

Sexual Responsiveness of College Students to Rape Depictions: Inhibitory and Disinhibitory Effects

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Two experiments were conducted to identify the specific dimensions in portrayals of sexual violence that inhibit or disinhibit the sexual responsiveness of male and female college students. The first experiment replicated earlier findings that normals are less sexually aroused by portrayals of sexual assault than by depictions of mutually consenting sex. In the second experiment, it was shown that portraying the rape victim as experiencing an involuntary orgasm disinhibited subjects' sexual responsiveness and resulted in levels of arousal comparable to those elicited by depictions of mutually consenting sex. Surprisingly, however, it was found that although female subjects were most aroused when the rape victim was portrayed as experiencing an orgasm and no pain, males were most aroused when the victim experienced an orgasm and pain. The relevance of these data to pornography and to the common belief among rapists that their victims derive pleasure from being assaulted is discussed. Misattribution, identification, and power explanations of the findings are also discussed. Finally, it is suggested that arousing stimuli that fuse sexuality and violence may have antisocial effects.

The assessment of sexual arousal in response to portrayals of sexual violence has recently become a valuable tool in the treatment of rapists (Abel, Blanchard, & Becker, 1978; Abel, Barlow, Blanchard, & Guild, 1977). Abel et al. (1977), in fact, contend that measures of sexual responsiveness to the depiction of rape relative to sexual arousal engendered by mutually consenting sexual themes serve as indices of the proclivity to rape. These investigators base this contention on the finding that rapists in their sample evidenced high sexual arousal to audiotaped portrayals of both rape and consenting acts, whereas the nonrapist comparison group showed substantial sexual arousal to the mutually consenting depictions only.

Both the rapist and nonrapist samples studied by Abel and his colleagues were male

patients referred for evaluation of their deviant sexual arousal. Other studies, however, lend some support to the conclusion that normal subjects are not sexually aroused by sexual violence. Baron and Byrne (1977) summarized the self-reported effects of exposure to varied sexual stimuli emerging from studies with both married and unmarried males and females in the United States and West Germany. They concluded that these studies consistently show that sexual acts involving violence are among the least arousing of sexual themes.

Such conclusions appear incongruous with content analyses revealing that a great deal of hard core pornography (Smith, 1976; McConahay & McConahay, Note 1) and an increasing percentage of soft core erotica ("Pornography," 1976; "Pretty Poison: The Selling of Sexual Warfare," 1977; "Really Socking It to Women," 1977; Malamuth & Spinner, Note 2) incorporate violent themes. It seems likely that publishers' decisions to

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include violent pornography in their publications is to some degree a reflection of buyers' interests. It may well be, therefore, that certain dimensions distinguish the type of sexual violence found in commercially available erotica from the erotica used in the research studies cited above. Consistent with this possibility are the data reported by Schmidt (1975). This investigator found that both males and females were highly aroused sexually in response to a movie depicting a rape but were not at all aroused by a film showing an extreme sadomasochistic ritual. The latter stimulus is quite representative of the type used in most of the research surveyed by Baron and Byrne (1977). Unfortunately, Schmidt's description of the rape stimulus is not sufficiently detailed to suggest how it may have differed from those used by Abel et al. (1977) and therefore possibly account for the discrepant results of these investigations.

The theoretical basis for the present research was derived from the recent analysis by Malamuth, Feshbach, and Jaffe (1977) of the relationship between sexual arousal and aggression. This position emphasized the influence of inhibitory and disinhibitory factors. It was argued that for some subjects, the portrayal of rape may serve a disinhibitory function by minimizing (from the victim's perspective) responsibility for sexual acts (see also Hariton & Singer, 1974; Johnson & Goodchilds, 1973) and (from the assailant's perspective) the potential of rejection, performance evaluation, and so on. However, certain elements within rape portrayals may serve to strongly inhibit sexual responsiveness. Such elements would include the social inappropriateness of the act or the victim's suffering. This analysis suggests that the difference between deviates and nondeviates is not primarily in what "turns them on" but in what "turns them off," and that normal subjects may become highly aroused to rape themes in the context of disinhibitory factors.

A recent experiment by Briddell et al. (1978) yielded results consistent with an inhibition-disinhibition analysis. They found that undergraduate male subjects who were led to believe that they had consumed alcohol, irrespective of whether they actually had, responded with as much sexual arousal (as

revealed by direct genital measures) to the depiction of rape as to mutually desired intercourse. On the other hand, subjects who were led to believe that they had not ingested alcohol, irrespective of whether they actually had, revealed penile tumescence differences between the rape and mutually desired intercourse that were similar to those reported by Abel et al. (1977). These data indicate that disinhibiting subjects via a change in their cognitive set may result in their sexual responses to rape stimuli becoming virtually indistinguishable from those of rapists.

The present investigation was designed to analyze the specific dimensions within portrayals of sexual violence that would inhibit or disinhibit the sexual responsiveness of normal subjects. The need for such an investigation was anticipated by Abel and Blanchard (1976) in their review of research on the sexual arousal and treatment of deviants.

Examination of the materials used by Abel et al. (1977) indicated that the differences between the rape and nonrape stories occurred not only in whether the female was a willing participant, but also in a number of other dimensions. As described below, these dimensions were systematically varied within sexual stories so as to create differing versions of the same story and thereby enable the assessment of the influence of these dimensions on sexual responsiveness. Such an analysis may substantially contribute to the development of measures for diagnosing the proclivity to rape by pinpointing the specific dimensions that may turn normal, but not deviate, subjects off.

Experiment 1

The first experiment was intended to replicate Abel et al.'s (1977) finding that normals respond with less sexual arousal to sexual assault than to a mutually consenting portrayal. The contribution of a number of inhibitory-disinhibitory dimensions was also examined.

One such dimension involved the nature of the female's experience of pain. Examination of the rape and nonrape stories used by Abel et al. (1977) indicated that the rape versions included considerable victim pain and suffer-

ing. Pornographic materials incorporating sexual violence as well as rape fantasies of many nondeviates, on the other hand, are not generally associated with much victim pain (Hariton & Singer, 1974; Johnson & Goodchilds, 1973; Maslow, 1942). It was predicted that the depiction of pain within the context of sexual violence would result in little sexual arousal compared with a mutually consenting depiction including pain, but that the degree of sexual arousal generated by the no-pain versions would be similar irrespective of whether the story was of a sexually violent or mutually consenting nature.

In addition to manipulating the female's pain and whether the sexual interaction was of a coercive nature, aspects of the coercive and noncoercive stories were varied via nesting. Within the coercive versions, the intentions of the aggressor were manipulated. The assailant was either portrayed as having planned the assault or as having committed a rape that was not premeditated. Since intentional crimes are more likely to be perceived as unacceptable (Horai & Bartek, 1978; Maselli & Altrocchi, 1969), it was predicted that the intentional assault would inhibit sexual arousal to a greater extent than the act that was not premeditated.

Within the mutually desired depictions, the presence of aggressive cues was manipulated. It was predicted on the basis of earlier research (Malamuth et al., 1977) that aggressive cues would disinhibit "taboo" inhibitions and consequently enhance sexual responsivity.

The experimental design thus consisted of a 2 (male or female subjects) \times 2 (assault or mutually desired) \times 2 (pain or no pain) factorial design with two levels of intentionality nested within the assault passages, and two levels of aggressive cues nested within the mutually consenting passages. In total, then, there were eight versions of the same story and 16 experimental conditions.

Method

Subjects. Three hundred and eight students in two undergraduate psychology classes at the University of California, Los Angeles (UCLA) participated in the study at the beginning of a course lecture. Fourteen subjects were omitted from data analyses because of their failure to complete the questionnaire. The remaining participants consisted

of 135 males and 159 females. Preliminary analyses of the data with students' class as a variable indicated negligible differences, thereby justifying collapsing the data across this variable.

Procedure. Subjects were informed that they would be given a booklet containing a short passage of an erotic nature and a brief questionnaire. The instructor indicated that anyone who did not wish to participate was free to leave without being penalized in any way or could simply choose not to examine or to complete the materials. No one left the room. Subjects were asked to remain quiet until the completion of the study and to avoid looking at anyone else's booklet because of the private nature of the materials. Booklets containing the eight versions of the passage and an attached questionnaire were then randomly distributed by a female graduate student who was unknown to the subjects. The booklets were collected after approximately 15 minutes. At the next meeting of the class, the design and purpose of the study were presented, and there was some discussion of preliminary results and the purposes of such research.

Materials. A one-page description of sexual intercourse (Malamuth, Feshbach, Fera, & Kunath, Note 3) served as the basis for the following manipulations:

Rape versus nonrape. The rape versions of the passage began with a description of the woman fighting the advances of the male and trying unsuccessfully to get free. Interspersed throughout the passage were depictions of her being *forcefully crushed, terrified, paralyzed, and forced*. Her reactions consisted of *screaming, panic, paralysis, and a frenzy of tears*. In the mutually consenting versions, in contrast, no reference was made to any force or resistance and the woman's reactions were described as being *excited, feeling sensuousness, hungrily pulling him towards her, a sigh of pleasure, and a frenzy of bliss*.

Pain variable. The pain version included several references to the woman's experiencing *waves of pain, discomfort, hurting, sore, and aching*, whereas the other version did not contain direct references to pain.

Intent variable (nested within rape versions). The rape stories included one of the following paragraphs to differentiate the premeditated from the unplanned assault. The premeditated version read:

For days he had been waiting to fuck the hell out of a woman, a proper payment in his mind for the games women had been playing with him. Now he particularly appreciated the tinge of resistance he felt from her. She was feeding his already large store of antagonism towards women.

The unplanned version, in contrast, read:

His passion had soared beyond control. He had not meant to lose control like this but there was no way he could stop himself now. He felt that he was not responsible for his actions. Nature was taking over and leading him to act out its course.

Aggressive cues (nested within nonassault versions). The words *drove*, *torrent*, *spun*, *intense*, *pushed*, *sending*, *thrust*, and *pressed* in the passages not containing aggressive cues were replaced by the words *stabbed*, *assault*, *moaned*, *hard-locked*, *pounded*, *driving*, *rammed*, and *slammed*. An example of the effect of this variation is in the following two versions of the same sentence: "His powerful muscles drove the hardened member through her in a torrent of forceful thrusts" and "His powerful muscles stabbed the hardened member through her in an assault of forceful thrusts." It should be reiterated that despite the presence of aggressive cues, it was very clear that the sexual interaction in these passage versions was mutually desired.

Dependent measure. Subjects' reactions to the passages were assessed by means of a mood checklist. This form consisted of 11 descriptors of various moods with instructions to indicate one's feelings at the moment. For each mood description, the subject was asked to check one of 9 points along a scale ranging from *none at all* (0) to *extremely* (8).

Two items, one appearing at the beginning and one at the end of the list of adjectives, concerned sexual responsiveness. The first referred to feelings of "sexual arousal and being sexually 'turned on,'" whereas the second referred to feeling "sexually tantalized or sensuous." The other questionnaire items inquired about anxiety, boredom, clear thinking, frustration, energetic feelings, offense, embarrassment, anger, and positive affect.

Since the primary dependent measure of the present investigation consisted of self-reported sexual arousal, some discussion of the validity of these reports is warranted. For nondeviant populations, self-reported sexual arousal has been generally found to correlate highly with genital measures (Abel et al., 1977; Abel, Blanchard, Murphy, Becker, & Djenderadjian, in press; Heiman, 1977; Schaefer, Treggerthan, & Colgan, 1976), with the magnitude of correlations typically ranging from .40 to .70. It is now recognized that physiological measures, as well as, of course, self-reports, may be voluntarily altered by subjects sufficiently motivated to do so (Abel & Blanchard, 1976; Amoroso & Brown, 1973; Cerny, 1978; Henson & Rubin, 1971; Laws & Holmen, 1978; Quinsey & Carrigan, 1978). Particularly with "taboo" stimuli such as rape, however, false positives are unlikely to occur; that is, subjects are not likely to be motivated to report or create arousal if it does not exist, but there may be some social desirability tendency to deny arousal. Discrepancies between self-reports and genital measures are far more likely to be in the direction of underestimating rather than overestimating arousal via self-reports (Abel et al., 1977; Schaefer et al., 1976). It would seem, therefore, that although some caution is necessary, considerable confidence may be attached to self-reports of the existence of sexual arousal, particularly in response to "taboo" stimuli.

Results

Sexual responsiveness. The two items assessing sexual responsiveness correlated highly, $r(294) = .77$, $p < .0001$. An analysis of variance (ANOVA) was performed on each of these items individually and on a composite score computed by averaging them. This analysis included $2(\text{gender}) \times 2(\text{consent}) \times 2(\text{pain})$ fully crossed factorial variables, 2 levels of intentionality nested within the rape versions, and 2 levels of aggressive cues nested within the mutually consenting versions. The results yielded an effect for the consent variable that was only a trend on the sexual arousal item, $F(1, 278) = 2.17$, $p < .14$, but was significant on both the sexually tantalized or sensuous, $F(1, 278) = 6.44$, $p < .01$, and the sexual composite, $F(1, 278) = 4.74$, $p < .03$, measures. Subjects who had read the nonrape versions of the story reported being more sexually aroused (sexual composite $M = 2.84$, $n = 145$) than those who had read the rape versions ($M = 2.35$, $n = 149$).

Nonsexual affect. The analysis of variance performed on the nonsexual adjectives also yielded significant effects as a function of the consent manipulation. As compared with those reading the rape versions of the story, subjects reading the mutually consenting versions felt more positive, $F(1, 278) = 18.91$, $p < .001$ ($M = 4.26$ vs. $M = 3.20$), but less angry $F(1, 278) = 23.40$, $p < .001$ ($M = .66$ vs. $M = 1.80$), and offended $F(1, 278) = 12.57$, $p < .001$ ($M = .98$ vs. $M = 1.58$). It should be noted that in general, subjects reported feeling considerable positive and relatively little negative affect.

Interaction effects between subjects' gender and reactions to the rape versus nonrape passages were found on the anger, $F(1, 278) = 8.56$, $p < .004$, and offended, $F(1, 278) = 9.77$, $p < .002$, items. These interactions were due to both genders expressing nearly identical and very low levels of anger or offense to the nonrape stories, whereas in reaction to the rape stories females expressed more of these negative feelings than males (see Table 1).

Discussion

The results are consistent with earlier findings indicating that normals are less sexually aroused by themes portraying sexual assault than by mutually consenting depictions. The results failed to reveal, however, any critical dimensions that might mitigate the impact of the consent dimension. As such, these data do not explain the apparent discrepancy between findings in the literature that rape themes are not sexually arousing to normal subjects and the high prevalence of such themes in popular pornography.

Experiment 2

The second experiment was designed to further examine the dimensions that may serve to disinhibit sexual responsiveness within rape depictions. Only rape stories were utilized in this study. Careful examination of the materials used in the first experiment and those of Abel et al. (1977) suggested that another aspect of the victim's experience in addition to pain may be of critical importance—the extent to which she is portrayed as having derived pleasure from being victimized. The nonrape stories used by Abel et al. and those used in our first experiment emphasized the fact that the woman “liked it” and became sexually aroused, whereas the rape version, particularly in Abel et al.'s research, emphasized her revolt and disgust. In fact, in describing the differences between their rape and nonrape portrayals, Abel et al. (1977, 1978) refer to two dimensions: (a) The rape stories involved coercion, whereas the nonrape stories did not, and (b) the rape depictions emphasized that the woman abhorred the experience, whereas in the nonrape versions much emphasis was placed on the woman's pleasure. Typical descriptions of rape in pornography, in contrast, almost invariably emphasize that the victim eventually became involuntarily sexually aroused despite her resistance to the assault (Brownmiller, 1975; Gager & Schurr, 1976; Smith, 1976; McConahay & McConahay, Note 1).

To analyze the importance of this dimension, a manipulation in the outcome of the assault was introduced: A few words were altered to indicate that the victim either

Table 1
Mean Reports of Anger and Offense to the Rape and Nonrape Passages as a Function of Subjects' Gender

Gender	Type of passage			
	Rape		Nonrape	
	Angry	Offended	Angry	Offended
Male	1.22	1.06	.66	.98
Female	2.24	2.37	.66	.97

experienced disgust and nausea or an involuntary orgasm.¹ As described below, a validation study was undertaken as a check of the passage manipulations.

The experimental design of both the validation study and the second experiment consisted of a 2(pain or no pain) × 2(premeditated or unplanned) × 2(nausea or orgasm) × 2(male or female subjects) fully crossed factorial design. In the validation study, undergraduate judges were asked to rate the stories on a variety of dimensions, whereas in the experiment itself, the dependent measure consisted of the mood checklist used in the first study.

Validation Study

One hundred and thirty-nine male and female introductory psychology students fulfilling part of a course requirement participated in the validation study. The eight versions of the stories were randomly distributed to subjects along with an attached questionnaire. It inquired about their perceptions of how planned the assailant's actions were; whether the victim derived any pleasure from the assault; the intensity, if any, of her sexual emotions; and the amount of pain she experienced. Participants responded on 5-point scales ranging from *not at all* to *very*.

¹ The investigators struggled with the ethics of including “orgasm” rape depictions in the experiment. In order to study the impact of such commonly available portrayals, however, it was decided to include them followed by a very clear statement that such depictions are totally false. The discussion that followed was largely focused on the function that such portrayals may serve for some readers, the reasons for the prevalence of so many myths, and the true horror of the crime of rape.

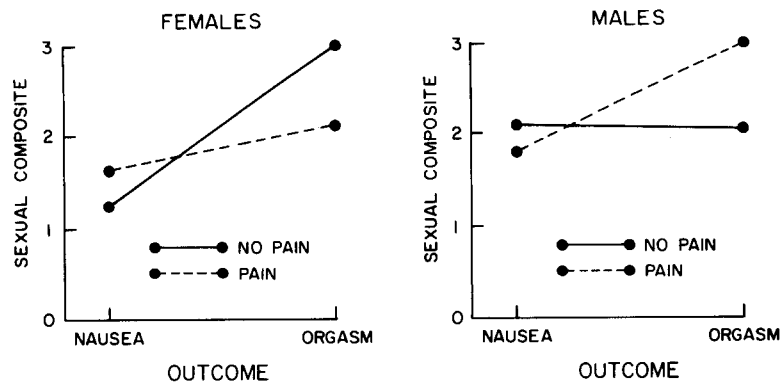


Figure 1. Mean sexual arousal as a function of subjects' gender and passage variations of the pain and outcome dimensions.

The data of four subjects were omitted because of failure to complete the questionnaire.

The manipulation checks provided clear support for the intended variations in the content of the stories. Orgasm outcome stories were perceived as significantly more pleasurable, $F(1, 119) = 17.46$, $p < .001$, and sexually intense, $F(1, 119) = 8.47$, $p < .004$, than the nausea outcome stories. Pain stories were viewed as more painful, $F(1, 119) = 5.42$, $p < .025$, than no-pain stories. Intentional stories were seen as more planned than the unintentional versions, $F(1, 119) = 40.14$, $p < .001$.

Method

Subjects. One hundred and twenty-eight students in two undergraduate psychology classes at UCLA participated in the experiment at the beginning of course lectures. Five subjects were omitted from data analyses because of their failure to complete the questionnaires. The remaining participants consisted of 68 females and 55 males. Preliminary analyses of the data with class as a variable yielded negligible differences; the data were then collapsed across this variable.

Procedure. The procedure was identical to that described in Experiment 1.

Materials. The basic rape passage and the manipulation of the pain and intent variables were virtually identical to those of Experiment 1. The manipulation of the outcome variable was accomplished by adding at the end of the story one of the following sentences: "Mary Ann found herself overcome with disgust, which sent her reeling into a state of extreme nausea" or "Mary Ann found herself overcome with passion, which sent her reeling into a violent orgasm."

Results

Sexual responsiveness. The two items assessing sexual responsiveness were found to correlate quite highly, $r(123) = .62$, $p < .0001$. An ANOVA yielded a main effect for the outcome variable on the sexual arousal item, $F = 4.14$, $p < .05$;² the sensuous item, $F = 6.47$, $p < .01$; and the composite score, $F = 6.57$, $p < .01$. This effect indicated that stories portraying the victim as experiencing an involuntary orgasm were more sexually stimulating than those in which the victim reacted with nausea.

A three-way interaction was also obtained among the outcome, pain, and gender variables on the sexual arousal, $F = 6.42$, $p < .01$; sensuous, $F = 4.01$, $p < .05$; and composite, $F = 6.41$, $p < .01$, measures. As revealed by the sexual composite scores in Figure 1, both males and females responded with relatively low levels of sexual arousal to the depiction of victim nausea, irrespective of whether pain was described. However, females were relatively highly aroused when the victim was described as experiencing an orgasm and no pain, whereas males were most aroused when the victim experienced orgasm and pain. Simple effects follow-ups (Keppel, 1973) revealed significant differences for females between the no-pain-*nausea* outcome and the no-pain-*orgasm* conditions, $F = 6.66$, $p < .025$, and for males between the pain-*nausea* outcome

² The degrees of freedom for all of the analyses that follow are 1, 107.

and the pain-organism conditions, $F = 4.22$, $p < .05$.

Nonsexual affect. A main effect as a function of the outcome variation was also found for the variable assessing feelings of general excitement, $F = 5.43$, $p < .025$, and an effect approaching significance on positive affect, $F = 3.34$, $p < .07$. Subjects reported more general arousal and positive affect following the reading of the orgasm as compared with the nausea outcome.

Main effects as a function of the pain manipulation were found on the anxiety, $F = 5.79$, $p < .02$, and frustration, $F = 7.61$, $p < .01$, variables, and a trend on the angry item, $F = 2.97$, $p < .10$. Subjects were more anxious, frustrated, and angry following the passages portraying victim pain.

Main effects for the gender variable were also obtained. Compared to male subjects, females felt more frustrated, $F = 9.14$, $p < .005$; offended, $F = 17.66$, $p < .001$; embarrassed, $F = 18.36$, $p < .001$; and angered, $F = 10.56$, $p < .002$, but less positive, $F = 11.48$, $p < .001$, following the reading of these rape stories. As in the first experiment, however, the absolute levels of the negative emotions were rather low for both genders.

Discussion

The data of Experiment 2 indicated that the manipulation of the outcome dimension within rape stories significantly influenced subjects' levels of sexual arousal. When the victim was depicted as experiencing an involuntary orgasm, subjects reported relatively high levels of sexual arousal as compared to when the victim responded with nausea. Moreover, the outcome variable interacted with the pain and gender variables: Whereas both genders were relatively not sexually stimulated to the nausea portrayal, males were relatively highly aroused when the victim experienced an orgasm and pain, and females were relatively highly aroused when the victim experienced an orgasm and no pain.

Prior to discussing the meaning of these findings, it is important to examine the comparability of the data in the two experiments reported herein. If the data of the second experiment are collapsed across the outcome

variable, the results for the rape stories used in both experiments are highly similar. Furthermore, the highest mean level of sexual arousal reported for any of the nonrape versions of the first experiment, about 3 on a scale ranging from 0 to 8, is virtually identical to the highest levels of arousal reported to certain rape versions in the second experiment.

It is also worthwhile to consider the comparability of the present arousal levels to those of previous research. Unfortunately, it is not possible to make such a comparison with Briddell et al.'s (1978) data, since these investigators reported only mean change in penile diameter. Abel et al. (1977) presented subjects' self-reports and penile tumescence levels (which are virtually identical for nonrapists) as a self-reported percentage of maximum arousal and as a percentage of full erection. It should be noted, however, that Abel and his colleagues created individual stories for each subject on the basis of what that person found most arousing. Furthermore, these investigators had the subject listen to the stories twice before selecting the highest responses. The mean level of nonrapists' sexual arousal to the mutually enjoyable stories was about 60%. The means in the present experiments in those nonrape and rape conditions that generated the most arousal were about 44% of the maximum scale level. Considering the differing procedures employed, these arousal levels seem to be quite comparable.

A study designed to replicate and extend the results reported here for the outcome manipulation was recently completed by Malamuth and Check (Note 4). This study, which did not manipulate the pain dimension, involved male subjects only and utilized genital measures of physiological arousal as well as self-reports. Moreover, the basic story used to manipulate the outcome and consent dimensions was taken from those employed by Abel et al. (1977) and was presented via audiotapes. The rape depiction portraying the victim as involuntarily becoming sexually aroused was found to be significantly more sexually stimulating to subjects than the rape version originally used by Abel et al. (1977) and absolutely, though not significantly, more

stimulating than the mutually consenting version.

It would seem that within pornographic depictions of rape, the victim's arousal constitutes an important component of these stimuli's appeal. This observation is of particular interest in light of reports by several investigators that many rapists strongly believe that their victims derive pleasure from being assaulted. Gager and Schurr (1976), for instance, state that "probably the single most used cry of rapist to victim is: 'You bitch . . . slut . . . you know you want it! You *all* want it!' and afterward, 'There now, you really enjoyed it didn't you? Why don't we do this again?'" (p. 244). Clark and Lewis (1977) similarly report finding that "it was very common for a rapist to ask his victim whether or not she was enjoying the situation, and to demand a positive response" (p. 102).

Several reasons may be suggested for subjects' higher levels of sexual arousal to the orgasm versus nausea story versions. Subjects may reinterpret the events preceding the depiction of the victim's orgasm so that the assault is no longer perceived as clearly coercive in nature. Similarly, if subjects are identifying with the woman, they may respond with greater arousal if she is aroused. Alternatively, the description of the victim's orgasm may serve to justify the assault in the reader's mind and thereby minimize guilt feelings.

Yet another interpretation of this effect is in terms of the perceived power of the assailant. By forcing a woman to reach an orgasm despite her abhorrence of the assailant, the rapist may be perceived as having gained ultimate control over the only source of power historically associated with a woman—her body (Clark & Lewis, 1977). Identification with a powerful assailant may be stimulating to individuals reared with "macho" ideals of the male sex role (Gross, 1978).

The interaction between gender, outcome, and pain variables may provide further information as to which of the interpretations suggested above is the most plausible. This interaction raises the possibility that differing interpretations may apply to male and female subjects. Since females indicated high levels of sexual arousal when the woman was portrayed as experiencing no pain and an or-

gasm, it would seem that their identification with the victim would most readily explain the outcome effect. Males' reports of the highest arousal when the victim experienced pain and an orgasm might be interpreted as most consistent with a "power" explanation whereby despite her pain and suffering she is forced to climax. However, a rather different interpretation of males' data may be suggested in terms of misattribution or mislabeling processes. Within the context of the orgasm description, the victim's pain may be perceived as reflecting intense pleasure, given the many physiological and overt similarities in the manifestations of these intense emotional responses (Kinsey, Pomeroy, Martin, & Gebhard, 1953).

The finding that sexually violent depictions may stimulate considerable levels of sexual arousal in normal subjects raises an important question: What are the effects of being sexually stimulated by such violent themes? This issue is of particular importance in light of the continuous increase in the frequency of such stimuli over the past few years (Malamuth & Spinner, Note 2). The research of the President's Commission on Obscenity and Pornography (1970), which concluded that there was no evidence to indicate that exposure to pornography had anti-social effects, did not adequately examine the effects of sexually violent portrayals (Cline, 1973; Donnerstein & Hallam, 1978; Malamuth, Haber, & Feshbach, 1980), partially because the prevalence of such themes is a relatively recent phenomenon.

On theoretical grounds, there is reason to be concerned about exposure to such fusion of sexuality and violence, particularly when relatively high levels of sexual arousal are stimulated. One process that may potentially occur is suggested by research on homosexuality. Herman, Barlow, and Agras (1974) reported that repeatedly exposing homosexuals to heterosexual stimuli and instructing them to "imagine engaging in heterosexual behavior" was sufficient, as indicated in self-reports and physiological measures, to modify their arousal patterns and increase heterosexual behavior outside the laboratory. The authors suggest that the extinction of avoidance tendencies and providing new fantasy ma-

terial may have been responsible for the increased sexual arousal to the heterosexual stimuli.

Similar exposure-arousal-behavior processes may operate when subjects are repeatedly presented with sexually violent stimuli. If the use of violence in sexual and other relations has been generally frowned upon in society, we would expect most individuals to possess strong inhibitory or avoidance tendencies vis-à-vis such acts. Exposure to portrayals of sexual violence may under certain conditions reduce these inhibitory patterns (Malamuth et al., 1977).

The type of conditions that may lead to such effects is suggested by the Herman et al. (1974) study. These investigators reported that only those stimuli that elicited relatively intense sexual reactions were found to lead to new fantasies and behavior. It would seem that certain factors, such as those induced by the belief that one is under the influence of alcohol (Briddell et al., 1978) or the perception that the rape victim derived pleasure from the assault, may alter the cognitive inhibitors of normals and thereby enable the generation of considerable levels of sexual arousal.

The elicitation of sexual arousal within a violent context may result in a conditioning process whereby violent acts become associated with sexual pleasure, a highly powerful unconditioned stimulus and reinforcer. In fact, many current treatments for individuals exhibiting violent sexual behavior or fantasies (Abel et al., 1978; Brownell, Hayes, & Barlow, 1977; Hayes, Brownell, & Barlow, 1978) are based on the premise that the association of fantasies with sexual arousal may result in therapeutic changes. From a learning perspective, it is equally likely that exposure to violence juxtaposed with sexually arousing stimuli could increase sexual arousal to such violent stimuli and possibly lead to changes in behavior.

From a more cognitive perspective, similar effects may be anticipated. The information conveyed in much of the sexually violent material is that even if women seem to be disinterested or repulsed by a pursuer, the allegedly basic need to be dominated will inevitably result in their becoming "turned

on" to overpowering by the male assailant. Such portrayals may affect beliefs about appropriate male-female relations and about the meaning of disinterested responses communicated by females (Johnson & Goodchilds, 1973).

Clearly, there exists a need for further empirical research designed to analyze the reactions of normal subjects to varied types of sexually violent stimuli and to study the effects of these exposures on such areas as beliefs about the appropriateness of using force in sexual relations, sexual fantasies, reactions to sexual assailants and victims, and the proclivity to actual acts of sexual violence.

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Received January 29, 1979 ■

