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Characteristics of Men Who Aggress Sexually and of Men Who Imagine Aggressing: Risk and Moderating Variables

Karol E. Dean and Neil M. Malamuth
University of California, Los Angeles

The authors showed that the extent to which men's personalities were self-centered rather than sensitive to others' needs moderated the connection between risk factors and sexually aggressive behavior. Men who were at risk for committing aggression but who were also sensitive to others' feelings aggressed less than the corresponding group, who had relatively self-centered personalities. However, both groups showed high levels of imagined sexual aggression. The authors suggest that imagined sexual aggression may reveal information about the presence of underlying risk factors even when actual aggression is inhibited by personality characteristics such as those studied here. The implications for therapeutic interventions of the finding of aggression attenuation are also discussed.

This study extended a model of the characteristics of men who aggress sexually (Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Malamuth, Sockloskie, Koss, & Tanaka, 1991). We focus here on a possible moderator between risk characteristics and actual sexual aggression. The hypothesized moderator is the extent to which a man is relatively self-centered as opposed to sensitive to others' feelings and needs. We have also integrated within the model research on imagined sexual aggression.

Attenuating Aggressive Behavior

Malamuth, Heavey, and Linz (1993) emphasized the importance of identifying factors attenuating the relationship between risk factors and sexual aggression (also see Marshall, 1993). We sought here to explore such a potential moderating role by using Bem's (1974) masculinity (M) and femininity (F) scales. Although such a moderator role has not actually been previously examined, it is suggested by research revealing correlations between these scales and rape-related responses (Quackenbush, 1989; Ross & Allgeier, 1991; Tieger, 1981). Bem's scales were presented in the context of theory and research arguing that traditional gender roles prescribe a more dominant, self-centered orientation for men versus a more nurturant, caring orientation for women (e.g., Gilligan, 1982). Later, an extensive literature developed indicating that M and F are actually among the best measures of the broad personality dimensions of dominance (agentic) and nurturance (communal), respectively, rather than measures of masculinity and femininity (e.g., Paulhus, 1987; Wiggins, 1991; Wiggins & Holzmuller, 1981). Wiggins (1991) defined *dominance*, or *agency*, as a concern for "mastery and power which enhance and protect [the self]" (p. 89) and *nurturance*, or *communion*, as a concern for "intimacy, union and solidarity with [other people]" (p. 89). Similarly, after reviewing the literature and their own findings, Ballard-Reisch and Elton (1992) concluded that Bem's scales measure two reliable personality dimensions that might be best labeled *self-directed* and *other-oriented*.

In the present study, we computed a score of the degree to which a person was nurturant (e.g., sensitive to others' needs) relative to dominant (e.g., self-centered). The resultant score, labeled the *dominance relative to nurturance* (D/N) dimension, appears similar to some aspects of the construct of narcissism, which Buss and Chiodo (1991) described as a personality syndrome with several constitutive elements that are manifested in behaviors that represent "a dominant and even aggressive display of self-centered impulses with little concern for the negative consequences that such displays might have on others" (p. 213). Research supports such a conceptualization of the scale derived from the masculinity and femininity dimension. For example, Lippa (1995), using the interpersonal circumplex model of personality (Wiggins, 1982), concluded that M scores correlated highly positively with characteristics such as domineeringness and vindictiveness and correlated negatively with nurturance and being exploitable. F scale scores showed the opposite pattern.

We hypothesized that the D/N dimension would moderate the extent to which risk factors to aggress sexually are actually acted out in behavior. Previous research has pointed to the possibility of such a moderating role. For example, Kogut, Langley, and O'Neal (1992) found that although women possessing less stereotypically masculine traits were just as angry following an insult as those possessing more stereotypically masculine traits, the latter actually aggressed more following insult. The researchers noted that "less masculine women may still consider themselves angry . . . but deal with their anger in a way more socially acceptable than aggressively acting out" (Kogut et al., 1992, p. 367). Siegman, Dembroski, and Ringel (1987) found that although measures similar to the F scale were not correlated with a measure of neurotic hostility (feelings of resentment and suspicion), they were negatively associated with antagonistic

Karol E. Dean and Neil M. Malamuth, Departments of Psychology and Communication Studies, University of California, Los Angeles.

Correspondence concerning this article should be addressed to Neil M. Malamuth, Communication Studies Department, University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, California 90024. Electronic mail may be sent via the Internet to nmalamut@ucla.edu.

hostility, which assesses overt physical and verbally hostile behavior to others.

Imagining Aggressing Sexually

Although a man at risk for aggression who also has high sensitivity to others' feelings may inhibit actual aggression because of such mechanisms as feeling another's suffering, he may express the proclivity to aggress in other ways (Malamuth & Briere, 1986; Malamuth & Thornhill, 1994). In particular, he may engage in imagined sexual aggression that does not have "real-world" exigencies.

Two lines of research have studied the characteristics of men who report imagining themselves being sexually aggressive. One line has assessed "attraction to sexual aggression" (Malamuth, 1981, 1989a, 1989b; Malamuth & Dean, 1991), whereas the other has assessed coercive sexual fantasies (Greendlinger, 1985; Greendlinger & Byrne, 1987). The present study combined these within a unified framework and examined their role within the model of the characteristics of sexually aggressive men. We hypothesized that in contrast to actual aggressive behavior, the D/N dimension would not attenuate the relationship between risk factors and imagined aggression.

Method

Participants

Participants were 323 men receiving credit for an introductory psychology course requirement. Missing data were substituted by overall means, a conservative procedure that generally serves to reduce differences among groups. The mean age was 19 years, and 99% of the participants were single.

Materials

Predictor Variables

Participants filled out a questionnaire that included the following scales: Acceptance of Interpersonal Violence (AIV; Burt, 1980), Rape Myth Acceptance (RMA; Burt, 1980), Sexual Dominance (SDOM; Nelson, 1979), Hostility Toward Women (HTW; Check & Malamuth, 1983; Check, Malamuth, Elias, & Barton, 1985), Family Violence (FV; Bardis, 1973), Nonconformity (NC; Rapaport, 1984), and Sexual Experience (SE; Bentler, 1968). In keeping with Malamuth et al. (1991), in the structural equation modeling described below, the first four of these were included within the hostile masculinity path, whereas the next three constituted the impersonal sex path. In addition, the potential tendency for participants to portray themselves only positively was addressed through the use of a social desirability measure (i.e., the Good Impressions [GI] Scale; Megargee, 1972).

The questionnaire also included the Bem Sex Role Inventory (Bem, 1974), composed of 19 masculine items[1] (e.g., "dominant," "individualistic," "self-sufficient"), 20 feminine items (e.g., "sympathetic," "compassionate," "sensitive to the needs of others"), and 20 neutral items. There has been considerable debate in the literature regarding whether M and F constitute largely orthogonal dimensions or a bipolar dimension. Although the literature has largely favored the latter, van Schurr and Kiers (1994) recently argued and presented evidence that M and F should "be represented on the bipolar halves of an enfolding dimension" (p. 107) and that the use of an inappropriate measurement model has led to the erroneous conclusion that these are independent factors (van Schurr, 1993; van Schurr & Kiers, 1994). Further, in her extensive review of the agency and communion constructs, Helgeson (1994) noted that "by definition, the extreme of one precludes the existence of the other" (p. 413).

As noted earlier, in the present study we created a single score that was based on the M and F dimension. For the purposes of the present research, this score was useful regardless of whether M and F were orthogonal or bipolar. This D/N variable was derived by subtracting (after *z*-score conversion) a participant's F score from his M score. The resultant dimension yielded the highest score for an individual who was relatively high on the dominance orientation and low on the nurturant orientation. In the circumplex model (e.g., Lippa, 1995; Wagner, Kiesler, & Schmidt, 1995), such a person is described as having a vindictive–domineering personality. We expected that this personality configuration would be most likely to express aggressive inclinations in actual behavior. At the opposite extreme of this dimension is the person who is relatively low on the dominance orientation and high on the nurturant orientation (in the circumplex model, a highly agreeable, submissive person). Such a personality would be expected to be the least likely to actually display overt aggression. Individuals who showed relatively similar or balanced dominance and nurturance orientation (whether high or low) would receive intermediate values on this dimension.

Outcome Variables

Sexual aggression. The modified version of Koss's Sexual Aggression (SA) Scale (e.g., Malamuth et al., 1991) was used to assess self-reported sexual aggression in the past. Participants responded to the 10-item measure by indicating whether or not they had engaged in particular acts varying in sexual intimacy (e.g., petting, attempted intercourse, intercourse) by coercing a female partner through various tactics including verbal threats, physical force, or weapons.

Coercive sexual fantasy. We used the Coercive Sexual Fantasy (CSF) Scale (Greendlinger & Byrne, 1987) to assess this measure. The original scale had 10 items, but we excluded 3. For the first, "It would turn me on to be tied up and forced by a woman to have sex with her," the respondent is not the aggressor. The second was "I get excited when a woman struggles over sex," which appears to refer to actual behavior rather than fantasy. Finally, the statement "I like to 'take' a woman" was excluded because of its ambiguity.

Responses were provided on a 9-point scale that ranged from *never* (1) to *often* (9) on items asking about frequency and from *strongly disagree* (1) to *strongly agree* (9) on items concerning the attraction of the fantasy.

Expanded likelihood to rape. Malamuth (1981) developed two items that ask each participant how likely he would be to engage in "forced sex" and "rape," "if you were sure that no one would ever find out and you'd never be punished for it." In addition to these, the Expanded Likelihood to Rape (ELR) Scale that we used asked participants to estimate how likely their best male friend would be to engage in the same behaviors (see Malamuth, 1989a, 1989b). Responses were reported on a 9-point scale ranging from *not at all* (1) to *very likely* (9).

Imagined sexual aggression. Analysis of the Greendlinger and Byrne CSF Scale (Greendlinger & Byrne, 1987) suggested that it may be measuring a cognitive process that is similar to that measured with the ELR Scale. The similarities of these scales led to their combination, for some of the analyses reported below, into one 11-item Imagined Sexual Aggression (ISA) Scale (i.e., 7 items from Greendlinger & Byrne, 1987,

[1] The Bem M scale includes the item "aggressive," which is used to describe one's personality. We excluded this item because of potential overlap in content with the dependent measure of sexual aggression. However, analyses that included this item have shown the same conclusions as those reported here.

Table 1
Correlations Among Predictor, Control, and Outcome Scales

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. AIV	—	.56***	.42***	.36***	.03	.18***	.06	.01	−.05	.05	−.30***	.39***	.38***	.46***	.18***
2. RMA		—	.37***	.41***	.04	.13**	−.03	−.01	−.09	.06	−.21***	.33***	.33***	.40***	.15**
3. SDOM			—	.32***	.09	.22***	.14**	.10	−.07	.13	−.27***	.37***	.37***	.45***	.21***
4. HTW				—	.09	.22***	−.02	−.20***	−.13	−.05	−.56***	.37***	.35***	.43***	.09
5. FV					—	.22***	−.02	.08	−.12	.14**	−.24***	.12	.20***	.19***	.14**
6. NC						—	.39***	.12	−.20***	.23***	−.34***	.24***	.27***	.30***	.24***
7. SE							—	.28***	.01	.20***	.01	−.01	.02	.01	.23***
8. DOM								—	.05	.69***	.14**	−.07	−.02	−.05	.21***
9. NUR									—	−.69***	.15**	.01	−.14**	−.08	−.09
10. D/N										—	.01	−.05	.09	.02	.21***
11. GI											—	−.41***	−.32***	−.44***	−.07
12. CSF												—	.39***	.83***	.15**
13. ELR													—	.83***	.16**
14. ISA														—	.19***
15. SA															—

Note. AIV = Acceptance of Interpersonal Violence Scale; RMA = Rape Myth Acceptance Scale; SDOM = Sexual Dominance Scale; HTW = Hostility Toward Women Scale; FV = Family Violence Scale; NC = Nonconformity Scale; SE = Sexual Experience Scale; DOM = Bem Masculinity Scale; NUR = Bem Femininity Scale; D/N = Dominance Relative to Nurturance Scale; GI = Good Impressions Scale; CSF = Coercive Sexual Fantasy Scale; ELR = Expanded Likelihood to Rape Scale; ISA = Imagined Sexual Aggression Scale; SA = Sexual Aggression Scale.
$^{**}p < .01$. $^{***}p < .001$.

and 4 from Malamuth, 1989a, 1989b). The internal consistency of the combined scale (reported in Table 1) supported this combination.

Procedure

All participants signed an informed consent form and completed the questionnaire. They were informed that they could leave at any point, but none left before completing the questionnaire.

Results

Descriptive Statistics and Intercorrelations Among Variables

Table 2 presents descriptive statistics. Skewness and Cronbach's alpha indicators were within acceptable limits for all variables in this sample (see Table 2). Table 1 presents intercorrelations among the predictor, control, and outcome variables.

Structural Equation Modeling

We conducted structural equation analyses using EQS (Bentler, 1992). We controlled for socially desirable response tendencies by using residual scores to partial out variance related to the GI variable. In addition to reporting the chi-square test statistic, we report two comparative fit indexes: the normed fit index (NFI; Bentler & Bonett, 1990) and the comparative fit index (CFI; Bentler, 1990). Both indexes take on values between zero and one, with increasing values indicating better data–model congruence. The CFI has the advantage of "avoiding the underestimation of fit sometimes found in true models with NFI" (Bentler, 1992, p. 93).

Full Sample

Initially, the basic model described by Malamuth et al. (Malamuth et al., 1991; Malamuth et al., 1995) was replicated (see Figure 1). ISA, which is hypothesized to be primarily the outcome of the hostile masculinity path (consistent with the correlations found in previous work), was also included. On the basis of previous findings (Barnes, Malamuth, & Check, 1984; Greendlinger & Byrne, 1987), we predicted a path between NC and ISA.

The model shown in Figure 1 was found to have acceptable overall fit, $\chi^2(31, N = 323) = 35.75, p = .18$ (normed fit index = .92; comparative fit index = .98). All of the predicted paths

Table 2
Descriptive Statistics for Individual Scales

Scale	No. of items	*M*	*SD*	Skew	α
Acceptance of Interpersonal Violence	6	16.07	6.02	0.50	.62
Rape Myth Acceptance	19	35.68	12.56	0.58	.87
Sexual Dominance	8	16.90	4.34	0.41	.80
Hostility Toward Women	30	126.39	31.61	−0.21	.88
Family Violence	18	26.04	7.76	1.07[a]	.86
Nonconformity	26	49.05	11.53	0.54	.82
Sexual Experience	21	33.60	7.45	−0.59	.97
Dominance (Bem M)	19	98.65	13.74	−0.61	.88
Nurturance (Bem F)	20	96.14	11.27	−0.48	.77
Dominance Relative to Nurturance	[b]	6.70	17.70	0.19	[b]
Good Impressions	40	158.21	33.14	0.51	.84
Coercive Sexual Fantasy	7	22.95	10.65	0.39	.75
Expanded Likelihood to Rape	4	7.92	5.43	0.83[a]	.82
Imagined Sexual Aggression	11	23.78	10.75	0.39	.81
Sexual Aggression	10	10.41	.92	2.59[a]	.58

Note. Dominance (Bem M) and Nurturance (Bem F) scales are from Bem (1974).
[a] Skewness presented for log 10 transformed variables.
[b] Dominance relative to nurturance is a variable created by subtracting participants' scores on the femininity subscale from their scores on the masculinity subscale.

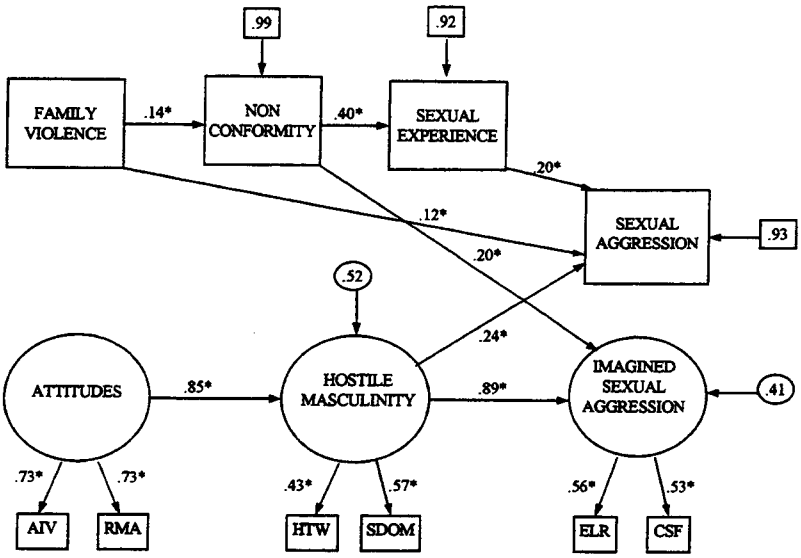

Figure 1. Structural equation model of sexual aggression using full sample. AIV = Acceptance of Interpersonal Violence Scale; RMA = Rape Myth Acceptance Scale; HTW = Hostility Toward Women Scale; SDOM = Sexual Dominance Scale; ELR = Expanded Likelihood to Rape Scale; CSF = Coercive Sexual Fantasy Scale. $*p < .02$.

in the model were significant ($p < .02$). Indirect effects were also significant ($p < .02$). The total amount of variance explained for sexual aggression was about 14%, and that for ISA was about 83%.

Moderating Influence of the D/N Dimension

The hypothesized moderator influence of the D/N dimension was tested by regression analyses and multisample covariance analysis with EQS (Bentler, 1992).

To perform moderated multiple regression (see Bissonnette, Ickes, Bernstein, & Knowles, 1990, for a discussion), we created component scores on the hostile masculinity path (i.e., RMA + AIV + HTW + SDOM) and the impersonal sex path (i.e., FV + NC + SE). The regression analyses on sexual aggression were conducted by first "force entering" the GI variable. We then force entered all the equivalent component variables showing effects in the structural equation model (i.e., hostile masculinity path, impersonal sex path, and FV). In addition, we force entered the D/N variable. All predictor variables had an independent, significant contribution to sexual aggression, except that FV was significant at the .08 level when all main effects were entered. The R was .37. To test the moderator role, we allowed all two-way interactions between D/N and all of the variables listed above to "free enter" in a stepwise fashion, setting the criteria to enter at .10. Two entered, with the interaction with FV entering first ($p < .0001$), followed by the interaction with hostile masculinity ($p < .08$), resulting in an R of .43. As expected, similar analyses did not reveal any interaction effects on ISA.

The structural equations model reported above for the full sample was tested next in a multisample analysis that used subsamples divided on the basis of D/N. Three groups were created by dividing the sample into the bottom, middle, and top thirds. However, on examination of the analyses, it was clear that the bottom third and the middle third did not differ significantly from each other. Therefore, the remaining analyses describe comparisons between the participants low and medium in D/N (referred to below as the nurturant group, $n = 215$) and those participants high in the D/N score (referred to below as the self-centered group, $n = 108$).

We first tested the restrictive model, which constrains all corresponding parameters in each sample to be equal to each other. As expected, this analysis yielded an unacceptable fit, $\chi^2(73, N = 323) = 92.24$, $p = .06$, NFI = .82, CFI = .95, indicating that in the most restricted case, the samples were not equivalent. Using the Lagrange Multiplier Test (Bentler, 1992) for releasing constraints, we released sequentially those paths that did not have a significant chi-square, beginning with the path with the poorest fit. Parameters that differed between samples were the path from FV to sexual aggression and the path from the hostile masculinity factor to sexual aggression. In addition, there was a difference between the two samples in the loading of the CSF Scale on ISA, which was not judged to be of any importance to the present focus. When these paths were not constrained to be equal across samples, the multisample analysis yielded an acceptable fit, $\chi^2(70, N = 323) = 66.63$, $p = .59$, NFI = .87, CFI = 1.00. In the self-centered group, approximately 28% of the variance in sexual aggression and about 86% of the variance in ISA were accounted for by this model. For the nurturant group, about 7% of the variance in sexual aggression and approximately 80% of the variance in ISA were accounted for by the model described.[2]

[2] We also tested a model in which the influence of hostile masculinity on sexual aggression was mediated by ISA. This model had a very similar fit to the model described here, including showing the moderating effect of the D/N dimension. Follow-up analyses were conducted on

Risk Analysis

A risk analysis similar to that of previous research (e.g., Malamuth, 1986; Malamuth et al., 1995) was also performed on the combined influence of the predictors of actual aggressive behavior and on ISA. Median splits were done on each of five predictor variables: FV, SE, NC, an attitude variable developed as a composite score of RMA and AIV, and a hostile masculinity variable created by adding HTW and SDOM. Participants were then divided according to the number of predictor variables for which they scored either above or below the median. A person scoring above the median on all variables was considered to have all the listed characteristics.

A two-way analysis of variance examining the sexual aggression level of participants categorized by risk factors and by D/N level yielded a significant interaction, $F(11, 311) = 3.58$, $p < .005$. Post hoc comparisons using t tests showed that the significant interaction primarily stemmed from the self-centered group, members of which had all five risk characteristics (see Figure 2). This cell differed from all other cells. No other cells were significantly different from each other.[3] However, trend analyses within each group showed a linear increase at the .05 level within the nurturant group and at the .0002 level within the self-centered group.

A similar analysis of variance was conducted with ISA as the dependent variable. There were significant main effects, indicating differences between samples and among participants with different numbers of risk factors, but no significant interaction. As shown in Figure 2, for both the self-centered and the nurturant groups, ISA increased as the number of risk factors increased, as revealed in strong linear trends ($p < .0001$).

Overall, the nurturant group actually had higher fantasized sexual aggression than the self-centered group. However, comparing the groups at the same number of risk variables showed that only the participants with four risk factors significantly differed between self-centered and nurturant groups.

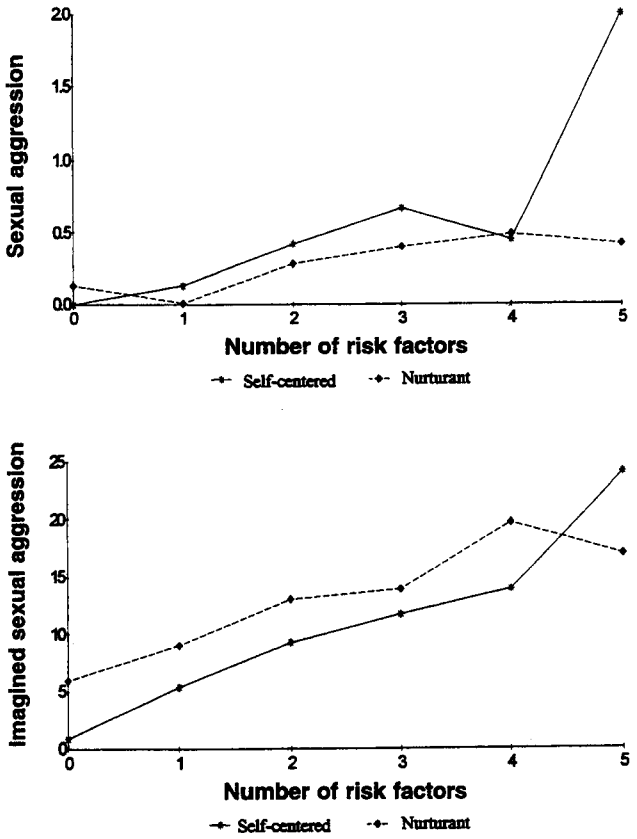

Figure 2. Mean levels of sexual aggression and of imagined sexual aggression as a function of a self-centered versus a nurturant personality and the number of risk factors present. For the self-centered group, ns = 5, 15, 24, 30, 22, and 12 for 0, 1, 2, 3, 4, and 5 risk factors, respectively. For the nurturant group, ns = 23, 34, 40, 65, 40, and 13 for 0, 1, 2, 3, 4, and 5 risk factors, respectively.

Discussion

The present findings add an important moderating dimension to previous work on developing a model of the risk factors contributing to men's sexual aggression. The data show that the degree to which the risk factors translate into actual aggression depends on the extent to which a man is relatively self-centered versus sensitive to others' feelings (i.e., nurturant). When a high-risk individual is self-centered, he is more likely to actually be sexually aggressive. In contrast, the high-risk individual who is sensitive to others' feelings is not likely to actually aggress sexually. However, regardless of whether the high-risk person is relatively nurturant or self-centered, he is likely to imagine aggressing sexually.

Additional support for the type of moderating effect found here on actual aggression may be found in a recent study by Malamuth, Heavey, and Linz (1996), who evaluated the role of empathy as a moderator between the risk factor of sexual arousal to aggression (measured by penile tumescence) and actual aggressive behavior. Using a 10-year longitudinal design, they found that this risk factor was a successful predictor of sexual aggression when men's empathy was low, but that there was no

the relationship between ISA (the combination of the CSF and ELR Scales) and sexual aggression. The correlation was significant in the self-centered group ($r = .30$), but not for the nurturant group ($r = .11$). These two correlations differed significantly from each other, indicating that for the self-centered group, there was a stronger relationship between imagined and actual aggression. Similar conclusions were reached when we examined separately each of the scales constituting ISA. For the self-centered group, we found a significant correlation between sexual aggression and CSF ($r = .32$) as well as ELR ($r = .21$). For the nurturant group, neither the correlation with CSF ($r = .07$) nor that with ELR ($r = .11$) was significant.

[3] Another way of looking at the data is in terms of the percentage of participants reporting any sexual aggression at all. For the nurturant group, we found some increase in this percentage as a function of the number of risk factors: zero risk factors, 13%; one risk factor, 3%; two risk factors, 15%; three risk factors, 18%; four risk factors, 33%; and five risk factors, 46%. However, for the self-centered group, the increase was much more dramatic: zero risk factors, 0%; one risk factor, 7%; two risk factors, 25%; three risk factors, 37%; four risk factors, 23%; and five risk factors, 92%.

relationship between sexual arousal to aggression and behavior when empathy was relatively high.

These two studies may be seen as supporting the recent emphasis among therapists on the importance of empathy training for sexually aggressive men (e.g., Marshall, 1993; Pithers, 1993). However, the present data raise questions about the likely effectiveness of such training in modifying aggressive behavior. Are empathy skills per se the critical component attenuating the relationship between the risk factors and aggression, or is empathy merely one component of a larger personality dimension that may be necessary for the moderating effect to occur? This question is pertinent to the likely success of interventions. Empathy performance may be more amenable to training than a broad personality dimension (for discussions of the modifiability of personality, see Heatherton & Weinberger, 1994). It may even be that the moderating influence occurs at a broader level of personality (e.g., Costa & McCrae, 1992; Eysenck, 1967) of which D/N is only a part. This possibility may help explain some recent findings suggesting that interventions that do change empathic responses do not necessarily succeed in also modifying the rape potential of high-risk men (e.g., Schewe & O'Donohue, 1993). Future research should examine the generality and modifiability of the factors necessary for successful moderation between risk factors and aggressive behavior.

We also found evidence that, as predicted, several risk factors (particularly those of the hostile masculinity path) are very predictive of ISA and that these relationships were not moderated by the D/N dimension. Overall, these data contradict the view that imagining sexual aggression is an isolated response. Instead, they suggest that imagined aggression may provide information regarding the existence of underlying risk factors even when there is not overt aggressive behavior.

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