This is to certify that the

dissertation entitled

THE QUEST FOR POWER: SEXUALLY AGGRESSIVE MEN'S ATTRACTION AND AGGRESSION TOWARD WOMEN

presented by

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has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Psychology

Major professor

Date 27-JAN-2000

THE QUEST FOR POWER: SEXUALLY AGGRESSIVE MEN'S ATTRACTION AND AGGRESSION TOWARD WOMEN

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

2000

ABSTRACT

THE QUEST FOR POWER: SEXUALLY AGGRESSIVE MEN'S ATTRACTION AND AGGRESSION TOWARD WOMEN

By

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This research attempts to integrate previous theory on male sexual aggression against women by proposing that sexually aggressive men, as compared to sexually non-aggressive men, are sensitive to threats to their interpersonal power. Specifically, it is suggested that sexually aggressive men feel more attracted to women when they feel powerful than powerless, and that one underlying cause of their aggression towards women is feelings of powerlessness. Based on past research (Bugental et al., 1993), it was expected that under conditions of power threat that highly sexually aggressive men would commit more aggressive behaviors against a female target than when those men felt more powerful, but no increase in aggression against women was expected for less sexually aggressive men. Further, it was expected that feeling powerful would lead highly sexually aggressive men to be more attracted to a female target, but that threats to their power would decrease their attraction to the female target. Based on self-reported history of sexual aggression against women, men were randomly assigned to a powerful or powerless condition. They participated in a competitive game against a male and female opponent, during which they were given the opportunity to punish or reward their opponent. Ratings of attractiveness of the opponents were also recorded, as well as response latency data to assess the cognitive accessibility of aggression, attraction, and

sex. Results indicated that, as compared to men in the powerful condition and to less sexually aggressive men, highly sexually aggressive men who were powerless revealed higher levels of aggression toward the female opponent, but not toward the male opponent. Further, highly sexually aggressive men's attraction to the female opponent was less in the powerless condition than in the powerful condition. Implications for the threat to power as a causal mechanism for sexually aggressive behaviors are discussed.

ACKNOWLEDGEMENTS

"Do, or do not. There is no 'try.'" (Yoda; 'The Empire Strikes Back'). My committee chair and long-time advisor, Allen McConnell deserves a special thanks for teaching me what I needed to know to become a young Jedi, making sure I was on the right path all these years, and calming me down when this seemed like too daunting a task. I would like to thank to my dissertation committee members, Norb Kerr, Linda Jackson, and Cris Sullivan, for their invaluable suggestions and encouragement in developing this research. I would also like to acknowledge the assistance of Kristy Dean and Ayana Burroughs in conducting experimental sessions. Thanks also go to Joan Leibold and Adam Alban, who have given eternal encouragement and warm hugs when needed. The Force will be strong with all of us as we continue to explore our lives' journeys.

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INTRODUCTION

Aggression is certainly nothing new in American society, and a glance through the week's newspaper headlines will attest to the prevalence of physical, psychological, and verbal transgressions that individuals commit against one another. But, beyond the publicly acknowledged acts of violence that are reported to authorities or published in newspapers lies a more insidious and less acknowledged form of aggression, involving male sexual aggression against women. Sexual aggression encompasses a range of intentional behaviors from verbal threats against a woman to physical force, which lead to a woman experiencing some form of sexual intercourse when she does not desire sex. The specific intent to harm a woman is not always present in sexual aggression, but unwanted sexual advances are certainly made and it is generally accompanied by physical and psychological harm. It most frequently occurs in private, is often shrouded in ambiguity due to social misperceptions and alcohol intoxication (Koss, Gidycz, & Wisniewski, 1987), and usually occurs between acquaintances (Layman, Gidycz, & Lynn, 1996). These additional factors cloud society's and women's judgments of whether an act of sexual aggression actually occurred, encourage victim blaming, and consequently can inhibit women's motivation to report their victimization. These unique characteristics of sexual aggression can lead to underreporting of the incidence rates of rape and to difficulties in empirically examining the psychological mechanisms that produce sexually aggressive behaviors. Despite these problems, examining the cognitive and psychological components of sexual aggression and the mechanisms involved in

instigating the aggressive behaviors remains critical in the identification and treatment of sexual offenders.

In studying sexual aggression, psychologists have focused on identifying the characteristics of men who are more likely to aggress against women and on the underlying reasons for their aggressive behaviors. Although it has been possible to identify some of the personality and attitudinal predictors of sexual aggression, the triggering mechanism that sets the aggressive behaviors in motion has been more elusive. For instance, research has shown that strong endorsement of hostile attitudes toward women (Check, Malamuth, Elias, & Barton, 1985) differentiates sexually aggressive men from sexually non-aggressive men. Behavioral factors such as engaging in impersonal or promiscuous sex (Malamuth, 1986) also discriminates sexually aggressive men from non-aggressive men. Characteristics such as these may help to predict which men will be more likely to sexually aggress, but are less helpful in identifying the contextual variables that influence the likelihood that they will act on their aggressive tendencies. In the course of day to day life, sexually aggressive men probably encounter a number of women. Although they may assault more than one woman over time, it is reasonable to assume that these men do not assault every woman they date or privately interact with. Thus, an important step in understanding sexual aggression would be to identify the social mechanisms that interact with sexually aggressive men's predilections to initiate aggressive behaviors.

The way in which social information is organized in memory can affect how a person perceives, encodes, interprets, and recalls information, and subsequently can interact with contextual factors to influence behavior (e.g., Bruner, 1957; Fiske & Taylor,

1991; Higgins, King, & Mavin, 1982; Kruglanski, 1996). For instance, upon encountering a woman, a sexually aggressive man's strong cognitive association between power and women may lead him to perceive and recall her actions as threats to his power and may influence his behaviors to assert his power over her. Consideration of sexually aggressive men's cognitive interpretation of social information is important because the majority of sexual assaults do not occur between strangers. In fact, it is common for the perpetrator and the victim to be passing acquaintances or even committed partners in a relationship (Koss et al., 1987; Layman et al., 1996). Thus, the majority of rapes involve some level of interpersonal communication and contact between the man and woman. Interpersonal information is innately ambiguous, and a perceiver's goals and chronically accessible categories (e.g., Bruner, 1957; Higgins et al., 1982; Kruglanski, 1996) can influence how social information is perceived, encoded, and acted upon (Fiske & Taylor, 1991).

Nevertheless, the mere presence of cognitive associations does not always predict behavior (Fazio, Zanna, & Cooper, 1978). The inability of cognitive associations to reliably predict behavior is disturbing because a goal of sexual aggression research is to predict when and why men commit acts of aggression. Although certain cognitive associations may incline some men to sexually aggress, the mere presence of the associations does not completely explain why men aggress in some situations against some of the women they encounter. Thus, it is likely that other mechanisms interact with men's cognitive associations that lead to acts of aggression against women. Many possible "triggering mechanisms" have been suggested in psychological research that examines sexually aggressive behavior, such as general frustration (Geen, 1998), sexual

attraction (Pratto, 1996), or sexual selection (Buss, 1996). However, many theories of sexual aggression (e.g., Darke, 1990; Stock, 1991) and research on general aggression (i.e., outside the study of sexual aggression specifically) suggest that a perceived threat to power, or a loss of power, may be critical in initiating sexually aggressive men's attacks against women. Further, Wills (1981) proposes that aggression may be one means by which downward social comparisons are initiated in order to bolster lowered self-esteem. Therefore, the proposed research explores one possible mechanism that could initiate aggressive behavior: sexually aggressive men's fear of losing some or all of their power to women.

A sense of power may be exciting, but a lack of power can be a forceful motivator. As a normal course of events, most people experience an ebb and flow of power in their lives. For certain people, however, a need for power can be of central importance, guiding their perceptions, goals, and reactions (Bugental et al., 1993; Bugental, Lyon, Krantz, & Cortez, 1997). For example, sexually aggressive men's attraction to women increases as power becomes more accessible in memory (Bargh, Raymond, Pryor, & Strack, 1995) and they also seek ways to maintain their power and to control women (Malamuth, 1986). Power and sex are intimately connected in sexually aggressive men's cognitions and in their sexual behaviors. Bargh et al. cite Henry Kissinger's now famous statement, "Power is the ultimate aphrodisiac," suggesting that men who sexually aggress may become more attracted to women only when they feel powerful. For sexually aggressive men, power may in fact be an "aphrodisiac," heightening their sexual attraction to women. But, a sexually aggressive man's attraction to a woman due to the cognitive accessibility of power does not provide evidence of

aggressive behavior against her. In fact, others have proposed the converse – that it is the feeling of inadequacy and powerlessness that leads to sexual aggression (Lisak & Roth, 1988). Possibly, those men with the greatest need to be powerful reveal more negative affect or aggressive behavior because of a lack of power or from perceived threats to their power, rather than when they feel powerful. Little empirical research has tested the influence of power on sexual aggression, and uncertainty exists concerning what role power plays. Further, no experimental research has been conducted that considers men's perceptions of power or powerlessness as a triggering mechanism for hostile responses toward women by sexually aggressive men. Identifying the perceptual cues that not only capture sexually aggressive men's attention, but that also guide their behaviors, may be an important step toward understanding when men's sexually aggressive attitudes lead to sexually aggressive behaviors.

Although little research had been conducted to document sexually aggressive men's associations with power and aggression, recent research has revealed a cognitive link between power and sex for sexually aggressive men. Specifically, Bargh et al.'s (1995) research suggests that sexually aggressive men have a power-sex association in memory and are more likely to become attracted to women when they have been primed with power words. In one experiment, sexually aggressive and non-aggressive men were primed with power-related words or neutral words, and subsequently reported on their attraction toward a female confederate. Sexually non-aggressive men were equally attracted to the female confederate regardless of the type of priming they experienced. However, the sexually aggressive men were more attracted to the female confederate when they had been primed with power words than when they were primed with neutral

words. These findings suggest that sexually aggressive men's cognitive accessibility for power increases or enables their attraction toward women.

Sexual attraction to women is one predictor, when considered additively with other factors such as attitudes toward women and violence, that can discriminate between sexually aggressive and non-aggressive men. Although it is interesting to consider the role power plays in sexually aggressive men's attraction toward women, it does not explain how his perceptions of power might lead to an increase or decrease in aggressive behaviors. Further, Bargh et al. (1995) used a subliminal priming task to activate men's cognitive concepts of power. It is questionable whether this priming led men to actually feel powerful, and their studies cannot address whether men must feel a sense of power over women specifically as compared to a general feeling of power over any target. It may be that priming "power" in sexually aggressive men leads to heightened sexual attraction to women, or alternatively, it may lead to a general positive feeling that would be expressed as liking for any target or simply heightened feelings of safety and competence. Although their research presumes the men were feeling sexual attraction toward the woman, it cannot distinguish whether the sexually aggressive men were reporting sexual attraction (e.g., sexual thoughts and feelings toward the target) or general attraction (e.g., non-sexual thoughts about physical attractiveness). Sexually aggressive men may perceive physically attractive women as more seductive, such that women's attractiveness would be used by sexually aggressive men to justify their aggression "because she asked for it" (Mazelan, 1980). Thus, general attraction can also influence sexually aggressive men's cognitions and behaviors. Further, Bargh et al.'s results do not offer insight into how sexually aggressive men's power, or general positive

feelings, contributes to subsequent aggressive behavior against women. Thus, the cognitive and behavioral processes accompanying feelings of power or powerlessness in acts of aggression toward women remain unexplored. Does a sense of power increase aggressive feelings in sexually aggressive men in the same way that it appears to increase their attraction toward women?

Although an empirical answer does not exist within sexual aggression research specifically, other areas of aggression theory may provide some insight. Bugental and colleagues' (Bugental, et al., 1993; Bugental et al., 1997) previous research with abusive and non-abusive parents suggests that power does, in fact, play an important role in whether aggressive behaviors occur. Specifically, parents who perceive themselves to be low in power also tended to be more abusive to their children. In a series of studies, they compared parents who reported themselves as high or low in perceived power in their relationships with their children by engaging parents in a task with a child that manipulated whether the parent's power over the child's actions was high or low (no-threat or high threat conditions, respectively). They found that low-power adults had chronically accessible schemas for dominance and power, but high-power adults did not. Further, low-power parents had greater autonomic responses that indicated anxiety (i.e., heightened skin conductance response) in the power-threat condition as compared to high-power parents in both conditions and low-power parents in the no-threat condition. Low-power parents who felt their power was threatened also gave children more negative feedback (a measure of aggression against the child) and gave it for longer periods of time than low-power parents in the no-threat condition and high-power parents in both conditions.

In sum, this research revealed that adults with a greater proclivity for abusing their children had a greater sensitivity for detecting threats to their power, and even perceived threats where ambiguity existed. However, they behaved aggressively only when they perceived that their power was threatened. Conversely, when they perceived themselves to have control, they behaved no more aggressively than a control group. Based on Bugental and collegues' (1993, 1997) findings, feelings of power and powerlessness may also have differential effects on sexually aggressive men's behaviors toward women. A sexually aggressive man may be more likely to exhibit aggressive behaviors toward women when he feels that a woman has threatened him or reduced his power, compared to situations when he feels he has maintained power. When he feels powerful or in control, he may feel that he is at a comfortable "power baseline" and aggressive actions are less essential to restore his sense of power. A power challenge by a woman may be a facilitative or necessary mechanism that increases the likelihood that sexually aggressive men will act aggressively toward her.

Aggressive responses to threat have also been found in a second line of aggression research examining the effects of ego threat on narcissistic personalities (Bushman & Baumeister, 1998). A major characteristic of narcissism is an unstable, over-inflated ego, which is used to defend the self against an underlying state of low self-esteem. The instability of false self-esteem makes narcissists vulnerable to threats to their ego, causing them to be particularly wary of threats and defensive of their perceived high self-esteem. To examine the role that self-esteem threat plays in aggressive behavior, participants who were high and low in narcissism, based on questionnaire inventories of narcissism, were asked to write an essay. The essay was then reviewed

and scored by an unseen student and returned to the participant with either positive or negative comments to induce self-esteem enhancement or self-esteem threat, respectively. An additional, and probably unintended, result of this experimental manipulation is that when the participant gave his or her essay to an anonymous student for "grading," it also may have lowered the participant's sense of power over the situation. Thus, the negative feedback could also have had the effect of inducing a sense of powerlessness for the participant, which could be especially uncomfortable for superiority-seeking narcissists. After receiving negative or positive feedback from the student reviewer, participants were given the opportunity to aggress against the reviewer during a computer game competition. Participants could set the decibel level and duration for a loud, stressful noise that the other player would hear each time they "lost" the competition. Interestingly, participants with narcissistic tendencies who received negative feedback were the most aggressive, giving their opponents the harshest noise punishments. Participants low in narcissism used the least amount of aggression, regardless of whether they had received positive or negative feedback about their essay. Thus, the researchers concluded that because the negative essay feedback was discrepant with narcissists' overly positive self-views, they aggressed against the person who threatened their inflated egos. Moreover, in a second experiment, both high and low narcissists were unlikely to displace their aggression onto an uninvolved third person who did not give them the positive or negative feedback about their essay. Aggressive actions occurred only when the participant scored high on narcissism, faced an ego threat, and could directly aggress against the person who threatened their feelings of superiority with negative feedback.

It is this perception of threat to the self, in the form of powerlessness, that is of particular interest in the present research as a mechanism that elicits acts of aggression. Sexually aggressive men tend to have attitudes about sex (e.g., Malamuth, 1989a; Malamuth, 1989b) and mental representations about sex and women (Bargh et al., 1995; Leibold & McConnell, 1999) that differ from sexually non-aggressive men. Bugental and colleagues' (1999) more recent research has found that abusive parents can also have an over-inflated sense of power that responds to power threats with aggression, which compliments Bushman and Baumeister's (1998) finding that an over-inflated ego responds to ego-threat with aggression. Thus, it would be reasonable to predict that more sexually aggressive men also have an unstable sense of power that may be especially vulnerable to power and ego threats. Although these attitudinal and cognitive characteristics can be used to predict who may be sexually aggressive, they do not directly address the contextual and interpersonal factors that may increase the likelihood of hostile behavior.

In real-life interactions between men and women, examining threats to men's power is sensible because men generally have more power in American society (Pratto, 1996; Stock, 1991). For a man who thrives on that power, changes in his power status induced by a woman would probably be alarming. Men typically have more social power than women, thus a situation where a woman gains power over a man may not occur frequently. A woman does, however, gain temporary interpersonal power by being the sexual "gatekeeper." Women have the power to say "no," rejecting a man's sexual advances. Even the man's act of having to ask permission of a woman for sex reduces his control over the situation and the woman. Sexually aggressive men's sensitivity

threshold to power threat may be variable. For some men, the power reduction from the actual "no" from a woman and the corresponding loss of control may trigger aggression toward her. For other men, even allowing a woman to decide her own sexual behavior may be threatening enough to men's power that they attempt to bypass her opportunity to say no and consequently sexually aggress. Whatever the particular case may be, it is possible that at some point a sexually aggressive man feels a threat to his power by a woman. It is at this time of threat that the attitudes and cognitive associations that make him likely to sexually aggress may impel him to act aggressively, congruent with his existing attitudes.

Integrating Bargh et al.'s (1995) power-sex link, Bugental and colleagues' (1993, 1997) power threat research, and Bushman and Baumeister's (1998) narcissistic aggression theory with sexual aggression research can guide predictions about what contextual elements may trigger aggressive behavior against women. First, sexually aggressive men associate sex and power (Bargh et al., 1995), which implies that power is important to them in sexual situations. Second, Bugental and colleagues' (1993, 1997) research has indicated that aggressive behavior is more likely to occur for those who have a greater need for power, but feel that their power is threatened. Third, people with an inflated and unstable sense of self are more vulnerable to reductions in their power and tend to protect their sense of self through aggression (Bushman & Baumeister, 1998). A logical assumption is that sexually aggressive men feel entitled to power, have feelings of superiority, and have a sensitivity to cues alerting them to power threats. That is, perceived or threatened powerlessness is a likely step that catalyzes sexually aggressive attitudes into sexually aggressive behaviors.

The current research explored the effects of power on men's cognitions and behaviors as a function of their level of sexual aggression. First, a primary goal was to investigate the role of power in men's cognitive processes. Although past research (Bargh et al., 1995) explored sexually aggressive men's cognitive associations between power and attraction, the present research aimed to extend these previous findings by investigating men's cognitive associations between power and aggression, and to assess whether these associations related to men's history of sexual aggression. Second, this research explored the role of power threat in aggressive behaviors against women in men who report a greater history of sexually aggressive behaviors relative to those with less history of sexual aggression. By examining the cognitive and behavioral components of sexual aggression, psychologists can gain a better understanding of which men are likely to sexually aggress and which contexts increase the likelihood that they will act on their sexually aggressive tendencies.

To provide an appropriate test of predictions, a cognitive priming task similar to Bargh et al. (1995) was implemented to measure how power and powerlessness were cognitively associated with sex, attractiveness, and aggression as a function of past sexual aggression history. Response latencies to aggression-, attractiveness-, and sex-related target words were measured following priming with power-related words and powerless-related words to assess whether the measured cognitive associations were related to men's past sexual aggression history. Specifically, the word judgment task assessed men's accessibility of power-sex, power-attractiveness, and powerlessness-aggression cognitive associations, whereby faster relative response latencies would indicate stronger cognitive associations. The cognitive accessibility of these associations was measured twice during

the experimental session. The Time 1 measure occurred as the first task of the experimental session before men's perceived power was manipulated through experimental instructions in order to record participants' baseline levels of their chronic cognitive associations. A Time 2 measure of cognitive accessibility of sex, attractiveness, and aggression was assessed after men's power (or powerlessness) was experimentally manipulated to examine any additional priming effects (Bargh, Bond, Lombardi, & Tota, 1986) for power during an interpersonal power manipulation (to be described). In order to provide a supplementary measure of what information was attended to and encoded during the response latency task, participants were asked to write down as many of the target words from the task as they could recall. Because information that is chronically accessible can sometimes be recalled more efficiently, free recall can provide an additional measure of men's differentially accessible concepts as a function of their sexual aggression histories.

Further, a behavioral measure was adapted from Bushman and Baumeister (1998) to examine men's responses to threats to their power by a woman. Men engaged in a competitive game against other participants purportedly located at separate computer stations in nearby rooms. They were led to believe that they were competing against a man first and that their second opponent was a woman. The "other participants" were actually simulated by a computer program, and the men never met, or expected to meet, their opponents in order to avoid any expectancy effects of future interactions. The computer game was arranged to allow the man to set the strength and duration of rewards and punishments to the opponent.

To provide the participant with information about his opponent's sex, the participant saw a still digital computer image of his competitor before each game began. The participant's digital photograph was taken using a computer camera as well, and to maintain a plausible cover story, he was led to believe that his opponent was be able to view his image also. The men's power status in the dyad was manipulated by randomly assigning them to a role in the game that carries either greater or lesser power relative to their opponent. At the conclusion of each game, the participants were also asked questions about their opponent, which included a rating of their opponent's physical attractiveness (consistent with Bargh et al., 1995). Thus, men's attraction to the female opponent and their willingness to aggress was measured. The strength of their punishments and rewards were measured and compared between a male and female opponent, providing a within-subjects factor.

Hypotheses for Cognitive Components

The first set of predictions involved whether men's chronic cognitive accessibility between power and sex, and powerlessness and aggression, was related to their past sexual aggression histories. To measure men's chronically accessible associations, the Time 1 priming task was administered before introducing any power manipulations.

Hypothesis 1. It was expected that based on the results of Bargh et al. (1995), during the Time 1 priming task, more sexually aggressive men would reveal a stronger cognitive association between power and sex than would less sexually aggressive men. But, level of sexual aggression was not expected to relate to cognitive accessibility for aggression following power primes.

Hypothesis 2. Similar to Bugental et al.'s (1993) findings, it was expected that more sexually aggressive men would have stronger cognitive associations between powerlessness and aggression than would less sexually aggressive men.

Hypothesis 3. Immediately following the measurement of cognitive accessibility, free recall for the priming task target words was collected. It was also expected that as level of sexual aggression increased, free recall accuracy for aggression-, sex-, and attractiveness-related target words would increase as well, relative to neutral targets.

Upon completion of the Time 1 game with the male opponent, participants competed against a female opponent. The Time 2 measurement of cognitive accessibility of power, powerlessness, sex, and aggression occurred after the second power manipulation, just before the competition with a female opponent. Chronic or frequently primed associations can at times have an additive effect on contextual priming such that cognitive accessibility for a chronic concept increases further (Bargh et al., 1986).

Hypothesis 4. Thus, it was predicted that the experimental power manipulation (i.e., the man's power or powerlessness relative to the female competitor) would itself additively prime sex or aggression, respectively, to a greater degree for more sexually aggressive men than for less sexually aggressive men. Because strong powerless-aggression and power-sex associations were expected to be less likely for less sexually aggressive men, the power manipulation was not expected to reveal strong additional priming effects for less sexually aggressive men during the Time 2 response latency measurement. However, in the powerful condition as level of sexual aggression increases, cognitive accessibility should be greater (i.e., faster response latencies) for sex targets at Time 2, but not for aggression targets. In the powerless condition, as level of

sexual aggression increases, cognitive accessibility (faster response latencies) should be greater for aggression at Time 2, but should not be greater for sex concepts.

Hypothesis 5. At Time 2, free recall for the sex- and aggression-related target words were collected before the competitive game began, similar to Time 1. More sexually aggressive men should again be more likely to recall aggression-, sex-, and attractiveness-related target words than less sexually aggressive men.

Hypotheses for Behavioral Components

The second set of predictions concerns the relationship between level of sexual aggression and the men's behavior during the games. During the Time 1 game, participants competed against a male opponent, providing a baseline measure for aggressive behavior. Because sexual aggression consists of hostile attitudes and behaviors that are directed specifically at women, it was important to distinguish between aggression toward a male target as compared to a female target. In fact, past research has found that proclivity towards violence in general is less predictive of sexual aggression than is hostility directed specifically toward women (Malamuth, Linz, Heavey, Barnes, & Acker, 1995). Regardless of power condition (powerful or powerless), level of sexual aggression should be related to low levels of aggressive behaviors toward a male target. When participants competed against a female opponent at Time 2, power condition was expected to interact with the between-subjects variable of sexual aggression history.

Hypothesis 6. It was expected that when men perceived themselves to have more power than a woman, punishments (as measured by total number of punishments and strength of punishment) toward the female opponent would not differ from those given to the male opponent. Nonetheless, it was expected that additional measures of aggression

revealed by men in the powerful condition would show that more sexually aggressive men were more aggressive toward the female opponent than the male opponent relative to less sexually aggressive men.

Hypothesis 7. When men have power, similar levels of positive or neutral feedback should be given to the female opponent as compared to the male opponent. That is, more sexually aggressive men should feel comfortable when they have more power in a social situation with a woman as compared to situations where they have less power. However, because more sexually aggressive men should be more attracted to the female opponent when they have power over the woman, an alternative prediction would be that the more sexually aggressive men would give more positive or neutral feedback to the female opponent than to the male opponent (thus aggressing less against the female opponent than the male opponent) as a sign of his sexual favoritism toward her. In contrast, in the powerless condition, more sexually aggressive men were expected to give less positive or neutral feedback to the female opponent than the male opponent, relative to less sexually aggressive men.

Hypothesis Regarding Power and Attraction to Women

The third set of predictions concern the relationship between sexual aggression and men's attraction to a woman who was more or less powerful than themselves.

Hypothesis 8. Based on Bargh et al.'s (1995) findings, less sexually aggressive men were expected to find the female opponent attractive, regardless of power condition. However, more sexually aggressive men who perceived themselves to be powerful should report more attraction to the female opponent, compared to more sexually

aggressive men who perceived a threat to their power. Thus, in the powerless condition as level of sexual aggression increases, levels of attraction to the woman should decrease.

Hypotheses Regarding Attitudes, Aggression, and Power

Men's narcissism and their attitudes toward violence and sexual aggression were measured to assess attitude-behavior consistency and to test alternative hypotheses.

Hypothesis 9. In examining the relationship between the attitude measures, it was expected that greater levels of narcissism would correlate to stronger endorsement of violence and greater levels of sexual aggression. Further, based on Malamuth et al.'s (1995) past findings, stronger sexually aggressive attitudes were expected to be related to more past sexually aggressive behaviors and stronger attitudes supporting interpersonal violence.

Hypothesis 10. Attitude measures were also expected to relate to men's responses to feelings of power or powerlessness. Based on past research (Bargh et al., 1995; Malamuth et al., 1995), it was predicted that men with stronger sexually aggressive attitudes would aggress more against a female opponent relative to a male opponent in the powerless condition, but not in the powerful condition. In contrast, men with less strong sexually aggressive attitudes were not expected to aggress more against the female opponent relative to the male opponent, regardless of power condition.

Hypothesis 11. Men's acceptance of general violence was measured to acknowledge an alternative hypothesis that more sexually aggressive men were simply more aggressive overall and not just toward women. Specifically, more sexually aggressive men's heightened aggression during the competitive game may simply have been due to greater levels of aggression that were not directed specifically at women and

were possibly unrelated to power. If this is the case, then greater attitudinal endorsement of general violence should relate to more aggression toward both the male and female opponent.

Furthermore, past research has found that narcissism is more likely among individuals with a need for power (Joubert, 1998). Narcissism was measured for two reasons. First, it was of theoretical interest to extend the relationship between narcissism and general aggression (Bushman & Baumeister, 1998) to examine sexual aggression as well. Second, narcissism was used as a covariate in analyses predicting aggression from past sexual history and power condition, which compared the model of sexual aggression outlined in the present research to that tested by Bushman and Baumeister (1998) in their past work.

Hypothesis 12. According to Bushman and Baumeister's (1998) findings, narcissists will aggress when their ego is threatened. Baumeister (1999) also suggests that sexual aggression may be motivated by narcissistic reactance to a woman's refusal of sexual intercourse. That is, when a woman refuses to have sex with a narcissistic man, he would experience ego threat and thus aggress against her in order to restore his self-esteem and sense of freewill. To extend Bushman and Baumeister's findings to sexual aggression against women, it was hypothesized that power threat should lead men who were greater narcissists to aggress more against the female opponent than the male opponent. If power threat also acts as a threat to more sexually aggressive men's ego, as expected, then men higher in narcissism in the powerless condition should aggress more against the female opponent than the male opponent compared to those in the powerful condition or men lower in narcissism. Further, to test the power of narcissism in

predicting aggression against the female opponent, the variance explained by narcissism was extracted from the predictor of past sexual aggression history. It was expected that narcissism would interact with power condition, such that more narcissistic men in the powerless condition would aggress against the female opponent more than the male opponent, relative to the powerful condition. However, past sexual aggression history was expected to significantly predict aggression against the female opponent relative to the male opponent in the powerless condition, beyond what could be predicted by narcissism. That is, even after narcissism has been accounted for, past sexual aggression history should interact with power threat to predict aggression against the female opponent.

Ancillary Hypotheses

Four self-report measures were administered to test secondary predictions: the Reasons for Punishments and Rewards scales, the Locus of Control During Game scale, the Impression of Opponent scale, and the Importance of Sexual Relationships scale.

Hypothesis 13. First, sexually aggressive men generally reason that they aggressed against women because the women needed to be "put in their place" (Stock, 1991). After competing against the male and female opponents, men were asked why they chose to reward and punish their opponents. It was expected that more sexually aggressive men would be more likely than less sexually aggressive men to endorse reasons for their aggression toward the female opponent, relative to the male opponent, that are similar to those historically given by sexual offenders (e.g., "she asked for it").

Hypothesis 14. Participants also completed a Locus of Control During the Game scale to assess whether they felt their performance was within their own control or external to their own control while they played the game against each opponent. One explanation for more sexually aggressive men's aggression may be that they felt the situation was beyond their own control. Thus, to regain an internal sense of control, they would aggress against the opponent. If this was the case, then it was expected that men who experienced an external locus of control during the game would act more aggressively toward both the male and female opponent.

Hypothesis 15. After the competition against the male and female opponents, participants completed the Impression of Opponent scale, which measured the men's general liking for each opponent. As level of sexual aggression increased, it was expected that attraction to the female opponent in the powerful condition would increase, but attraction to the female opponent would decrease in the powerless condition. The scale tested the alternative hypothesis that it is not sexual attraction, per se, that decreases as power decreases, but general liking instead. That is, if more sexually aggressive men's cognitive associations between power and sex extend beyond sexual attraction toward women to general liking for women, then more sexually aggressive men in the powerless condition should show less liking for the female opponent than in the powerful condition.

Hypothesis 16. Last, during pretesting, men completed the Importance of Sexual Relationships scale to assess the importance of the sexual component of their relationships with women. It was expected that more sexually aggressive men would

report that sexual relationships with women were more important to them as compared to less sexually aggressive men.

METHOD

Participants

Sixty-two introductory psychology students participated in exchange for course extra credit or $15. Three participants were removed from analyses due to suspicions about the power manipulation or the existence of other participants, and one was removed due to computer failure during the experiment, leaving 58 viable participants in the sample. Participants completed the Coercive Sexuality Scale (CSS), the Attraction to Sexual Aggression scale (ASA), the Narcissistic Personality Inventory (NPI), and the Attitudes toward Violence scale (ATV) prior to the experiment during pretesting. Based on cutoff criteria utilized in previous research (Leibold & McConnell, 1999), men who reported no previous sexually aggressive behaviors on the CSS and men who reported three or more sexually aggressive behaviors or two more-advanced sexually aggressive behaviors (e.g., removing a woman's underclothes against her will or forcing a woman into various sexual acts against her will) were recruited to participate in the laboratory session.

Materials

CSS. The CSS measures the frequency and degree of sexually coercive and sexually aggressive behaviors that men have committed (M=1.90, SD=2.45; Rapaport & Burkhart, 1984). It begins with milder forms of coercive sexual behavior and progresses

to more forcible and aggressive behaviors with each question. Appendix A lists the scale items.

ASA. The ASA scale assessed men's attitudes toward sexually aggressive acts (Malamuth, 1989a, 1989b). For example, the rape-related items ask about a man's willingness to engage in forcible sex against a woman's wishes if he could not get caught, how attractive such acts would be to him, and how attractive such acts would be to other men and women. Responses to items were standardized and summed. Appendix B contains the scale items.

ATV. The ATV (Lonsway & Fitzgerald, 1995) utilizes a 7-point scale (where 1= strongly disagree and 7 = strongly agree) to assess attitudes toward violence. Appendix C lists the items, which assess various aspects of interpersonal violence such as revenge and justification for violence. Items were summed to form a scale (M=48.85, SD=10.33).

NPI. The NPI (Raskin & Terry, 1998) contains 40 items using a 5-point scale (where 1 = strongly disagree and 5 = strongly agree). The scale is reported in Appendix D. The scale assesses an individual's sense of entitlement, grandiosity, and superiority to others as a measure of narcissism (M=104.72, SD=19.95).

Importance of Sexual Relationships scale. During pretesting, participants were asked questions about the importance of sexual relationships with women, which were embedded among more innocuous items that asked about family and friendship relationships. Responses were averaged to form a scale (M=3.29, SD=.47), and Appendix E displays the items.

Reasons for Punishments and Rewards scale. After playing the computer game against each opponent, participants were asked to provide reasons why they chose to reward or punish their opponent. Punishment reasons focused on the negative motivations sexually aggressive men generally use to explain their aggression against women, such as "she deserved it." Reward reasons tapped positive motivation such as, "I wanted to make my opponent feel good." Appendix F displays the scale items, which were rated on a scale of 1 (completely disagree) to 7 (completely agree), such that a higher score indicated more endorsement of stereotypical reasons for aggressing against women. Four scales were created by summing the reasons for punishment items separately for the female opponent (M=27.93, SD=14.36) and the male opponent (M=31.43, SD=12.98), as well as for the reasons for reward items for the female opponent (M=19.51, SD=7.10) and male opponent (M=19.48, SD=7.56). If they chose not to send any rewards or punishments, they were omitted from relevant analyses.

Locus of Control during Game scale. After the game against each opponent, participants were asked about their perceptions that their own performance and their opponent's performance was due to skill (internal control) or luck (external control). The four items were rated on a scale of 1 (completely disagree) to 7 (completely agree) and included the following items: "I was a better player than my opponent," "My own score was due to my skill at the game," "(reverse scored) My own score was due to luck or other factors in the situation," and " My opponent's score was due to his or her skill at the game." Thus, larger scale scores indicated greater perceptions of internal control, whereas smaller scale scores indicated greater perceptions of external control.

Impressions of Opponent. After competing against each opponent, participants' general impressions about their opponent assessed their liking for the opponent. On a scale ranging from 1 (not at all) to 7 (very much), participants responded to the following questions: "If you were given the choice in the future, how likely would you be to choose to play against your opponent again?", and "Did the opponent seem like someone you would ever want to meet?". On a scale ranging from 1 (extremely negative) to 7 (extremely positive) participants were also asked, "From what information you do have, what is your overall impression of your opponent?". Responses to these items were summed separately for the female opponent (M=15.24, SD=2.67) and the male opponent (M=13.67, SD=2.70).

Power Manipulation Check Questions. After playing the male and female opponent, participants answered questions about their perceptions of power during the game to ensure that the power manipulation was effective. Participants responded to the following items on a scale from 1 (completely disagree) to 7 (completely agree): "I felt like I was given more power during this game than my opponent," "I didn't have enough control over events during this game (reverse scored)," and "My opponent was in a weaker position than I was." Items were summed separately for the female opponent (M=4.43, SD=1.55) and male opponent (M=4.59, SD=1.56).

Time 1 Priming and Word Judgment Task Stimuli. Participants completed a lexical decision task, whereby a subliminal prime appeared on the computer screen and was followed by a target word. The target word was either a word or a nonword string of letters, and participants judged whether the target was a word or non-word using the keyboard. Using PsyScope 1.2 (Cohen, MacWhinney, Flatt, & Provost, 1993),

subliminal primes appeared in the center of the computer screen for 30 ms, and were immediately followed by a mask string of lower-case letters for 35 ms. Appendix G lists the stimuli utilized, and Table 1 lists the distribution of stimuli among trials. There were 60 critical prime-target word trials and 60 prime-nonword trials, for a total of 120 trials. Four types of target words were presented: five aggression-related words, five sex-related words, five attractiveness-related words, and five neutral words. Pretesting confirmed that target words in each of the four word types were significantly related to the concept they were chosen to represent. Each word appeared as a target three times (once with each prime type) during the task. An equal number of nonwords were created by mixing the target words into random letter strings, for a total of 20 different target words and 20 different nonwords. Three types of primes were presented: power primes, powerless primes, and neutral primes. Pretesting of powerless words ensured they were synonymous with lack of power and orthogonal to the concept of submissiveness, which may instead infer a willingness to relinquish power.

Table 1

Number of Prime-Target Word Pairings for Time 1 Word Judgment Task

	Power primes	Powerless primes	Neutral primes
Aggression targets	5	5	5
Sex targets	5	5	5
Attractiveness targets	5	5	5
Neutral targets	5	5	5
Non-word targets	20	20	20

Time 2 Word Judgment Task Stimuli. Participants made lexical decision judgments about words on the computer screen, using the keyboard to indicate whether a target was a word or nonword. A string of letters, identical to the mask used for the Time 1 primes, was used as a filler between target presentations so that the Time 1 and the Time 2 word judgment tasks were as similar as possible. However, no power primes were presented because the Time 2 task was designed to assess the additive effects of the priming manipulation. Specifically, the power manipulation should itself serve as a prime to facilitate the target concepts. Four types of target words were presented (different words than used at Time 1): five aggression words (assailant, violent, threaten, bully, attack), five sex words (bed, seduce, aroused, desire, foreplay), five attractiveness words (fond, appealing, beautiful, attraction, cute), and five neutral words (numbers, mouse, puppy, airplane, runway). Each word served as a target once during the task, and an equal number of nonwords were presented by mixing the target words into random letter strings for a total of 20 target words and 20 nonwords.

The "Treasure Hunt" Game. The Treasure Hunt game was a two-player competitive computer game. Although only one participant actually played the game at one time, the game was programmed to simulate a real-time opponent who appeared to be responding to the participants' actions. Figure 1 depicts the Treasure Hunt game board, which was divided into 216 numbered squares arranged in an 18 x 12 grid. Underneath one of these squares was a hidden "treasure," and participants were told that their goal was to click as many squares as quickly as possible using the computer's mouse to find the treasure before their opponent found it. If neither player found the treasure within 45 s, the game ended in a draw. Participants played 10 games against

each opponent, and non-contingent win, lose, or draw feedback was provided for each game, such that the participant won 3 games, lost 3 games, and drew 4 games. In order to reduce the likelihood that participants' responses would be systematically influenced by a particular pattern of success and failure feedback, three predetermined feedback files were used. Each file was randomly ordered, but the number of wins and losses were identical for the male and female opponent. The participants either played the more powerful role of the "Leader" or the less powerful role of the "Follower." The Leader's game board functioned differently from the Follower's game board. The Leader could see a path where the Follower supposedly had clicked on his or her game board during the game. The Leader's screen contained a bomb-drop area, where he could plant bombs in the path of the Follower. When the Follower clicked on a square that contained a bomb, his or her game board was frozen for 3 s and the Follower was unable to click on squares during that time.

Design and Procedure

A mixed design was employed, with past sexual behavior history and power condition (powerful or powerless) as between-subjects factors, and sex of opponent (male or female) as a within-subjects variable.

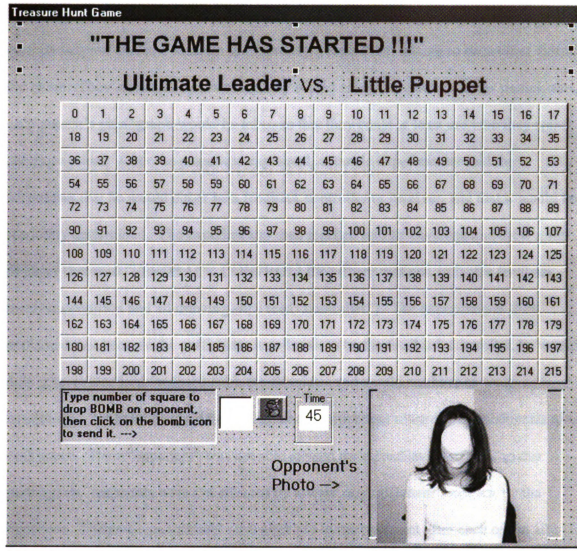

Figure 1. Example of the Treasure Hunt Game board for the powerful condition with a female opponent.
Note. The female opponent's face has been blurred to maintain her anonymity. It was visible during the experiment.

Upon arrival, participants were given instructions for the game and were told that each participant was in a separate room to keep people from talking to each other during the game. They were told that because they would not get to meet the other participants, each person's photograph would be taken so that they could at least see who they were playing against. After the game was explained, a female experimenter told the participant that he would either be a feedback controller or receiver, and that it would be randomly determined. The experimenter then reached into an envelope and drew a slip of paper that read "FEEDBACK CONTROLLER" (there was not, in fact, a feedback receiver condition and all drawing slips read "controller"). The experimenter then explained that because the participant was drawn to be the feedback controller, he would only receive standard feedback from the computer and would not have to wear headphones, but that he would be able to send his opponent rewards or punishments after each game. Their "opponent" was not able to send them feedback in return, so that participants' responses were not affected by reward or punishment feedback by the opponent. The participants could send a reward to the opponent after each of the 10 games, which was a Smiley face and an encouraging statement that appeared on the opponent's computer screen (e.g., "Way to go!"). Alternately, the participant could send a punishment to the opponent after a game by sending the opponent loud noises through the computer to the opponent's headphones. Rewards and punishments could be given by the participant even in the event of a tie. The participant was told that he alone had the ability to set the strength of the rewards and punishments (e.g., how positive the rewards were, how painful the punishments were) and the duration of the rewards and punishments that the opponent would receive. The participant also received similar,

standardized rewards after a win and punishments after a loss, but no feedback after a draw. However, he was told that the opponent had no control over strength or duration of the feedback, and it would be standard, moderate, and computer-controlled. For instance, each time he lost, he received a noise through the computer speakers and a frowning face on his computer screen, but the loudness and duration would never vary and supposedly was not under the opponent's control.

Participants' images (which showed them from chest-level to the top of their head) were taken using a digital desktop camera and supposedly sent to their competitor's computer for viewing. Next, they completed the Time 1 priming and word judgment task at an individual computer workstation. They were told that the task would consist of a series of judgment trials that would "calibrate" the computer to optimize the computer's timer to their personal response speed and reaction styles, and reduce the "networking delay" that may occur by having players in separate rooms. After reading instructions and completing 10 practice trials, the relevant prime-target pairs were presented, and participants made judgments about whether the targets were words or nonwords using the keyboard. The time between target presentation and the participants' response to the target was measured in ms by the computer. Next, participants were given 5 mins for a free recall task during which they wrote down as many of the target words from the priming task as they could recall. The experimenter left the room while the participant completed this task, explaining that she was going to set up his opponent in the other room. The experimenter returned near the end of the recall task holding a slip of paper, presumably randomly drawn by the opponent.

The experimenter began the Treasure Hunt program for the participant and explained that while she was setting up the opponent, she let him randomly draw a slip of paper that would determine who was going to be the Leader and Follower. Participants in the powerless condition were given a slip of paper marked "FOLLOWER," and those in the powerful condition were given one marked "LEADER." While the participant then read the instructions for the game, the experimenter left the room purportedly to get the other players ready. All participants read the same instructions, which explained the roles of the Leader and Follower and described how to give feedback to the opponent. One of three male images was randomly chosen by the computer to appear on the computer screen. The image remained there until the 10 games ended. In the power condition, the Leader chose a name for each player from a list. There were three Leader (Head Honcho, Invincible One, and Ultimate Leader) and three Follower names (Little Puppet, Flunky, Stooge) to choose from that implied varying degrees of superiority and inferiority, which were found to be significantly different from each other based on pretesting. The choices the participant made for himself and his opponent were recorded, and the relative difference in superiority of the name choices for each opponent served as an additional measure of need for power. In the powerless condition, the computer revealed that his opponent had just chosen the player names (Master of the Universe and Pawn for the male opponent; Ultimate Leader and Little Puppet for the female opponent).

Computer instructions described the Leader as the more powerful player in the game because he or she had benefits that the Follower did not have: control over the players' names, a view of the opponent's progress and mouse-clicks during each game, bombs to set in the Follower's path to hinder his or her progress, and a second way to win

by setting a bomb on the treasure. The Follower did not have these powers, and was made aware that the Leader had these additional abilities. It was explained that this power will increase the Leader's chances of winning and will lower the Follower's chances of winning. Before the game began, the participant listened to a mild punishment noise. He was told that this tone was "Level 2," near the quiet end of the possible loudness range, and that he should base his estimation of the strength of greater noise levels on this example.

Participants then completed a brief survey on the computer before the game began, which asked neutral questions about the opponent, such as the opponent's sex, estimated age, probable major, etc. Embedded in the questionnaire was a rating of the opponent's attractiveness. Next, the participant began a set of 10 games against the male opponent. The competitor's role was actually played by the computer, which simulated a real-time competition between the participant and another player. To simulate a real-time game, games won and lost lasted less than 45 s, and the times were randomly varied to enhance believability. After each of the 10 games, participants were asked to provide either a positive or negative feedback or no-feedback to their opponent (but they could only provide one type). The duration (in s) and strength (on a scale of 1-100) of the rewards and punishments that they chose were recorded by the computer. For participants in the power condition, the number of bombs placed in his opponent's path during each game was also recorded. Toward the end of the 10 games, the experimenter left the room to ostensibly set up a new opponent for the next set of games. After the 10 games, participants completed the Impressions Scale, the Reasons for Rewards and Punishments scales, the Locus of Control scale, and power manipulation check items.

After the questionnaires were completed, the experimenter returned and explained that their new opponent was completing the calibration task and while she was setting up the new opponent, she let the new opponent randomly draw for the role assignment of Leader or Follower. The participant was shown the slip of paper that was drawn "by chance," and was always assigned to the same role that he held during the first 10 games against the male opponent. The experimenter made sure that the participant knew his role for the next opponent and also used the pronoun "she" repeatedly to ensure that he understood that the next opponent was a woman. The participant next completed the Time 2 word judgment task. The experimenter explained that the participant must complete the reaction time task again so that the computer can adjust and properly "re-calibrate" his natural reaction times to score his performance during the game. The Time 2 word judgment task was similar to that utilized at Time 1, however, instead of being presented with power primes, only random strings of letters appeared before the target words instead of primes. Thus, any additive priming effect of contextual power (i.e., the power condition) would act as a prime. Participants were then given 5 min for free recall, identical to the procedure used during Time 1.

The experimenter left the room during the re-calibration task to ostensibly check on the new opponent's progress and returned near the end of the recall task. The participant then played the second set of 10 games using the same procedure and measurements as were used during the games against the male opponent. When the game ended, participants were probed for intentions to purposely provide false information or reactions and were asked to provide details about any confusion or suspicions they may

have experienced. The debriefing followed, and participants were told that there were no other participants and that they did not actually send feedback to anyone.

RESULTS

To capture meaningful variability in differences between men with greater and lesser proclivities to sexual aggression, sexual aggression scores (CSS) were maintained as a continuous measure to enhance its sensitivity in relation to facilitation scores, recall data, and self-report data. It was also particularly important to examine the differences in aggression toward the male and female opponent as a within-subjects repeated measure. Rewards and punishments to the male opponent were subtracted from the rewards and punishments to the female opponent, respectively, such that positive numbers indicate more rewards or punishments to the female opponent relative to the male opponent. Thus, regression analyses were conducted on the difference scores of each participants' rewards and punishments to the female and male opponent to examine both the between-subjects differences in power manipulation and men's sexual aggression history and the within-subjects difference in behavior toward the male opponent and the female opponent. Further, as a comparison to utilizing past sexual aggression history as a predictor of aggression toward women in the lab, regression analyses were conducted to determine the ability of narcissism, sexually aggressive attitudes, and acceptance of violence to predict aggression against the female opponent in the experiment.

Reliability of Scales

Reliability analyses were conducted on the CSS, ASA, NPI, and ATV. All were reliable measures, with Cronbach's α = .96, .90, .83, .85, respectively. After the study was completed, it was discovered that one participant's ASA data was recorded improperly by the web-based pretesting system and thus was not included in analyses that involved the ASA. That participant's data on all other measurements was accurate, and thus, were included in analyses that did not involve the ASA. Thus, for analyses involving the ASA the sample size was 57, but for analyses involving all other scales, the sample size was 58. The items comprising the Attitudes toward Sexual Relationships scale (Cronbach's α =.79), Reasons for Punishment scale for the male (Cronbach's α =.89) and female opponent (Cronbach's α =.93), Reasons for Reward scale for the male (Cronbach's α =.86) and female (Cronbach's α =.80) opponent, and the Locus of Control During Game scale for the male (Cronbach's α =.58) and female (Cronbach's α =.75) opponent were also submitted to reliability analyses. The Locus of Control During Game scale was not reliable for the male opponent, and analyses indicated that the items "I was a better player than my opponent" and "My own score was due to my skill at the game" should be removed. To maintain consistency with the scale for both the male and female opponents, the two unreliable items were dropped for both scales. Thus, the items "My own score was due to luck or other factors in the situation" and " My opponent's score was due to his or her skill at the game" were summed across responses for the male and female opponents (M=14.65, SD=4.62) and comprised the revised Locus of Control scale. Correlations were conducted between the remaining two items, indicating the new scale was reliable for the male opponent, $r(58)$=.69, p<.001 and the female opponent,

$r(58)=.86$, $p<.001$. The Importance of Sexual Relationships scale and the Impressions of Opponent scale were submitted to reliability analyses as well. The Importance of Sexual Relationships scale was reliable, Cronbach's $\alpha = .79$, as were the Impressions scale for the male (Cronbach's $\alpha = .81$) and female (Cronbach's $\alpha = .74$) opponents.

Power Manipulation Check. To ensure that the power manipulation affected participants' sense of power, the mean of the 3-item power manipulation check scale was analyzed. Because it was important to ensure that the power manipulation did not affect more sexually aggressive men differently than less sexually aggressive men, both the main effect of power manipulation and the interaction between past sexually aggressive behavior and power manipulation were important to consider to determine the effectiveness of the power manipulation. CSS score, power condition, and the interaction of CSS score and condition were entered into two regression analyses (separately for responses about the male and female opponent) to predict how powerful each participant reported feeling. As expected, power condition was a significant predictor of powerful feelings during the game against the male, $\beta = .78$, $t(54)=7.42$, $p<.001$, and female opponent, $\beta = .72$, $t(54)=5.89$, $p<.001$. Participants in the powerful condition reported feeling more powerful against the male ($M=5.86$) and against the female opponent ($M=5.50$), whereas participants in the powerless condition reported feeling less powerful against the male ($M=3.43$) and against the female opponent ($M=3.41$). No interaction terms were significant for either opponent. However, for the female opponent, a main effect for CSS score emerged, $\beta = .20$, $t(54)=2.05$, $p<.05$, whereby more sexually aggressive men felt more powerful ($M=4.62$) than less sexually aggressive men ($M=4.24$). This tendency for more sexually aggressive men to report feeling more

powerful than their female opponent than less sexually aggressive men, even in the powerless condition, would work against the hypotheses. That is, if more sexually aggressive men were feeling less power threat, then they would be less likely to aggress against the female opponent, which would be the opposite pattern of results than predicted. In sum, results reveal that the power manipulation was successful.

Derivation of Word Judgment Task Facilitation Scores

Because response latencies are typically positively skewed (Fazio, 1990; Ratcliff, 1993), a natural log transformation was applied to the word judgment task response latency data. Additionally, based on previous research that has used similar criteria (Fazio, Jackson, Dunton, & Williams, 1995; Greenwald, McGhee, & Schwartz, 1998; Leibold & McConnell, 1999), responses were removed from analyses for critical trials that fell below 300 ms (0.06% of the trials) or above 1500 ms (0.60% of the trials), and trials in which the participant made an incorrect word judgment (5.62% of the trials).

To develop word judgment facilitation measures, baseline response latencies for each target word were designated as trials where neutral primes preceded each target word (Fazio et al., 1995). Thus, target words preceded by a neutral prime were considered a measure of individual differences in baseline response time that could then be removed from the responses of principal interest – the trials involving priming of power and powerlessness. By removing individual differences in response time for a particular target, the remaining data reflect the effects of the power and powerless primes in facilitating target judgments. To derive a facilitation score for each prime type-target word pair in the Time 1 data, the latency for each target word preceded by each prime type was calculated and subtracted from the baseline measure for the same target word.

The facilitation scores were then averaged across the targets within each of the four target categories, resulting in eight prime-target facilitation scores: power-aggression, power-sex, power-attractiveness, power-neutral, powerless-aggression, powerless-sex, powerless-attractiveness, and powerless-neutral. Thus, positive Time 1 facilitation scores indicated that responses to the target word were faster when preceded by a power or powerless prime than when the target word was preceded by the neutral prime, reflecting the strength of association between the prime and target.

For the Time 2 response latency measure, the power manipulation acted as a contextual prime and no prime words were presented. Response latencies for each target word were averaged separately for each of the four target types. Facilitation scores were computed by subtracting the mean response latency for each target type from the mean response latency for the neutral targets, resulting in three facilitation scores: aggression, sex, and attractiveness. Thus, positive Time 2 facilitation scores indicated faster responses to the aggression, sex, or attractiveness targets than to the neutral targets.

Time 1 Priming Task Analyses

Correlations between CSS Scores and Time 1 Facilitation Scores. To test the relation between sexually aggressive behavior and the strength of cognitive associations, correlational analyses were conducted between CSS scores and the eight Time 1 facilitation scores. It was expected that facilitation to power-sex and power-attractiveness would be positively correlated to CSS scores, indicating stronger cognitive associations between power and sex and power and attractiveness for more sexually aggressive men than for less sexually aggressive men. Power was not expected to facilitate responses to aggression targets, and thus the power-aggression facilitation score

was not expected to correlate to CSS scores. Second, for the powerless primes, CSS scores were expected to positively correlate to facilitation scores for aggression targets, but not to sex or attractiveness targets. Neutral targets served as filler items and therefore neutral target facilitation scores were not expected to correlate to CSS score, regardless of prime type.

Correlational analyses did not support Hypotheses 1 or 2, however. As Table 2 reports, only facilitation to powerless-aggression pairs correlated significantly with CSS score, revealing that after a powerless prime, more sexually aggressive men were slower to respond to aggression targets than were less sexually aggressive men. This result is in fact the opposite of predictions. Further, as Table 2 reports, the negative correlation between facilitation to power-aggression pairs and CSS score was approaching significance, indicating a trend for greater levels of sexual aggression to be related to slower responses to aggression targets after priming with power words.

To test whether the criteria for response latency accuracy was too stringent and to examine if removing slow, fast, and inaccurate responses may have eliminated significant effects, a new set of correlations were conducted following Greenwald et al.'s (1998) criteria for response latency data. That is, all responses under 300 ms were recoded to 300 ms, all responses over 3000 ms were recoded to 3000 ms, and data resulting from incorrect keypresses were included rather than removed from analyses. Correlations between facilitation scores and CSS scores were conducted, however, results did not differ from those using the more stringent standards.

Table 2

Correlations between CSS scores and Time 1 Priming Facilitation Scores

		CSS Score
Prime- Target Pair	Power-Aggression	-.25†
	Power- Sex	.03
	Power-Attractiveness	-.16
	Power- Neutral	-.04
	Powerless-Aggression	-.31*
	Powerless- Sex	.03
	Powerless-Attractiveness	-.17
	Powerless-Neutral	-.08

Note. *p<.05; †p<.07, n=58.

Correlations between CSS Score and Free Recall Performance. Free recall of Time 1 target words was correlated to men's CSS scores to determine if retrieval for the target words was related to men's sexually aggressive behavior. The percentage of sex, attractiveness, aggression, and neutral words recalled was correlated to men's CSS scores. Hypothesis 3 predicted that the proportion of words recalled from the three critical target categories would be positively correlated to CSS score, which would indicate that more sexually aggressive men recalled the target words more accurately than

less aggressive men. No relationship was expected for the neutral words recall. No participants recalled any prime words or portions of prime words, confirming that the primes appeared outside of participants' awareness.

Correlational analyses were conducted between recall for the four target categories and CSS score. The proportion of attractiveness targets recalled was correlated to CSS score, $r(58)=.36$, $p<.01$, indicating that as sexual aggression increased, recall for attractiveness target words increased as well. CSS score was not related to aggression, $r(58)=.21$, ns, sex, $r(58)=-.12$, ns, or neutral targets, $r(58)=-.02$, ns. Thus, Hypothesis 3 was supported only for the attractiveness targets.

Time 2 Word Judgment Task Analyses

Regression Analyses on Facilitation Scores. According to Hypothesis 4, more sexually aggressive men in the powerful condition should have greater accessibility for sex and attractiveness target words than to aggression target words. Conversely, more sexually aggressive men in the powerless condition were expected to have greater accessibility for aggression target words than to sex and attractiveness target words.

Facilitation scores for aggression, sex, and attractiveness Time 2 target words were regressed on CSS score, power condition, and their interaction. For facilitation to aggression target words, only a main effect of CSS score emerged, $\beta=.31$, $t(54)=2.65$, $p<.05$, revealing that more sexually aggressive men showed greater facilitation for the aggression target words than did less sexually aggressive men, $r(58)=.35$, $p<.05$. No other main effects or interactions were significant for any other facilitation scores, all $ts(54)<1.65$, ns. Thus, Hypothesis 4 was not supported.

Free Recall Data Analyses. Free recall of Time 2 target words was correlated to men's CSS scores to determine if retrieval for the target concepts was related to men's sexually aggressive behavior. Hypothesis 5 stated that recall for highly sexually aggressive men, as compared to less sexually aggressive men, should be relatively better for words related to aggression, sex, and attractiveness than for neutral words. Examining differences in the percentage of words recalled from each target word category explored the relative distribution of recall among the four target categories while controlling for overall amount of recall. For each participant, the number of words recalled in each of the four recall categories was summed and divided by the overall number of target words recalled, which provided the percentage of words recalled for the aggression targets (27%), the sex targets (45%), the attractiveness targets (24%), and the neutral targets (28%).

The percent recalled for each of the four types of target words were correlated with men's CSS scores. Attractiveness target recall was positively correlated with CSS scores, indicating that more sexually aggressive men's recall was comprised of a greater percentage of attractiveness targets than was that of less sexually aggressive men, $r(58)=.30$, $p<.05$. However, aggression, sex, and neutral target recall were not correlated to CSS score, $r(58)=-.09$, $r(58)=.14$, $r(58)=.22$, ns, respectively. Thus, similar to Time 1 free recall, only the results for attractiveness targets supported Hypothesis 5.

Analysis of Past Sexual Aggression and Behavioral Measures

Rewards and Punishments. Hypothesis 6 predicted that highly sexually aggressive men in the powerless condition would be more likely to punish and less likely to reward the female opponent than the male opponent as compared to powerful more sexually aggressive men or less sexually aggressive men in either power condition.

There were five behavioral within-subject measures: total punishments to male and female opponents, total rewards to male and female opponents, total no-feedback to male and female opponents, strength of punishment for male and female opponents, and strength of reward for male and female opponents. Total punishments to the male and female opponents was calculated by summing the number of times each participant chose to punish their opponent over the 10 games against the female opponent and the 10 games against the male opponent. Total rewards and total no-feedback for the male and female opponents were calculated in the same manner. Both duration and intensity of noise punishments were recorded, and as expected, they were related for the male opponent, $r(58)=.78$, $p<.001$, and for the female opponent, $r(58)=.72$, $p<.001$. Thus, the two measures were standardized and summed to form a single strength of punishment score. Moreover, the reward duration and intensity were also related for the male opponent, $r(58)=.84$, $p<.001$, and for the female opponent, $r(58)=.57$, $p<.001$. Hence, the two reward measures were combined as well. Of particular interest were the difference between the participants' responses to the male opponent and to the female opponent, because more sexually aggressive men should be focusing their aggression on women rather than men. Thus, the response administered to the male opponent was subtracted from the response given to the female opponent for each of the five behavioral responses

to create five difference scores, with larger scores reflecting more reward, more punishment, or more no-feedback given to the female opponent than to the male opponent.

Total punishments difference score was regressed in a multiple regression analysis on CSS score, power condition (powerless was coded as –1, powerful was coded +1), and the interaction term of CSS score and power condition. Neither the main effects nor the interaction were significant, $ts(54)<1.14$, ns.

Next, the difference score for relative strength of the punishments given to women was regressed on participants' CSS score, power condition, and the interaction of the two terms. No main effects were found, however, the interaction was a significant predictor of punishment strength, $\beta = -.39$, $t(54)=-2.40$, $p<.05$. As Figure 2 reveals, CSS score was correlated to punishment strength in the powerless condition, $r(30)=.40$, $p<.05$, but not in the powerful condition, $r(28)=-.19$, ns. That is, in the powerless condition, as level of sexual aggression increased, punishments toward the female opponent increased more severely than punishments toward the male opponent. Thus, consistent with Hypothesis 6, powerlessness increased more sexually aggressive men's punishments to women.

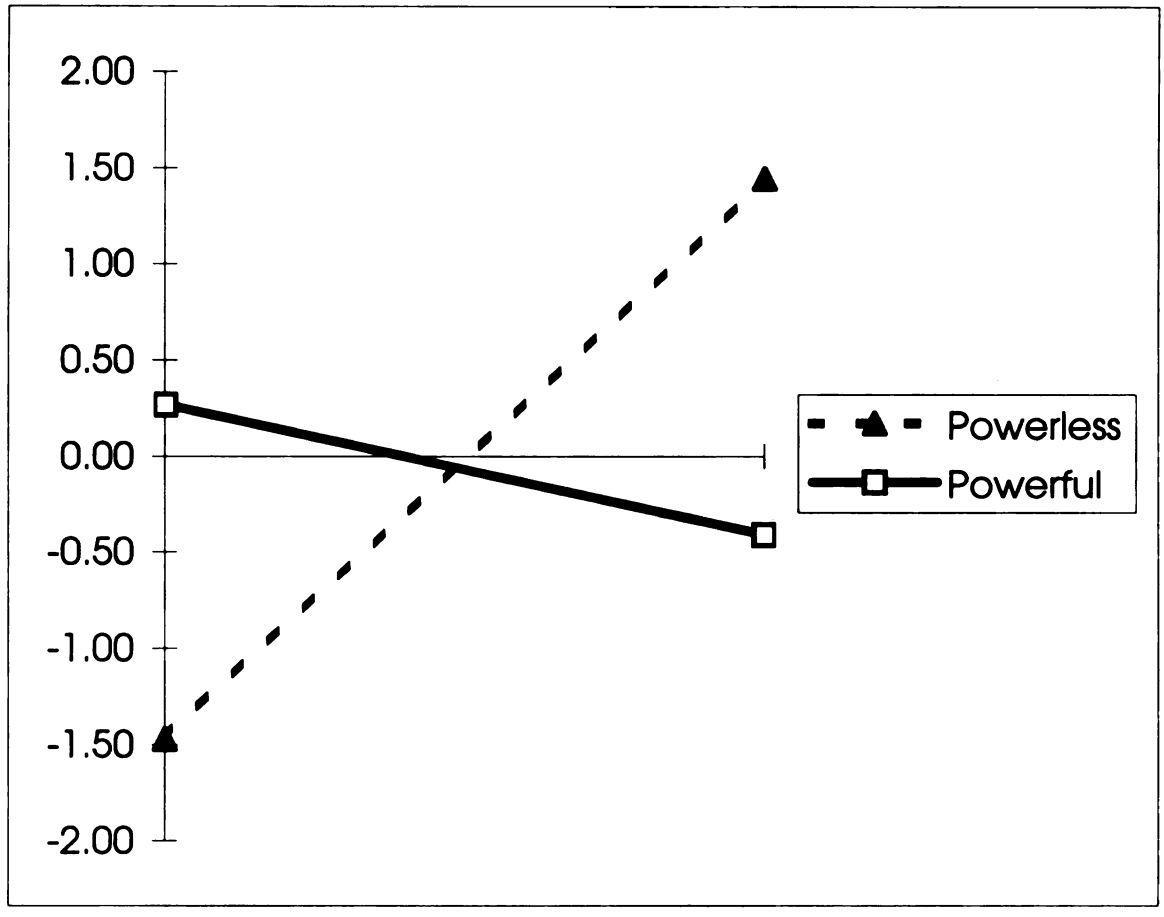

Figure 2. Men's punishment strength toward the female opponent as compared to the male opponent as a function of sexual aggression and power condition.
Note. Larger, positive values on the y-axis indicate relatively stronger punishments given to the female opponent than the male opponent. Endpoints on the x-axis for Figure 2 and all subsequent figures represent 2 standard deviations above and below the mean.

Next, the total rewards difference score was regressed on CSS scores, power condition, and their interaction to test Hypothesis 7. The main effect of CSS score was not significant, $t(54)=-.88$, ns. However, power condition significantly predicted total rewards, $\beta=-.45$, $t(54)=-2.79$, $p<.01$, wherein powerful participants gave the female opponent more rewards ($M=.90$) than the powerless participants ($M=-.07$). But importantly, this main effect was qualified by the interaction, $\beta=.36$, $t(54)=2.23$, $p<.05$. Figure 3 reports that more sexually aggressive men in the powerless condition gave the female opponent marginally fewer rewards than less sexually aggressive men, $r(30)=-.32$, $p<.10$, and that there was a trend for more sexually aggressive men in the powerful condition to give the female opponent more rewards than less sexually aggressive men, $r(28)=.32$, $p<.11$. Although these two correlations for the powerful and powerless conditions describing the relations between sexual aggression level and total rewards were not significant, the direction of the two correlations were in the opposite direction from each other. Thus, this demonstrates that the two power conditions had a very different influence on the relation between sexual aggression and reward behavior.

Next, the strength of rewards difference score was regressed on CSS score, power condition, and their interaction. A main effect of CSS score approached significance, $\beta=-.24$, $t(54)=-1.92$, $p<.07$, suggesting that less sexually aggressive men were more likely to give relatively stronger rewards to the female opponent, relative to the male opponent, than did more sexually aggressive men, $r(58)=-.27$, $p<.05$. More importantly, its interaction with power condition approached significance, $\beta=.30$, $t(54)=1.88$, $p<.07$. As Figure 4 illustrates, correlations revealed that greater levels of sexual aggression were related to relatively fewer rewards to the female opponent in the powerless condition,

r(30)=-.37, p<.05, but not in the powerful condition, r(28)=-.01, ns. There was no main effect for power condition. Consistent with Hypothesis 7, in the powerless condition as men's level of sexual aggression increased, reward strength to the female opponent decreased relative to the male opponent.

Next, the total no-feedback difference score was examined and a main effect of power condition emerged, β =.39, t(54)=2.39, p<.05, revealing that powerful participants were more likely to choose no-feedback for the female opponent than the male opponent (M=.57) as compared to those in the powerless condition (M=-.06). The main effect for CSS score was not significant, t(54)=.16, ns. The interaction of CSS score and power condition was marginal, β =-.27, t(54)=-1.67, p<.10. This trend suggested that powerless more sexually aggressive men chose no-feedback less, r(30)=.23, ns, than did less sexually aggressive men, and that powerful more sexually aggressive men chose no-feedback more than did less sexually aggressive men, r(28)=-.21, ns. In sum, Hypothesis 7 was supported by the finding that less sexually aggressive men gave the female opponent stronger rewards than more sexually aggressive men in the powerless condition, and by the trends for less sexually aggressive men in the powerless condition to give more rewards and more no-feedback to the female opponent than more sexually aggressive men in the powerless condition.

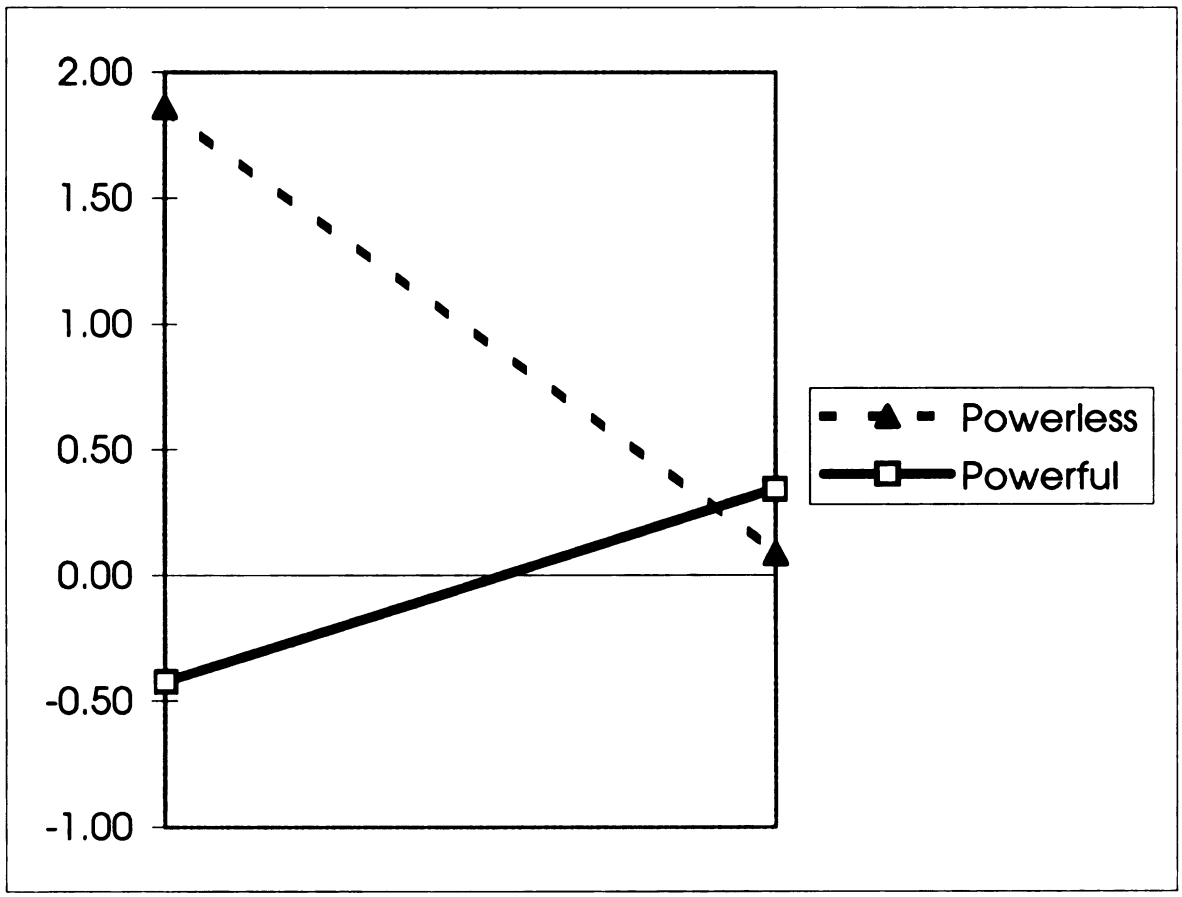

Figure 3. Men's total number of rewards to the female opponent relative to the male opponent as a function of sexual aggression and power condition.
Note. Larger, positive values on the y-axis indicate relatively more rewards given to the female opponent than the male opponent.

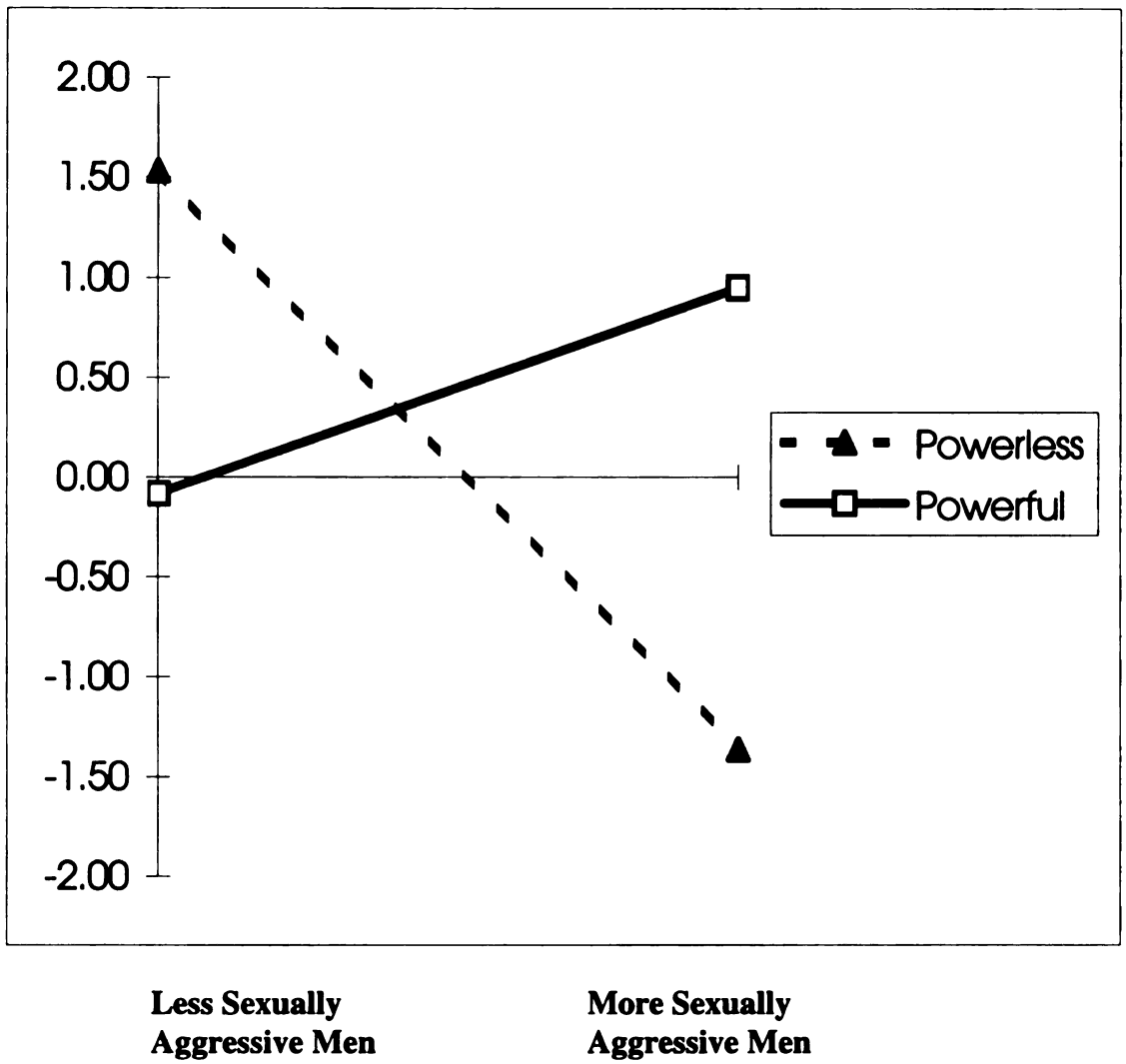

Figure 4. Men's reward strength to the female opponent relative to the male opponent as a function of sexual aggression and power condition.
Note. Larger, positive values on the y-axis indicate relatively stronger rewards given to the female opponent than the male opponent.

Bombs Dropped and Player Names Chosen. Two additional behavioral measures were collected from men in the powerful condition only: number of bombs set against each opponent and degree of power chosen for their Leader name and the Follower's name. Hypothesis 6 expected that the powerful highly sexually aggressive men would be especially aggressive toward the female opponent than the male opponent, leading to more bombing against the female opponent than the male opponent. The number of bombs dropped across the 10 games for each opponent was summed, and the total of bombs dropped on the male opponent was subtracted from the total of bombs dropped on the female opponent. Thus, greater positive bombing difference scores indicated relatively more aggression toward the female opponent than toward the male opponent. Correlations revealed that as CSS score increased, the relative number of bombs dropped on the female opponent increased as well, $r(28)=.56$, $p<.01$. That is, more sexually aggressive men were more aggressive against the female opponent than the male opponent, relative to less sexually aggressive men. In sum, more sexually aggressive men's greater aggression toward female opponents than male opponents supports Hypothesis 6.

Next, based on pretesting of the level of power for the Leader and Follower names, each Leader and Follower name was assigned a rank value from 1 to 3. For the Follower names, the most powerless name was assigned a value of 3 and the least powerless name was assigned a value of 1. For the Leader names, the least powerful name was assigned a value of 1 and the most powerful name was assigned a value of 3. Thus, when the Leader and Follower rank values were added together, the sum reflected the difference in power between the chosen names. For example, a difference in power

score of 6 would indicate that the participant chose the most powerful Leader name for himself and the most powerless Follower name for his opponent. Next, the difference in power score for the male opponent was subtracted from that of the female opponent, whereby positive numbers would indicate a greater power differential in the chosen names for the female opponent than the male opponent. Hypothesis 6 predicted that as participants' sexual aggression increased, the chosen names would indicate an attempt to widen the gap in power between themselves and their less powerful opponent, particularly with female opponents. However, sexual aggression scores were not correlated to the relative degree of power chosen for the Leader and Follower names, $r(28)=-.28$, ns.

Analysis of Past Sexual Aggression, Power, and Men's Attraction to Women

Attractiveness Ratings. Participants rated the photograph of the female opponent on a scale from 1 (no attractiveness) to 7 (extreme attractiveness). An interaction between CSS scores and power condition in predicting the female opponent's attractiveness was expected, whereby powerless more sexually aggressive men were expected to rate her image as less attractive compared to powerful more sexually aggressive men. That is, when highly sexually aggressive men feel powerless, they should be less attracted to a woman than when they feel powerful. Attraction to the female opponent was regressed on participants' CSS score, power condition, and their interaction. There was a marginal main effect for CSS Score, $\beta=-.23$, $t(54)=-1.93$, $p<.07$, indicating that less sexually aggressive men found the female opponent more attractive overall than did more sexually aggressive men, $r(58)=-.27$, $p<.05$. However, this effect was qualified by an interaction with power condition, $\beta=.44$, $t(54)=2.93$,

$p<.01$. As Figure 5 reveals, correlations showed that larger sexual aggression scores were related to reduced attraction in the powerless condition, $r(30)=.55$, $p<.01$, but not for the powerful condition, $r(28)=.14$, ns. As predicted by Hypothesis 8, these results reveal that more sexually aggressive men were less attracted to women, but only when they did not have power.

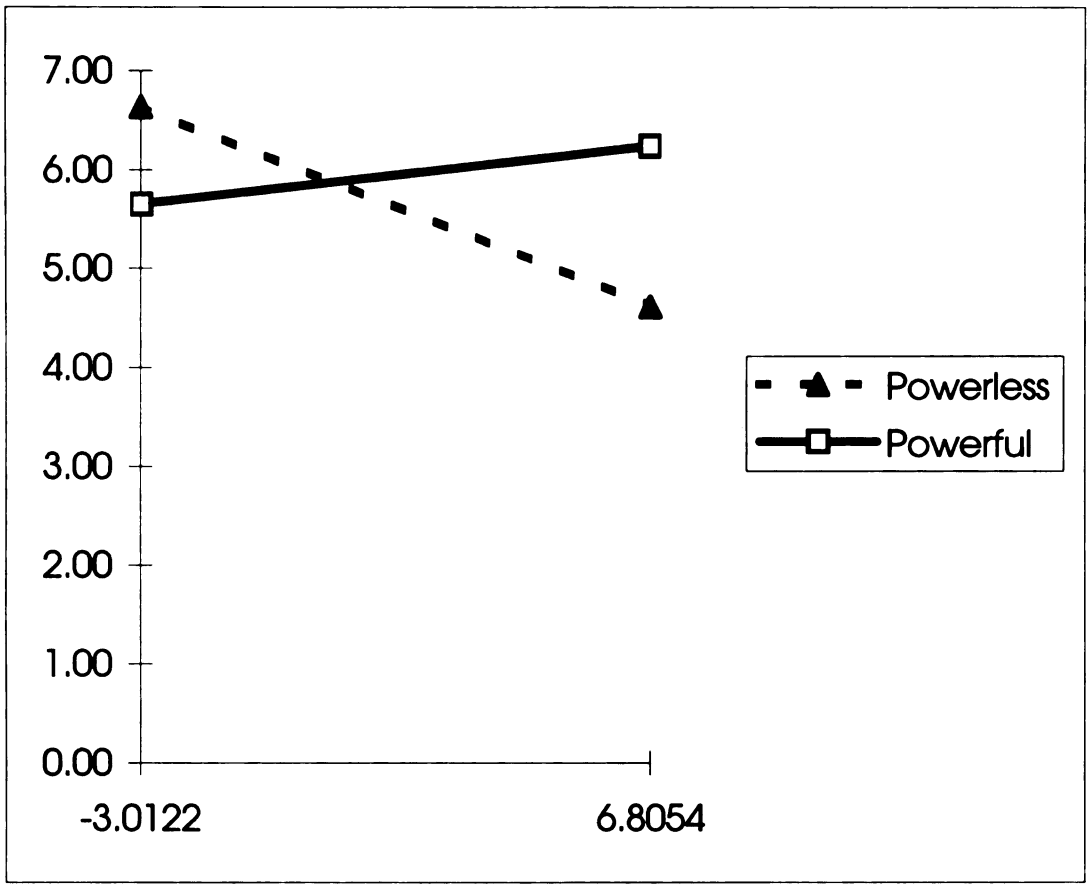

Figure 5. Men's attraction to the female opponent as a function of sexual aggression and power condition.
Note. Larger, positive values on the y-axis indicate more attraction to the female opponent.

Analyses of Attitudes and Behavioral Measures

Relations between CSS, ASA, ATV, and NPI Measures. Correlational analyses were conducted between CSS, ASA, ATV, and NPI scores to test Hypothesis 9. ATV scores were predicted to be positively related to CSS and NPI scores, indicating that more sexually aggressive men would be more accepting of violence in general. It was expected that CSS scores would be correlated to NPI score, such that greater levels of sexual aggression would also correspond to greater narcissism. As Table 3 reveals, CSS was positively correlated to ASA and ATV, indicating that as men reported being more sexually aggressive, their sexually aggressive attitudes were stronger as was their support for interpersonal violence. This is consistent with previous research by Malamuth et al. (1995), which found that sexually aggressive attitudes were related to the commission of sexually aggressive behaviors. Malamuth et al. also found that greater endorsement of interpersonal violence was correlated to sexually aggressive attitudes, which was replicated in the current work. Surprisingly, NPI did not correlate to any of the scales, suggesting that narcissism was not related to sexually aggressive behaviors, attitudes toward sexual aggression, or attitudes toward violence. Although Bushman and Baumeister's (1998) studies did not assess sexual aggression directly, Hypothesis 9 proposed that narcissism would be correlated to both general aggression and sexual aggression. However, this prediction was not confirmed.

Table 3

Correlations between Behavioral and Attitudinal Self-Report Measures

	CSS	ASA	ATV	NPI
CSS	--			
ASA	.37**	--		
ATV	.42**	.19	--	
NPI	.07	.04	.21	--

Note. ** $p<.01$

Rewards and Punishments. The ASA, ATV, and NPI scores were examined in separate multiple regression analyses to test whether each scale could predict aggressive behavior against the male and female opponents.

Because the ASA measures attitudinal endorsement of sexually aggressive behaviors, it should reveal the same pattern of results as those found with the CSS scores. Namely, Hypothesis 10 predicted that in the powerless condition, the men reporting stronger sexually aggressive attitudes should be more punishing and less rewarding to the female opponent (than to the male opponent) relative to men with weaker sexually aggressive attitudes. No relations in punishments or rewards as a function of ASA scores were predicted in the powerful condition. The difference score between the male and female opponents for strength of punishments and the difference score for strength of rewards were each submitted to regression analyses and regressed on ASA scores, power condition, and their interaction. The total number of punishments difference score and the total number of rewards difference score were also examined. None of the main effects or interactions were significant for the punishment strength, total punishments,

reward strength, or total reward difference score measures, all ts(53)<1.89, ns. Contrary to Hypothesis 10, sexually aggressive attitudes were not related to increased punishments toward the female opponent relative to the male opponent.

The ATV, which measured attitudes toward interpersonal violence, was examined for the alternative explanation outlined in Hypothesis 11, that men who were more accepting of interpersonal violence would reveal more punishments and fewer rewards to both the male opponent and female opponent than those who do not endorse violence as strongly. If this hypothesis was supported, it would suggest that attitudes toward violence in general also contributed to men's aggressive responses during the experiment. Punishment strength for the male opponent and female opponent was summed to form a combined punishment strength score because the hypothesis tested whether there was aggression toward both the male and female opponent, and it was not expected that there increased would be differential aggression toward the female opponent relative to the male opponent. Total number of punishments, reward strength, and total number of rewards for the male and female opponents were also summed to form a measure of the combined total punishments, combined reward strength, and combined total number of rewards.

The combined strength of punishments and the combined strength of rewards were each regressed on ATV scores, power condition, and the interaction between ATV scores and power condition. The combined total number of punishments and the combined total number of rewards were also examined. Neither combined punishment strength nor combined reward strength were related to attitudes toward violence, ts(54)<1.54, ns. Further, neither the combined total number of rewards nor the combined

total number of punishments were significant, all ts(54)<1.20, ns. In sum, contrary to Hypothesis 11, attitudes toward violence did not relate to aggression toward either the male or female opponents.

According to Hypothesis 12, the NPI should be related to more punishment against the female opponent than the male opponent in the powerless condition than in the powerful condition for men who are more narcissistic. Difference scores between the male and female opponent for punishment strength, total punishments, reward strength, and total rewards were used in analyses involving the NPI because they assessed whether Bushman and Baumeister's (1998) theory of narcissism could be extended to account for men's greater aggression toward women than men when a power threat was induced. The strength of punishment difference score for was regressed on NPI scores, power condition, and their interaction. Relative strength of punishment revealed a main effect for NPI score, β=-.28, t(54)=-2.10, p<.05, suggesting a trend that as men's narcissism increased, punishments decreased toward the female opponent relative to the male opponent, r(58)=-.24, p<.08. There was also a trend for NPI score by power condition interaction, β=1.24, t(54)=1.76, p<.09, such that as narcissism increased, aggression against women marginally decreased in the powerless condition, r(30)=-.36, p<.06, but not in the powerful condition, r(28)=-.08, ns. The tendency for powerless men to punish women more when they were low in narcissism is the opposite pattern of results obtained by using past sexual aggression history as a predictor, wherein powerless highly sexually aggressive men were more punishing toward women than less sexually aggressive men.

When the difference scores for reward strength, total number of punishments, and total number of rewards were regressed on NPI, power condition, and their interaction, no

effects emerged, ts(54)<1.43, ns. Thus, level of narcissism was not related to the strength of their rewards, total number of rewards, or the total number of punishments to the female opponent relative to the male opponent in either power condition. Hypothesis 12 predicted more aggression toward the female opponent than the male opponent for more narcissistic men than less narcissistic men. This hypothesis was not supported by null results for the total number of punishments and was contradicted by significant results for punishment strength in the opposite direction than predicted by the narcissism perspective.

Testing Narcissism as a Competing Predictive Model of Aggressive Behavior

To explore the possibility that aggression against women may be due to powerless men's narcissism rather than, or in addition to, their proclivity for sexually aggressive behavior, multiple regression analyses were conducted to predict aggressive behavior toward women during the experiment. Specifically, the powerlessness manipulation may have a similar effect to ego-threat (e.g., Bushman & Baumeister, 1998), which suggests the possibility that aggression against women could be driven by narcissism rather than sexual aggression. Thus, of particular interest was whether the interaction between past sexually aggressive behavior and powerlessness would remain a significant predictor of punishments and rewards toward the female opponent after men's narcissism was taken into account.

Aiken and West (1991) recommend that to maintain power in multiple regression, the sample size should additively increase by at least 10 for each predictor entered into a multiple regression model. With five predictors and a sample size of n=58, the present data set met their guidelines. For the current set of analyses, CSS and NPI scores were

centered so that the graphical representations of the data would utilize the same intercept for each scale.

First, the difference score between the female and male strength of punishments was submitted to a multiple regression analysis using the following predictors: CSS scores, NPI scores, power condition, the CSS score by power condition interaction, and the NPI score by power condition interaction. Table 4 reports the results, and the pattern of the interactions are displayed in Figure 6. Of special concern was whether the interaction between powerlessness and sexual aggression would maintain its significance after men's narcissism was entered into the equation. A main effect of narcissism emerged, but the main effect for CSS score (past sexually aggressive behaviors) was not significant. Interestingly, narcissism marginally interacted with power condition in the opposite manner as CSS scores. That is, when more narcissistic men had their power reduced, they tended to punish the female opponent less relative to the male opponent than less narcissistic men. Importantly, the CSS score interaction with power condition remained significant, even after entering NPI scores and the NPI score by power interaction. Thus, men who were more sexually aggressive and who were powerless did indeed aggress more against women than less sexually aggressive men even when taking narcissism into consideration statistically. Partial correlations were conducted separately for the powerful and powerless conditions between CSS score and punishment strength, controlling for NPI score. In the powerful condition, as expected, CSS score did not correlate to punishment strength, $r(25)=-.18$, ns. However, in the powerless condition, CSS score was still significantly positively correlated to punishment strength, $r(27)=.41$, $p<.05$, indicating that regardless of narcissism, powerless men with greater histories of

sexual aggression were more likely to aggress against a woman than a man, even after taking their narcissism into account, relative to men with less sexually aggressive histories.

In sum, Hypothesis 12 predicted that CSS scores would remain significantly predictive of powerless men's proclivity to aggress against a female opponent moreso than a male opponent, even after accounting for men's narcissism. These results support the model of aggression against women proposed in the current research, which purports that threats to highly sexually aggressive men's sense of power produces increased aggression toward women. However, the notion that narcissism may influence more sexually aggressive men's punishments toward women under power threat conditions was not supported.

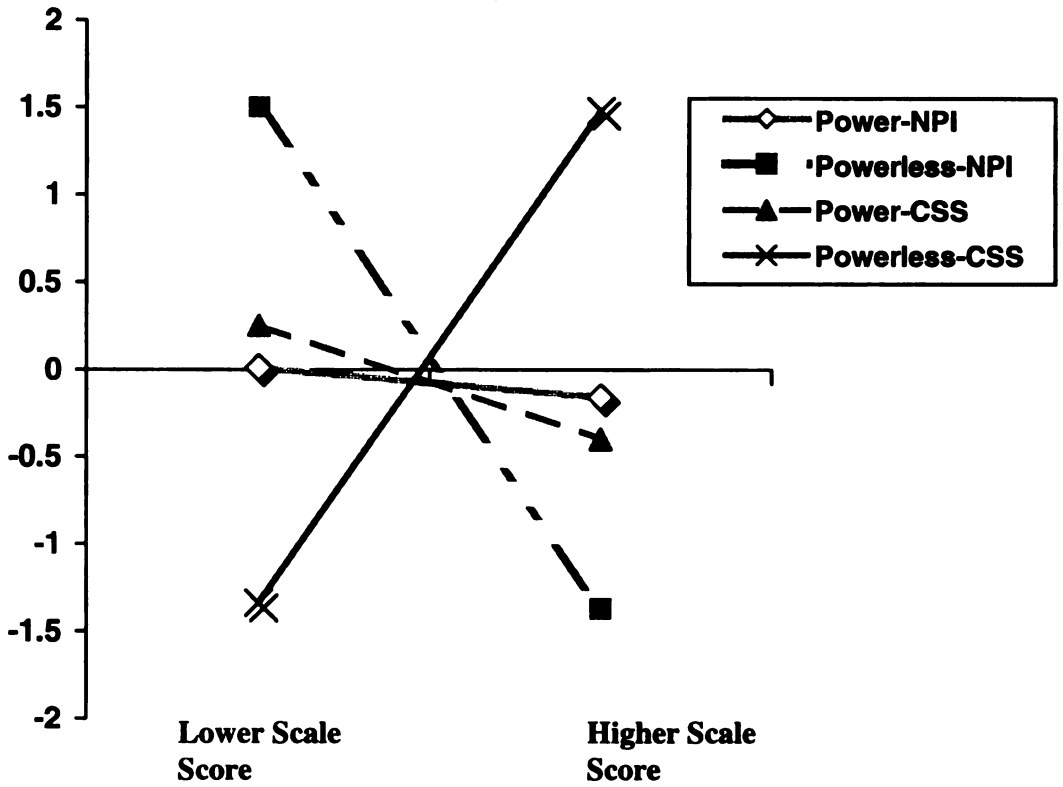

Figure 6. Comparing the interaction of NPI with power condition to the interaction of CSS with power condition in predicting punishment strength to the female opponent as compared to the male opponent.

Note. Larger, positive values on the y-axis indicate relatively more punishment toward the female opponent than the male opponent.

The same regression equation was utilized to predict the total number of punishments. As Table 4 reports, however, neither NPI nor CSS significantly interacted with power condition to predict total punishments. In examining the number of bombs dropped against the female opponent, relative to the male opponent, the interaction term with power condition could not be entered because only participants in the powerful condition could drop bombs. Thus, a regression analysis was conducted on the relations between NPI and CSS scores on the number of bombs dropped by participants in the powerful condition. Both narcissism, β=.31, $t(55)$=2.02, p<.05, and CSS scores, β=.53, $t(55)$=3.43, p<.01, could predict number of bombs dropped against the female opponent relative to the male opponent. Partial correlations between CSS score and bombs dropped, controlling for NPI score, indicated that as past sexual aggression increased, the number of bombs dropped against the female opponent, relative to the male opponent, increases, $r(25)$=.57, p<.01. This finding was supportive of Hypothesis 12 because CSS remained a significant predictor of aggressive behaviors in the experiment even after accounting for the men's narcissism.

Next, the difference scores for reward strength and total rewards were submitted to the regression model, to examine whether sexual aggression and narcissism were related to reduced rewards under conditions of power threat as well. As Table 4 reports, the main effect of CSS score approached significance. A partial correlation, which controlled for narcissism, indicated that as sexual aggression increased, the strength of the rewards to the female opponent relative to the male opponent decreased, $r(55)$=-.26, p<.05. Further, a marginal interaction between CSS score and power condition emerged, and partial correlations were conducted separately for the powerful and powerless

conditions to examine the interaction more closely. In the powerful condition, level of sexual aggression was not related to reward strength, $r(25)=-.03$, ns, but in the powerless condition, as sexual aggression increased, rewards to the female opponent decreased, $r(27)=-.38$, $p<.05$. Neither the NPI nor the interaction of NPI with power condition were significant predictors of reward strength. Thus, even when narcissism was taken into account, men with a greater history of sexual aggression rewarded the female opponent less than the male opponent under conditions of power threat, relative to men who were less sexually aggressive.

Finally, the difference score for total rewards was examined using the regression model, and Table 4 displays the results. The interaction of CSS score and power condition was significant, thus, partial correlations were conducted separately for the powerful and powerless conditions while controlling for narcissism. In the powerful condition, the relationship between level of sexual aggression to total rewards to the female opponent was not significant, $r(25)=.31$, ns. In the powerless condition, there was a trend for more sexually aggressive men to give fewer rewards to the female opponent than the male opponent, relative to less sexually aggressive men, $r(27)=-.32$, $p<.10$. Importantly, the correlations for the powerful and powerless conditions were in opposite directions. This indicates that although sexual aggression was marginally related to number of rewards when examined separately in the powerful and powerless conditions, level of sexual aggression had the opposite relation to total rewards in the powerful and powerless conditions. Thus, the direction of the relationship between sexual aggression and total rewards was significantly different when the powerful and powerless conditions were compared. Therefore, even when narcissism was accounted for, more sexually

aggressive men gave fewer rewards to the female opponent than the male opponent in the powerless condition than less sexually aggressive men.

In sum, strong support was provided for the contention that past sexual aggression history was related to greater levels of aggressive behaviors toward women in the experiment only when the men felt powerless. Further, it was shown that Bushman and Baumeister's (1998) theory of narcissism can predict men's aggressive behaviors against women, but it was found that narcissists are in fact less aggressive toward women than men when powerless. On the other hand, past sexual aggression history (CSS), even after accounting for narcissism, successfully predicted that highly sexually aggressive men's punitive behavior toward women increased when their sense of power was threatened. Although Bushman and Baumeister's work did not examine narcissists' positive responses, the present research extended their findings by assessing both positive and negative responses. However, narcissism was not related to men's rewards toward women in the current research. Nonetheless, power threat was related to reduced rewards to the female opponent relative to the male opponent for more sexually aggressive men than less sexually aggressive men, even when narcissism was accounted for. Thus, Hypothesis 12 was supported.

Table 4

Regression Results Comparing Narcissism and Past Sexually Aggressive Behaviors as Predictors of Aggressive Behavior

	Predictor	β	t(52)	p-value
Punishment Strength	CSS Score	.184	1.50	.14
	NPI Score	-.259	-2.07	.04
	Power Condition	-1.032	-1.52	.13
	CSS x Power Cond. Interaction	-.371	-2.39	.02
	NPI x Power Cond. Interaction	1.231	1.83	.07
Number of Punishments	CSS Score	.092	.69	.50
	NPI Score	-.176	-2.18	.20
	Power Condition	.066	.49	.63
	CSS x Power Cond. Interaction	-.135	-1.01	.32
	NPI x Power Cond. Interaction	.175	1.29	.20
Reward Strength	CSS Score	-.250	-1.95	.06
	NPI Score	-.066	-.50	.62
	Power Condition	.129	1.01	.32
	CSS x Power Cond. Interaction	.236	1.84	.07
	NPI x Power Cond. Interaction	.111	.86	.40
Number of Rewards	CSS Score	-.105	-.83	.41
	NPI Score	.168	1.31	.20
	Power Condition	-.212	-1.68	.10
	CSS x Power Cond. Interaction	.276	2.19	.03
	NPI x Power Cond. Interaction	-.175	-1.37	.18

Ancillary Analyses

Reasons for Punishments and Rewards. The Reasons for Punishments scale assessed whether the men punished the male and female opponent for reasons similar to those often given in sexual assault cases, such as, "She deserved it." Greater scale scores would indicate greater endorsement of reasons that are congruent with explanations sexually aggressive men give for attacks against women. Reasons for rewards were similar to those items in the Reasons for Punishments scale (e.g., "She deserved it."), such that greater scale scores indicate good-natured reasons for rewarding the opponent. The Reasons for Punishment scale for the male opponent was subtracted from the Reasons for Punishment scale for the female opponent. The Reasons for Reward scale for the male opponent was subtracted from the Reasons for Reward scale for the female opponent. Thus, on the Reasons for Punishments scale, more sexually aggressive men were expected to have larger scores than less sexually aggressive men in the powerless condition, because it would indicate greater endorsement of typical reasons men give for raping women. As stated in Hypothesis 13, more sexually aggressive men were expected to show less endorsement of the reward items than less sexually aggressive men, particularly those in the powerless condition, which would suggest that they felt the female opponent was less deserving of rewards. The difference scores for the Reasons for Rewards and Reasons for Punishments scales were regressed on CSS score, power condition, and the interaction of the two terms. The Reasons for Punishment scale was not significant, $ts(54)<1.96$, ns, nor was the Reasons for Rewards scale, $ts(54)<1.56$, ns. Thus, more sexually aggressive men did not endorse more stereotypical reasons for

aggressing against the female opponent in comparison to the male opponent than did the less sexually aggressive men, indicating that Hypothesis 13 was not supported.

Locus of Control During Game. The Locus of Control scale was administered to test an alternative prediction that greater levels of aggression during the game may be produced by men who need to maintain an internal locus of control rather than by men who are sexually aggressive. That is, the powerless condition may induce a perception of an external locus of control, leading men who need more internal control to aggress against their opponent, regardless of sex, to regain their sense of control internally. If so, Hypothesis 14 predicted that men who felt a greater external locus of control during the game, particularly in the powerless condition, should aggress more against their opponent, regardless of opponent sex, than men who reported a greater internal locus of control during the game. Because Hypothesis 14 does not predict that participants with an internal or external locus of control will aggress more against a female opponent than a male opponent, the Locus of Control During Game scale scores for the male and female opponents were summed to form a combined locus of control score. Punishment strength scores for the male opponent and for the female opponent were summed to form a combined punishment strength score, and the total number of punishments score for the male opponent and the female opponent were summed to form a combined total punishments score.

The combined punishment strength score and the combined total punishment score were regressed on participants' combined Locus of Control During Game scores, power condition, and their interaction. First, the combined strength of punishments to the male and female opponents were examined. No main effects or interactions were

significant, ts(54)<.27, ns. Next, the combined total punishments to opponents score was submitted to the regression model. A marginal main effect of condition emerged, β=.84, t(54)=1.85, p<.08, however, correlations between locus of control and total punishments were not significant for either the powerful condition, r(58)=-.23, ns, or the powerless condition, r(58)=.25, ns. Thus, the results did not support Hypothesis 14, suggesting that men's locus of control during the game was not related to their punitive behaviors toward their opponents.

Impression of Opponent. The Impressions scale measured general liking for the female opponent and was administered to test the contention of Hypothesis 15 that powerless more sexually aggressive men become less sexually attracted to women than when they are powerful than do less sexually aggressive men, but that this effect may simply reflect reduced liking for the female opponent under conditions of power threat. Thus, if this is the case, more sexually aggressive men's general liking of the female opponent should decrease in the powerless condition relative to the powerful condition, but less sexually aggressive men should not show a decrease in liking toward the female opponent between power conditions. The Impression of Opponent score for the female opponent was regressed on CSS scores, power condition, and their interaction. No main effects or interactions were significant, ts(54)<1.14, ns. In sum, the alternative explanation put forth in Hypothesis 15 was not supported, revealing that men's general liking for the female opponent was not related to sexual aggression history or power.

Importance of Sexual Relationships. The degree to which men valued the sexual component of their relationships with women was assessed with the Importance of Sexual Relationships scale. Hypothesis 16 predicted that more sexually aggressive men

would place a greater emphasis on sexual relationships with women than would less sexually aggressive men. Correlations indicated that CSS scores were related to the importance placed on sexual relationships with women, $r(58)=.28$, $p<.05$, such that as men's level of sexual aggression increased, sexual relationships with women became more important to them. Thus, Hypothesis 16 was supported, indicating that the importance that men placed on sexual relationships with women increased as their level of sexual aggression increased.

SUMMARY AND CONCLUSIONS

The current research explored power threat to provide one explanation for why certain men sexually aggress against women, and sought to identify the perceptual cues that may guide their behaviors, in a step toward understanding when men sexually aggress. Several findings in the present research supported the contention that conditions of power threat do in fact elicit aggression against women by men who have greater sexual aggression histories. First, the relationship between past sexual aggression history and aggressive behavior toward women in the experiment varied as a function of men's power. More sexually aggressive men punished the female opponent to a greater degree under conditions of power threat than did less sexually aggressive men. Further, powerless more sexually aggressive men were less likely to provide rewards to the female opponent as compared to powerless less sexually aggressive. But, even when more sexually aggressive men felt powerful, they were more likely than less sexually aggressive men to drop bombs on the female opponent during the game. Most

importantly, the finding that powerlessness led very sexually aggressive men to act in a hostile fashion was specific to the female opponent relative to the male opponent, providing support for a model of sexual aggression rather than general aggression. The present research set out to address the question: "When do sexually aggressive men tend to exhibit aggressive behaviors toward women?". These findings provide one answer to this question by describing how power threat interacts with men's greater proclivity toward sexual aggression to produce more aggressive responses and fewer positive responses toward women.

Baumeister (1999), in his pursuit to unravel the relationship between narcissism and aggression, posed another question: "Is sexual aggression against women due to men's narcissism?". He proposed that a narcissistic man may perceive a woman's sexual refusal as an insult to his ego, leading him to sexually aggress against her in order to restore his sense of superiority. The present research tested this hypothesis and examined whether Bushman and Baumeister's (1998) model of narcissistic aggression could explain sexually aggressive men's attacks on women. Although it was expected that powerlessness would elicit more aggression toward women from narcissistic men, the converse was found. That is, greater levels of narcissism interacted with power threat to decrease their aggression toward the woman. Under ego threat, narcissists tend to aggress against the source of the threat (Bushman & Baumeister, 1998). However, it appears that power threat may not have the same psychological effects on narcissists as ego threat.

One explanation for these results could be offered by exploring a psychoanalytic perspective on narcissism. Narcissism is a defense mechanism that protects an unstable

self-esteem from insult by maintaining an overinflated positive view of the self. When that defense is attacked, the narcissist will fight the attacker in order to maintain the inflated self-esteem. Nevertheless, powerlessness may not threaten narcissists' self-esteem. Underneath a narcissist's egocentric exterior is a need for acceptance and love from others (Kernberg, 1975). According to this theory, narcissists should seek out power because it attracts others to them and may increase the likelihood that they will be accepted by others. Thus, power itself is used by narcissists to fulfill their need for acceptance (Kernberg, 1975). Thus, although power is desired, it is not critical to narcissists' functioning and therefore a threat to power may not require defense through aggression. However, this explanation alone cannot account for more narcissistic men's greater aggression toward the male opponent than the female opponent in the powerless condition. Kernberg suggests that the origins of narcissism often lie in childhood, whereby an individual has a mother who is cold and narcissistic herself. The need for acceptance by the mother may transfer to a need for acceptance by women. Thus, powerless narcissistic men may have felt that the female opponent's acceptance of them was more important than the man's and reduced his punishments toward her, hoping to gain favor through reducing his aggression against her. However, as with many explanations based on psychoanalytic theory, it is primarily theoretical and only indirect evidence is available for its support.

Thus, Bushman and Baumeister's (1998) model of narcissistic aggression does not appear to extend to sexual aggression. In comparing the narcissistic aggression model to the power-related aggression model described in the current research, it was found that both models could predict aggressive behavior, albeit in opposite directions

from one another. That is, in the powerless condition greater narcissism was related to less aggression toward the woman and men's greater history of sexual aggression was related to more aggression toward the woman. These results provided strong support for the model proposed in the current research, but they also raise questions about narcissistic aggression that cannot be fully addressed. What is the difference psychologically between a power threat and an ego threat to narcissists? How does the difference between power threat and ego threat relate to reduced aggression in the former case and increased aggression in the latter? Future research should address this issue more closely and examine the role that power plays in interpersonal aggression for narcissistic men.

In addition to narcissism, other attitudes related to sexual aggression were examined as well, such as attitudes toward interpersonal violence and attractiveness of sexual aggression. In previous research, men's acceptance of sexual aggression has predicted sexually aggressive behaviors (Malamuth, 1989a, 1989b), so it was of interest to assess whether men's aggression toward the female opponent during the experiment could be predicted by sexually aggressive attitudes as well. Although more sexually aggressive attitudes were related to men's histories of sexually aggressive behaviors, sexually aggressive attitudes could not predict men's punishments toward the female opponent. Thus, it appears that past sexually aggressive behavior is a better predictor of men's aggression toward women under power threat than men's sexually aggressive attitudes. This attitude-behavior inconsistency is not unusual (Fazio et al., 1978), and previous sexual aggression research has shown that a constellation of factors, rather than attitudes alone, are necessary to predict of sexually aggressive behaviors (Malamuth et al., 1995). Attitudes towards violence were also assessed to test an alternative

hypothesis that men who were more accepting of violence in general would be more likely to aggress, but this hypothesis was not supported. Thus, the findings of the present research cannot be otherwise explained by men's violent dispositions.

In addition to examining the attitudinal relationship between aggression and powerlessness, the cognitive and perceptual cues surrounding this relationship were explored. A subliminal priming task was implemented to identify the cognitive associates that were related to men's proclivity to sexually aggress. During the Time 1 priming task, less sexually aggressive men revealed stronger cognitive associations between power and aggression and between powerlessness and aggression, relative to more sexually aggressive men, which was opposite to predictions. Further, the expected relationships between men's greater levels of sexual aggression and stronger cognitive associations between power and sex, and between powerlessness and aggression, did not emerge. During the Time 2 response latency measurement, no effects emerged. One possibility for these results may be that the subliminal priming task did not successfully prime power or powerlessness during the experiment. The methods used in the task followed those used successfully in previous research (Bargh et al., 1995). Further, the computer program was also successfully pretested to ensure that priming effects could be produced. However, the pretest program, as well as the previous research on which the current paradigm was based, utilized different primes and targets than did the present research. This suggests the possibility that the primes administered in this study may not have been effective. But during the Time 1 priming task, sexual aggression history was related to cognitive accessibility for aggression, albeit in the opposite direction than was predicted, which suggests that the primes were having some effect.

Examination of the recall data did not offer any additional clues to what may have occurred during the priming task. More sexually aggressive men revealed better recall for attractiveness words during the Time 1 and Time 2 recall tasks relative to less sexually aggressive men, but no other effects emerged. It is possible that men may have written down fewer sex and aggression words to present themselves in a more favorable manner. However, social desirability motives would predict that neutral words and attractiveness words would both be recalled more often and free recall would not be related to sexual aggression history. Thus, although sex and aggression words were not related to level of sexual aggression as expected, the finding that greater recall for attractiveness words was related to greater levels of sexual aggression suggests that retrieval may have been facilitated by greater cognitive accessibility for attractiveness.

The relationship between women's attractiveness and men's level of sexual aggression was also examined using men's ratings of their female opponent's attractiveness. As men's level of sexual aggression increased, their attraction to the female opponent decreased, but only when the men felt powerless. The present research attempted to answer questions that arose from Bargh et al.'s (1995) study. First, in Bargh et al.'s study were sexually aggressive men's feelings of powerlessness driving their reduced attraction to the female target or was their reduced attraction due primarily to a lack of cognitive accessibility for power? To consider this question, the current research manipulated men's feelings of powerlessness to predict whether greater levels of sexual aggression would relate to reduced attraction toward women. Indeed, as sexual aggression levels increased, attraction to the woman decreased, but only when men felt powerless. Thus, men's reduced attraction to women is related to greater levels of sexual

aggression both when power is less accessible in memory (Bargh et al., 1995) and when men experience feelings of powerlessness. A second question that arose from Bargh et al.'s research was: can increased cognitive accessibility for power explain when sexually aggressive men aggress toward women or can power explain only when more sexually aggressive men are attracted to women? The present research addressed this question, finding that greater sexual aggression was related to increased attraction to women, but only when men felt powerful. Importantly, when more sexually aggressive men felt powerless, they reported being less attracted to a woman, and expressed more aggression toward her than less sexually aggressive men. Thus, it appears that when men felt powerful, more sexually aggressive men were more attracted to women than when they were powerless, but their sense of power did not relate to increased aggression against women. More sexually aggressive men's sense of powerlessness, on the other hand, was related to reduced attraction to women and greater aggression against women than less sexually aggressive men.

Beyond the questions directly posed in this research, a broader array of other theoretical issues in psychology were addressed. A long-standing question in sexual aggression research has been: Is sexual aggression against women due to men's desire for sex or dominance? Feminists suggest that sexual aggression against women is dominance-driven and not sexually-driven, and that men rape in order to maintain a patriarchal system and their control over women (Brownmiller, 1975; Muehlenhard, Danoff-Burg, & Powch, 1996). Feminist theory often downplays the direct role of sex in sexually aggressive behavior, citing men's need for power and dominance over women as the most influential factor leading to sexual aggression (Brownmiller, 1975; Campbell,

1993). Conversely, others (e.g., Palmer, 1988) have argued that some men separate sex from love and emotion, such that their definition of sex can include force and violence, leading to sexually motivated rape. Moreover, evolutionary theorists argue that men rape to ensure their reproductive success by attempting to impregnate as many women as possible (Burt, 1996). The act is therefore not an attempt to dominate women, but one of reproduction and sex. Further, past research findings that sexually aggressive men chronically think and fantasize about sex (Dean & Malamuth, 1997) and overperceive sexuality in women's behaviors (Shea, 1993) supports the contention that sex is one of the critical factors in sexual aggression. However, when the rape act occurs, it remains unclear whether the man's motivation is sexual or dominance-oriented. The present research addressed this issue by showing that more sexually aggressive men were attracted to women when they felt powerful, and their level of aggression toward women was no different than that of less sexually aggressive men. More importantly, more sexually aggressive men's attraction to women decreased when they felt powerless, and their aggression toward women increased. This suggests that both arguments may be correct, but only in certain contexts — as men's perceptions of their own power changes, so do their motivations. Powerlessness leads to aggression and power leads to attraction.

The present research can serve as a springboard for future research to further explore the role of power, attraction, and aggression in sexual aggression against women. Do sexually aggressive men displace aggression from an earlier target onto an available female target? Bushman and Baumeister (1998) found that highly narcissistic individuals will only aggress against the target of their ego threat. Conversely, Pedersen, Gonzales, and Miller (2000) found that individuals will aggress against a target, and to a greater

degree than warranted, who is unrelated to the source of his or her initial anger and frustration. Indeed, in a classic demonstration of the frustration-aggression hypothesis, Hovland and Sears (1940) showed that as economic conditions in the American South worsened, lynchings of African-Americans by Southern Whites increased. If sexually aggressive men feel frustrated in some areas of their lives, these findings would predict that sexually aggressive men would be likely to attempt stress reduction through aggression against women. Sexual aggression research suggests that sexually aggressive men specifically choose women over other available targets on whom to vent their frustration and hostility (Brown & Forth, 1997). A future research direction would be to further explore who sexually aggressive men choose as targets for their aggression. Although no empirical research has been completed to directly answer this question, it is an important one.

Another possible extension of this research would be an examination of how women interact with sexually aggressive men, specifically assessing what behaviors the men elicit from women differently than less sexually aggressive men. In a classic study on the interpersonal effects of expectancies, Snyder, Tanke, and Berscheid (1977) found that when perceivers have expectations about a social target, however false they may be, the perceivers will actually elicit behaviors from the target that correspond to their expectancies. In other words, perceivers receive behavioral confirmation of their expectancies from social targets, regardless of whether those expectancies have a basis in reality. It may also be the case that behavioral confirmation plays a role in sexually aggressive men's expectancies about power and women. For example, sexually aggressive men tend to hold more traditional sex role beliefs about women, and may thus

normally elicit behaviors from women (e.g., submissiveness) that support their expectancies. Sexually aggressive men may also attempt to elicit behavior from women that supports their feelings of power. What happens when women do not confirm their expectations? The aggressive behavioral consequences of sexually aggressive men's unmet expectancies about women may be another important step in understanding what situations trigger aggressive actions.

The current research has important implications for both current and future research by integrating various theories of aggression and extending existing findings. Sexual aggression is a widespread, but underreported, problem particularly among college students. Discovering what events trigger aggressive behaviors among sexually aggressive men will help psychologists treat sexually aggressive men's underlying problems and prevent sexual aggression. This research can help to further psychologists' understanding of many unresolved issues in sexual aggression research, but remaining unanswered questions are abundant. Future research should further address these issues by examining how power threat interacts with sexual aggression in order to more fully understand the psychological processes underlying sexual violence against women.

APPENDICES

APPENDIX A

Coercive Sexuality Scale (CSS)

Please answer the following questions using a number from the scale below that best represents your response.

1 = Never ---- 2 = Once or Twice ---- 3 = Several Times ---- 4 = Often

1. Have you ever held a woman's hand against her will?
2. Have you ever kissed a woman against her will?
3. Have you ever placed your hand on a woman's knee against her will?
4. Have you ever placed your hand on a woman's breast against her will?
5. Have you ever placed your hand on a woman's thigh or crotch against her will?
6. Have you ever unfastened a woman's inner clothing against her will?
7. Have you ever removed or disarranged a woman's outer clothing against her will?
8. Have you ever removed or disarranged a woman's inner clothing against her will?
9. Have you ever touched a woman's genital area against her will?
10. Have you ever had sexual intercourse with a woman against her will?
11. Have you ever attempted to verbally convince a woman to have sexual intercourse?
12. Have you ever ignored a woman's protests to obtain sex?
13. Have you ever used verbal threats to obtain sex?
14. Have you ever physically restrained a woman to obtain sex?
15. Have you ever threatened to use physical aggression on a woman to obtain sex?
16. Have you ever threatened to use a weapon on a woman to obtain sex?
17. Have you ever used a weapon on a woman to obtain sex?

APPENDIX B

Attraction to Sexual Aggression scale (ASA)

Your responses will remain extremely confidential. You will be asked about your opinion about various sexual behaviors and about what other people probably think about those behaviors. Please use the scales below each question to indicate your response.

People often think about different activities even if they never do them. Please indicate with a checkmark whether or not you have ever thought of trying the activity:

	NEVER thought of it before	HAVE previously thought of it
Necking (deep kissing)	_____	_____
Sexual Petting	_____	_____
Oral sex	_____	_____
Heterosexual intercourse	_____	_____
Male homosexual acts	_____	_____
Group sex	_____	_____
*Rape	_____	_____
*Forcing a female to do something sexual she didn't want to do	_____	_____
Whipping or spanking	_____	_____

Whether or not you had ever thought of it, do YOU find the idea of the following activities attractive?

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

NOT at ALL Attractive — Neutral — Extremely Attractive

_____ Necking (deep kissing)
_____ Sexual Petting
_____ Oral sex
_____ Heterosexual intercourse
_____ Male homosexual acts
_____ Group sex
_____ *Rape
_____ *Forcing a female to do something sexual she didn't want to do
_____ Whipping or spanking

What percentage of MALES do you think would find the following activity sexually arousing? :

0% --- 10% --- 20% --- 30% --- 40% --- 50% --- 60% --- 70%--- 80% --- 90% --- 100%

_____ Necking (deep kissing)
_____ Sexual Petting
_____ Oral sex
_____ Heterosexual intercourse
_____ Male homosexual acts
_____ Group sex
_____ *Rape
_____ *Forcing a female to do something sexual she didn't want to do
_____ Whipping or spanking

What percentage of FEMALES do you think would find the following activities sexually arousing? :

0% --- 10% --- 20% --- 30% --- 40% --- 50% --- 60% --- 70%--- 80% --- 90% --- 100%

_____ Necking (deep kissing)
_____ Sexual Petting
_____ Oral sex
_____ Heterosexual intercourse
_____ Male homosexual acts
_____ Group sex
_____ *Rape
_____ *Forcing a female to do something sexual she didn't want to do
_____ Whipping or spanking
_____ *Forcing a MALE to do something sexual he didn't want to do

If you could be assured that no one would know and that you could in no way be punished for engaging in the following acts with a partner, how likely would YOU be to commit the acts?

1	2	3	4	5	6	7
NOT at ALL Likely			Neutral			Extremely Likely

_____ Necking (deep kissing)
_____ Sexual Petting
_____ Oral sex
_____ Heterosexual intercourse
_____ Male homosexual acts
_____ Group sex
_____ *Rape
_____ *Forcing a female to do something sexual she didn't want to do
_____ Whipping or spanking

How sexually arousing would YOU find the following sexual activities if you engaged in them (even if you never have before)? :

1	2	3	4	5	6	7
NOT at ALL Arousing			Neutral			Extremely Arousing

_____ Necking (deep kissing)
_____ Sexual Petting
_____ Oral sex
_____ Heterosexual intercourse
_____ Male homosexual acts
_____ Group sex
_____ *Rape
_____ *Forcing a female to do something sexual she didn't want to do
_____ *Being forced to do something sexual you didn't want to do
_____ Whipping or spanking

Note. *Items used in analyses.

APPENDIX C

Attitudes toward Violence scale (ATV)

Please use the following scale to respond to the items below.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

1. Violent crimes should be punished violently.
2. The death penalty should be part of every penal code.
3. Any prisoner deserves to be mistreated by other prisoners in jail.
4. Any nation should be ready with a strong military at all times.
5. The manufacture of weapons is necessary.
6. War is often necessary.
7. The government should send armed soldiers to control violent university riots.
8. Our country should be aggressive with its military internationally.
9. Killing of civilians should be accepted as an unavoidable part of war.
10. Our country has the right to protect its borders forcefully.
11. A child's habitual disobedience should be punished physically.
12. Giving mischievous children a quick slap is the best way to quickly end trouble.
13. Children should be spanked for temper tantrums.
14. Punishing children physically when they deserve it will make them responsible and mature adults.
15. Young children who refuse to obey should be whipped.
16. It is all right for a partner to hit the other if they are unfaithful.
17. It is all right for a partner to slap the other if insulted or ridiculed.
18. It is all right for a partner to slap the other's face if challenged.
19. An adult should whip a child for breaking the law.
20. It is all right for a partner to hit the other if they flirt with others.

APPENDIX D

Narcissistic Personality Inventory (NPI)

Please use the following scale to respond to the items below.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly agree

1. I would prefer to be a leader.
2. I see myself as a good leader.
3. I will be a success.
4. People always seem to recognize my authority.
5. I have a natural talent for influencing people.
6. I am assertive.
7. I like to have authority over other people.
8. I am a born leader.
9. I rarely depend on anyone else to get things done.
10. I like to take responsibility for making decisions.
11. I am more capable than other people.
12. I can live my life in any way I want to.
13. I always know what I am doing.
14. I am going to be a great person.
15. I am an extraordinary person.
16. I know that I am good because everybody keeps telling me so.
17. I like to be complimented.
18. I think I am a special person.
19. I wish somebody would someday write by biography.
20. I am apt to show off if I get the chance.
21. Modesty doesn't become me.
22. I get upset when people don't notice how I look when I go out in public.
23. I like to be the center of attention.
24. I would do almost anything on a dare.
25. I really like to be the center of attention.
26. I like to start new fads and fashions.
27. I can read people like a book.
28. I can make anybody believe anything I want them to.
29. I find it easy to manipulate people.
30. I can usually talk my way out of anything.
31. Everybody likes to hear my stories.
32. I like to look at my body.
33. I like to look at myself in the mirror.
34. I like to display my body.

35. I will never be satisfied until I get all that I deserve.
36. I expect a great deal from other people.
37. I want to amount to something in the eyes of the world.
38. I have a strong will to power.
39. I insist upon getting the respect that is due me.
40. If I ruled the world it would be a much better place.

APPENDIX E

Importance of Sexual Relationships scale

Please use the scale below to indicate your response to questions 1-7.

1	2	3	4	5
Not at all Important		Neutral		Extremely Important

1. How important are relationships with family members to you ?
2. How important are friendships to you?
3. How important are emotionally involved romantic relationships to you?
4. *How important are sexual relationships with women to you?
5. How important to you is companionship in a relationship with a woman?
6. How important to you is it that a woman respects you in a relationship?
7. *How important to you is sex in a relationship with a woman?

Please use the following scale to answer questions 8-10.

1	2	3	4	5
No influence at all	Little influence	Moderate influence	Quite a bit of influence	An extreme amount of influence

8. How much do your relationships with friends influence how you feel about yourself?
9. How much do romantic relationships influence how you feel about yourself?
10. *How much do sexual relationships with women influence how you feel about yourself?

11. *How much would you want to continue a romantic relationship with a woman if there was no sexual relationship? Use the scale below for your response.

1	2	3	4	5
Would not continue at ALL		Neutral		Would DEFINITELY continue

Note. *Items used in analyses.

APPENDIX F

Reasons for Punishments and Reasons for Rewards scales

Reasons for Punishments Items

1. During times when I gave a noise punishment to this opponent, I did so because I felt my opponent deserved it.
2. During times when I gave a noise punishment to this opponent, I did so because I wanted to teach my opponent a lesson.
3. During times when I gave a noise punishment to this opponent, I did so because I was annoyed or angry with my opponent.
4. During times when I gave a noise punishment to this opponent, I did to because I wanted to feel more powerful.
5. During times when I gave a noise punishment to this opponent, I did so because I wanted to put my opponent in his or her place.
6. During times when I gave a noise punishment to this opponent, I did so because I felt like I was supposed to.
7. During times when I gave a noise punishment to this opponent, I did so because I felt my opponent asked for it.
8. During times when I gave a noise punishment to this opponent, I did so because I felt my opponent wasn't playing fair.
9. During times when I gave a noise punishment to this opponent, I did so because I felt my opponent was being too confident or arrogant.
10. During times when I gave a noise punishment to this opponent, I did so because I wanted to intimidate them.

Reasons for Rewards Items

1. During times when I gave a reward to this opponent, I did so because I felt my opponent deserved it.
2. During times when I gave a reward to this opponent, I did so because I felt like I was supposed to.
3. During times when I gave a reward to this opponent, I did so because wanted to make my opponent feel good.
4. During times when I gave a reward to this opponent, I did so because I wanted to make my opponent feel more powerful.
5. During times when I gave a reward to this opponent, I did so because I felt my opponent was playing fairly.

APPENDIX G

List of primes and target words for Time 1 priming task.

Primes

Power	Powerless	Neutral
power	powerless	desk
influence	restrained	files
strong	feeble	store
mighty	repressed	office
command	unable	digital

Targets

Aggression	Sex	Attractiveness	Neutral
aggress	sex	pretty	chocolate
abuse	erotic	lovely	shopping
hostile	lust	enchanting	weekend
hateful	passion	admire	window
angry	screw	attractive	teacher

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