orientation towards sex reported bragging about their sex-lives more than those who did not. These results are only tentative because the sexual bragging or sex-talk scale consisted of only two items. While the internal consistency of this scale was moderate ($\alpha = .83$), future research should use more items to assess this correlation. However, it was previously shown that men receive social rewards for their sexual prowess (Herold & Mewhinney, 1993), and bragging may be a way of getting such approval. Men reported to brag about their sex life more than women.

In the experiment, men viewed other men with a high number of sexual partners as having more prestige. While men also viewed women with more sex partners as more prestigious, this finding is likely contaminated with men's desire to have sex with a woman whom they may perceive as more available for a short-term relationships. To men, sexual suc-

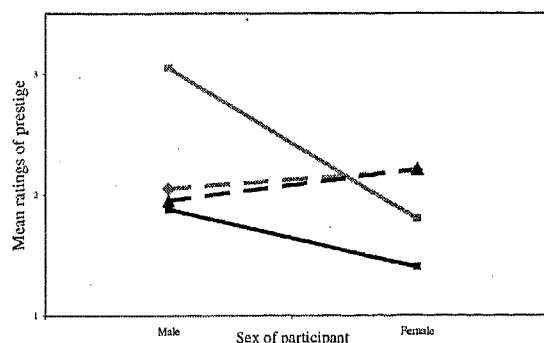
cess is prestigious because it offers fair evidence to a one's ability to gain access to a scarce commodity. So, just as owning an expensive car advertises money, advertising sexual success suggests prestige.

Past research has shown that an important variable when considering dating strategies is if one is considering short-term or a long-term relationships (Buss & Schmitt, 1993; Schmitt, 2003). For men, the number of sex partners of the hypothetical woman had a significant bearing on her attractiveness for dating: men preferred the hypothetical woman with fewer sex partners for a long-term over a short-term relationship. Men also preferred the hypothetical target with 50 sex partners for a short-term partner over the other target. This may be because it advertises that the relationship may progress to sex earlier (Kenrick, Sundie, Nicastle, & Stone, 2001).

Women also seemed to not be significantly concerned with the amount of sex partners for a short-term partner: only slightly preferring the hypothetical man with 50 partners for short-term relationships. Women did, however, indicate a concern for amount of sex partners for a long-term relationship: preferring the hypothetical man with fewer partners for a long-term romantic relationship. For women, the amount of sexual success a man has may suggest, albeit indirectly, that this man is not likely to commit or may have a short-term mating strategy. Interestingly, men may be able to derogate the long-term mate-value of sexual competitors by saying that the sexual competitor has had many sex partners while downplaying their own.

Future research should examine the relationship between sexual bragging, a prestige orientation towards sex, narcissism, and attention-seeking behavior. Raskin, Novacek, and Hogan (1991) demonstrated that narcissists are focused on gaining the admiration of others. Narcissists may be more prone to view sex as means of gaining admiration from other men. This admiration may be gained via sexual bragging. There are a number of features of narcissism that are relevant to men's perceptions of sex relating to prestige: the excessive concern for the admiration of others, an inflated sense of self-importance, and the beliefs, whether true or imagined, that other indi-

FIGURE 2. Results when male and female participants rated the prestige of male and female hypothetical targets with low and high number of sexual partners



Note. The three-way interaction was significant ($F(1, 104) = 6.63, p = .01, \eta^2 = .06$).
 Note. Black = female target; Grey = male target; Solid lines = 50 sex partner condition; Dashed lines = 5 sex partner condition.

viduals envy them (Baumeister, Catanese, & Wallace, 2002).

What may also be useful is to manipulate further the variables examined here. For instance, having men report their number of sex partners in a group of men vs. alone may yield similar results. If men inflate their reported number of sex partners to enhance their reputation among men, then men should orally report more sex partners in groups of men as compared to reporting it on paper in silence.

Intrasexual competition has taken many forms. Research has indicated that verbal self-enhancement (Buss, 1988; Schmitt, 1996), derogation of competitors (Buss & Dedden, 1990; Schmitt, 1996), and certain sex-appropriate exercise behavior (Jonason, 2007; Mealey, 1997) are all means of competing with same-sex others. One potential other means of this competition for men is through sexual prowess. Female-choice acts as an indirect measure of the status and attractiveness of the men they copulate with and/or date. Men who are more sexually successful may be inferred to be more attractive to women. While the data clearly show that women prefer men with fewer sexual partners, men may use the fact that another man has had many sex partners as an indirect means of assessing status and attractiveness to women. Clearly this sexually successful man must have something that other men do not to be so successful. Men who have had fewer sexual experiences may actually be less attractive to women (Gangestad, 1993). Men thus may use the results of female-choice to ascertain where they stand in intrasexual competition with other men. If X man has had more sexual experiences, then men could reason that X man must be of higher status.

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