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Sexual Violence in the Media: Indirect Effects on Aggression Against Women

Neil M. Malamuth
University of California, Los Angeles

John Briere
Harbor–U.C.L.A. Medical Center

We present a model hypothesizing indirect effects of media sexual violence on aggression against women. It suggests that certain cultural factors (including mass media) and individual variables interact to affect some people's thought patterns and other responses that may lead to antisocial behavior, including aggression. Two streams of current research are relevant to the model. The first shows connections between exposure to sexually violent media and the development of thought patterns that support violence against women. The second reveals links between such patterns and various forms of antisocial behavior in the laboratory and in naturalistic settings. Suggestions for further research are discussed.

According to recent studies, about one quarter of North American women have been raped or sexually assaulted at some point in their lives (e.g., Brickman & Briere, 1984; Hall & Flannery, 1984; Russell, 1983) and about one half of all female college students have experienced some form of male sexual aggression in a given year (e.g., Kanin & Parcell, 1977). Such statistics suggest that sexual violence against women, rather than being the product of only a few deviant individuals, is committed by large numbers of men. The effects of cultural and

Correspondence regarding this article should be addressed to Neil Malamuth, Communication Studies Program, 232 Royce Hall, University of California, Los Angeles, CA 90024.

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social variables on male sexual aggression[1] have therefore received greater attention in recent analyses; the role of the mass media is one such object of inquiry.

Theorists on media effects posit either direct or indirect paths of influence on behavior (DeFleur & Dennis, 1981). Those who postulate direct paths believe specific depictions are responsible for specific actions. For example, a civil suit brought against NBC television alleged that the portrayal of rape in a television movie, *Born Innocent,* directly resulted in an imitation rape by several juvenile viewers (*Olivia v. National Broadcasting Company, Inc.,* 1968). Indirect models do not rule out a direct cause–effect relationship, but posit a more complex connection between media depictions and behavior. In proposing such an indirect model here, we suggest that thought patterns, sexual arousal patterns, and other responses are modified by exposure to sexually violent depictions in conjunction with many other influences. Over a span of years, these responses, together with other social, individual, and circumstantial factors may contribute to diverse antisocial behaviors. These behaviors may take different forms from those originally observed in the media. After noting differences between sexual and nonsexual portrayals of media aggression, we detail this indirect-effects model and describe relevant empirical findings.

Sexual and Nonsexual Violence

Studies of media violence of a sexual nature suggest three conclusions: (1) Males act against female targets in the vast majority of the depictions (e.g., Smith, 1976a,b). By contrast, in portrayals of nonsexual violence, the recipient of aggression is likely to be male (Gerbner, 1972). (2) Although media sexual aggression appears to have increased markedly over the past 15 years, it remains considerably lower than media nonsexual violence. Content analyses of sexually explicit books, magazines, movies, and videotapes have found considerable variability in the extent of sexual aggression they present (Dietz & Evans, 1982; Malamuth & Spinner, 1980; Palys, 1986; Smith, 1976a,b; Slade, 1984; Stone, 1985; Winick, 1985). Magazines portray the least violence (in about 5% of the content), movies an intermediate amount (in about 15%), and "adult" books portray the most (in about 30%). These percentages are generally lower than in nonsexual violence (Gerbner, Gross, Morgan, & Signorielli, 1980). (3) Sexual aggression is often depicted quite differently from nonsexual aggression. Victims of nonsexual aggression are usually shown abhorring their experience and intent

[1]The terms *violence* and *aggression* are used interchangeably here to refer to acts intended to cause psychological or physical harm. Similarly, the terms *erotica* and *pornography* are both used to refer to sexually explicit media without any pejorative meaning necessarily intended (Smith, 1976b). Although we recognize that meaningful distinctions may be made among these constructs, we have not judged it useful to do so in this article.

on avoiding victimization. When sexual violence is portrayed, however, there is frequently the suggestion that despite initial resistance the victim secretly desires and eventually derives pleasure from the assault (e.g., Smith, 1976a,b). In addition, sexual aggression is often presented without negative consequences for either the victim or the perpetrator. For example, Smith (1976a,b) found that less than 3% of the rapists in "adult" books suffer negative consequences and the victim was seldom shown to experience any trauma from the rape.

Given these findings, concerns about media sexual aggression are based not only on the frequency of such portrayals, but also on their positivity and their potential for increasing women's victimization (Russell, 1984). In addition, the simultaneous presence of aggression and sexual arousal may result in conditioning sexual associations to violence that incline people to act aggressively or to justify violence (Malamuth & Spinner, 1980).

An Indirect-Effects Model

Indirect-influence models have long been used in media research. For example, the "two-step flow" model (Katz & Lazarsfeld, 1955) examined how the flow of ideas from the media to opinion leaders influences, in turn, the voting of less active individuals. Newer multistep flow models have considered the nexus among a variety of interacting factors (Rogers, 1983; White, 1983). In that tradition, we present a model (see Fig. 1) of indirect effects of mass media exposure on antisocial behavior against women. This model is also rooted in general theoretical approaches to the study of violence, particularly social learning theory (Bandura, 1977) and in feminist theories about violence against women (e.g., Brownmiller, 1975; Griffin, 1979; Russell, 1984). While such a model has guided our research for some time, here we begin to specify its elements formally and to integrate the relevant data. Such specification has frequently been lacking in discussions of indirect influence models (de Sola Pool, 1983).

Both the cultural milieu and individual experiences are posited as the "originating" environmental influences on "intermediate" responses such as thought patterns (attitudes, beliefs, perceptions, scripts), sexual arousal, motivations, emotions, and personality characteristics (see top of Fig. 1). These responses are intermediate because they intervene between the originating influences and antisocial behavior. In complex combinations, the intermediate variables may lead to antisocial behaviors, including aggression.

The mass media are one of many cultural forces that may contribute to the development of intermediate responses. Here we devote special attention to potential media influences on thought patterns that are stored in memory as rules for guiding behavior (Huesmann & Malamuth, 1986). These may form part of a coherent set of beliefs regarding what is appropriate, desirable, or acceptable in male–female relations. Such beliefs may constitute a schema (Fiske & Taylor,

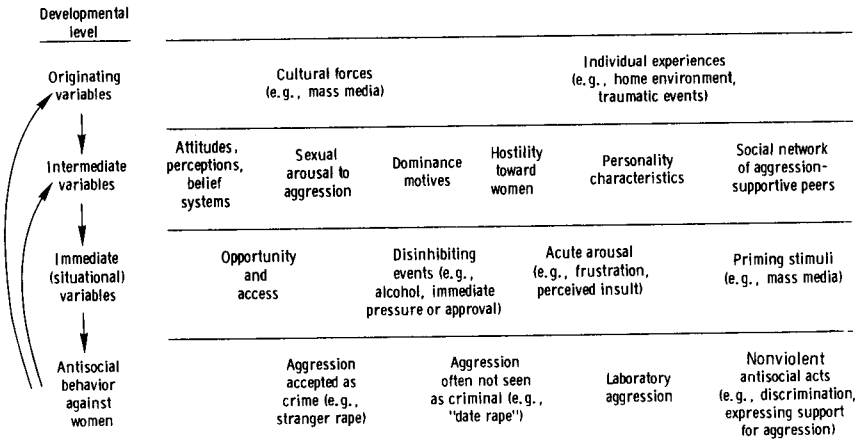

Fig. 1. Hypothesized environmental influences on antisocial behavior against women.

1984), a script (e.g., Abelson, 1981; Gagnon & Simon, 1973), an ideology (Seliger, 1976), or a belief system (Converse, 1964). (Although not synonymous, these constructs share the assumption that information is stored in abstract form rather than as a collection of specific experiences.) Malamuth (1986a) has recently described several possible processes by which media sexual violence might affect thought patterns facilitating violence against women.

Antisocial behaviors are hypothesized to be more likely when certain immediate or proximate situational variables such as alcohol or acute arousal are present (see Fig. 1). In addition, the mass media may temporarily "prime" some cognitions that can contribute to antisocial behaviors (Berkowitz, 1984; Huesmann, 1986; Malamuth, 1984a).

For some individuals antisocial acts may take the form of violence that comes to the attention of the law, such as "stranger" rape or wife battering. For others, these same underlying factors may contribute to responses that are not typically prosecuted, but instead are manifested as aggression in dating situations or in laboratory settings, a reported desire to commit acts of sexual violence, discrimination against women, and/or expressed support for the sexual aggression of others. We are not lumping illegal violence together with all other antisocial behaviors, but we are suggesting that all these behaviors may share some underlying causes, including media influences.

Our model indicates possible avenues by which cultural forces such as the media may change some people's intermediate responses and how such changes may ultimately affect their own aggressive behavior under some circumstances. This model also suggests that changes in some people's thought patterns may

affect the aggressive behavior of others (Malamuth, 1985). For example, if a person becomes more tolerant of violence against women as a result of media exposure or other causal factors, he may change his reactions to the sexual aggression of others even if his own aggressive behavior is not altered.

This general model does not suppose a linear sequence of events, but a reciprocating system of mutually influencing factors—as indicated by the upward arrows in Fig. 1. For example, mass media portrayals of sexual violence may contribute to attitudes and perceptions that, in combination with personality characteristics derived from aversive childhood experiences, may result in sexual aggression on a "date." This aggression, especially if reinforced, might produce a further alteration in attitudes and perceptions (including of self), that could attract the individual to a peer network supportive of sexual aggression. These peers, themselves the product of originating and intermediate variables, might then provide greater support and approval for further sexual aggression.

We have suggested two possible routes culminating in antisocial behavior against women. First, an individual may "progress" through the stages hypothesized to produce sexual aggression. Second, mass media stimuli and other influences may impact on individuals not sexually violent themselves, but who engage in nonviolent antisocial acts. These may include unjustifiably blaming the victim in a rape trial, supporting another man's aggression in a "locker-room" conversation, sexually harassing and discriminating against women.

Two central components of the indirect-effects model presented in Fig. 1 may be tested empirically. The first is the role of various cultural and individual factors in causing the acquisition and maintenance of intermediate responses such as thought and arousal patterns. The second component is the role of intermediate responses such as rape-supportive attitudes or peer approval of sexual violence in contributing to aggressive behavior. In the next section we discuss research findings pertaining to these two causal paths with specific focus on the mass media.

The Effects of Media Exposure

Research on the indirect effects of exposure to sexually violent media has so far dealt with two classes of responses: thought patterns and sexual arousal. We therefore consider only these areas, but it is important that future research assess potential media influences on the development of other intermediate variables such as the hostility of sexual aggressors.

Thought Patterns

Correlational data. There do seem to be studies assessing the relation between degree of exposure to sexually violent media in natural settings and

people's thought patterns regarding aggression against women. However, there are studies that examined the relation between pornography exposure in general and such thought patterns. Had they focused specifically on sexually violent media, it is likely that the links to thought patterns supporting aggression would have been as strong, if not stronger.

Malamuth and Check (1985) found that college men's frequency of reading sexually explicit magazines correlated positively with their beliefs that women enjoy forced sex. Check (1984), using a highly diverse sample of Canadian men, also found that more frequent exposure to pornographic media was associated with greater acceptance of violence against women, general sexual callousness, and greater rape myth acceptance—defined as false or prejudicial beliefs about rape, rapists, and/or rape victims (Burt, 1980). Finally, Briere, Corne, Runtz, and Malamuth (1984) reported similar correlations in college males. Future research should use statistical controls for "third variables," particularly within longitudinal designs, to enable consideration of causal hypotheses. Fortunately, several studies used experimental methods that permitted testing of causal hypotheses, as described below.

Experimental research. In three experiments, male subjects were exposed to either rape with "positive" consequences for the female victim (e.g., she became sexually aroused), rape with "negative" consequences, or mutually consenting sex. Afterwards, all subjects were presented with the identical rape depiction and asked to indicate their perceptions. In two of these studies, those exposed to the positive rape portrayal perceived the second rape depiction as less negative than those first exposed to other portrayals (Malamuth & Check, 1980; Malamuth et al., 1980). Subjects in the third experiment were asked how women in general would react to being victimized by sexual violence (Malamuth & Check, 1985a). Those exposed to a positive rape portrayal believed a higher percentage of women would derive pleasure from being sexually assaulted.

A fourth experiment conducted outside the laboratory yielded similar effects (Malamuth & Check, 1981). Male and female undergraduates were randomly assigned to one of two exposure conditions. Participants in the experimental condition were given free tickets to view feature-length films on two different evenings that portrayed women as victims of aggression in both sexual and nonsexual scenes. These films suggested that the aggression was justified or had "positive" consequences. Subjects in the control condition were given tickets on the same evenings to other films that did not contain any sexual violence. None of the movies were X rated and edited versions of them have been shown on television. Subjects viewed these films with other moviegoers who purchased tickets and were not part of the research. Classmates of the recruited subjects who had not seen the films were also studied as an "untreated" control group.

Several days after viewing the films, all students were given a "Sexual

Attitude Survey.'' Subjects were not aware that there was any relationship between this survey—purportedly administered by a polling agency—and the movies some students had seen.

The measures for evaluating subject responses were scales developed by Burt (1980) that were embedded within the survey. These assessed Acceptance of Interpersonal Violence (AIV) against women (e.g., sexual aggression, wife battering), Rape Myth Acceptance (RMA) (e.g., the belief that women secretly desire to be raped), and Adversarial Sexual Beliefs (ASB) (e.g., the notion that women are sly and manipulating when out to attract a man).

Exposure to films portraying the positive effects of aggressive sexuality significantly increased the scores of male but not female subjects on the AIV scale. A similar increase—which approached statistical significance—was observed on the RMA scale. Only the ASB scale failed to yield a significant difference. This experiment demonstrated sustained effects of sexually violent movies on men's acceptance of violence against women. Moreover, the results were obtained in a nonlaboratory setting seemingly devoid of ''demand characteristics'' (Orne, 1962). Recently, Demare (1985) replicated these results using very similar procedures.

In contrast to these studies, Malamuth, Reisin, and Spinner (1979) found no changes in thought patterns following exposure to sexually violent depictions. In the experiments showing significant media effects, however, the stimuli clearly depicted violence against women as having positive consequences, whereas in the study showing no effects, the stimuli did not show such outcomes. These findings suggest that certain antisocial effects of media sexual violence may be limited to stimuli depicting positive consequences.

Still, sexually violent films may have adverse effects resulting from other processes. For example, Linz (1985) found that repeated exposure to feature-length films portraying sexual violence desensitized viewers. In one experiment, male college students who viewed five such movies—one every other day—had fewer negative emotional reactions to such films. There was even a tendency for subjects' ''desensitization'' to carry over to their judgments of a rape victim in a simulated rape trial presented two days following the viewing of the last film. In a second experiment, Linz (1985) again found that males exposed to several sexually violent films became less sympathetic to a rape victim in a simulated trial and were less able to empathize with rape victims in general. Most of the film violence in Linz's experiments did not portray positive consequences and often showed very negative consequences for the victim.

The ''numbing'' impact of repeated exposure to sexual violence reported by Linz (see also Linz, Donnerstein, & Penrod, 1984) is similar to the desensitizing effects of media nonsexual violence (Rule & Ferguson, 1986) and may be best explained by physiological habituation models (see Linz, 1985). By contrast, the influence of positive portrayals of sexual violence may be best explained by

information processing and retrieval models, such as the "priming" model (see Malamuth, 1984a, and Wyer, Bodenhausen, & Gorman, 1985, for more detailed discussion of this process). Irrespective of the particular processes involved, the studies described above represent a growing body of research indicating that exposure to sexually violent media affect some men's thought patterns regarding aggression against women.

Sexual Arousal

Although there are several studies showing that many men from the general population are sexually aroused by sexually violent media (e.g., Malamuth, Check, & Briere, 1986), here we focus on whether media exposures *change* arousal patterns. Such a change would be exemplified by a person who initially showed little sexual arousal to rape depictions, but after exposure to several sexually violent depictions was more aroused by later exposures to rape themes.

Only one study we know of directly addressed whether exposure to sexually violent media increases people's arousal by such stimuli (Ceniti & Malamuth, 1984). Because of ethical barriers against exposing minors to pornography, the research was conducted solely with adults even though they are probably not the optimal subjects. Since first experiences with erotica usually take place in adolescence (Commission on Obscenity and Pornography, 1970) and since sexual arousal patterns are probably established prior to adulthood, media exposures that may have profound effects in childhood may not have comparable effects during adulthood.

Ceniti and Malamuth (1984) classified 69 adult males into force-oriented, nonforce-oriented, and unclassifiable categories based on their penile tumescence when presented with portrayals of rape and consensual sex during a preexposure session. Those classified as force oriented had shown relatively high levels of sexual arousal to rape depictions. Those classified as nonforce-oriented had shown relatively little arousal to rape depictions, but had become aroused to consensual sex portrayals. Subjects labeled as unclassifiable had shown little arousal to either type of depiction. Following this classification, subjects were randomly assigned to one of three exposure groups: sexually violent, sexually nonviolent, or control. Those assigned to the sexually violent condition were exposed to ten sexually violent stimuli (including feature-length films, and written and pictorial depictions) over a period of four weeks. Subjects in the sexually nonviolent condition were exposed to ten presentations of sexually nonviolent activities only. Subjects in the control condition were not exposed to any stimuli. Soon after their exposure, subjects returned to the laboratory and were presented with depictions similar in theme to the preexposure session. Penile tumescence and self-reported sexual arousal were measured again.

Force-oriented subjects, whether exposed to sexually violent or nonviolent

media, became *less* aroused to the rape depictions in the postexposure session than those in the control condition. They also tended to be less aroused by the postexposure nonviolent depictions, although this effect was considerably less pronounced. Both nonforce-oriented and unclassifiable subjects, however, showed no significant effects of exposure. The reduced arousal of force-oriented subjects appears similar to the temporary habituation effects frequently found in studies using nonviolent sexual materials (e.g., Mann, Berkowitz, Sidman, Starr & West, 1974; Zillmann & Bryant, 1984).

We feel caution is needed in generalizing from these findings since ethical barriers, as noted earlier, have precluded conducting studies with minors, probably those most susceptible to conditioning effects. Ethical considerations have also discouraged experimentation using large "dosages" of sexually violent exposures over long periods of time.

Summary of Findings

The data reviewed so far suggest that exposure to media sexual aggression may adversely affect some men's thought patterns, but not their sexual arousal patterns. Accordingly, the following discussion focuses primarily on thought patterns.

The Relation Between Thought Patterns and Aggressive Behavior

If exposure to media sexual violence can result in thought patterns more supportive of violence against women, it is important to determine if such patterns can, in turn, increase actual sexual aggression. Although there is seldom a simple connection between thought patterns, such as attitudes, and action (e.g., Azjen & Fishbein, 1977), several writers have contended that thought patterns justifying sexual aggression are an important cause of aggression against women (e.g., Marshall & Barbaree, 1984; Russell, 1984). Burt (1978, 1980, 1983) has presented the most influential theoretical perspective in this area. She contends that a cultural matrix that encourages rigid sex roles and supports male dominance generates rape-supportive attitudes and beliefs that act as "psychological releasers or neutralizers, allowing potential rapists to turn off social prohibitions against injuring or using others" (1978, p. 282). To assess such attitudes and beliefs, Burt (1980) developed the scales described earlier, including the AIV, RMA, and ASB.

Studies by Malamuth and his colleagues support Burt's perspective. They show a positive relation between Burt's measures of attitudes condoning rape and men's self-reported likelihood of raping, of using sexual force, and of engaging in other violence against women (e.g., Briere, in press; Briere & Malamuth, 1983; Malamuth, 1981, 1984a; Malamuth & Check, 1980; Malamuth, Haber &

Feshbach, 1980). Although such data suggest connections between thought patterns and behavioral tendencies, some commentators (e.g., Vance, 1985) have questioned the linkage between thought patterns and actual aggressive behavior. Fortunately, several studies have examined this connection and have consistently found that measures of attitudes and beliefs, including those used to test the effects of media exposure (e.g., the AIV scale), can predict actual aggressive behavior.

Laboratory Aggression

Malamuth (1983) tested whether men's thought patterns condoning violence against women could predict aggressive behavior against a woman in a laboratory setting. He also examined whether men's degree of sexual arousal to rape depictions (as compared with consensual sex depictions) could predict laboratory aggression. About a week after both thought patterns and arousal were measured, subjects participated in what they believed was a totally unrelated "extrasensory perception" (ESP) experiment. In this session, they were angered by a female aide of the experimenter pretending to be another subject. Later in the same session, subjects could vent their aggression against her by administering aversive noise. They were told that punishment was thought to impede rather than aid ESP, but they were given the option of trying it out. They were also asked how much they wanted to hurt the woman with the noise. The data showed that men with higher attitudes condoning aggression against women and with higher levels of sexual arousal to rape were more aggressive against the woman in the laboratory setting.

Malamuth and Check (1982) reported similar results in another experiment. Later, Malamuth (1984b) examined the extent to which several measures (including the AIV scale) predicted laboratory aggression against both female and male targets. Strong relationships between the predictor measures and aggressive behavior were found for the female but not the male targets. Taken together, these three experiments consistently showed that thought patterns condoning aggression were related to an objectively observable behavior—laboratory aggression against women.

Although such laboratory assessment of aggression has the advantage of not relying on subjects' self-reports, some have argued that it lacks ecological validity (e.g., Kaplan, 1983). The case for linking thought patterns with actual behavior would be strengthened if naturally occurring aggression could be measured as well.

Aggression in Naturalistic Settings

Several studies have found that thought patterns supportive of aggression against women are related to aggression in naturalistic settings. These studies

included samples of men from the general population as well as of convicted rapists. Overall, these data suggest that men's aggression against women is linked with their own attitudes and beliefs supportive of such violence and with those of their peers.

Samples from the general population. Only one longitudinal study has been published in this area. Ageton (1983) assessed whether a variety of measures, including sociodemographic variables, attitude measures, and situational factors predicted levels of sexual aggression. Eleven- to 17-year-old subjects, drawn from a national probability sample, were interviewed in five consecutive years. The study's design allowed the predictor measures (e.g., attitudes) to be obtained prior to the actual occurrence of sexual aggression. Based on their self-reported behavior, subjects' were categorized as either sexually aggressive or nonaggressive. The results showed that involvement with delinquent peers was the strongest factor distinguishing sexually aggressive from sexually nonaggressive males, followed by personal attitudes toward sexual assault. However, the contribution of the attitude factor alone was small after the role of involvement with delinquent peers was taken into account. This may be due to difficulties in disentangling highly interrelated factors insofar as one's attitudes are very likely to be part of a constellation of connected factors, including one's choice of friends.

Longitudinal research in related areas provides some support for the role of thought patterns in affecting aggression. One line of research indicates that children's attitudes may interact with other variables, such as identification with television characters, to produce aggression, and that interventions that change attitudes can significantly reduce aggression (Huesmann, Eron, Klein, Brice, & Fischer, 1983). Similarly, research on adolescents suggests that attitudes may interact with certain personality and behavioral factors to produce antisocial behavior (e.g., Jessor & Jessor, 1977).

Several studies reported links between thought patterns and sexually aggressive behavior where both were measured at the same time rather than longitudinally. Alder (1985) used a subsample from a larger representative sample of men from a particular county in Oregon. Variables potentially predictive of sexual aggression were assessed. These included family, social class, educational attainment, war experience, peer behavior, and personal attitudes toward sexual aggression. The findings suggested that the most important factor relating to sexual aggression was having sexually aggressive friends. The other two factors found likely to contribute to sexual aggression were attitudes legitimizing such aggression and military service in the Vietnam War.

Several studies using samples of college men also reported significant links between thought patterns and sexual aggression (Briere et al., 1984; Kanin, 1985; Koss, Leonard, Beezley & Oros, 1985; Mosher & Anderson, 1986; Rapaport & Burkhart, 1984). These studies measured self-reported sexual aggres-

sion on a continuum of behaviors ranging from psychological pressure on women to rape (Koss & Oros, 1982).

In a study of 155 men who were mostly college students, Malamuth (1986b) divided the variables thought to set the stage for sexual aggression into three classes. Motivation for sexual aggression included sexual arousal to aggression, hostility toward women, and dominance as a motive for sex. Disinhibition to commit sexual aggression included attitudes condoning aggression and antisocial personality characteristics. Opportunity to aggress sexually was assessed by sexual experience. These rape "predictors" were then correlated with self-reports of sexual aggression. While the predictors related individually to sexual aggression, interactive combinations of these variables allowed far more acurate prediction. Subjects who had relatively high scores on all predictor variables were also highly aggressive sexually. These data have been successfully replicated by Malamuth and Check (1985b) in an independent sample of 297 males. The findings suggest that a person's attitudes accepting of violence against women may be one of several important contributors to sexually aggressive acts, but that none alone is sufficient for serious sexual aggression.

Taken together, the data on unincarcerated subjects point clearly to relations between sexual aggression and thought patterns supportive of violence against women, although they also highlight the importance of other contributing factors. One of these, peer support, might also be influenced by the impact of media exposure on the audience's thought patterns. The findings on unincarcerated men are reinforced by research on incarcerated rapists.

Convicted rapists. Many clinical studies report that convicted rapists frequently hold callous attitudes about rape and believe in rape myths (e.g., Clark & Lewis, 1977; Gager & Schurr, 1976). Data from more systematic studies of rapists' thought patterns generally collaborate the clinical reports. For example, Wolfe and Baker (1980) reported that virtually all of the 86 rapists they studied believed their actions did not constitute rape or were justified by the circumstances. Unfortunately, these investigators did not distinguish between general endorsement of rape myths and rationalizations of the rapists' personal crimes. Burt (1983) found that rapists perceived as much violence as the general public in vignettes describing differing degrees of aggression against women. However, the rapists were less likely to perceive that violence as "bad" and more likely to justify it. Finally, Scully and Marolla (1984, 1985) found that rapists tended to believe more in rape myths, particularly those justifying violence against women, than control groups composed of other felons.

Summary of Findings

The data reviewed in this section are consistent with the second component of the indirect effects model: the link between thought patterns condoning sexual

violence and sexually aggressive behavior. Such thought patterns were found to covary with a variety of indices of aggression: inflicting aversive noise to women in the laboratory, self-reported potential and actual sexual aggression, and status as a convicted rapist. However, it is necessary to be cautious in drawing inferences about causes and effects from these correlational data. Although the findings are consistent with the possibility that men's thought patterns are one of several contributing factors causing sexual aggression, they can also be interpreted in several other ways. One plausible interpretation, for example, is that subjects' thought patterns justifying sexual violence developed after they behaved aggressively as a result, rather than as a cause, of such aggression. Of course, these two possibilities are not mutually exclusive but, as suggested by the model we described, may involve mutually influencing processes by which thought patterns contribute to sexual aggression, which in turn results in changed thought patterns.

Situational Variables

The small body of data directly pertaining to the role of situational variables is consistent with the indirect model. For example, Malamuth (1978) conducted a laboratory experiment that found sexually violent portrayals increased males' aggression against women only when disinhibiting situational stimuli were present. Other data in naturalistic settings suggest that situational variables are often associated with sexual aggression but are unlikely to produce sexually violent behavior in isolation. For example, several studies report that approximately 30–60% of rapists are under the influence of alcohol at the time of their offense (Brickman & Briere, 1984; Ladouceur & Temple, 1985; Rada, 1978), although alcohol is rarely the sole "cause" of their aggression (Rada, 1978). Similarly, the role of immediate peer pressure is frequently cited in analyses of gang rape (e.g., Amir, 1971), although such influence typically reduces social inhibitions rather than motivating rape *per se* (Russell, 1984).

Nonviolent Acts

The research data we have reviewed here pertain primarily to violent acts such as rape. However, the indirect model presented in Fig. 1 also suggests that some of the same factors contributing to violence against women may also lead to nonviolent acts such as sexual harassment and decisions in rape trials. Data supporting this contention are reviewed by Malamuth (1986a).

Directions for Future Research

The indirect-effects model described in this paper clearly requires further development and testing. First, there is a need for further research on the condi-

tions under which mass media may change thought patterns and how important media is in comparison to other influences. One approach is to consider more directly media portrayals of violence as a form of persuasion. The extensive literature on persuasion and advertising (e.g., Alwitt & Mitchell, 1985) can provide researchers with sophisticated models and research strategies.

Second, there is a need to explore the causal links among the hypothesized originating and intermediate contributors to aggression. What, for example, are the links between attitudes condoning aggression and emotions such as hostility? Malamuth (1986a) and Malamuth et al. (1986) have begun to lay the foundation for such study, but further work is needed. Structural equation modeling (Bentler & Bonett, 1980; Kenny & Judd, 1984) may be especially suited for this purpose.

Third, research using the same subjects to test both components of the indirect model is highly desirable. Such a study could chart the effects of media exposure and other cultural and individual factors on subjects' thought patterns, and then observe the impact of their changed thinking on their behavior and that of their peers. The very nature of this model makes such research difficult to conduct. Since the model's complex processes are presumed to take place over a span of years, it is not fully testable in a research framework that relies on short-term direct cause and effect relations. Clearly, longitudinal studies are required. Yet ethics prevent the type of ideal experiment where subjects could be exposed (by the experimenter) over extended periods of time to media portrayals that could change their thoughts and behavior. In fact, subjects in the studies described here were usually debriefed, shortly after their exposure, to correct possible antisocial effects of the experiment. The success of these debriefings has been indicated in several studies (Check & Malamuth, 1984; Donnerstein & Berkowitz, 1981; Linz, 1985; Malamuth & Check, 1984).

Longitudinal research addressing both model components with the same subjects will probably be restricted to two types of studies. The first would utilize survey approaches with statistical controls (e.g., structural equations modeling). The second would use interventions intended to have positive social effects, such as reducing acceptance of violence against women. As suggested by Eron (1986), and Patterson and Bank (1986), the success of such interventions would have important theoretical implications for the hypothesized causes of violent behavior.

Fourth, the indirect-effects model must better identify the conditions under which changes in intermediate responses—particularly thought patterns—do or do not affect sexually aggressive behavior and other antisocial responses. The findings of Malamuth (1986b) and others suggest a synergistic process when several variables (including thought patterns) interact to produce relatively high levels of sexual aggression. This possibility should be examined further with incarcerated and unincarcerated populations.

Finally, the model and research we have discussed may also be extended to

nonsexual media violence. For example, films with positive images of violent heroes (e.g., the *Rambo* genre or the *Death Wish* vigilante series) may, together with other factors, influence the belief systems or political ideologies of many youths. These may later affect their support for interpersonal and international aggression. Such media effects merit more attention in future research.

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