Macho Personality, Sexual Aggression, and Reactions to Guided Imagery of Realistic Rape

Donald L. Mosher and Ronald D. Anderson

University of Connecticut

To relate the macho personality constellation to men’s reports of sexual aggression, 175 nineteen-year old, middle-class, college sophomores anonymously completed the Hypermasculinity Inventory and a newly constructed Aggressive Sexual Behavior Inventory. A majority of the men used force or exploitation to gain sex from dates. As hypothesized, the macho personality, $r(173) = .33, p < .001$, and specifically the Calloused Sex Attitudes subscale, $r(173) = .53$, was correlated with a history of sexual aggression. To study the effects of macho personality, a history of sexual aggression, and the treatment variables of rapist-force and victim-resistance on men’s subjective sexual arousal and emotional experiences during the guided imagining of a realistic, noneroticized rape, 125 men returned for a second session in which they were randomly assigned by groups to four conditions, two levels of rapist-force x two levels of victim-resistance. Macho personality was related to experiencing less affective disgust, anger, fear, distress, shame, contempt, and guilt as the men imagined committing a rape, confirming a portion of the hypothesis. Men with a history of sexual aggression experienced more interest and subjective sexual arousal, as hypothesized, but they also, contrary to expectations, experienced more affective anger, distress, fear, shame, and guilt. These results were discussed as evidence of the construct validity of the macho personality constellation and as reflecting the revivification of mood-congruent, state memories in the men with a history of sexual aggression. © 1986 Academic Press, Inc.

Samples of women, not included in the reported incidence of rape in FBI crime statistics, have revealed rape prevalence figures from 20 or 23% (Finkelhor, 1979; Koss & Oros, 1982) to 60% (DiVasto et al., 1984). In Russell’s (1984) random sample of women in San Francisco, 41% reported at least one experience that met the most common legal definition of attempted or completed rape. Russell (1975), based on interviews with 90 rape victims and a few rapists, postulated that rape was an overconforming act to a masculinity mystique. Common cultural notions of masculinity, emphasizing power, dominance, strength, toughness, competi-
tiveness, and aggression, may transform the sexual arena into one in which rape expresses the hypermasculine need for power, dominance, conquest, and control. Groth (1979), in his study of men who rape, highlighted the importance in the power rapist of rape as an aggressive conquest to validate his masculinity. Descriptions of the rapist frequently include the word "macho" (Brownmiller, 1975; Gager & Schurr, 1976; Groth, 1979; Russell, 1975, 1984). Sanday (1981), in a study of tribal societies, concluded that rape occurred in societies characterized by male violence and a social ideology of male dominance. Malamuth and Check (1983) reported that a measure of power motivation in sex was related to self-reports of likelihood of raping and sexual arousal to rape depictions. Given these theoretical interpretations and evidence from research, it seems credible to hypothesize that men with a macho personality pattern are disposed to acts of sexual aggression to validate their masculinity. If so, during an act of rape, they may experience little empathy with the victim or disgust or guilt at the act which, instead, generates sexual arousal and affective excitement.

The Hypermasculinity Inventory, a recently developed measure of a macho personality constellation (Mosher & Sirkin, 1984) consisting of three components: (a) calloused sexual attitudes, (b) violence as manly, and (c) danger as exciting, appears to translate the concept of macho into a reliable and valid operational definition. An earlier measure of Calloused Sexual Attitudes (Mosher, 1971a, 1971b) was related to self-reports of the use by college men of force and exploitative tactics during dates to gain sexual access, and, following viewing of explicitly sexual films, to self-reports of more frequent full penile erections and feeling states described as aggressive, wilder, eager for contact, driven, excited, impulsive, attracted, and happy. Moreover, endorsing calloused sex attitudes was significantly positively correlated with the belief that the use of force and exploitative tactics was justified not only with "teasers," "gold diggers," and "loose girls," but even with "nice girls" or "loved girls," and these more calloused men reported they were more likely to attempt to kiss their date, fondle her breasts and genitals, and to have intercourse (Mosher, 1971b). Because of social desirability problems in this previous measure and in order to embed calloused sexual attitudes in a theoretical conception of the scripting and enculturation of the macho personality (Mosher & Tomkins, 1985), the new forced-choice inventory was developed. Scores on the Hypermasculinity Inventory, the operational definition of the macho personality pattern, were, as predicted, significantly correlated with delinquent behaviors while in high school, drug use, and a pattern of dangerous driving and fighting after using alcohol. The personality traits, as measured by the Jackson (1974) Personality Research Form, that were correlated positively with the Hypermasculinity Inventory were Play, Impulsivity, Exhibition, Aggression, Autonomy and Domi-
nance—certainly consistent with macho men as potentially oriented toward sexual aggression. The significant negative correlations between macho and Understanding, Harm-Avoidance, Cognitive Structure, Order, and Desirability are consistent with the hypothesized inability to understand the reaction of a victim of sexual aggression (Mosher & Sirkin, 1984).

Recently, several investigators (Briere & Malamuth, 1983; Koss & Leonard, 1984; Koss & Oros, 1982; Malamuth, 1984) have posited—and provided evidence for—a continuum of sexual aggression with increasing degrees of coercion culminating in rape. Self-reports of sexual aggression by college men began in the 1950s (Kanin, 1957; Kirkpatrick & Kanin, 1957), and continue to the present, including acts meeting customary definitions of rape (Koss & Oros, 1982). A new inventory, entitled the Aggressive Sexual Behavior Inventory, was developed to test the first hypothesis that the macho constellation is correlated with more frequent use of aggressive sexual behavior.

Although the study of rape-like behavior in experimental studies offers many advantages for internal validity, the linking power of the research depends upon the fidelity of the translation of concepts into measures and treatments (Krathwohl, 1985). A laboratory simulation of rape must possess translation fidelity to generate isomorphic psychological processes. Because rape is a violent act that generates fear, anger, pain, disgust, and shame in the victim (Burgess & Holmstrom, 1974), the rape simulation must portray the victims' reactions similarly. Because many men and women have erotic fantasies of "rape" (Hariton & Singer, 1974; Masters & Johnson, 1979), it is necessary for a faithful translation of rape into laboratory treatment to avoid (a) providing eroticized descriptions of the victim or sexual acts, (b) directly suggesting heightened sexual arousal, specific affective responses, and specific motives to the subject in the role of the rapist, and (c) to portray the victims' reactions realistically—as not becoming sexually aroused or desiring the rape. When the method of guided imagery is used to induce first-person identification with actors in imagined sexual scenes, existing research indicates that guided imagery is an effective method to evoke sexual arousal and emotional response in carefully controlled experimental treatments (Mosher & White, 1980; Sirkin & Mosher, 1985). In the study most pertinent to the translation fidelity of guided imagery of rape as a simulation of rape itself, Bond and Mosher (1986) found that women exposed to guided imagery of a realistic rape reported significantly more pain and affective disgust, fear, anger, pain, shame, and depression—an affective experience that is isomorphic to that of victims of rape (Burgess & Holmstrom, 1974; Katz & Mazur, 1979), whereas college women who experienced guided imagery of an erotic fantasy of "rape" reported sexual arousal, excitement, enjoyment, and pleasure.
To ensure the translation fidelity of the laboratory simulation of rape, college men were presented with a realistically described rape which was not eroticized by either direct suggestions of sexual arousal, specific descriptions of erotic cues, or attributions of victim pleasure. The guided imagery of rape described an average young woman with a flat tire on an isolated road who became the nonconsenting victim of forced-intercourse rape. Into the basic narrative, cues, for two levels of rapist-force and for two levels of victim-resistance, were interspersed to form a $2 \times 2$ factorial design. Although the basic narrative was constructed to clearly indicate a rape had occurred based on nonconsent of the victim, the rapist-force and victim-resistance cues were introduced to augment the violent reality of rape even further, and to discover if these variables had a controlling effect on subjects’ reactions to imaging committing a rape. The second hypothesis was that higher levels of rapist-force and victim-resistance are associated with decreased sexual arousal and positive affect and increased negative affect.

In their review of the empirical findings on sexually aggressive men, Koss and Leonard (1984) stressed the need to compare different approaches (incarcerated rapists, self-reported likelihood of raping, self-reported sexual aggression, and aggressive personality) to identifying sexually aggressive men, since rapists and rape do not appear to be homogeneous categories. Therefore, both the index of macho and the self-report of sexual aggression were used as individual difference variables to predict reactions to guided imagery of realistic rape. Hypothesis 3 was that more macho men, in comparison to less macho men, are more sexually aroused and experience more positive and less negative affect in response to imagining themselves committing a rape. The fourth hypothesis was that men with a history of sex aggression, in comparison to non-sexually-aggressive men, are more sexually aroused and experience more positive and less negative affect in response to imagining themselves committing a rape.

METHOD

Subjects

To fulfill a course requirement in introductory psychology, 175 male undergraduates volunteered for an experiment entitled "male sexual fantasies." The men were predominantly 19-year-old sophomores from middle-class, Catholic families living in suburbs or small towns in Connecticut.

Procedure

In an initial session, the entire experiment was explained to groups of 10 to 15 men; all signed informed consents. After anonymously completing the Hypermasculinity Inventory and the Aggressive Sexual Behavior Inventory, the men signed up for the guided imagery sessions held during the following weeks. Subjects were randomly assigned by groups to four conditions, two levels of rapist-force $\times$ two levels of victim-resistance. At the second session, each group of five men was seated in comfortable chairs placed to ensure privacy.
Subjects were relaxed and then listened through headphones to an audiotape of a male voice depicting a realistic rape which they imagined committing. The experimental treatment cues were interspersed by splicing into the tape narrating the rape. After imagining committing the rape, the men anonymously completed three measures of sexual arousal, the Differential Emotions Scale, and a check on the experimental manipulation. Next, the subjects were debriefed through a procedure which explained the purpose and design of the experiment, elicited their reactions to participation, and educated them about rape myths (Schwendinger & Schwendinger, 1974). The debriefing included statements that rape is a violent, assaultive act motivated by anger and power, that the criminal act of rape results in physical and psychological harm to the victim, that rape and "rape" fantasies are psychologically distinct, that women do not secretly desire or elicit rape, and that nonconsenting sexual relations defines rape whether the man or the woman labels the act as rape. Before being dismissed, the subjects completed a postexperimental questionnaire and took a 48-h post-experimental questionnaire to be returned by campus mail.

Guided Imagery of Rape

Relaxation and transitional instructions. The audiotape relaxed the subjects through 15 min of progressive letting go of muscle tension (Goldfriend & Davidson, 1976). The transition from relaxation into the narrative itself was, "Imagine that you are the man in the fantasy. See, hear, and feel as completely as you can what it is to be this man. You are this man."

After the guided imagery of rape was completed, the subjects were aroused by counting them out to an alert state (Mosher & White, 1980).

Rape scenario. The rape scenario was written in language similar to indirect hypnotic suggestion (Bandler & Grinder, 1975; Erickson, Rossi, & Rossi, 1976). That is, the language was general although it seemed to be specific, evocative of imagery, and permissively suggestive. Although the narrative suggested imagery of aggressive rape behavior, it did not suggest what emotions the subjects were to experience. In keeping with methodological suggestions derived from studies of hypnotically induced emotions (Levitt & Chapman, 1972), it used no adjectives that appeared in the dependent variables of subjective sexual arousal or the Differential Emotions Scale. A Ph.D. psychologist with training in hypnosis recorded the audiotapes with appropriate vocal intonation and emphasis. The scenario, lasting 12 min, guided the subjects to imagine the victim as an "average young woman" stranded by a flat tire on an isolated road. The rapist, but not the victim, was portrayed as achieving orgasm.

Interspersed cues. Sets of 10 rapist-force and victim-resistance cues were interspersed into the narrative in a 2 × 2 factorial design. As an example of rapist-force, the men imagined either, "You hit her on the temple, opening a small gash and raising a large lump," or "You grab her tit again to be sure there is no resistance now." As an example of victim-resistance, the men imagined either, "She says, 'Never, you bastard!' and kicks you sharply in the shin," or "She say, 'Please don't hurt me!' and stops all physical struggling."

Measures

Hypermasculinity Inventory. The Hypermasculinity Inventory (Mosher & Sirkin, 1984) consists of 30 forced-choice items designed to measure the three components of the macho personality constellation (calloused sex attitudes, violence as manly, and danger as exciting) with 10 items each. Examples of items, reflecting the above order with the macho alternative given first, are: (a) Get a woman drunk, high, or hot, and she'll let you do whatever you want; or, It's gross and unfair to use alcohol or drugs to convince a woman to have sex; (b) I still enjoy remembering my first real fight; or, I hope to forget past unpleasant experiences with male aggression; and (c) I like to drive fast, right on the edge of danger; or, I like to drive safely, avoiding all possible risks. The Cronbach α coefficients, as
reported by Mosher and Sirkin (1984), were as follows: Macho, $\alpha = .89$; Calloused Sex, $\alpha = .79$; Violence, $\alpha = .79$; and Danger, $\alpha = .71$. In this sample the mean and standard deviation for Macho were 10.52 and 5.66, respectively.

**Aggressive Sexual Behavior Inventory.** The Aggressive Sexual Behavior Inventory consisted of 33 items, whose content consisted of descriptions of male sexual aggression which varied from verbal pressure to physical force in order to gain sexual access, which subjects rated on a 7-point scale from 1, *never*, to 7, *extremely frequent*. The Cronbach $\alpha$ for the total scale on a sample of 125 men was .94 with a mean of 53.86 and a standard deviation of 17.23.

**Differential Emotions Scale.** A revised and lengthened version (Mosher & White, 1981) of the Differential Emotions Scale (Izard, Dougherty, Bloxom, & Kotsch, 1974) was used to measure 10 discrete emotions with 6 adjective prompts each. Each of the 60 adjectives were rated for intensity of experience during the rape scenario from 1, *very slightly or not at all*, to 5, *very strongly*. The name of the emotion, the Cronbach $\alpha$ for this sample of 125 men, and the emotion's 6 affect–adjective prompts, respectively, follow: Interest, $\alpha = .81$, interested, attentive, excited, alert, concentrating, and fascinated; Enjoyment, $\alpha = .89$, enjoying, ecstatic, delighted, happy, joyful, and blissful; Surprise, $\alpha = .90$, surprised, shocked, startle, astounded, amazed, and bewildered; Distress, $\alpha = .86$, distressed, sad, downhearted, miserable, discouraged, and anguished; Anger, $\alpha = .90$, angry, annoyed, hostile, furious, enraged, and mad; Disgust, $\alpha = .91$, disgusted, repelled, nauseated, feeling of revulsion, sickened, and feeling of distaste; Fear, $\alpha = .93$, fearful, scared, panicked, afraid, terrified, and frightened; Guilt, $\alpha = .86$, guilty, repentant, sinful, blameworthy, conscience stricken, and remorseful; Contempt, $\alpha = .72$, contemptuous, mocking, disdainful, sneering, sarcastic, and scornful; and Shame, $\alpha = .93$, ashamed, humiliated, mortified, degraded, disgraced, and dishonored.

**Subjective sexual arousal.** Three commonly used measures of subjective sexual arousal (Mosher, & Abramson, 1977; Mosher & O'Grady, 1979; Mosher & White, 1980), as recently improved and validated (Mosher, Barton-Henry, and Green, in press) were used as follows: (a) Rating of Sexual Arousal, (b) Self-Report of Genital Sensations, and (c) Affective Sexual Arousal. The Rating of Sexual Arousal consisted of the sum of six 7-point rating scales from 1, *no—at all*, to 7, *extremely*. The six indices of sexual arousal, each of which was defined, that were rated were sexual arousal, genital sensations, sexual warmth, nongenital physical sensations, sexual absorption, and sexual tension. The Cronbach $\alpha$ on this sample of 125 men was .88.

The Self-Report of Genital Sensations was a checklist of 11 items arranged in an ascending order of genital sensations, each with its own definition, as follows: no genital sensations, onset of genital sensations, mild genital sensations, moderate genital sensations, prolonged moderate genital sensations, intense genital sensations, prolonged intense genital sensations, mild orgasm, moderate orgasm, intense orgasm, and multiple orgasms.

The measure of Affective Sexual Arousal consisted of six adjective prompts embedded within the Differential Emotions Scale. The Cronbach $\alpha$ was .94 in this sample of 125 men. The adjective prompts for affective sexual arousal were sexually aroused, turned-on, sexy, sexually hot, sensuous, and sexually excited.

**Check on manipulations.** Two questions, used as a check on the effectiveness of the manipulations, were rated on 7-point scales from 1, *none at all*, to 7, *extreme*, and they were (a) How much force was present in the act of gaining sexual access to the woman? and (b) How much resistance did the woman show?

**Postexperimental questionnaires.** The postexperimental questionnaire consisted of four questions, to be rated from 1, *not at all*, to 7, *extremely*, and which were (a) How calm are you? (b) How useful was the study for you? (c) How educational was the study for you? and (d) How pleased about participating are you? The postexperimental questionnaire, which subjects took and completed 48 h later, had, in addition, open-ended requests for:
(a) positive effects of participating, (b) negative effects of participating, and (c) additional comments.

RESULTS

Sexual Aggression

To determine if dating aggression consisted of discrete tactics to gain sexual access, the scores of the Aggressive Sexual Behavior Inventory for this sample of college men were analyzed by a factor analysis using varimax orthogonal rotation and minimum eigenvalues of 1.0 (Kim, 1975). Alpha coefficients were computed for each of the six resulting factors to ensure the factor scales were reliable. Table 1 contains the factor scales with their means, standard deviations, and α coefficients, as well as the component items with their factor loadings and the percentage of men admitting to the use of the behavior in the item. From Table 1 it can be seen that many of the men, at least sometime in their life, had employed forceful or exploitative tactics to gain sexual access. A majority of the men admitted to using drugs or alcohol (75%) or verbal manipulation (69%) in order to have sex with a date. Over 40% of the men admitted using anger expression (46%) or angry rejection (43%) to induce an unwilling woman to have sex. A minority of the men have threatened to use force (13%) or used force (20%) to have sex with an unwilling woman.

Table 2 presents the correlation coefficients between scores on the Hypermasculinity Inventory and factor scales of the Aggressive Sexual Behavior Inventory. The pattern of significant positive correlations supported the hypothesized relationship between the macho personality constellation and aggressive sexual behavior. In particular, it is the Calloused Sex Attitudes ($r(173) = .53$) subscale of the Hypermasculinity Inventory, rather than Violence as Manly ($r(173) = .23$) or Danger as Exciting ($r(173) = .26$) subscales, which accounts for most of the variance in sexually aggressive behavior among college men.

Guided Imagery of Rape

The imagery of realistic rape was presented in a second session, and 48 of the 175 men who had completed the inventories did not keep their appointments. In addition, 2 men left during the relaxation period of the second session because they found the procedure “too hypnotic.” Student’s $t$ tests were computed on the means of the 50 dropouts in comparison to the 125 men completing the study on their Hypermasculinity scores and Aggressive Sexual Behavior factor scales. No significant difference were found.

Manipulation check. Following the experiment subjects rated the degree of rapist-force and degree of victim-resistance on 7-point rating scales to check on the effectiveness of the experimental treatments of interspersing
<table>
<thead>
<tr>
<th>Factor Name</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha</th>
<th>Factor loading</th>
<th>Percentage using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual force</td>
<td>7.02</td>
<td>2.59</td>
<td>.83</td>
<td>.76</td>
<td>6</td>
</tr>
<tr>
<td>1. I have calmed a woman down with a good slap or two when she got hysterical over my advances.</td>
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<td>2. I have brought a woman to my place after a date and forced her to have sex with me.</td>
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<td>3. I have forced a woman to have sex with me and some of my pals.</td>
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<td>4. I have pushed a woman down and made her undress or torn her clothes off if she wouldn’t cooperate.</td>
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<td>5. I have waited my turn in line with some other guys who were sharing a “party girl.”</td>
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<tr>
<td>6. I have gotten a little drunk and forced a woman that I’m with to have sex with me.</td>
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<td></td>
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<tr>
<td>Drugs and alcohol</td>
<td>6.06</td>
<td>3.77</td>
<td>.81</td>
<td>.71</td>
<td>19</td>
</tr>
<tr>
<td>1. I have turned a woman on to some expensive drugs so that she would feel obligated to do me a sexual favor.</td>
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<td>2. I have gotten a woman high on marijuana or pills so she would be less able to resist my advances.</td>
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<tr>
<td>3. I have gotten a woman drunk in order to have sex with her.</td>
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<tr>
<td>Verbal manipulation</td>
<td>7.38</td>
<td>3.93</td>
<td>.77</td>
<td>.48</td>
<td>44</td>
</tr>
<tr>
<td>1. I have told a woman that her refusal to have sex with me was changing the way I felt about her.</td>
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<td>2. I have told a woman that I wanted to come into her apartment so I could get her where I wanted.</td>
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<td>3. I threatened to leave or to end a relationship if a woman wouldn’t have sex with me.</td>
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<td>4. I have told a woman I was petting with that she couldn’t stop and leave me with “blue balls.”</td>
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<tr>
<td>Angry rejection</td>
<td>2.79</td>
<td>1.65</td>
<td>.79</td>
<td>.53</td>
<td>26</td>
</tr>
<tr>
<td>1. I have told a woman I was going out with that I could find someone else to give me sex if she wouldn’t.</td>
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<tr>
<td>2. I have called a woman an angry name and pushed her away when she would not surrender to my need for sex.</td>
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<tr>
<td>Anger expression</td>
<td>4.34</td>
<td>1.65</td>
<td>.73</td>
<td>.81</td>
<td>41</td>
</tr>
<tr>
<td>1. I have gripped a woman tightly and given her an angry look when she was not giving me the sexual response I wanted.</td>
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<tr>
<td>2. I have roughed a woman up a little so that she would understand that I meant business.</td>
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<tr>
<td>3. I have blown my top and sworn or broken something to show a woman that she shouldn’t get me angry.</td>
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<tr>
<td>Threat</td>
<td>2.26</td>
<td>0.90</td>
<td>.76</td>
<td>.72</td>
<td>10</td>
</tr>
<tr>
<td>1. I have promised a woman that I wouldn’t harm her if she did everything that I told her to do.</td>
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<td>2. I have warned a woman that she could get hurt if she resisted me, so she should relax and enjoy it.</td>
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## Table 2
**Pearson Correlations between Hypermasculinity Inventory and Aggressive Sexual Behavior Inventory**

<table>
<thead>
<tr>
<th>Aggressive Sexual Behavior Inventory</th>
<th>Hypermasculinity Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Macho</td>
</tr>
<tr>
<td>Total aggressive</td>
<td>.33***</td>
</tr>
<tr>
<td>Sexual force</td>
<td>.40***</td>
</tr>
<tr>
<td>Drugs and alcohol</td>
<td>.46***</td>
</tr>
<tr>
<td>Verbal manipulation</td>
<td>.29***</td>
</tr>
<tr>
<td>Angry rejection</td>
<td>.37***</td>
</tr>
<tr>
<td>Anger expression</td>
<td>.24**</td>
</tr>
<tr>
<td>Threat</td>
<td>.33***</td>
</tr>
</tbody>
</table>

Note. N = 175.

* p < .05.

** p < .01.

*** p < .001.

cues into the narrative. The resulting analysis of variance indicated that subjects had indeed discriminated between high ($M = 6.32$) and low ($M = 5.42$) rapist-force, $F(1, 123) = 12.88, p < .001$, and high ($M = 4.88$) and low ($M = 3.53$) victim-resistance, $F(1, 123) = 17.97, p < .001$. The size of the means indicated that the subjects rated the rape scenarios as generally portraying strong force and moderate resistance.

The profile of means from the Differential Emotions Scale (possible range of 6 to 30) revealed the emotional reactions of the men to imagining themselves committing the crime of rape. The men reported mild-to-moderate intensities of Interest ($M = 14.50$), Disgust ($M = 12.46$), and Surprise ($M = 12.04$); mild intensities of Contempt ($M = 11.62$), Guilt ($M = 10.58$), and Distress ($M = 10.25$); and slight intensities of Shame ($M = 9.66$), Enjoyment ($M = 9.13$), and Fear ($M = 8.21$). The subjects reported slight subjective sexual arousal on the affect adjectives ($M = 9.83$), the ratings (possible range of 6 to 42) of sexual arousal ($M = 13.14$), and the 11-item checklist of genital sensations ($M = 2.93$).

**Hypothesis 2.** This hypothesis, that higher levels of rapist-force and victim-resistance decrease sexual arousal and positive affects and increase negative affect, was tested by two $2 \times 2$ factorial multivariate analyses of variance of the 10 affects in the Differential Emotions Scale and the three measures of subjective sexual arousal, respectively. None of the multivariate $F$'s were significant; therefore, the null form of Hypothesis 2 could not be rejected.

**Hypothesis 3.** To test this hypothesis, that more macho men, in comparison to less macho men, are more sexually aroused by and experience
more positive and less negative affects while imagining committing a rape, total scores from the Hypermasculinity Inventory were introduced into the MANOVAs as a continuous variable. The multivariate effect of Macho on sexual arousal was not significant. The multivariate main effect of Macho on emotional reaction to the guided imagery of rape was significant, multivariate $F(10, 108) = 2.08, p < .02$. This significant multivariate effect permitted testing each of the 10 affects with univariate $F$ tests. There were no significant differences on the positive affects of Interest or Enjoyment, or on Surprise. All of the negative affects were significantly different such that macho men experienced less intense negative emotions than nonmacho men. The means, from high to low scores—composed by median splits—on the Hypermasculinity Inventory, and the univariate $F$ tests follow: Disgust, $M's = 10.66$ and $14.60, F(1, 117) = 22.95, p < .001$; Anger, $M's = 9.93$ and $11.40, F(1, 117) = 15.38, p < .001$; Fear, $M's = 7.36$ and $9.29, F(1, 117) = 13.99, p < .001$; Distress, $M's = 9.27$ and $11.49, F(1, 117) = 12.93, p < .001$; Shame, $M's = 8.76$ and $10.80, F(1, 117) = 7.67, p < .01$; Contempt, $M's = 11.20$ and $12.15, F(1, 117) = 6.46, p < .05$; and Guilt, $M's = 9.97$ and $12.29, F(1, 117) = 5.35, p < .05$. These results confirm only that portion of Hypothesis 3 which stated that men with the macho personality constellation, in comparison to less macho men, experience less negative affect while imagining themselves committing the crime of rape.

**Hypothesis 4.** The total score from the Aggressive Sexual Behavior Inventory was entered as a continuous variable into the $2 \times 2$ factorial MANOVA design for subjective sexual and emotional reactions, respectively. There was a significant multivariate main effect of sexual aggression on subjective sexual arousal, multivariate $F(3, 115) = 2.83, p < .05$. This permitted a univariate analysis of the three measures of subjective sexual arousal, which found two of the three to be significant. The means, from high to low scores—composed by median splits—on the Aggressive Sexual Behavior Inventory, and univariate $F$’s follow: Affective Sexual Arousal, $M's = 11.69$ and $8.89, F(1, 117) = 8.46, p < .01$; Ratings of Sexual Arousal, $M's = 14.74$ and $12.34, F(1, 117) = 4.71, p < .05$; and Guilt, $M's = 9.97$ and $12.29, F(1, 117) = 5.35, p < .05$. These results supported that portion of the hypothesis which posited that men with a history of sexual aggression experience more subjective sexual arousal while imagining committing a rape.

The multivariate main effect of sexual aggression on affects measured by the Differential Emotions Scale was also significant, multivariate $F(10, 108) = 2.43, p < .05$. Seven of the 10 univariate $F$’s were significant. The means, from high to low scores—composed by median splits—on sexual aggression, and $F$ tests follow: Anger, $M's = 10.98$ and $10.37, F(1, 117) = 13.84, p < .001$; Distress, $M's = 10.05$ and $10.64, F(1, 117) = 11.07, p < .001$; Surprise, $M's = 11.73$ and $12.64, F(1, 117) = 10.57, p < .001$; Fear, $M's = 9.19$ and $7.71, F(1, 117) = 10.24, p < .001$;
Macho Personality and Rape

Shame, M's = 10.40 and 9.28, F(1, 117) = 9.91, p < .01; Guilt, M's = 11.52 and 10.72, F(1, 117) = 7.22, p < .01; and Interest, M's = 15.60 and 13.94, F(1, 117) = 7.02, p < .01. A trend bordering on significance was found for Disgust, M's = 11.81 and 12.69, F(1, 117) = 3.73, p < .06. As hypothesized, the men with a history of sexual aggression during dates were more interested or excited. The direction, however, of effects on the negative affects were opposite to those hypothesized. Men with a history of sexual aggression experienced more, rather than less, anger, distress, fear, shame, guilt, and disgust in comparison to men reporting less sexual aggression as they imagined themselves committing the crime of rape.

Postexperimental Questionnaire

Both immediately after the debriefing and 48 h later, the subjects rated their responses on 7-point rating scales to questions about the experience of participating in this study. Immediately afterward, the men rated themselves as calm, M = 5.54, and only slightly pleased to have participated in the study, M = 4.13. They considered the experiment to be only slightly more useful than not, M = 4.03, and did not find it personally educational, M = 3.45. There were no significant differences between these postexperimental ratings and the 48-h ratings which were returned by 68 of the 125 subjects. The return rate of 54.4% was considered acceptable for anonymous subjects who could not be followed up. The 48-h follow-up requested responses to open-ended questions concerning the positive and negative effects of participating. The responses of the 38 men who answered these questions were scored by two independent raters, with category reliability ranging from \( \alpha = .75 \) to 1.00 and an overall interrater reliability of \( \alpha = .82 \). The percentages below reflect the percentage of written responses from the 38 respondents that were scorable for a given category. The positive comments included five categories: (a) a greater awareness of personal sexual aggression, 21.1%; (b) increased awareness of rape as a social problem, 21.1%; (c) increased understanding of rape as deviant behavior, 2.6%; (d) research-related benefits, 13.2%; and (e) miscellaneous positive reactions, for example, enjoying the relaxation, 26.3%. The responses to the questions on negative effects were placed by the judges into four categories: (a) concerned about personal response to rape scenario, for example, disliked own sexual arousal, 13.2%; (b) concerned about incitement effect, 7.9%; (c) rape content judged distasteful, 5.3%; and miscellaneous criticisms of the research, 21.1. Written positive responses outnumbered negative responses 33 to 18.

Discussion

The self-reports of the widespread use of aggressive sexual behavior by these college men, who were not identified as criminals, were consistent
with the high rates of reported victimization by women, who had not been identified by police as victims (DiVasto et al., 1984; Finkelhor, 1979; Koss & Oros, 1982). The use of force or other exploitative tactics is, unfortunately, far too common. Approximately 50% of college women report being "raped" or "offended" by male sexual aggression on dates (Kanin & Parcell, 1977; Kirkpatrick & Kanin, 1957; Schultz & DeSavage, 1975). Weiss and Borges (1973) argued that, in the American dating system, what begins as seduction may end as rape leaving the woman shocked and confused about how to define her experience. Is it possible that when the men in this sample admit to, for example, "getting drunk and forcing a woman to have sex with me" (19%) or "promising a woman that I wouldn't harm her if she did everything that I told her to" (10%), that they do not recognize their behavior as an act of rape? Goodchilds and Zellman (1984) presented evidence of the miscommunication in the sexual signaling of adolescents, and of its contribution to sexual aggression. Exploitative tactics such as getting a woman drunk (66%), maneuvering her into a private place (51%), and gripping a woman tightly and looking angry when she was not sexually forthcoming (41%) were admitted to by a sizable proportion of men in this sample. It seems logical that any bias in reporting would be in the direction of underreporting, but, perhaps, less underreporting than if the men had been asked if they had ever committed a rape—discomfort to admitting somewhat ambiguous sexual aggression would be less than admitting to an unambiguous criminal act of rape (Sudman & Bradburn, 1982).

One strategy for circumventing underreporting in studies of aggressive behavior is to develop a measure of aggressive sexual behavior, and to regard this individual differences measure as a more accurate and reliable estimate of history of sexual aggression than reports to single questions about past rape experience or the hypothetical likelihood of rape in the future. Even if there is underreporting, it is reasonable to assume that men who scored higher, in comparison to lower scorers, on the Aggressive Sexual Behavior Inventory have had a history of more aggressive sexual behavior.

The hypothesized relationship between the macho personality constellation and a history of aggressive sexual behavior was supported. Macho personality was significantly correlated with total aggression and each of the six factor scores: sexual force, drugs and alcohol, verbal manipulation, angry rejection, anger expression, and threat. In particular, it was men with more, rather than less, Calloused Sex Attitudes toward women who had engaged in more forceful and exploitative behaviors to gain sexual access. These results and the reliabilities of the six-factor subscales indicated that the Aggressive Sexual Behavior Inventory may prove to be a useful measure for future research. The results also support the construct validity of the Hypermasculinity Inventory as a measure
of a macho personality pattern that includes calloused sexual attitudes toward women and predicts sexual aggression against women.

The relationship between calloused sex attitudes, as one component of a macho personality pattern, and college male sexual aggression was consistent with earlier research done with that construct for the Commission on Obscenity and Pornography (Mosher, 1971b). Wolfgang (1958) has described a "subculture of violence" in which physical aggression is a demonstration of masculinity and toughness, and his student, Amir (1971) placed the rapist squarely within the subculture of violence. When Brownmiller (1975) noted this, she said, "Allegiance or conformity to machismo, particularly in a group or gang, is the sine qua non of status, reputation, and identity for lower-class male youth. Sexual aggression, of course, is a major part of machismo" (p. 181). Sexual aggression remains a part of the macho personality constellation among middle-class college men.

The profile of affective reactions and the comments of subjects during the debriefing indicated that the simulation of rape resulted in a pattern of emotions for these men—interest, disgust, and surprise—that is very different from the responses—sexual arousal, interest, and enjoyment—elicited by consensual sex (Sirkin & Mosher, 1985). The simulation seemed to evoke mild to moderate levels of negative affect and little sexual arousal or enjoyment in these college men. Although the check on the manipulations demonstrated the subjects were significantly aware of the different levels of force and resistance, neither rapist-force nor victim-resistance demonstrated the hypothesized relationship with sexual arousal or affective responses. It appears that sufficient evidence of force and nonconsent of the victim was contained in the basic narrative—even in the low-force—low-resistance condition, which in this experiment was rated by subjects as strong force and moderate resistance—to ensure that the guided imagery could only be interpreted as a crime of rape and not as an erotic fantasy of "rape." In more ambiguous depictions of rape, the variables of rapist-force and victim-resistance might enter into judgments about the rape (Scroggs, 1976). The guided imagery of rape corresponded to the reality of rape in containing the crucial elements of nonconsent, noneroticization of rape victims and acts, and avoidance of direct suggestion of rapists' affects and motives. Imagining committing a rape elicited a credible pattern of slight sexual arousal and enjoyment; mild-to-moderate intensities of interest, disgust, and surprise; mild intensities of contempt, guilt, anger, and distress; and slight intensities of shame and fear. Although interested in the guided imagery, and disgusted by it, the men may have been surprised by the emphasis on the violence of the act of rape, since typical male fantasies of "rape" are more eroticized than violent (Hariton & Singer, 1974; Masters & Johnson, 1979).
Contrary to the third hypothesis, the macho men were not more sexually aroused by imagining themselves committing a rape. Nonetheless, it still seems likely that macho men might enjoy the erotic fantasy of "rape" or a more ambiguously eroticized rape scenario. The absence of erotic cues kept sexual arousal low. The absence of the positive affect of enjoyment, which can amplify sexual arousal, and the widespread experience of negative affects could have further inhibited sexual arousal (Green & Mosher, 1985). Because the more macho men did not experience as much negative affect as less macho men as they imagined themselves committing a realistic rape, their response to imagining a violent rape was more calloused as theoretically expected. In keeping with Hypothesis 3, the more macho men, in comparison to the less macho men, experienced less disgust, anger, fear, distress, shame, contempt, and guilt as they imagined themselves violently raping a woman. This experiment did not include erotic cues; further research might study the macho man's reactions to consenting or nonconsenting treatments crossed with treatments varying erotic or no erotic cues.

Because of the correlation between the macho pattern and aggressive sexual behavior, and because there had been no relationship between the macho personality pattern and sexual arousal when imagining committing a rape, the finding that a history of sexual aggression was associated with higher levels of subjective sexual arousal was particularly interesting. Men who reported a history of sexual aggression, in comparison to men who tended not to, reported themselves to be mildly-to-moderately sexually aroused on both the rating scale and affect adjective measure of sexual arousal. This result had been hypothesized, as had their significantly higher level of interest–excitement during the rape scenario. The significant effects, however, between the Aggressive Sexual Behavior Inventory and the affective responses to the Differential Emotions Scale while imagining the rape scenario, were opposite to those hypothesized. Men with a history of sexual aggression experienced significantly more, rather than less, anger, distress, fear, shame, guilt, and disgust (only a trend here) while imagining committing a rape than did men with less sexually aggressive histories.

Although the interpretation of these results is, admittedly, speculative, we favor an interpretation which suggests that imagining committing a rape revivified memories of past aggressive sexual behaviors in the men reporting such histories. The conjunction in these men, who had been sexually aggressive in the past, of sexual arousal and the negative affects of anger, distress, fear, shame, guilt, and disgust seems consistent with a view that the guided imagery evoked sexually arousing but guilt-tinged memories. They reported experiencing less surprise than the less sexually aggressive men at hearing the audiotape. The open-ended questions 48 h after the experiment elicited two instances of anecdotal support for this
interpretation. One man reported that it "reminded me of past experiences with sexual aggression" and a second man said it evoked the "resurrection of past guilt feelings." These college men, who had a history of sexual aggression, therefore, appeared to experience a conflict between their sexual arousal and interest and their fearful, distressed, ashamed, angry, guilty, disgust. Such an emotional constellation appears consistent with the retrieval of a mood-congruent, state memory (Bower, 1981) of a past incident of personally experienced sexual aggression.

All macho men do not commit sexually aggressive acts while on dates, and all sexually aggressive men are not rapists. Nonetheless, the conjunction of studies of various populations of men to discover variations in the macho personality constellation with laboratory studies of both macho men and rapists appears to be a promising research strategy. As yet, we still understand far too little about either the components of sexual arousal in college men (Malamuth, 1981; Malamuth & Check, 1980; Malamuth, Haber, & Feshbach, 1980) or in rapists (Abel, Barlow, Blanchard, & Guild, 1977; Barbaree, Marshall, & Lanthier, 1979) to rape scenarios. We understand even less about the development of a proclivity to rape (Malamuth, 1984). The socialization of the macho man, if it does not directly produce a rapist, appears to produce calloused sex attitudes toward women and rape and proclivities toward forceful and exploitative tactics to gain sexual access to reluctant women. The socialization of the hypermasculine male (Mosher & Tomkins, 1986) may script him to overvalue a definition of masculinity as tough and unfeeling, violent and exploitative of women, and as seeking the excitement of risking danger. This personality constellation, in conjunction with a history of aggressive behavior that elicits increasing levels of positive affect and decreasing levels of negative affect, may provide the disinhibition that transforms the rape fantasy into a brutal reality.

Finally, some comments about the ethics of the research are necessary. How does one weigh the "risk" of discomfort in individual men who are subjects in an experiment such as this against the societal need to understand the macho personality and the crime of rape? Recent research (Check & Malamuth, 1984; Malamuth & Check, 1984) has demonstrated that a carefully constructed debriefing following experiments using rape scenarios can have a beneficial effect in reducing belief in rape myths. In this instance, it appeared to us that the positive benefits of greater awareness about sexual aggression offset the discomfort experienced by imagining or remembering sexual aggression. The results from a reliable scoring of the written responses in the 48-h follow-up supports such a view. Representative comments by subjects on positive effects of their participating were "brings one to the reality that rape is a vulgar and brutal act which must be prevented from happening" and "I learned that sexual aggression is disgusting." One subject wrote as a negative effect
of participating, "the fantasy on the tape was not all [sic] my fantasy and was disturbing." He may have meant that his erotic fantasy of "rape" was disturbingly confronted with the reality of rape. Future research can be directed toward discovering the utility of "inoculation" experiences of realistic rape scenarios to produce discomfort as a vehicle for changing men's positive reactions to eroticized rape fantasies and to violent pornography.

REFERENCES


