

The Effects of Mass Media Exposure on Acceptance of Violence against Women: A Field Experiment

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Two hundred seventy-one male and female students served as subjects in an experiment on the effects of exposure to films that portray sexual violence as having positive consequences. Some of these subjects had signed up to participate in a study ostensibly focusing on movie ratings. They were randomly assigned to view, on two different evenings, either violent-sexual or control feature-length films. These movies were viewed in theaters on campus and two of the movies (i.e., one experimental and one control) were being shown as part of the regular campus film program. Members of the classes from which subjects had been recruited but who had not signed up for the experiment were also used as a comparison group. The dependent measures were scales assessing acceptance of interpersonal violence against women, acceptance of rape myths, and beliefs in adversarial sexual relations. These scales were embedded within many other items on a Sexual Attitude Survey administered to all students in classes several days after some of them (i.e., those who signed up for the experiment) had been exposed to the movies. Subjects were not aware that there was any relationship between this survey and the viewing of the movies. The results indicated that exposure to the films portraying violent sexuality increased male subjects' acceptance of interpersonal violence against women. A similar nonsignificant trend was found on acceptance of rape myths. For females, there were nonsignificant tendencies in the opposite direction, with women exposed to the violent-sexual films tending to be less accepting of interpersonal violence and of rape myths than control subjects. Explanation of the data on the basis of "attitude polarization" and "reactance" effects are discussed. Also discussed are the conditions of the present research in terms of the type of stimuli used, the "dosage levels" of exposure, and the duration of effects in relation to future research and a general social climate promoting a sexist ideology.

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Feminist writers contend that mass media violent sexuality has undesirable effects on both attitudes and behavior (e.g., Brownmiller, 1975; Barry, 1979; Burt, 1980; Clark, 1980). Recently, a number of laboratory experiments focusing on male subjects yielded data largely consistent with such contentions. For example, Malamuth (Note 1) and Donnerstein (1980) found that exposure to violent pornography increased the levels of electric shock male subjects chose to deliver to a female confederate of the experimenter. Similarly, Malamuth (1981) found that repeatedly exposing male subjects to violent pornography resulted in self-generated rape fantasies. Further, Malamuth and Check (1980) reported that male subjects who were first exposed to the type of rape portrayal typically found in pornography perceived less victim trauma upon hearing a more realistic rape depiction. Finally, correlational data indicate that sexual arousal to certain types of rape as contrasted with consenting portrayals is positively correlated for male college students with self-reported possibility of raping (Malamuth, Haber, & Feshbach, 1980; Malamuth & Check, 1980; Malamuth, Reisin, & Spinner, Note 2), and with administering aversive noise to a female (Malamuth, Note 3).

While these laboratory studies have generally yielded consistent findings, the implications of the data may be limited for two reasons. First, the data were obtained under conditions vulnerable to criticisms in terms of "demand characteristics" and laboratory artificiality. Second, the undesirable effects described above have been observed only immediately after exposure to violent pornography and may be limited in duration to a few minutes or hours. There clearly exists a need to assess the effects of mass media stimuli that fuse sexuality and violence outside of the laboratory context.

The present field experiment was designed to examine the effects of violent sexuality presented in feature-length movies on dependent variables assessed several days after exposure in a nonlaboratory setting not vulnerable to "demand characteristics" effects. The dependent measures were selected to directly test the feminist contention that mass media exposures that portray violence against women as having favorable consequences contribute to greater acceptance of sexual and nonsexual violence against women (Brownmiller, 1975; Burt, 1980). Such acceptance of violence within a culture, according to these feminists, affects the incidence of violent acts, victims' willingness to report offenses, and societal reaction to and punishment of these violent crimes (Brownmiller, 1975; Barry, 1979; Burt, 1980; Clark, 1980). In support of such contentions, Feild (1978) found that jurors' views and attitudes toward rape were very important predictors of their decisions in simulated rape trials.

In addressing the possible antisocial effects of mass media violent sexuality, it is important to consider the role of individual differences (Eysenck & Nias, 1978). One variable that has consistently been found

to be a critical variable related to attitudes and beliefs about sexual violence is gender. Research focusing on existing attitudes consistently shows that male subjects are more accepting of violence against women and more accepting of rape myths than females (Barnett & Feild, 1977; Selby, Calhoun, & Brock, 1977; Malamuth et al., 1980; Tieger, 1981). The only study known to the authors that examined the possible antisocial effects of exposure to violent sexuality on men and women (Malamuth et al., 1980) found an interaction between gender and exposure: Men generally showed an antisocial effect of exposure (e.g., believing that a rape victim experienced less pain following exposure to a "positive" depiction of sexual violence as compared with the control condition), whereas women showed a nonsignificant tendency in the opposite direction. Because of the likely mediating effects of gender, in the present experiment a similar number of males and females were randomly assigned to each of the exposure conditions. It was hypothesized that males would be adversely affected by exposure to violent sexuality but no specific hypothesis was made regarding female subjects.

An additional "individual differences" variable examined in this study was subjects' age. It was included in anticipation of the possibility that relatively younger subjects may have less established attitudes and might therefore be more vulnerable to being affected by the mass media.

METHOD

Subjects

Two hundred seventy-one introductory psychology students served as subjects in the study. A total of 146 subjects had originally signed up for the experiment as part of the requirements in introductory psychology courses at the University of Manitoba to participate in research. The study was described to subjects as a pilot experiment designed to develop general measures for rating movies, and they were instructed to appear at a particular location at the university on two evenings of the same week where they would be given further instructions. Thirty-one subjects, quite evenly distributed across conditions, were not included in the final analyses either because they failed to appear to see the movies or because they were not in class when the second phase of the research was conducted. Thus, 65 females and 50 males were exposed to films and participated in both phases of the research. An approximately equal number had been assigned to the Experimental Exposure condition and to the Control Exposure condition. An additional 64 males and 92 females had not signed up for the experiment but were in class when the dependent measures were administered to the introductory psychology courses from which participants were recruited. These individuals who had not been assigned to view any films constituted the Untreated Control group.

Materials

The movies used in the Experimental and Control Exposure conditions had all been released in popular theaters and were not X-rated films. The two experimental films (i.e., *Swept Away* and *The Getaway*) were chosen because they portray violence against women as having justification and positive consequences. The two control films (i.e., *A Man and A Woman* and *Hooper*) do not portray any such acts of violence. A brief description of each of the films follows:

First experimental film—Swept Away. Barry (1979) classified the movie *Swept Away* as an example of cultural sadism: "Because the woman is represented as one who craves sexual sadism, violent male sexual aggression both equates with and is confused with love and romance" (p. 184). At the beginning of the movie, an arrogant and wealthy woman taunts a deckhand on a boat cruise she is taking. Shortly thereafter, they become castaways together on a deserted island. Alone on the island, the deckhand begins to physically abuse and eventually rape the woman. The abuse continues until the woman finally craves him sexually, accepts the violence, and she is "swept away" into a tender romance.

The Getaway. In this film, violence against women is carried out both by the hero and the antagonist. The hero, played by Steve McQueen, is portrayed in a very "macho" image. At one point, he slaps his wife several times causing her to cry from the pain. The wife, played by Ali McGraw, is portrayed as deserving of this beating. As well, the antagonist in the movie kidnaps a woman (Sally Struthers) and her husband. He rapes the woman but the assault is portrayed in a manner such that the woman is depicted as a willing participant. She becomes the antagonist's girlfriend and they both taunt her husband until he commits suicide. The woman then willingly continues with the assailant and at one point frantically searches for him.

Control films. The two control films were chosen because they excluded all forms of sexual violence. The movie *A Man and a Woman* is in French with English subtitles, and portrays a tender romance developing over the course of the movie. It contains some nonexplicit sexual scenes. The movie *Hooper* was about the struggle of an aging stunt man and portrayed his girlfriend as supportive and compassionate.

Movie rating forms. After viewing each of the movies, subjects completed a brief questionnaire concerning their background (e.g., birthdate, size of family, etc.) and their evaluations of the film.

Sexual Attitudes Survey

Within a week following the viewing of the second movies, an "Attitudes Survey" focusing on sexual issues was administered to all of the students present in the introductory psychology sections from which subjects had signed up for the experiment. This questionnaire was ostensibly administered by a public opinion center. On the basis of several items appearing at the end of the questionnaire (e.g., "What do you believe can be learned from this survey?"), two independent raters ascertained that none of the subjects realized that this survey was related to the experiment some of them had participated in.

Subjects were asked to first complete items concerning their background. Then, there were 104 items dealing with sexual and related matters. Embedded within these in random order were the dependent measures, the *Acceptance of Interpersonal Violence (AIV)* scale (6 items), the *Rape Myth Acceptance (RMA)* scale (19 items), and the *Adversarial Sexual Beliefs (ASB)* scale (9 items) developed by Burt (1980), who presents data concerning the reliability and validity of these scales. It should be noted that while the AIV scale refers to acceptance of violence in general, five of the six items specifically concern violence against women. Examples of items from these scales are "A man is never justified in hitting his wife" (AIV scale), "Many women have an unconscious wish to be raped and may then unconsciously set up a situation in which they are likely to be attacked" (RMA scale) and "A woman will only respect a man who will lay down the law to her" (ASB scale). Following most of the items was a scale ranging from (1) "strongly disagree" to (7) "strongly agree." For some items greater agreement with the statement, whereas for other items greater disagreement with the statement, indicates higher rape myth acceptance, acceptance of interpersonal violence, or a belief in adversarial sex relations. The varied items on each of the scales are summed to produce an overall score for that scale. The average scores obtained were 16.97 on the AIV scale, 44.38 on the RMA scale, and 28.39 on the ASB scale, scores generally comparable to those found by Burt (1980). The other items on the sex attitudes questionnaire were filler items dealing with such topics as sex

education, contraception, etc., primarily based on a questionnaire used by Fisher & Byrne (1979).

Procedure

When subjects who signed up for the experiment appeared at the designated location, they were randomly sent to one of two theaters on campus where the experimental or the control films were presented. These films were shown at the same time and the location was switched on the two evenings, so that both experimental and control subjects viewed films at both locations. One film was shown on each evening, with the experimental group viewing the two films containing violent sexuality and control subjects viewing the other movies. Each of the exposure groups saw one film (i.e., *Swept Away* and *Hooper*) which was shown as part of the campus film program. The experimenters gave subjects tickets to these films. These movies were thus viewed with many others who were not participating in the study. The other two movies (i.e., *The Getaway* and *A Man and A Woman*) were shown only to participants in the experiment in another theater on campus. Subjects were also given tickets to enter this theater. Subjects completed the movie rating form immediately after each film.

Within a week following the presentation of the second movie (at least 3 days following exposure) the Sex Attitudes Survey was administered in the class sections. On the basis of the background information (e.g., birthdate, number of siblings, place of birth, etc.) supplied by subjects both on the Movie Rating Forms and the Sexual Attitudes Survey, it was possible to determine with high precision which subjects had been in the Experimental and Control Exposure conditions. After the data had been analyzed, the findings were described to participants in the study and a discussion was generated concerning mass media effects and the prevalence of rape myths.

RESULTS

Control Groups

A preliminary analysis was conducted to determine whether there were any differences between control subjects assigned to view the control films and those who did not view any movies. A 2 (Control Exposure vs Control Untreated) \times 2 (Male vs Female) \times 2 (18 or Younger vs Above 18) analyses of variance¹ performed on the AIV, RMA, and ASB scales revealed no significant effects nor effects approaching significance except for an effect of Gender. As in the analyses presented below, males were found to be higher on all three scales than females. The mean scores for the two control groups were very similar across conditions. These data clearly justified combining the two control groups.

Film Exposure Effects

The RMA, AIV, and ASB scales were then each analyzed using Exposure (Experimental vs Control Groups Collapsed), Gender (Male vs Female), and Age (18 or less vs over 18) as the independent variables.

¹ An exact least-squares analysis was performed on all of the analyses of variance in this paper in order to account for unequal sample sizes, using Overall, Spiegel, and Cohen's (1975) Method I which assesses each effect after adjusting for its relationship to all other effects.

These analyses yielded a main effect of Gender on the AIV scale, $F(1, 263) = 23.1, p < .001$, the RMA scale, $F(1, 263) = 19.8, p < .001$, and the ASB scale, $F(1, 263) = 14.6, p < .001$. Examination of the mean scores revealed that males, relative to females, were more accepting of interpersonal violence ($M = 18.7$ vs $M = 15.8$), more accepting of rape myths ($M = 47.8$ vs $M = 41.9$), and believed more in adversarial sex relations ($M = 30.6$ vs $M = 26.8$).

Interactions between Exposure (i.e., Experimental vs Control Groups Collapsed) and Gender were also obtained, which was significant for the AIV scale, $F(1, 263) = 5.36, p < .03$, and which approached significance for the RMA scale, $F(1, 263) = 2.74, p < .10$. No similar effect was obtained on the ASB scale. The AIV and RMA scores for this interaction are displayed in Fig. 1. Examination of the figure reveals that this interaction was due to greater acceptance of interpersonal violence and rape myths by males who were exposed to the violent-sexual films as contrasted with control subjects, whereas for females the differences tended to be in the opposite direction. Simple effects followups showed that the difference between the experimental and control conditions for males was significant on the AIV scale, $t(263) = 2.42, p < .01$, one-tailed, but did not reach acceptable levels of significance on the RMA scale. The differences between experimental and control conditions were not significant on either scale for females.

It should be noted that an analysis of the data including only control subjects who viewed the control films essentially yielded the same results as those reported above, with an Exposure \times Gender interaction on the

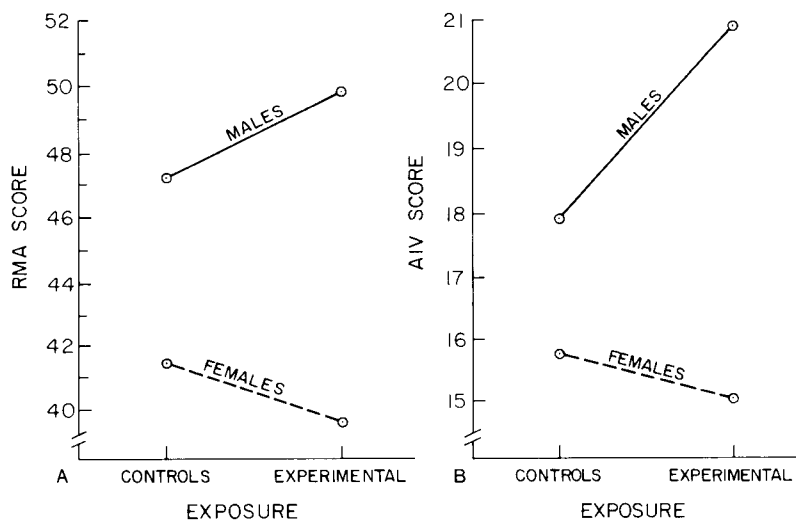


FIG. 1. (A) Rape Myth Acceptance and (B) Acceptance of Interpersonal Violence as a function of Exposure and Gender.

AIV scale, $F(1, 107) = 3.97$, $p < .05$, and a similar interaction which approached significance on the RMA scale, $F(1, 107) = 3.65$, $p < .06$. Again, AIV scores of males in the Experimental Exposure condition ($M = 20.82$) were significantly higher than those in the Control Exposure condition ($M = 17.90$) $t(107) = 1.81$, $p < .04$, one-tailed. RMA scores of males in the experimental condition ($M = 49.79$) were higher than those in the control condition ($M = 47.14$), although the differences did not reach statistical significance. For females, the mean scores on both the AIV and RMA scales were again higher than the experimental condition, although the differences did not reach acceptable significance levels. Moreover, essentially the same results are also obtained if a comparison is made between subjects in the experimental condition and those control subjects who did not view any films. For example, simple effects comparisons showed that AIV scores of males in the Experimental Exposure condition ($M = 20.82$) were significantly higher than Untreated Controls ($M = 17.98$), $t(207) = 2.29$, $p < .02$, one-tailed.²

DISCUSSION

The data indicate that exposure to two feature-length movies portraying violence against women as having positive consequences increased males' acceptance of interpersonal violence against women. A similar tendency which did not reach statistical significance was found on acceptance of rape myths. For females, there were nonsignificant tendencies in the opposite direction on both scales, with women exposed to the violent-sexual films showing nonsignificantly less acceptance of interpersonal violence and rape myths than control subjects. These relationships between film exposure and gender emerged both in comparing the experimental group with subjects exposed to control films and with "untreated" subjects who did not sign up for the experiment and were not exposed to any movies. The present findings constitute the first

² The possibility exists that some of the subjects of the Untreated Control Group may have viewed, as part of the campus film program, the movies *Swept Away* and/or *Hooper*. If this were the case, it is likely to have been a relatively small number since only about 200 tickets were left after the purchase of those for the research. From a student body of approximately 20,000, on a probability basis the likelihood that a substantial portion of the 156 Untreated Controls viewed the films appears very small. More importantly, the effect of viewing these films by the Untreated Controls would have, in all likelihood, been to mask or lessen the differences found rather than increase them. Both on theoretical grounds and based on the data reported herein, it is far more likely that the film *Swept Away* would have increased these subjects' RMA and AIV scores rather than the film *Hooper* reducing these scores. The effects of such exposure would have been to make the Control Exposure and Untreated Control groups dissimilar and the Experimental and Untreated Control groups more similar. The pattern of the data (i.e., very similar scores for the two control groups which differ for males from the experimental group) points to an effect that may be accepted with considerable confidence.

demonstration in a nonlaboratory setting not vulnerable to criticisms in terms of laboratory artificiality and "demand characteristics" of relatively long-term antisocial effects of movies that fuse sexuality and violence.

The opposite effects of the films on males as compared to females are of considerable interest. While followup comparisons did not reveal any significant effects for females, the significant Exposure \times Gender interaction parallels that obtained by Malamuth et al. (1980). These data bear some similarity to "attitude polarization" effects (Lord, Ross, & Lepper, 1979) found when people with differing views on a particular issue are presented with "mixed data" such that each side can focus on the information consistent with their own views. Indeed the present data show, as in considerable previous research, that in all of the conditions, including the "untreated controls," males were more accepting of interpersonal violence, rape myths, and adversarial sexual relations than females. If the antisocial effect on males observed herein follows an "attitude polarization" pattern, we would expect those individuals already inclined to accept violence against women to be most affected. The opposite possibility is equally plausible in that those individuals who have had the least exposure to sexual violence (through the media and elsewhere) may not have well-developed attitudes concerning sexual violence and may be the most vulnerable to the effects of the myths portrayed. Future research should examine the relationship between preexisting attitudes and exposure effects as well as whether such attitudes cause selective processing of the information in the films (Lord et al., 1979).

If the data pattern for female subjects is shown to be reliable in future research, it would seem unlikely that an "attitude polarization" phenomenon is sufficient to account for women's tendency to be less accepting of violence following exposure to mass media sexual violence. It is difficult to see what information in the films would support women's rejection of interpersonal violence and of rape myths. Perhaps more likely is a "reactance" phenomenon (Heilman, 1976; Sensenig & Brehm, 1968) in which the message of the films activates defenses to consider why the information conveyed is false.

In considering the social implications of the present findings and directions for future research it is worthwhile to examine the conditions under which the data were obtained, with particular attention to the type of stimulus used, the "dosage levels" employed, the duration of effects and the relationship between specific exposures and a general social climate. The undesirable effects found in this study occurred not with X-rated pornographic movies but with films that have been shown on national television. Moreover, the primary theme of the films was not violent sexuality. It may be that a film that is explicitly sexually violent

is perceived as highly unrealistic and stimulates subjects' defenses against uncritically accepting the information conveyed. In contrast, the type of films used in this study may more subtly communicate false information about women's reactions to sexual violence and thus may have more potent effects as subjects are not "forewarned" (Freedman & Sears, 1965) by the label "X-rated" or "pornography." Future research should compare the effects of explicitly sexually violent pornography with those of the types of movies used herein.

In considering the generalizability of the present findings, it is important to evaluate the comparability of the "dosage levels" used to those of nonexperimental settings. Is exposure to two films portraying violent sexuality within a 4-day period an event unlikely to occur in daily life? In the present authors' view, such "dosage levels" are not very unusual. In fact, 4 days before the film *Swept Away* was shown as part of the campus film program, two highly violent pornographic movies (*Ilsa She Wolf of the SS* and *Ilsa Harem Keeper of the Oil Sheiks*) were shown as part of the same campus film program. Moreover, the film *Clockwork Orange*, which also contains violent sexuality, was shown as part of this film program a few weeks earlier. About 2 weeks following the completion of the study, *The Getaway* was shown on national television. Thus, while exposure within 1 week to two films that include violent-sexual themes may not be a typical "diet" it would appear that such "dosage levels" are within the range of day-to-day exposure.

The effects observed herein were found several days after exposure. Future research should examine whether the immediate effects of exposure would be greater, equal to or less than delayed effects. One possibility is that the effects are greatest immediately following exposure and dissipate with time such that even stronger differences between conditions would have been obtained had immediate effects been assessed (which would be very difficult to do without creating "demand characteristics.") It is also possible that a "sleeper effect" (Gruder, Cook, Hennigan, Flay, Allessis, & Halamaj, 1978) may occur: Immediately following exposure, the information conveyed in the films may be discounted by being associated with a fictional presentation, but with the passage of time disassociation may occur between the information and such discounting. Thus, the information may be retained, but its source or the reasons for not accepting the information immediately following presentation may be forgotten, leading to long-term attitude change.

The effects of the type of violent sexuality depicted in the films used in the present research need to be considered within the larger context of other mass media and nonmedia "messages." There is evidence that violent sexuality has in recent years been increasing in "soft core" erotica magazines such as *Playboy* and *Penthouse* (Malamuth & Spinner,

1980), and in other areas of the mass media ("Pretty poison: The selling of sexual warfare," 1977; "Really socking it to women," 1977). The information often conveyed in such mass media communications 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 (Johnson & Goodchilds, 1973). Future research should examine the possibility suggested by feminists (e.g., Brownmiller, 1975) that messages of female subordination communicated by different sources may have summative effects in promoting a sexist ideology. While ethical concerns may be raised concerning exposing subjects to such sexist messages within a research context, the prevalence of such messages in the mass media may raise ethical concerns about failing to address this important issue. Moreover, there is recent evidence (Check & Malamuth, Note 4; Donnerstein & Berkowitz, in press; Malamuth & Check, Note 5) that exposure to mass media violent sexuality followed by a debriefing concerning the falseness of such stimuli has beneficial long-term effects in reducing subjects' acceptance of rape myths.

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