

Gender Differences in the Enactment of Sociosexuality: An Examination of Implicit Social Motives, Sexual Fantasies, Coercive Sexual Attitudes, and Aggressive Sexual Behavior

Megan R. Yost and Eileen L. Zurbriggen
University of California – Santa Cruz

An unrestricted sociosexual orientation (the endorsement of casual sex) has been found to correlate with undesirable behaviors and personality characteristics more so in men than in women. Using a community sample of men and women, we investigated the correlations between sociosexuality and behaviors, motives, attitudes, and fantasies related to sexual aggression. Participants (n = 168; ages 21-45) completed self-report measures of sociosexual orientation, sexual conservatism, rape myth acceptance, adversarial sexual beliefs, attitudes toward women, sexual behaviors, and perpetration of sexual aggression. Participants also wrote five brief stories that were scored for power and affiliation-intimacy motives and two sexual fantasies that were coded for the theme of dominance. For both men and women, an unrestricted sociosexual orientation was correlated with behavioral items indicating earlier life experiences with sex, a greater number of lifetime sex partners, and more frequent sexual activity. For men, an unrestricted sociosexual orientation was linked with higher levels of rape myth acceptance and adversarial sexual beliefs; more conservative attitudes toward women; higher levels of power motivation and lower levels of affiliation-intimacy motivation; and past use of sexual aggression. For women, an unrestricted sociosexual orientation was associated with sexual fantasies of dominance and lower levels of sexual conservatism.

Sociosexuality refers to a person's willingness to engage in sexual activity with a variety of partners outside of a romantic relationship (Simpson & Gangestad, 1991). In recent years, sociosexuality has typically been measured by using the Sociosexual Orientation Inventory (Simpson & Gangestad, 1991), which includes behavioral, attitudinal, and fantasy components. Individuals who score high on this scale are said to have an "unrestricted" sexuality. A person who possesses an unrestricted sociosexual orientation does not need a romantic relationship in order to have sex; in contrast, a person who possesses a restricted sociosexual orientation prefers to have an emotional bond with a partner before sex occurs. Sociosexual orientation has been shown to influence romantic partner preferences and dating behaviors. Unrestricted people value physical attractiveness and social visibility over personal and parental qualities in a romantic partner (Simpson & Gangestad, 1992); they also tend to have dating partners who are more attractive but less affectionate than restricted individuals (Simpson & Gangestad, 1992). Sociosexuality is negatively correlated with self-reported motivation to engage in romantic relationships for the sense of emotional closeness

(Jones, 1998). As scores in sociosexuality become more unrestricted, the willingness to pursue romantic or sexual behavior outside of established relationships increases (Seal, Agostinelli, & Hannett, 1994).

Gender Differences in the Correlates of Sociosexuality

Studies comparing women and men have suggested that an unrestricted sociosexual orientation may be problematic when endorsed by men but relatively innocuous when endorsed by women. For example, a number of studies have explored the ways sociosexuality affects men's dating strategies. When competing for a date, unrestricted men used direct competitive strategies, while restricted men accentuated their positive personality characteristics, presenting themselves as "nice guys" (Simpson, Gangestad, Christensen, & Leck, 1999). Moreover, in the beginning stages of romantic relationships, a more unrestricted sociosexuality was associated with greater dominance and social engagement as well as more phoniness (Simpson, Gangestad, & Biek, 1993). In women, a more unrestricted sociosexual orientation was only associated with nonverbal behaviors that suggest flirtation or an interest in others, such as leaning forward and tilting one's head to the side (Simpson et al., 1993).

Concerning attitudinal correlates, Walker, Tokar, and Fischer (2000) found sociosexuality in men was associated with a variety of attitudes related to sexism and traditional masculinity; men scoring low on sociosexuality were more likely to believe in sex role egalitarianism, to hold liberal feminist attitudes, and to seek to transcend traditional masculinity. Because the concept of masculinity often includes themes of social dominance, aggression, and con-

Note. Portions of this research were presented at the 2003 annual meeting of the Society for the Scientific Study of Sexuality, San Antonio, TX, and at the 2005 annual meeting of the American Psychological Association, Washington, DC. Data collection was supported by NIMH National Research Service Award F31MH11468 to Eileen L. Zurbriggen. Analysis of data and preparation of the manuscript were supported by a grant from the Social Sciences Division at the University of California—Santa Cruz to Eileen L. Zurbriggen. Colin Leach and Larissa Tiedens provided helpful comments on an earlier version of this manuscript.

Address correspondence to Eileen L. Zurbriggen, Department of Psychology, University of California-Santa Cruz, Santa Cruz, CA, 95064; e-mail: zurbrigg@ucsc.edu.

trol (Mahalik et al., 2003), these relationships between sociosexuality and masculinity may be problematic.

Research on personality characteristics that correlate with sociosexuality has also yielded results that are of more concern in men than in women. Reise and Wright (1996) found that unrestricted men reported personalities similar to those of narcissists and psychopaths. In comparison to restricted men, they tended to describe themselves as unlikely to feel guilt, lacking the capacity for close relationships, attractive, and ethically inconsistent. Unrestricted women also described themselves as attractive and ethically inconsistent. However, they did not report the other, slightly pathological characteristics that men did. Instead, relatively unrestricted women described themselves as liberal, unconventional, unpredictable, and unconcerned with philosophical problems, and reported enjoying sexual experiences. In addition, sociosexuality was uncorrelated with narcissism, psychopathy, and histrionic and borderline personality characteristics for women. Reise and Wright concluded that unrestricted women see themselves as fun, self-absorbed, and somewhat shallow, but unrestricted men see themselves as arrogant, manipulative, and unconstrained by morality or ethics.

The literature suggests, then, that an unrestricted sociosexual orientation may be related to harmful sexual attitudes, behaviors, and personality characteristics, at least in men. In this study, we extended this literature by investigating the correlation between sociosexuality and measures relevant to rape and sexual aggression in both men and women. We considered the correlations between sociosexuality and a trio of attitudinal variables: Rape Myth Acceptance (Burt, 1980), Adversarial Sexual Beliefs (Burt), and the Attitudes Toward Women Scale (Spence, Helmreich, & Stapp, 1973). These three attitudes have consistently been found to correlate with measures of aggressive sexual behavior (Dean & Malamuth, 1997; Osland, Fitch, & Willis, 1996; Spence, Losoff, & Robbins, 1991; Truman, Tokar, & Fischer, 1996). We also considered the correlations between sociosexuality and the implicit social motives of power and affiliation-intimacy. Zurbriggen (2000) found power motivation was related to sexual aggression in men and affiliation-intimacy motive was related to sexual aggression in women. In addition, we examined the correlations between sociosexuality and fantasies of dominance. Greendlinger and Byrne (1987) found men who reported fantasies of dominance were more likely to report past use of coercion in sexual relationships. Finally, we explored the correlation between sociosexuality and aggressive behavior by analyzing self-reported sexual aggression.

Sexual Behavior, Sexual Conservatism, and Sociosexuality

A secondary goal of our study was to contribute to the continued validation of the sociosexuality inventory. In their original publication, Simpson and Gangestad (1991) included several behavioral items (e.g., number of lifetime partners) that were not incorporated into the final version

of the scale. They also provided correlations between the sociosexuality inventory and several additional sexual behavior items, including frequency of sex within the last month, timing of first sexual intercourse with a particular partner, and incidence of sex outside the current relationship. However, in spite of the fact that the sociosexuality inventory would be expected to correlate with a wide variety of behavioral measures of sexuality (in the context of both current and past relationships), few additional results of this type have been published. In this study, we sought to provide additional support for the construct validity of the sociosexuality inventory by examining several relevant measures of sexual behaviors. In particular, we were interested in the age at which participants first engaged in three specific sexual activities (masturbation, oral sex, and sexual intercourse), how often participants typically have sex, and the number of partners participants had sex with over the course of their lives. We predicted that men and women with an unrestricted sociosexuality would engage in sexual activities earlier and more often and that they would have more partners over their lifespan.

To assess convergent validity, we also explored an attitudinal variable that is conceptually related to sociosexuality—sexual conservatism. Because an unrestricted sociosexual orientation involves a belief in casual sex (a relatively liberal attitude toward sexuality), we expected that sociosexuality would be negatively correlated with sexual conservatism.

METHOD

Participants

Participants were 88 men and 80 women between the ages of 21 and 45 ($M = 29.8$, $SD = 7.4$). The original sample included 102 men and 92 women, but two individuals were excluded because they did not complete the measures of interest. In addition, because of the heterosexual focus of the attitude scales and the sociosexuality inventory, 24 participants who self-identified as homosexual or bisexual were also excluded.

Participants were recruited from a medium-sized Midwestern community for a study on romantic relationships (Zurbriggen, 2000; Zurbriggen & Yost, 2004). Most (73.2%) participants were White. Other ethnicities were represented in the following proportions: African American (4.2%), Asian American (6.0%), Latino/a (4.2%), biracial or mixed heritage (6.5%), and other or uncodable (6.0%). Participants were highly educated: all had graduated from high school, 56% had a bachelor's degree or had completed some college, and 39% had an advanced degree or were in graduate school at the time of the study.

The majority of participants were in a relationship: 22% were dating only one person, 8% were dating more than one person, 40% were in a long-term, committed relationship (either married [23%], engaged [8%], or cohabitating [9%]), 9% were divorced, and 21% were not dating. Men and women reported similar sexual histories. The mean age

at first oral sex was 18.3 ($SD = 3.4$) for men and 17.7 ($SD = 3.3$) for women ($t[157] = 1.14, p = .98$), and the mean age at first intercourse was 18.3 ($SD = 2.9$) for men and 17.7 ($SD = 2.5$) for women ($t[151] = 1.49, p = .45$). Men, however, reported that they began masturbation at an earlier age ($M = 13.2, SD = 2.8$) than did women ($M = 13.9, SD = 6.2$), $t(155) = -.89, p < .0001$. Men and women reported a similar number of lifetime partners ($M = 12.2, SD = 20.8$ for men; $M = 11.5, SD = 12.0$ for women; $t[165] = .28, p = .24$) and a similar frequency of having sex with another person (about once a month; $M = 4.25, SD = 2.6$ for men; $M = 4.80, SD = 2.5$ for women; $t[165] = -1.40, p = .43$).

Procedure

After an initial phone screening, participants were mailed packets containing open-ended sexual fantasy questions, attitude scales, and other measures not reported here. Participants completed all measures in the privacy of their homes.

Materials

Sociosexual Orientation Inventory

Simpson and Gangestad's (1991) Sociosexual Orientation Inventory (SOI) was used to measure sociosexuality. The sociosexuality inventory includes 3 attitudinal items: "Sex without love is OK."; "I can imagine myself being comfortable and enjoying 'casual' sex with different partners."; and "I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her." Response to these three items were made on a scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale also includes 3 behavioral items: "With how many different partners have you had sex on one and only one occasion?"; "How many different partners do you foresee having sex with during the next five years?"; and "With how many different partners have you had sex (sexual intercourse) this past year?" These three items were open-ended; participants were free to write in their own estimate. Finally, one item refers to sexual fantasy: "How often do you fantasize about having sex with someone other than your current dating partner?" Responses to this item were made on a scale that ranged from 1 (*never*) to 9 (*every day*).

Scale scores were constructed using the method described by Simpson and Gangestad (1991). The behavioral item about future sex partners is capped at 30, and the attitudinal item about feeling closely attached to someone is reverse-scored. Then the scale score is computed as follows: $SOI = (5 \times \text{number of partners in past year}) + (1 \times \text{number of future partners}) + (5 \times \text{number of one night stands}) + (4 \times \text{frequency of fantasy}) + (2 \times \text{sum of the 3 attitudinal items})$.

This method results in a final scale score with a theoretical minimum of 10 (completely restricted) but without a theoretical maximum (because two of the three behavioral items are not limited). Thus, interpretation of the final composite scores is complex. A highly restricted individ-

ual (reporting 0 partners for all behavioral items and the lowest scores on the fantasy and attitudinal items) would score 10, whereas a highly unrestricted individual (reporting 20 partners for all behavioral items and the highest scores on the fantasy and attitudinal items) would score 298. An individual falling between these two extremes (reporting 3 for all behavioral items and the midpoint for the fantasy and attitudinal items) would score 77. In this sample, scores ranged from 11 to 351 (median score 61.5) for men and 11 to 172 (median score 50.5) for women.

Sexual Experience Items

Five behavioral items with content related to sociosexuality were included: "How many different partners have you had sex with over the course of your life?"; "How often do you currently have sex with another person?" (responses range from 1 [*never*] to 9 [*every day*]); "If you have engaged in heterosexual sexual intercourse, how old were you the first time you did so?"; "If you have ever masturbated, how old were you the first time you did so?"; and "If you have engaged in oral sex, how old were you the first time you did so?"

Sexual Fantasies of Dominance

Participants wrote two of their favorite or most frequent sexual fantasies. A coding system was developed to score fantasies for 11 different themes, including dominance. For more information about the coding system, see Zurbriggen and Yost (2004) and Yost (2003). In brief, dominance was scored when the self exerted power over a partner. This theme was coded as either present or absent in each of the two fantasies; thus, total scores for dominance could range from 0 to 2. Fantasies were scored by two independent raters, and disagreements were resolved through discussion. Interrater reliability was adequate ($\kappa = .64, p < .001$). The observed proportion of agreement was .86; proportion of agreement for positive ratings (theme present) was .74; proportion of agreement for negative rating (theme absent) was .90.

Attitudes

Sexual conservatism. The 10-item Sexual Conservatism Scale (Burt, 1980) measures endorsement of traditional beliefs about sexuality. Examples of items from this scale are "A woman who initiates a sexual encounter will probably have sex with anyone," and "Masturbation is a normal sexual activity." Responses were made on a scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Coefficient alpha was .60 for men and .61 for women.

Rape myth acceptance. The 19-item Rape Myth Acceptance Scale (Burt, 1980) measures stereotypical and false beliefs about rape. An example item is, "When women go around braless or wearing short skirts and tight tops, they are just asking for trouble." Responses were made on a scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Coefficient alpha was .81 for men and .82 for women.

Adversarial sexual beliefs. The 9-item Adversarial Sexual Beliefs Scale (Burt, 1980) assesses the degree to

which participants believe the two sexes are hostile toward one another. An example item is, "Most women are sly and manipulating when they are out to attract a man." Responses were made on a scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Coefficient alpha for this scale was .73 for men and .74 for women.

Attitudes toward women. A 15-item version of the Attitudes Toward Women Scale (Spence et al., 1973) assesses traditional beliefs about the place of women in society. A sample item is, "Women should worry less about their rights and more about becoming good wives and mothers." Higher scores imply more liberal, egalitarian attitudes about women's rights. Responses were made on a scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Coefficient alpha for this scale was .79 for men and .68 for women.

Implicit Social Motives

A research version of the Thematic Apperception Test (Morgan & Murray, 1935) was used to measure implicit social motives. Participants wrote fictional stories about five picture cues. The cues presented were a ship's captain, two women in chemistry laboratory, a man at desk, a couple by bridge, and trapeze artists. Every sentence written in the five stories was scored for power motivation and affiliation-intimacy motivation using Winter's (1994) "running text" scoring system. Motive scores represent the number of images per 1,000 words written. The minimum score is 0, and there is no upper limit.

Power motivation was scored for any indication of impact, control, or influence. Power motivation includes six subcategories: (a) forceful actions that inherently impact other people; (b) control or regulation; (c) attempts to influence, persuade, make a point, or argue; (d) giving help or advice that is unsolicited; (e) impressing others or mentioning fame, prestige, or reputation; and (f) any strong emotional reaction in a person or a group to the action of another person or group. Affiliation-intimacy motivation was scored for establishing, maintaining, or restoring friendship or friendly relations. Affiliation-intimacy motivation includes four subcategories: (a) expression of friendly or intimate feelings toward others; (b) sadness or other negative feeling about separation from a friend, or wanting to restore a friendship; (c) affiliative activities, such as parties or friendly conversation; and (d) friendly nurturing acts, such as comforting or expressions of sympathetic concern. For further details about the scoring system, see Winter (1994).

Self-Reported Aggressive Sexual Behavior

A modified version of the 10-item Aggressive Sexual Behavior Inventory (Mosher & Anderson, 1986) was used to measure the frequency of sexual aggression. The aggressive sexual behavior inventory was designed to measure sexual aggression by men against women, but for the purposes of this study, all items were rewritten to be gender-neutral. The Aggressive Sexual Behavior

Inventory includes questions related to the use of physical force to obtain sex. An example is, "I have gotten a little drunk and forced the person I'm with to have sex with me." Responses were made on a scale that ranged from 1 (*never*) to 7 (*extremely frequently*). Coefficient alpha for this scale was .72 for men and .74 for women.

Data Analysis

We used independent samples *t*-tests to assess gender differences in mean levels of sociosexuality and Pearson product moment correlations to assess the correlations between sociosexuality and other continuous variables. Correlations were conducted separately for men and women, and we used Fisher's *z*-tests to test for gender differences in the magnitude of correlations between sociosexuality and other variables. Finally, to determine whether sociosexuality predicted sexual aggression perpetration after accounting for the influence of other variables, and to test for interaction effects, we conducted hierarchical multiple regression analyses separately for men and women.

RESULTS

Validation of the Sociosexuality Inventory: Behavioral and Attitudinal Correlates

Gender Differences in Mean Levels of Sociosexuality

Participants in this sample were generally somewhat restricted in their sociosexual orientation (sample $M = 65.62$). Consistent with previous research (Simpson & Gangestad, 1991; Wright & Reise, 1997), the men were more unrestricted in their sociosexual orientation ($M = 72.89$, $SD = 50.75$) than the women ($M = 57.64$, $SD = 31.88$), $t(166) = 2.31$, $p = .03$, reflecting a greater tendency to have sex with multiple partners and without strong emotional bonds.

Sociosexuality and Sexual Experience

The correlations between sociosexuality and the five behavioral items are presented in Table 1. For both men and women, sociosexuality was positively correlated with the number of partners participants had sex with over the course of their lives ($r = .69$, $p < .0001$ and $r = .64$, $p < .0001$, respectively). Because there was a reliable correlation between age and number of sexual partners ($r = .30$, $p = .005$ for men; $r = .31$, $p = .005$ for women), the correlation between sociosexuality and number of lifetime partners was conducted with age partialled out. There was virtually no change in the magnitude of the correlations; for both men and women, sociosexuality continued to be positively correlated with the number of partners with whom participants had sex over the course of their lives ($r = .69$, $p < .0001$ and $r = .66$, $p < .0001$, respectively). For both men and women, sociosexuality was also positively correlated with frequency of sexual activity ($r = .30$, $p = .005$, and $r = .25$, $p = .03$ respectively).

Table 1. Correlations Between Sociosexuality and All Other Variables

Variable	Correlation with Sociosexuality		
	Men	Fisher z	Women
Sexual Experience Items			
Number of lifetime partners	0.69***	0.51	0.64***
Frequency of sexual activity	0.30**	0.35	0.25*
Age of first masturbation	-0.22*	0.02	-0.22†
Age of first oral sex	-0.31**	-0.22	-0.27*
Age of first intercourse	-0.36**	-1.33†	-0.32**
Sexual Fantasy Theme			
Dominance	-0.02	-2.26**	0.33**
Attitudes			
Sexual conservatism	-0.12	1.36†	-0.32**
Rape myth acceptance	0.28**	1.65*	0.02
Adversarial sexual beliefs	0.31**	1.50†	0.09
Attitudes toward women ^a	-0.16	-1.47†	0.07
Coercive attitudes composite	0.28**	1.75*	0.01
Implicit Social Motives			
Power motivation	0.31**	2.30**	-0.04
Affiliation-Intimacy motivation	-0.23*	-0.81	-0.11
Aggressive Sexual Behavior			
ASBI	.54***	3.54***	0.05

Note. The Fisher z -transformation tests compare the magnitudes of the correlation coefficients for men and women. ASBI = Aggressive Sexual Behavior Inventory.

^aHigher scores represent more liberal attitudes about women's place in society.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

People with higher scores on the sociosexuality inventory were also more likely to have had sexual experiences at an earlier age. For men, sociosexuality was negatively correlated with age (in years) at first masturbation ($r = -.22, p = .05$), at first oral sex ($r = -.31, p = .006$), and at first intercourse ($r = -.36, p = .001$). Similarly, for women, sociosexuality was negatively correlated with age at first masturbation ($r = -.22, p = .07$), at first oral sex ($r = -.27, p = .02$), and at first intercourse ($r = -.32, p = .006$).

Thus, men and women in this sample had similar correlations between sociosexuality and all measures of sexual experience. This suggests that, although men on average report being more unrestricted than women, the sociosexuality inventory is measuring the same underlying construct for both men and women.

Sociosexuality and Sexual Conservatism

The correlation between sociosexuality and sexual conservatism is presented in Table 1. For women, sociosexuality was negatively correlated with sexual conservatism ($r = -.32, p = .003$). For men, however, there was not a reliable correlation between the two variables ($r = -.12, p = .26$).

Correlational Analyses: Fantasy Dominance, Coercive Attitudes, Implicit Social Motives, and Aggressive Sexual Behavior

Sociosexuality and Fantasy Dominance

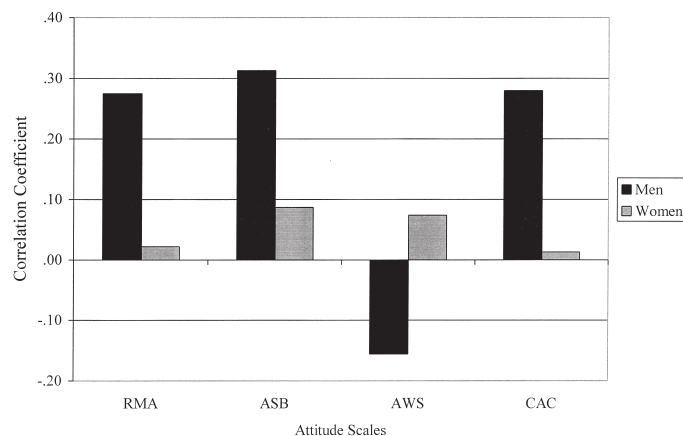
Sociosexuality was positively correlated with fantasy dominance for women ($r = .33, p = .004$) but not for men ($r = -.02, p = .85$). The difference between the correlation

coefficients for men and women was reliable using Fisher's z -test ($z = -2.26, p = .01$). Women who wrote fantasies in which they had power or control over another person tended to have a more unrestricted sexuality, but this was not the case for men.

Sociosexuality and Attitudes

There were a number of interesting gender differences in the relationships between sociosexuality and the three attitudinal measures. For men, sociosexuality was positively correlated with rape myth acceptance ($r = .28, p = .01$) and adversarial sexual beliefs ($r = .31, p = .003$) but was not reliably correlated with attitudes toward women ($r = -.16, p = .15$). In other words, men who had many partners and who endorsed casual sex were also likely to endorse a set of problematic attitudes about women and sex. Women, however, did not show this pattern. There were no reliable correlations in women between sociosexuality and any of these three variables (all $r < .10$, all $p > .40$.) This gender difference can be seen most clearly in Figure 1. For all three variables (rape myth acceptance, adversarial sexual beliefs, and attitudes toward women), the difference between the correlation coefficients for men and women was reliable or marginally reliable using Fisher's z -test (rape myth acceptance: $z = 1.65, p = .05$; adversarial sexual beliefs: $z = 1.50, p = .07$; attitudes toward women: $z = -1.47, p = .07$).

These three attitude scales were correlated in expected ways. Rape myth acceptance was highly correlated with adversarial sexual beliefs ($r = .58, p < .0001$). The attitudes toward women scale was highly negatively correlated with both rape myth acceptance ($r = -.64, p < .0001$) and adversarial sexual beliefs ($r = -.58, p < .0001$). Because the three measures were so highly correlated, we combined them to form a Coercive Attitudes Composite variable. The attitudes toward women scale items were reverse-coded and items from all three scales were averaged. For men, socio-

Figure 1. Correlations between sociosexuality and attitudes by gender.

Note. RMA = Rape Myth Acceptance; ASB = Adversarial Sexual Beliefs; AWS = Attitudes Toward Women Scale; CAC = Coercive Attitudes Composite.

sexuality was positively correlated with the Coercive Attitudes Composite ($r = .28, p = .008$), but there was no correlation for women ($r = .01, p = .91$). This gender difference in correlations was reliable ($z = 1.75, p = .04$).

Sociosexuality and Implicit Social Motives

The correlations between sociosexuality and both motives are presented in Table 1. For men, sociosexuality was positively correlated with power motivation ($r = .31, p = .003$) and negatively correlated with affiliation-intimacy motivation ($r = -.23, p = .03$). Men who had many partners and who endorsed casual sex tended to write stories that emphasized impact, control, or influence but did not mention establishing, maintaining, or restoring friendships. There was no correlation in women between sociosexuality and either motive (both $r < .11$, both $p > .30$). The gender difference in correlations was reliable for power motivation ($z = 2.30, p = .01$), but not for affiliation-intimacy motivation ($z = -.81, p = .21$).

Sociosexuality and Aggressive Sexual Behavior

The correlations between sociosexuality and past use of sexual aggression are presented in Table 1. For men, sociosexuality was positively correlated with aggressive sexual behavior ($r = .54, p < .0001$). Men with a relatively unrestricted orientation reported more use of sexual aggression in past relationships than did restricted men. For women, however, sociosexuality was uncorrelated with aggressive sexual behavior ($r = .05, p = .69$). This gender difference in correlations was reliable ($z = 3.54, p < .0005$).

Regression Analyses: Predicting Aggressive Sexual Behavior

To determine whether sociosexuality predicted sexual aggression after controlling for other variables that have been consistently shown to relate to sexual aggression, and to test for interaction effects, we conducted hierarchical multiple regression analyses. Separately for men and women, aggressive sexual behavior was regressed on sociosexuality, affiliation-intimacy motivation, power motivation, the Coercive Attitudes Composite, and fantasy dominance. In the first step of the regression, these variables were entered as a block. Because the Coercive Attitudes Composite has been shown to be an important moderator in the prediction of sexual aggression (Zurbriggen & Yost, 2004), the second step of the regression included an interaction between the Coercive Attitudes Composite and sociosexuality. Results of these analyses are presented in Table 2.

Predicting Aggressive Sexual Behavior in Men

The model tested in the first step of the hierarchical regression provided a good fit ($R^2 = .46, p < .0001$) for the men's data. Holding all other variables constant, sociosexuality was a reliable predictor of aggressive sexual behavior ($\beta = .39, p < .0001$). Unrestricted men reported perpetrating more sexual aggression. The Coercive Attitudes Composite was also a reliable predictor of aggressive sexual behavior

Table 2. Hierarchical Regressions Predicting Aggressive Sexual Behavior

Regression Term	Men					
	Step 1			Step 2		
	B	SE of B	β	B	SE of B	β
SOI	.03***	.01	.39	.01	.01	.17
Affiliation-intimacy motivation	.04	.06	.06	.02	.06	.02
Power motivation	.10	.07	.13	.09	.06	.12
CAC	2.33***	.56	.37	1.86***	.54	.30
Fantasy dominance	.68	.47	.13	.53	.44	.10
SOI * CAC				.02***	.01	.39
R^2			.46***			.54***
R^2 change						.08***
Regression Term	Women					
	Step 1			Step 2		
	B	SE of B	β	B	SE of B	β
SOI	.00	.01	.03	.00	.01	.04
Affiliation-intimacy motivation	.11	.06	.20	.08	.06	.14
Power motivation	-.13	.08	-.16	-.12	.08	-.15
CAC	2.28**	.70	.35	2.71***	.72	.42
Fantasy dominance	.78	.65	.13	.62	.64	.11
SOI * CAC				-.04*	.02	-.22
R^2			.26**			.30***
R^2 change						.04*

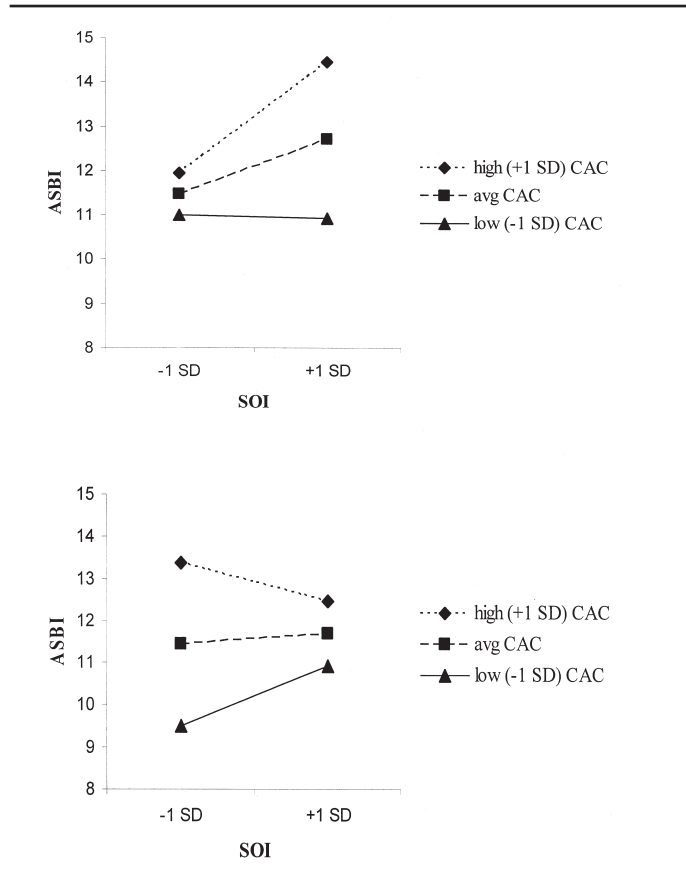
Note. SOI = Sociosexual Orientation Inventory; CAC = Coercive Attitudes Composite.

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

($\beta = .37, p < .0001$). As coercive and stereotypical attitudes about sexuality and women increased, so did sexual aggression perpetration.

In the second step of the hierarchical regression, a product term representing the interaction between the Coercive Attitudes Composite and sociosexuality was entered into the model. This analysis yielded an overall $R^2 = .54, p < .0001$. In this model, sociosexuality was no longer a reliable predictor of sexual aggression, but coercive attitudes continued to be a reliable predictor. In addition, the interaction between sociosexuality and coercive attitudes emerged as a reliable predictor of sexual aggression ($\beta = .39, p < .0005$). This interaction is displayed in the top panel of Figure 2. An analysis of simple slopes was conducted to determine which differed reliably from zero (Aiken & West, 1991). The slope for men with low coercive attitudes (1 *SD* below the mean) did not differ reliably from zero ($\beta = -.01, p = .93$), nor did the slope for men with average coercive attitudes ($\beta = .17, p = .12$). However, the slope for men with high levels of coercive attitudes (1 *SD* above the mean) was reliably different from zero ($\beta = 0.35, p < .0005$). Thus, when coercive attitudes were at low or average levels, there was no correlation between sociosexuality and aggressive sexual behavior. However, at high levels of coercive attitudes, there was a positive correlation between sociosexuality and aggressive sexual behavior.

Figure 2. Interaction between sociosexuality and coercive attitudes predicting sexual aggression by men (top panel) and women (bottom panel).



Predicting Aggressive Sexual Behavior in Women

The same hierarchical regression analysis was conducted for women. In the first step of the regression, all individual variables (sociosexuality, affiliation-intimacy motivation, power motivation, the Coercive Attitudes Composite, and fantasy dominance) were entered as a block. This regression analysis provided a reasonable fit ($R^2 = .26$, $p = .0007$) for the data. Sociosexuality was not a reliable predictor of sexual aggression for women ($\beta = .03$, $p = .80$). However, the Coercive Attitudes Composite was a reliable predictor of sexual aggression ($\beta = .35$, $p = .002$). As coercive and stereotypical attitudes about sexuality and women increased, so did perpetration of sexual aggression.

In the second step of the regression, a product term representing the interaction between sociosexuality and coercive attitudes was added. This analysis yielded an $R^2 = .30$, $p = .0003$. In this model, sociosexuality was again not a reliable predictor of sexual aggression, but coercive attitudes continued to be a reliable predictor ($\beta = .42$, $p < .0005$). In addition, the interaction between sociosexuality and coercive attitudes was a reliable negative predictor of sexual aggression ($\beta = -.22$, $p = .05$). This interaction is displayed in the bottom panel of Figure 2. An analysis of simple slopes was conducted to determine which differed reliably from zero. The slope for women with low (1 *SD*

below the mean) levels of coercive attitudes did not differ reliably from zero ($\beta = .23$, $p = .12$), nor did the slope for women with average levels of coercive attitudes ($\beta = .04$, $p = .69$) or the slope for the women with high (1 *SD* above the mean) levels of coercive attitudes ($\beta = -.14$, $p = .31$).

Because the interaction between sociosexuality and the Coercive Attitudes Composite was significant, we performed additional tests using levels of the Coercive Attitudes Composite that were more distant from the mean. At 3 standard deviations below the mean, the slope for women with low coercive attitudes differed reliably from zero ($\beta = .59$, $p = .05$), such that an unrestricted sociosexuality was associated with more frequent aggressive sexual behavior. At 3 standard deviations above the mean, the slope for women with high coercive attitudes continued to be statistically indistinguishable from a slope of zero ($\beta = -.50$, $p = .08$). Thus, it was only at relatively extreme levels of the coercive attitudes composite that sociosexuality reliably predicted aggressive sexual behavior for women.

DISCUSSION

We had two goals in conducting this study. Primarily we were interested in whether there were indications that an unrestricted sociosexual orientation is dangerous or problematic, specifically for men, based on correlations with attitudes, motives, fantasies, and sexual aggression perpetration. We were also interested in providing additional construct validity for the sociosexuality inventory, based on relevant sexual behaviors and an attitudinal measure of sexual conservatism.

Replication of Previous Findings and Construct Validity of the Sociosexuality Inventory

As predicted, we replicated previous findings concerning gender differences in sociosexuality. We found that men reported being more unrestricted than women in their sociosexual orientation. In other words, men reported being more willing than women to engage in sexual behaviors without an emotional connection.

We also looked at several measures of sexual behavior, some of which had previously been tested in terms of correlation with sociosexuality, and some of which had not been previously tested. Replicating the findings of Simpson and Gangestad (1991), we found that relatively unrestricted individuals tended to have more lifetime sexual partners. In our data, this was true even after controlling for age. In terms of the timing of intercourse, Simpson and Gangestad (1991) studied dating couples and found that relatively unrestricted individuals reported having intercourse earlier in that relationship than did relatively restricted individuals. In our study, we asked about the timing of first intercourse (i.e., loss of virginity). Our results were similar to those concerning timing of intercourse in a specific relationship. Relatively unrestricted individuals (men and women) reported having engaged in heterosexual intercourse at a younger age than did relatively restricted individuals. This finding generalized to

two other sexual activities, oral sex and masturbation. In each case, relatively unrestricted individuals reported engaging in that behavior earlier in their lives.

In contrast to Simpson and Gangestad (1991), however, we found a positive correlation between frequency of sex and sociosexuality for both men and women. Simpson and Gangestad found a positive correlation with frequency only among individuals who had not yet engaged in sex with their current partner, implying that the sex being reported was sex outside the relationship. In our case, we made no distinction between casual and committed sex when asking this question; thus, our frequency numbers likely were comprised of a mixture of the two. Thus it makes sense that we found modest correlations (on the order of .20-.30) between frequency and sociosexuality.

That relatively unrestricted individuals had more partners and engaged in sex more frequently is an interesting, if expected, finding. If one does not need to take the time to establish and maintain a romantic relationship before engaging in sex, then there are fewer constraints on when sex will occur. The finding that relatively unrestricted individuals reported engaging in sexual activities at an earlier age is more intriguing. One possible explanation of this finding is that having earlier experiences with sex leads one to believe that love and intimacy are not prerequisites to sexual relationships. Various studies of early sexual experiences (both wanted and unwanted) have found that early sexual experiences are associated with later promiscuity and a greater number of sexual partners (Abma, Driscoll, & Moore, 1998; Beitchman et al., 1992). Although these studies provide behavioral evidence that early sexual experiences may result in an unrestricted sociosexuality, none directly assessed beliefs about love, intimacy, and sexual relationships. An alternative explanation for our finding that relatively unrestricted individuals engaged in sexual activities at an earlier age is that an unrestricted orientation is developed early in life and guides behavior toward sex at a younger age.

Our findings concerning sociosexuality and the sexual experience items suggest that an unrestricted sociosexuality, as compared to a restricted sociosexuality, is related to earlier and more frequent sexual activity. Importantly, the correlations were highly similar for both men and women. Thus, at a basic level the sociosexuality inventory seems to measure the same construct for men and women. In other words, an unrestricted sociosexuality influences basic sexual behavior (frequency, timing, and number of partners) in similar ways for both men and women. However, we found gender differences in the correlations between sociosexuality and attitudes, fantasies, motives, and sexual aggression, suggesting that sociosexuality operates in different ways for men and women when considering variables beyond basic sexual behavior.

Gender Difference in Correlation Between Sociosexuality and Sexual Conservatism

As expected, for women, sociosexuality was negatively correlated with sexual conservatism, a conceptually-relat-

ed construct. However, this correlation was not present for men. Although the sexual conservatism scale is not labeled as such, it is primarily a measure of conservative beliefs about *women's* sexuality. Seven of the 10 items that comprise this scale inquire about women's chastity, women's sexual needs, or sex during menstruation. When sexual conservatism is taken as a measure of conservative beliefs about women's sexuality, the gender difference in the magnitude of the correlation between sociosexuality and sexual conservatism is understandable. Women who consider themselves to be unrestricted sexually probably do not believe that women should be held to a different, and more restricted, sexual standard than men. For women, both sexual conservatism and sociosexuality are personally relevant constructs, and so the attitudes expressed on both scales should be consistent. However, men who consider themselves to be unrestricted sexually may still believe that women should be restricted. Unrestricted men, by endorsing and engaging in casual sex, are living up to a traditionally masculine gender role; it is quite plausible that they would endorse a more restricted (and traditionally feminine) sexual role for women. For men, sociosexuality is about the self, but sexual conservatism is primarily about women, and therefore less consistency is to be expected.

Sociosexuality and Fantasies of Dominance

For women but not men, an unrestricted sociosexual orientation was associated with fantasies of dominance. This suggests that women with an unrestricted orientation are breaking away from the feminine gender role associated with the traditional sexual script in multiple ways. The traditional sexual script encourages women to focus on love and romance within the context of a dyadic relationship (Byers, 1995; see also Amaro, Raj, & Reed, 2001); unrestricted women, therefore, are deviating from this traditional script. In addition, because women are encouraged to be sexually passive (Warshaw & Parrot, 1991), women who fantasize about their own dominance are also deviating from the traditional script. Perhaps women who are already rejecting traditional societal expectations around sex by expressing an unrestricted sociosexuality are also able to experiment in their fantasies with activities that contradict traditional gender roles.

Endorsement of Casual Sex: Bad for Men, OK for Women?

There were a number of indications that an unrestricted sociosexuality is associated with problematic and potentially dangerous attitudes and characteristics in men, but not in women. First, we found that relatively unrestricted men believe that relations between the two genders are hostile and adversarial and believe inaccurate and often victim-blaming myths about rape; these attitudes have consistently been shown to relate to aggressive sexual behaviors (Dean & Malamuth, 1997; Osland et al., 1996; Spence et al., 1991; Truman et al., 1996). Relatively unre-

stricted women did not hold these problematic attitudes.

In addition, as sociosexuality scores became more unrestricted, scores on power motivation increased and scores on affiliation-intimacy motivation decreased. Given that power motivation has been shown to be related to a history of sexual aggression in dating relationships for men (Dutton & Strachan, 1987; Mason & Blankenship, 1987; Zurbriggen, 2000), the correlation between sociosexuality and power motivation may have serious social consequences. There was no correlation for women between sociosexuality and implicit social motives.

The most distressing finding in this study was that an unrestricted sociosexual orientation was strongly related to a greater use of aggression in sexual relationships for men. Unrestricted men reported a history of using aggression in their sexual relationships to a greater extent than did restricted men. However, the relationship between sociosexuality and sexual aggression was moderated by coercive attitudes. For men who rejected coercive and stereotypical statements about women and sexuality, sociosexuality was unrelated to sexual aggression, but for men who endorsed these beliefs, an unrestricted sociosexual orientation was related to increased sexual aggression perpetration.

These findings are consistent with a conceptualization of unrestricted sociosexuality as a symptom of the traditional male gender role, a role that highlights sexual prowess, dominance, and sexual aggression and includes a callous view of women. Walker et al. (2000) recently theorized that an unrestricted sociosexuality resembles "nonrelational sexuality," defined as "the tendency to experience sex primarily as lust without any requirements for relational intimacy or emotional attachment" (Levant & Brooks, 1997, as cited by Walker et al., p. 100). These masculinity theorists argue that nonrelational sexuality, and by extension, an unrestricted sociosexual orientation, result from normative male socialization.

The relationship between an unrestricted sociosexual orientation and masculinity may help explain why sociosexuality is positively correlated with sexual aggression for men. Various conceptualizations of masculinity, including hostile masculinity (Malamuth, Sockloskie, Koss, & Tanaka, 1991) and macho personality (Mosher & Anderson, 1986), have been found to be related to an increased use of sexual aggression in past relationships. Moreover, a recent meta-analysis of research on masculine ideology showed that especially extreme forms of masculine ideology were associated with use of sexual aggression in the past and with likelihood to rape in the future (Murnen, Wright, & Kaluzny, 2002). Given that a belief in the acceptability of casual sex is consistent with features of masculine ideology in general, the finding that unrestricted men engage in more sexual aggression than restricted men makes logical sense.

Integrative models of sexual aggression suggest that factors similar to sociosexuality predict sexual aggression. For example, the confluence model developed by Malamuth and colleagues (Malamuth, 1998; Malamuth et

al., 1991) postulates that there are two pathways that lead to sexual aggression in men: hostile masculinity and promiscuous-impersonal sex (a preference for short-term relationships). Although promiscuity may not be the same construct as unrestricted orientation (Simpson, 1987), the two share the important characteristic of de-emphasizing love and commitment prior to sexual encounters.

In women, sociosexuality was unrelated (at the zero-order level) to sexual aggression. Instead, it was related to sexual fantasies of dominance. By engaging in casual sex, unrestricted women are violating the traditional feminine gender role that emphasizes monogamy and emotional commitment. In their fantasies, they are also violating the traditional gender role of compliance and passivity and are acting assertively and aggressively.

In women (as in men), sociosexuality and coercive attitudes interacted to predict aggressive sexual behavior; however, the form of the interaction was different. For men high in coercive attitudes, there was a positive correlation between sociosexuality and sexual aggression. In contrast, a positive correlation between sociosexuality and sexual aggression was seen in women who were *low* in coercive attitudes. Interpretation is further complicated because only women with the most extreme (-3 *SDs* from the mean) scores on the Coercive Attitudes Composite displayed a statistically reliable correlation between sociosexuality and sexual aggression. Further research may shed more light on the relationship between sociosexuality and perpetration of sexual aggression in women. For now, the data suggest that any such relationship would be present only for a tiny minority of women. For most women, sociosexuality is not related to sexual aggression perpetration.

We can think of several explanations for the gender difference in the correlation between sociosexuality and aggressive sexual behavior. The first explanation concerns measurement issues: the aggressive sexual behavior inventory was designed to measure men's sexual aggression against women. It may be that women's sexual aggression against men takes a different form than men's sexual aggression against women, and that a different scale is necessary to measure female sexual aggression accurately. We note, however, that Zurbriggen (2000) found correlations for women between this scale and relevant personality variables, suggesting that the aggressive sexual behavior inventory can be a valid measure of sexual aggression in women.

A second possibility is that the women in our sample possessed higher levels of one or more unmeasured moderating variables. According to this explanation, both unrestricted women and men will aggress sexually unless a moderating attitude or trait is present. For men, one important moderating variable was coercive attitudes. Sociosexuality was associated with sexual aggression only for men who had high levels of coercive attitudes. For women, another variable might be more important. One possible candidate variable is responsibility. Winter (1988; Winter & Barenbaum, 1985) has found that the aggressiveness associated with

high power motivation is often absent in people high in responsibility. There is also some suggestion that people who have been responsible for caring for children (in our culture, mostly women) tend to score higher in responsibility. Perhaps the women in our sample had relatively high levels of responsibility, and it was this responsibility that kept the unrestricted women's aggressiveness within the realm of fantasy.

A final possibility is that sociosexuality is enacted differently in women than in men. Men may play out their sociosexuality as narcissistic Don Juans, expressing little or no empathy for the women they encounter, perhaps even trying to hurt and humiliate them. Women, on the other hand, may enact their sociosexuality in a manner similar to that displayed by the Samantha Jones character in the television program *Sex and the City*. Samantha is shallow and unable to commit emotionally, but when having sex, she thinks of her partner's needs as well as her own. She fits Reise and Wright's (1996) characterization: fun, self-absorbed, and shallow, but not hostile, violent, or unkind.

Recommendations for Future Research

The measures used here were primarily self-report instruments. In particular, the sexual aggression perpetration scale asked participants to report on their use of sexual aggression in past relationships. It is possible that participants did not report all acts of aggression. Future research could measure sexual aggression in other ways (e.g., by obtaining partner reports) or could involve laboratory tasks that have been used as proxy measures of aggression (e.g., choosing the intensity of punishment for a confederate).

Our sample was diverse in many important characteristics, such as gender, age, occupation, and marital status; however, it was relatively homogeneous in terms of other demographics. Specifically, the data reported here are all from heterosexual participants who were mostly White and highly educated. Future studies with more diverse samples would be useful. Because gender roles within heterosexual relationships are typically less fluid than those within homosexual or bisexual relationships, studies of gay men, lesbians, bisexuals, and transgendered individuals might shed light on the underlying cause of the different enactment of sociosexuality in heterosexual men and women.

Implications for Rape Prevention Education

Our findings involving sociosexuality and sexual aggression may have implications for rape prevention and education. As scores in sociosexuality increased, men reported greater use of sexual aggression. This suggests that valuing the development of love, intimacy, and commitment prior to initiating a sexual relationship may help prevent some forms of sexual aggression. Although some types of sexual aggression include both a loving relationship and violence (e.g., domestic violence, marital rape), many types of sexual aggression clearly lack a loving component (e.g., stranger rape, date rape). Because we found a correlation

between the endorsement of casual sex and the perpetration of sexual aggression, it is possible that encouraging men to engage in sexual activity only within the context of a loving relationship may reduce the incidence of some types of sexual aggression.

This speculation is consistent with work by Malamuth, Linz, Heavey, Barnes, and Acker (1995). They theorized that the opposite of an impersonal sexual orientation would be an intimate sexual orientation. Furthermore, they suggested that an intimate orientation would include a concern for one's partner, and in particular, a concern that the partner not be harmed physically or emotionally. This intimate orientation involves characteristics of dispositional empathy, a variable shown to act as a protective factor against sexual aggression (Dean & Malamuth, 1997). Although it is not clear whether this intimate orientation proposed by Malamuth et al. (1995) is comparable to a restricted sociosexual orientation, it is possible that restricted men would also prove to be more empathetic. This theory and the results from this study suggest that promoting a more restricted orientation toward sexuality in men may result in a reduction of sexual aggression.

Overall, our findings confirm that the sociosexuality inventory is a valid and useful measure of sociosexuality and that it can be used with both men and women. The construct of sociosexuality seems to be the same for men and women; however, the two genders enacted sociosexuality differently. Because of the male correlations with rape myth acceptance, power motivation, and sexual aggression perpetration, an unrestricted sociosexuality is more problematic in them than it is in women. This is ironic, given the continued presence of a sexual double standard that condemns women for sexual promiscuity but condones or even celebrates such behavior in men. Our findings suggest that if a sexual double standard must exist, it should prohibit an unrestricted sexuality in men rather than in women.

REFERENCES

- Abma, J., Driscoll, A., & Moore, K. (1998). Young women's degree of control over first intercourse: An exploratory analysis. *Family Planning Perspectives, 30*, 12-18.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Amaro, H., Raj, A., & Reed, E. (2001). Women's sexual health: The need for feminist analyses in public health in the decade of behavior. *Psychology of Women Quarterly, 25*, 324-334.
- Beitchman, J. H., Zucker, K. J., Hood, J. E., DaCosta, G. A., Akman, D., & Cassavia, E. (1992). A review of the long-term effects of child sexual abuse. *Child Abuse and Neglect, 16*, 101-118.
- Burt, M. R. (1980). Cultural myths and support for rape. *Journal of Personality and Social Psychology, 38*, 217-230.
- Byers, S. E. (1995). How well does the traditional sexual script explain sexual coercion? Review of a program of research. *Journal of Psychology and Human Sexuality, 8*, 7-25.
- Dean, K. E., & Malamuth, N. M. (1997). Characteristics of men who aggress sexually and of men who imagine aggressing: Risk and moderating variables. *Journal of Personality and Social Psychology, 72*, 449-455.
- Dutton, D. G., & Strachan, C. E. (1987). Motivational needs for power and spouse-specific assertiveness in assaultive and nonassaultive men. *Violence and Victims, 2*, 145-156.

- Greendlinger, V., & Byrne, D. (1987). Coercive sexual fantasies of college men as predictors of self-reported likelihood to rape and overt sexual aggression. *The Journal of Sex Research, 23*, 1–11.
- Jones, M. (1998). Sociosexuality and motivations for romantic involvement. *Journal of Research in Personality, 32*, 173–182.
- Levant, R. F., & Brooks, G. R. (Eds.). (1997). *Men and sex: New psychological perspectives*. New York: Wiley.
- Mahalik, J. R., Locke, B. D., Ludlow, L. H., Diemer, M. A., Scott, R. P. J., Gottfried, M., et al. (2003). Development of the Conformity to Masculine Norms Inventory. *Psychology of Men and Masculinity, 4*, 3–25.
- Malamuth, N. M. (1998). An evolutionary-based model integrating research on the characteristics of sexually coercive men. In J. G. Adair, D. Belanger, & K. L. Dion (Eds.), *Advances in psychological science, Vol. 1: Social, personal, and cultural aspects* (pp. 151–184). East Sussex, England: Psychology Press.
- Malamuth, N. M., Linz, D., Heavey, C. L., Barnes, G., & Acker, M. (1995). Using the confluence model of sexual aggression to predict men's conflict with women: A 10-year follow-up study. *Journal of Personality and Social Psychology, 69*, 353–369.
- Malamuth, N. M., Sockloskie, R. J., Koss, M. P., & Tanaka, J. S. (1991). Characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting and Clinical Psychology, 59*, 670–681.
- Mason, A., & Blankenship, V. (1987). Power and affiliation motivation, stress, and abuse in intimate relationships. *Journal of Personality and Social Psychology, 52*, 203–210.
- Morgan, C. D., & Murray, H. H. (1935). A method for investigating fantasies: The Thematic Apperception Test. *Archives of Neurology and Psychiatry, 34*, 289–306.
- Mosher, D. L., & Anderson, R. D. (1986). Macho personality, sexual aggression, and reactions to guided imagery of realistic rape. *Journal of Research in Personality, 20*, 77–94.
- Murnen, S. K., Wright, C., & Kaluzny, G. (2002). If “boys will be boys,” then girls will be victims? A meta-analytic review of the research that relates masculine ideology to sexual aggression. *Sex Roles, 46*, 359–375.
- Osland, J. A., Fitch, M., & Willis, E. E. (1996). Likelihood to rape in college males. *Sex Roles, 35*, 171–183.
- Reise, S. P., & Wright, T. M. (1996). Brief report: Personality traits, cluster B personality disorders, and sociosexuality. *Journal of Research in Personality, 30*, 128–136.
- Seal, D. W., Agostinelli, G., & Hannett, C. A. (1994). Extradyadic romantic involvement: Moderating effects of sociosexuality and gender. *Sex Roles, 31*, 1–22.
- Simpson, J. A. (1987). The dissolution of romantic relationships: Factors involved in relationship stability and emotional distress. *Journal of Personality and Social Psychology, 53*, 683–692.
- Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology, 60*, 870–883.
- Simpson, J. A., & Gangestad, S. W. (1992). Sociosexuality and romantic partner choice. *Journal of Personality, 60*, 31–51.
- Simpson, J. A., Gangestad, S. W., & Biek, M. (1993). Personality and non-verbal social behavior: An ethological perspective of relationship initiation. *Journal of Experimental Social Psychology, 29*, 434–461.
- Simpson, J. A., Gangestad, S. W., Christensen, P. N., & Leck, K. (1999). Fluctuating asymmetry, sociosexuality, and intrasexual competitive tactics. *Journal of Personality and Social Psychology, 76*, 159–172.
- Spence, J. T., Helmreich, R., & Stapp, J. (1973). A short version of the Attitudes toward Women Scale (AWS). *Bulletin of the Psychonomic Society, 2*, 219–220.
- Spence, J. T., Losoff, M., & Robbins, A. S. (1991). Sexually aggressive tactics in dating relationships: Personality and attitudinal correlates. *Journal of Social and Clinical Psychology, 10*, 289–304.
- Truman, D. M., Tokar, D. M., & Fischer, A. R. (1996). Dimensions of masculinity: Relations to date rape supportive attitudes and sexual aggression in dating situations. *Journal of Counseling and Development, 74*, 555–562.
- Walker, D. F., Tokar, D. M., & Fischer, A. R. (2000). What are eight popular masculinity-related instruments measuring? Underlying dimensions and their relations to sociosexuality. *Psychology of Men and Masculinity, 1*, 98–108.
- Warshaw, R., & Parrot, A. (1991). The contribution of sex-role socialization to acquaintance rape. In A. Parrot & L. Bechofer (Eds.), *Acquaintance rape: The hidden crime* (pp. 73–82). New York: Wiley.
- Winter, D. G. (1988). The power motive in women – and men. *Journal of Personality and Social Psychology, 54*, 510–519.
- Winter, D. G. (1994). *Manual for scoring motive imagery in running text* (4th ed.). Available from D. G. Winter, Department of Psychology, University of Michigan, 525 East University, Ann Arbor, MI, 48109–1109.
- Winter, D. G., & Barenbaum, N. B. (1985). Responsibility and the power motive in women and men. *Journal of Personality, 53*, 335–355.
- Wright, T. M., & Reise, S. P. (1997). Personality and unrestricted sexual behavior: Correlations of sociosexuality in Caucasian and Asian college students. *Journal of Research in Personality, 31*, 166–192.
- Yost, M. R. (2003). *Sexual fantasies, attitudes, and motivations for engaging in sex: Predictors of sexual aggression*. Unpublished master's thesis, University of California—Santa Cruz.
- Zurbriggen, E. L. (2000). Social motives and cognitive power-sex associations: Predictors of aggressive sexual behavior. *Journal of Personality and Social Psychology, 78*, 559–581.
- Zurbriggen, E. L., & Yost, M. R. (2004). Power, desire, and pleasure in sexual fantasies. *The Journal of Sex Research, 41*, 288–300.