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The Functions and Effects of Pornography: Sexual Communications versus the Feminist Models in Light of Research Findings

Neil M. Malamuth, Victoria Billings University of California, Los Angeles

A very large mass media industry exists throughout the world that produces sexually explicit stimuli including books, magazines, video cassettes, and movies. Generally referred to as the pornography or erotica¹ industry, it is estimated that its yearly profits exceed those of the general movie and record industries combined (Steinem, 1983). Reliable data on the actual consumption of such stimuli are available, however, only in the area of magazines (Shepher & Reisman, in press). The Target Group Index (1974, 1978) provides data on the readership of the 13 most popular magazines, and when figures for the total adult readership are examined, it is found that 5 are erotica publications. Statistics for adult male readership show that the combined readership of *Playboy* and *Penthouse* exceeds the combined readership of *Time* and *Newsweek*.

It is therefore surprising that relatively little systematic attention has been paid to this topic by media researchers, particularly social scientists. Little experimental research was available until the creation of the presidential Commission on Obscenity and Pomography (1970) (referred to hereafter as "the commission"). Since the commission's research, there has been a paucity of published scientific research on this topic until very recently.

In this chapter, we first discuss problems of definition in addressing the subject of pornography. Next, we present two theoretical models that have been proposed

^{&#}x27;As noted later, the terms pornography and erotica are used interchangeably herein to refer to sexually explicit stimuli without any pejorative meaning necessarily intended.

to describe the functions and effects of pornography. Third, we consider empirical research findings relevant to the theoretical models.

DEFINITION OF PORNOGRAPHY

There have been numerous attempts to define pornography and to distinguish between what some consider acceptable erotica as opposed to unacceptable pornography. Etymologically, pornography refers to "writings about prostitutes" (porne, prostitute graphein, to write). Attempts at definition have included those emphasizing (a) the intent of the producer to elicit erotic responses from the consumer (e.g., Gould, 1977), (b) the effects on the consumer, such as sexual arousal (e.g., Falwell, 1980), and (c) the portrayal of the characters within the stimuli, such as degrading or demeaning of women (Longino, 1980). Attempts to distinguish pornography from erotica have included those suggesting that the former portrays unequal power in sexual relations whereas the latter depicts males and females to be of equal power and in mutually consenting relations (Steinem, 1980). However, as various writers have noted (e.g., Goldstein, Kant, & Hartmann, 1973), definitions and distinctions of this nature are frought with subjective elements that render scientifically operational definitions difficult to construct. For the purposes of the present chapter, therefore, we adopt the approach suggested by Smith (1976b) to use the terms pornography and erotica interchangeably without any pejorative meaning to refer to sexually explicit stimuli. We feel that a definition in terms of sexual explicitness more readily lends itself to operationalization because it may be based on the presence or absence of references to certain anatomical areas of the body (e.g., breasts, penis, etc.).

THEORETICAL MODELS

Historically, varied theoretical positions have been advanced regarding the functions and effects of pornography. Elsewhere (Malamuth & Billings, 1984) we discuss six such models. In this chapter, we focus on two differing perspectives that have guided a large segment of systematic research in this area. These are the sexual communications model and the feminist model.

The following discussion presents the central ideas of these two models, and we consider three central questions: (a) Is pornography's basic function sexual or political/ideological communication, and what are the effects of pornography? (b) What type of information is cited by the proponents of each model to support their position? (c) How is women's portrayal in pornography conceptualized by each model? In a later section, we examine recent research data in light of these two theoretical models.

The Sexual Communications Model

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Numerous writers have contended that pornography is essentially communication relating to sexuality that has no discernible negative effects and may have varied beneficial effects in the realms of fantasy, sex education, and artistic expression (e.g., Gagnon, 1977; Gordon, 1980). For the purposes of explication, we distinguish between the sexual interest and the artistic variations of the sexual communications model, although they espouse the same basic viewpoint. The former variant focuses on the needs of the consumer of pornography, whereas the latter focuses on the needs of the artistic creator. These viewpoints generally treat current pornographic forms (e.g., magazines and movies) as modern versions of sexual expression manifested throughout history in paintings, sculpture, drawings, and graphics of various types. They consider pornography a natural result of the fact that humans are sexual beings. They perceive historical, and by extension current, attempts to curtail the content and/or distribution of pornography as reflecting an antisexual attitude that fears that greater availability of sexual communications would lessen restrictions on the free expression of sexuality.

The Sexual Interest Version. The sexual interest variant contends that consumers are attracted to pornography in a desire to fulfill their sexual curiosities and needs. The functions and effects of pornography, according to this theoretical approach, are either restricted to the realm of fantasy (e.g., Gagnon, 1977) or to providing desirable communications that are often lacking in many people's sex education (e.g., Wilson, 1978). For example, an emphasizing the view that pornography is limited to the fantasy world, Gagnon (1977) writes:

Pornography is fantasy sex, consumed by people who know it is fantasy . . . In the fantasy world of the book or theater they are released from responsibility from the realness of life. Unlike real life they do not have to perform or succeed, they are having a momentary and pleasant escape from daily constraints, from sexual victory or defeat. (p. 357)

The Artistic Version. The artistic variant emphasizes the artistic need to express sexuality. Pornography is viewed as a harmless or even socially beneficial form of artistic self-expression which creates a fantasy world built about sexual interest (Charney, 1981; Michelson, 1971). For example, Michelson (1971) writes:

In whatever art form, pornography documents man's archetypal concern with sexuality . . . pornography is the private confrontation of individual psyche with its sexual needs. The larger cultural engagement with pomography is the public confrontation with archetypal—and usually subliminal—sexual impulses. Pornography then, for better or for worse, is the imaginative record of man's sexual will. (p. 5)

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Exponents of the sexual communications model often turn to examples from primitive and Eastern culture to demonstrate not only the universality of sexual communication but its positive social function and erotic or instructive value. For instance, Abramson and Hayashi (1984) say that in premodern Japan, sexually explicit stimuli fulfilled one of three purposes: (a) to symbolize fertility, (b) to illustrate a "sex manual", or (c) to create sensual feelings. Under the influence of Western morality, the Japanese imposed restrictions on pornography at certain periods in their history. Even today, visual materials still must not show genital and pubic hair. With this one exception, pornography now appears throughout Japanese society. Themes such as rape are common and yet rape rates in Japan are relatively low (this issue is discussed further later in this chapter).

Proponents of this model also emphasize the assertion of sexual interest in all cultures, despite religious restrictions and irrespective of political beliefs. Smith (1983) argues that the emergence of more openly erotic Western art work in the 19th century by conservative artists such as David and Degas, as well as radicals like Rodin and Toulouse-Lautrec, shows that "erotic art has never been determined by either the politics of the artist nor his social status . . . the interest of the artist in the visual aspects of sex is apparently universal" (p. vii).

Certain periods and works are considered to represent breakthroughs in the West in sexual expression, such as the publication in the 17th century of Arentino's *Pleasures*, an erotic work with accompanying illustrations of intercourse. This work remained popular for 2 centuries and produced a genre of copulation prints (Foxon, 1965) paralleling Japanese and Chinese erotic prints. The increase in pornography production in that century is cited by several observers as a sign of both sexual curiosity and need (Foxon, 1964; Gordon, 1980). Gordon argues that pornography appeared in the West as soon as it was technically possible to provide mass communication and communicators were freer of church regulation.

Portrayal of Women ...

In contrast to the feminist perspective, the portrayal of women in pornography is not seen as a critical feature by proponents of the sexual communications view. Therefore, exponents of the communications model often touch on this subject lightly, if at all, in considering historical and cross-cultural material. However, when women's portrayal is considered, it usually is viewed as a

reflection of the particular culture or of the female's biological sexual role. Sexual communication in a sexually tolerant society is expected simply to reflect the greater freedom of sexual expression women are presumed to have under these conditions.

An example of the emphasis on sexual communication as presenting more positive images of women in more sexually tolerant societies is Kronhausen and Kronhausen's (1961, 1978) stress on women's portrayal in Chinese and Indian erotica. Eastern erotica picture women as more sexually active than in the Western tradition, which emphasizes passivity and the male superior position for intercourse. The Kronhausens (1961) point out that an ancient Chinese treatise on sex stressed: "Man should give the woman complete satisfaction every time he engages in sexual intercourse with her, but he should allow himself to ejaculate only on certain specified occasions" (p. 241). They also emphasize the gentle persuasion and sweetness of Chinese erotica. Japanese erotica display more aggression, the Kronhausens acknowledge, but the emphasis on female sexual organs is almost equal to that of the males.

In addition to the rape theme in Japanese erotica, a feature of women's portrayal that has attracted the attention of exponents of the sexual communications model is the eroticization of Chinese foot binding. In his discussion of erotic symbolism, Ellis (1936) noted this practice of compressing females' feet. He considered its appeal an exaggeration of the general sexual drive. Ellis believed the foot was selected because of ancient customs glamorizing the foot and because of the beauty standard which valued the petite. In contrast to the feminist perspective, he explicitly rejected the oppression of women or their political status as being related to foot binding. Ellis cites the small waist and use of the corset to diminish the waist to enhance sexual attractiveness as a Western example of erotic symbolism.

The Feminist Model

Functions and Effects of Pornography

The subject of pornography has received considerable attention from feminist writers (e.g., Brownmiller, 1975; Gager & Schurr, 1976; Russell, 1980; Steinem, 1980) who view it as an important reflector and creator of male subjugation of women. In contrast to the sexual communications model, feminists do not see the subject of pornography in terms of sexual permissiveness versus repression, but in terms of sexist propaganda conveying a political ideology of male domination/female subordination (Morgan, 1980).

Feminists contend that the functions and effects of pornography need to be understood within the larger context of male-female relations. They do not object to the depiction of sexual content per se, but feminists voice strong objections to what they perceive as the expression of an antifemale ideology in pornography

that portrays women in roles contrary to the goals of women's liberation. According to this view, women are typically depicted as objects to be used to serve the pleasure of men; they are degraded, dehumanized, and frequently shown as both willing and unwilling victims of abusive and violent acts:

Pornography, like rape, is a male invention, designed to dehumanize women, to reduce the female to an object of sexual access, not to free sensuality from moralistic or parental inhibition. The staple of porn will always be the naked female body, breasts and genitals exposed, because as man devised it, her naked body is the female's "shame," her private parts the private property of man, while his are the ancient, holy, universal, patriarchal instrument of his power, his rule by force over her. Pornography is the undiluted essence of antifemale propoganda. (Brownmiller, 1975, p. 443)

Pornography's most fundamental message about women which, whether inspired by wishful thinking, or a deep fear and ignorance of female sexuality—is essentially that "all women are whores." (Blackstone, 1984, p. 9)

Why should an ideology of male domination and abuse of women be expressed in the context of sexual themes? This ideology is particularly evident here, according to feminists, because historically in partriarchal societies, where men hold the reins of power, the woman's worth was strongly linked to her sexuality. Feminists contend that pornography has effects beyond the fantasy realm. It supports similar attitudes and behavior toward women in reality and consequently contributes to a cultural climate where acts of discrimination and violence against women are more likely to occur and be accepted.

Supporting Information

As evidence of the propagandistic nature of pornography, LaBelle (1980) argues that it uses the eight techniques listed by Brown (1963) as universally employed in propaganda campaigns. Similarly, Casalis (1975) analyzed Penthouse magazine from the perspective of an ideology, showing phrases which objectified women (e.g., bust-waist-hip measurements) as a salient personal characteristic. Other features were the magazine's engagement against the women's liberation movement and incorporation of this movement's ideas into a context that is ideologically compatible with the magazine. For instance, the sexually liberated woman is presented, but her achievements are trivalized in profiles of women who are featured as "pets."

Others have stressed the close association between pornography and political groups or movements. Griffin (1981) presents the Nazi movement in Germany as an example of the use of imagery similar to the domination and humiliation motifs of pornography to assert authoritarian domination, particularly over Jews. By stressing the high emphasis on control and authoritarian themes, Griffin seeks to demonstrate that the main impulse behind this genre of sexual motif is not actually sex, but political oppression.

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Portrayal of Women

The portrayal of women is seen as the most salient feature of pornography by feminists due to women's status as an oppressed and exploited group. Women are also considered to be the group most apt to be controlled through sexual imagery, although other groups such as children and blacks can be portrayed in similar ways.

Historically, a number of observers have pointed to the misogynistic strain in art and literature which deals either directly or indirectly with sex and relations between men and women. The characters of the witch (Masters & Lea, 1964) and Eve (Phillips 1984) represent examples of sexual women as evil. Thompson (1979), in his survey of 17th century pornographic works published in England, writes: "A common characteristic of virtually every book and every type that we shall be examining is its underlying contempt for women. Women are created for the satisfaction of men and satisfaction means physical domination. Women are paradoxically depicted as either tempresses or victims, Messalinas or Lucreces, ravenous or ravished" (p. 12). He argues that even the female rogue was portrayed unsympathetically as "rampart lesbian and unfaithful wife" (p. 33). He found that women often were depicted as seductresses far out of proportion to what the female embracement of this sexual role actually could have been. Where women were pictured as sexual, they usually were cast into the role of the whore. Even in such ancient Western sexual works as Ovid's Metamorphosis, which remained a popular work of sexual fiction through the Middle Ages (Stone, 1977), rape was a frequent motif and women were pictured on the one hand as being chased and coerced or tricked into having sex, usually with a god, and on the other hand as being held responsible for the act.

Rush (1980) notes the growth of sexual imagery involving children, citing statistics from a 1977 Los Angeles Times article which estimates that 40% of the \$2.5 billion porn industry comes from child pornography. Rush argues that the use of children in sexual imagery is not a matter of simple sexual interest but an appeal to sexually exploit the weak, the same motivation for women's portrayal in pornography.

Although much feminist concern about pornography's effects has focused on violence, feminists also have been concerned about the effects of more muted messages in sexual imagery, including domination and bondage (Lederer, 1980). This is seen not as a harmless fantasy outlet but a means for symbolically or actually constraining women. In contrast to the views presented by the sexual communications' model, Brownmiller (1984) and Dworkin (1981) argue that sexual fetishism, especially Chinese foot binding, is related to and reinforces political bondage of women. Levy's (1966) study of Chinese foot binding and related art and literature documents how bondage was linked both to sex and

politics and how this connection was reinforced by cultural media. The crippling practice of foot binding began as foot wrapping by court dancers. But the practice was widened and the wrappings tightened to become bindings because both political and religious leaders wanted to restrict the movement of women and cut back on such rights as freer association with unrelated men. The practice became glamorized and subjected to beauty standards as time went on. Because it originated in the upper class where women did not do physical labor, the practice operated like a fashion, affecting those most interested in imitating the rich. What would be considered pornography entered the process as an increasingly commercial and secular culture produced sex books with novelized narratives. A specific genre of these, the Lotus Literature, dealt directly with the erotic properties of the bound foot. This literature not only explained how to become sexually aroused by the bound foot but provided defenses of the practice and a distorted historical account which ignored its intent to constrain women. Levy notes that fallacious ideas about the bound foot appearing in the Lotus Literature were believed by some males past the middle of the 20th century.

A similar historical instance is the tight lacing of women's waists, popular in Europe from the Renaissance to the 19th century. Lewisohn (1956) notes that the corset appears both in Greek myth and in historical practice as a chastity belt for potentially adulterous wives. Kunzle (1972) notes that an erotic fashion magazine helped to make what was initially a chastity item into a sexual fetish. The magazine ran drawings which gave the corseted woman and the corset fitting an erotic connotation. As opposition to tight lacing mounted, especially among physicians, the corset magazine continued to defend the practice, with the support of male and female readers.

RESEARCH FINDINGS

In light of the foregoing discussion of the sexual communications and feminist models, there appear to be four central questions that merit empirical testing: (a) Does the content of pornography reflect an ideology regarding male-female relations in addition to its portrayal of nudity and sexual explicitness? (b) Does pornography change sexual responses such as sexual arousal and activities? (c) Does pornography affect social relations between males and females that relate to political/ideological roles? (d) Does pornography affect crimes such as гаре?

Content of Pornography

There have been relatively few systematic content analyses of pornography in differing media; the generalizability of the findings is therefore quite limited. Perhaps the most thorough analysis was that of Smith (1976a, 1976b), who

analyzed the content of 428 "adults only" paperbacks published between 1968 and 1974 and sampled from five states. The nature of the social relations described in these books, according to Smith (1976b), was of a "machismo world" in which the most common theme was:

The young, probably rich, sleek, cool, restrained and poised beauty, the depths of her sexual desires unstirred as yet (particularly, if married, by her husband), until Superstud arrives, who, despite her initial resistance and piteous pleas for mercy, rather quickly and relentlessly unlocks her sexual passion to take her to totally unimagined heights leaving her begging for his continued ministrations. (p. 23)

Smith (1976a, 1976b) found that 20% of the sexual episodes in these books depicted a rape, with less than 3% of the attackers meeting any negative consequences. The vast majority of such violence was by males against females. Moreover, the victim was rarely portrayed as having regrets about having been raped. The number of rapes portrayed doubled from 1968 to 1974.

Malamuth and Spinner (1980) conducted a content analysis that focused on the frequency of sexual aggression in the cartoons and pictorials of Playboy and Penthouse magazines between 1973 to 1977, inclusive. They found that on the average about 10% of the cartoons were sexually violent throughout this 5-year period. For pictorials, there was an increase in sexual violence from about 1% in 1973 to 5% in 1977. Such aggression was almost exclusively directed by males against females.

Dietz and Evans (1982) classified 1,760 heterosexual pornographic magazines according to the imagery depicted on the cover, comparing the imagery depicted in 1970 to 1981. Whereas in 1970, when the pornography commission had completed its research, magazine covers depicting a woman posed alone had predominated, such imagery constituted a much smaller percentage by 1981. In contrast, bondage and domination imagery increased very markedly since 1970 and in 1981 constituted 17.2% of the magazine covers, second in frequency only to the depiction of couples in sexual activity.

Conclusions. In terms of overt violence and domination, it appears that an increasing percentage of sexually explicit media portray such themes. Further, although there have not been systematic studies specifically addressing the issue of an "ideology" of male dominance/female submission in pornography, the content analytic studies to provide some support for the assertion that such an ideology is frequently communicated. It is important that future research closely analyze additional dimensions of erotic stimuli to assess the extent to which a sexist ideology is portrayed in contrast to an imagery of positive relations involving mutual respect, affection, and the like.

Sexual Arousal

There are a great deal of data to support the obvious conclusion that erotic stimuli often stimulate sexual arousal. In the present analysis, however, we examine data bearing on a more complex question: Does exposure to erotica produce changes in the degree to which people are sexually aroused in subsequent exposures to sexually explicit materials? Writings on this issue have suggested every possible outcome. Some writers (e.g., Longford Committee, 1972) have contended that repeated exposure to pornography results in enhanced sexual arousal and interest in such materials (i.e., an enhancement effect). Others (e.g., Sonenschein, 1969; Steiner, 1970) have argued that repeated exposure to pornography results in reduced arousal and lack of interest (i.e., habituation or satiation effect). An additional possibility is that while exposure to pornography may produce short-term changes in sexual arousal, no long-term changes occur (i.e., null effect).

It should be noted at this point that the research has been conducted almost exclusively with adult populations due to the ethical barriers to exposing minors to pornographic stimuli within a research context. Consequently, the ability to assess the potential influence of erotica on patterns of sexual arousal (and other responses) is limited given that the first experiences with pornography for most people takes place during adolescence (Commission on Obscenity and Pornography, 1970). Further, it may be that patterns of sexual arousal are established prior to reaching adulthood and that exposures that have profound effects in childhood may not have comparable effects later in life.

Enhancement Effect. There is little evidence that exposure to pornography produces changes in arousal patterns so as to result in greater sexual arousal to pornographic depictions. One study did suggest an intriguing possibility concerning the conditions under which an enhancement effect may occur. Unfortunately, this study is frought with methodological problems. Schaefer and Colgan (1977) exposed six control and two experimental male subjects to pornographic literature in sex sessions over a 2-week period. In each of these sessions, subjects read the same six-page erotic materials, followed by a novel one-page erotic passage. Immediately following each session, the experimental subjects ejaculated (reinforcement condition), whereas the control subjects did not (nonreinforcement condition). Subjects' sexual arousal to the various stimuli was assessed by means of direct genital measures (i.e., penile tumescence).

The results showed that for the control subjects there was a decrease in penile tumescence across trials to the same six-page pornographic stimulus, whereas no differences across trials were found for the novel erotic stimuli. For experimental subjects, there was an increase in arousal responses across trials for both same and novel pornographic passages. These data were interpreted by the

authors as suggesting that reinforcement may play a crucial role in mediating the effects of exposure to pornography. Habituation occurs when exposure is not followed by orgasm, and an enhancement effect may occur when exposure is immediately followed by reinforcement (i.e., ejaculation).

There are serious limitations in Schaefer and Colgan's study (1977) that render any generalizations from their data highly suspect. For example, the authors do not indicate whether subjects were randomly assigned to the experimental and control conditions. In addition, the very small and unequal sizes of the samples cast serious doubts on the validity of the statistical tests used.

Habituation Effect. Varied studies conclude that repeated exposure to erotica will, under many circumstances, result in less sexual arousal to and reduced interest in such materials. These studies include both experimental and survey research.

The first clear experimental study demonstrating habituation was conducted as part of the research of the commission (Howard, Reifler, & Liptzin, 1971). This study found that repeated exposure of male college students to erotica for 90 min a day, 5 days a week for 5 weeks, resulted in a reduction in sexual arousal to erotic stimuli as well as reduced interest in such pornography. Following 2 months of nonexposure, however, there was a recovery in sexual arousal to levels that were not significantly different from those prior to the repeated exposure procedure (recovery of interest levels was not specifically assessed).

Criticism of this research has been made by Cline (1975). He argues that exposure to any stimulus or experience (e.g., sexual intercourse, food, etc.) for 5 days a week for 3 consecutive weeks is likely to lead to habituation. Furthermore, he points out that these data do not address the question of whether more realistic levels of exposure to pornography in a "natural environment" lead to lasting habituation effects.

Two recent experiments used dosage levels of pornography that were somewhat more realistic than those used by Howard et al. (1971). Zillmann and Bryant (1984) randomly assigned male and female college students to one of three exposure conditions or to a no-exposure condition. In each of the three exposure conditions, subjects viewed six 8-min films per session. A session was held each week for 6 consecutive weeks. In the massive pornography exposure condition, subjects viewed six pornographic films per session. In the moderate pornography exposure condition, subjects viewed three pornographic films and three nonsexual films each session. In the no pornography exposure condition, only nonsexual films were viewed. All of the pornographic films were sexually explicit (i.e., hardcore) unedited portrayals that did not depict violent activities. The nonsexual films were chosen to be educational and entertaining. In the seventh week of the research, all subjects were exposed to three films: (a) a softcore nonviolent heterosexual film, (b) a hardcore film portraying nonviolent heterosexual activities, and (c) a hardcore film depicting sadomasochism and

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bestiality. Sexual arousal to all of these three films was assessed by means of heart rate and blood pressure.

On the whole, the study's results clearly demonstrated that repeated exposure to pornography may result in habituation to similar stimuli. Further, this research highlights the importance of the degree of exposure (e.g., massive vs. moderate) and the similarity between stimuli (e.g., hardcore, softcore, or sadomasochistic/ bestiality). It appears that the higher the levels of exposure and the greater the similarity between the exposure and test stimuli, the greater the degree of habituation. (Other important aspects of this experiment are discussed later in this chapter.)

Another experiment that provided some evidence of a habituation effect (Ceniti & Malamuth, 1984) highlighted the importance of individual differences as a mediator of exposure effects. Subjects were first classified on the basis of their penile tumescence to rape and to mutually consenting depictions into one of three groups: force-oriented, nonforce-oriented, or unclassifiable. Those classified as force-oriented had evidenced relatively high levels of sexual arousal to rape depictions as compared to mutually consenting portrayals. Those classified as nonforce-oriented had shown relatively little arousal to rape depictions but had become relatively aroused to mutually consenting 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 exposure conditions. Those assigned to the sexually violent condition were exposed to 10 sexually violent stimuli over a period of 4 weeks. These included feature-length films and written and pictorial depictions. Subjects in the sexually nonviolent condition were exposed to 10 similar media presentations depicting sexually nonviolent activities only. Subjects in the control condition were not exposed to any stimuli during this 4-week period. Soon after completion of the exposure phase, subjects returned for a postexposure laboratory session in which they were presented with four depictions that were similar in theme to those in the preexposure session. Penile turnescence scores and self-reports of sexual arousal were obtained.

Results revealed that force-oriented subjects exposed to either sexually violent or nonviolent stimuli were less aroused by the rape depictions in the postexposure session than those in the control condition. A similar pattern occurred with the nonrape depictions for these subjects, though it was considerably less pronounced. No evidence of a similar habituation pattern was obtained for either nonforce-oriented or unclassifiable subjects, with these subjects not showing any significant differences among the three exposure conditions. As noted earlier, these data highlight the importance of individual differences in satiation effects and suggest that such effects may be quite limited when relatively realistic levels of exposure are involved.

Sexual Activities. Several studies have assessed the impact of exposure to erotic stimuli on heterosexual and autoerotic activities. The methodology consisted

of exposing subjects to sexual stimuli and then requesting that they complete a questionnaire about their sexual activities within a given time period. Subjects' reports were then compared with those of a control group that was not exposed to pornography. Some of these studies included a pretest report of sexual activities prior to the exposure phase. Amount of exposure in these studies has varied from one session (e.g., Byrne & Lambert, 1971; Fisher & Byrne, 1978) to several sessions extending over several weeks (e.g., Howard et al., 1971; Mann, Berkowitz, Sidman, Starr, & West, 1974; Mann, Sidman, & Starr, 1970). The effects of exposure have been assessed within 24 hours (e.g., Amorso, Brown, Preusse, Ware, & Pilkey, 1971; Fisher & Byrne, 1978), I week later (e.g., Byrne & Lambert, 1971; Mann et al., 1971, 1974), and as long as 2 months after exposure (Howard et al., 1970).

In general, the results of these studies revealed no long-term changes in subjects' established sexual activities (e.g., Ceniti & Malamuth, 1984; Commission on Obscenity and Pornography, 1970; Kutchinsky, 1978). Although a number of studies found that for some subjects there were increases in various sexual activities such as discussions about sex, sexual daydreams, sexual fantasies, masturbation, and intercourse (e.g., Davis & Braucht, 1971; Mann et al., 1971, 1974), these changes generally did not last beyond a 24-hour period. Furthermore, such changes were not found for the majority of subjects. When changes occurred, they were generally in the domain of established sexual behaviors (e.g., when an increase in masturbation or intercourse occurred, it was in subjects who were already engaging in these activities prior to participation in the research). It should be noted, however, that the sexual stimuli used generally portrayed conventional sexual activities such as intercourse and masturbation. Very few studies used nonconventional, deviant, or criminal sexual depictions (e.g., pedophilia, incest, rape, etc.), although these are quite frequently portrayed in the pornography currently available on the market.

An experiment by Fisher and Byrne (1978) indicates that some subjects' sexual activities may be affected by exposure to erotica beyond a very brief period. In this study, male and female undergraduates were first asked to complete a questionnaire inquiring about their sexual behaviors during the preceding 2 days. Then, all subjects were exposed to a pornographic film. They were asked to rate their reactions to this film in terms of sexual, evaluative, and affective responses. On the basis of these reactions, subjects were later classified for the purposes of analysis as erotophobes (those who rated the film as relatively pornographic) or erotophiles (those who rated the film as relatively nonpornographic). At the end of the session, subjects were given a sealed envelope containing the same questionnaire as that completed prior to exposure to the erotic film. They were instructed to open the envelope 2 days later, complete the questionnaire at that time, and mail it back to the experimenters.

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The findings indicated that erotophobes showed a significant increase in established sexual activities from pre- to postexposure, whereas erotophiles did not show significant changes. However, a possible methodological problem with this study should be noted. The preexposure reports of sexual activities were gathered in the laboratory, whereas the postexposure data were mailed in. It might be that erotophobes (who in addition to rating the film as pornographic also were found to have relatively negative attitudes toward sex) were more reluctant to report sexual activites when questioned in the lab but were more comfortable in reporting such activities when the questionnaire was completed in the privacy of their homes. Thus, the difference in the settings used for completing the questionnaire may have caused the difference in the sexual activities in the pre-versus postexposure comparison rather than the intervening film. This competing explanation notwithstanding, the importance of individual differences as a crucial dimension for research on the effects of pornography is evident in this study.

Although these research data do not generally reveal lasting changes in sexual responses as a function of exposure to pornography, there have been some clinical reports and research studies on the use of pornography in therapeutic settings that have suggested otherwise. For example, Wishnoff (1978) exposed women with high levels of anxiety about sex to explicit sexual movies. Compared with control groups, such exposure was found to lower sexual anxiety and increase self-reported willingness to engage in sexual behavior under appropriate circumstances. Gillan (1978) and Yaffe (1982) reviewed similar data, as well as findings from studies on the use of pornography to treat male impotence. They concluded that such stimulation therapy may result in considerable improvement for some patients but that other therapeutic interventions are clearly required as well.

In addition to helping in the treatment of individuals who already have sexual problems, it has been suggested that pornography plays an important social role in helping prevent the development of sexual problems. Wilson (1978), former director of research for the commission, points out that there are substantial survey and clinical data to show that close to 50% of North American married couples have significant sexual problems, with about 20% of survey respondents rating their present sex life as unsatisfactory. Moreover, Wilson points out, the principal sources of such dissatisfaction appear to be lack of information, general anxiety about sex, and inability to communicate freely with one's partner about sex. He indicates that some men and women report that exposure to pornography provided them with sex information, reduced their sexual inhibitions, increased their willingness to discuss sex with others, caused them to try "new things," and generally improved their sexual relationship. Therefore, Wilson concludes that pornography may indeed help prevent the development of clinical sexual problems.

Conclusions. Experiments that have exposed subjects to pornographic materials and examined changes in arousal patterns or sexual activities have not revealed lasting changes. In contrast, there are reports from studies focusing on

the use of pornography to prevent and alleviate sexual problems suggesting that exposure to pornography has had long-term effects. Additional research is clearly needed to examine this apparent contradiction and to establish the mediating conditons that may determine the nature and duration of any changes in sexual responses occurring as a function of exposure to erotica.

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Social Relations

In this section, we examine the research findings on the effects of pornography on responses associated with social relations. More specifically, we consider the extent to which exposure to erotica may affect perceptions, beliefs, attitudes, and behavior relevant to male-female relations.

Sexually Aggressive Stimuli. A series of studies examined the impact of exposure to stimuli that fuse sexual and aggressive elements (e.g., Donnerstein, 1980, 1983, 1984; Donnerstein & Berkowitz, 1981; Malamuth & Check, 1980, 1981, 1983, in press; Malamuth, Haber, & Feshbach, 1980). As these studies have been reviewed in detail elsewhere (Donnerstein, 1984; Malamuth, 1984; Malamuth & Donnerstein, 1982), we describe only their general conclusions here. The data across these laboratory and field experiments support the proposition that exposure to stimuli that combine violent and sexual content may increase males' acceptance of violence against women, beliefs in rape myths (e.g., that rape victims derive pleasure from being assaulted), and aggressive behavior as measured by the willingness to deliver unpleasant stimuli (e.g., electric shock) against a woman. Similarly, Linz, Donnerstein, and Penrod (1984) found that exposure to several feature-length, sexually aggressive films resulted not only in desensitization to media portrayals of sexual violence but also to reduced sensitivity to the plight of a rape victim. Taken as a whole, these data clearly show that under certain circumstances exposure to pornographic stimuli that fuse sexual and aggressive elements affects perceptions and behavior in socially undesirable directions. In addition, the data suggest that the message about male-female relations and/or aggression is the critical dimension that determines whether negative effects occur rather than sexual explicitness per se. However, these findings also indicate that there may be particularly potent effects of the combination of sexual and aggressive elements that exceed those found when aggressive stimuli appear in a nonsexual context (e.g., Donnerstein & Berkowitz, 1981).

Nonaggressive Sexual Stimuli. As Steinem (1980) suggests, sexually explicit stimuli that do not depict blatant aggression may nonetheless vary a great deal in their content vis-à-vis the messages portrayed regarding males and females and the relations between the two genders. It is this variability in content that may partially explain the contrasting findings obtained with nonaggressive sexual stimuli. Other factors such as the hedonic valence and arousal levels stimulated nay also need to be considered (see Zillmann, 1984, for a thorough discussion of the importance of these dimensions). On the one hand, data suggest that various types of sexually explicit stimuli, such as those depicting males and emales in relations that involve equal power, mutual respect, and/or loving elations, do not increase antisocial responses (e.g., Commission on Obscenity and Pornography, 1970) and may even reduce them (e.g., Baron & Bell, 1977; Malamuth, 1978). On the other hand, a very different effect is evident in the research of Zillmann and Bryant (1984).

As described earlier, this research included four exposure conditions: massive cornography exposure, moderate pornography exposure, no pornography exposure (but exposure to neutral stimuli), or no prior exposure at all. Three weeks following the conclusion of the exposure phase of the research, subjects returned to the laboratory for a final session. At that time, they estimated the frequency of various sexual practices among adults, reported their beliefs about the necessity for regulating pornography, reported the degree of their support for the women's iberation movement, and recommended punishment in a mock-jury rape case. Males were also administered a scale assessing sexual callousness toward women. Results showed that exposure to massive and moderate amounts of pornography significantly increased males' and females' perceptions of the popularity of varous sexual practices in society, including unusual sexual behavior such as sadonasochism and bestiality. In addition, exposure to pomography increased approval and support for such practices by both genders. Exposure also significantly iffected reactions to rape. For example, massively exposed subjects prescribed ar less severe punishment for this crime than control subjects. Further, exposure o pornography was found to reduce support for the women's liberation movement. Finally, males exposed to massive amounts of pornography exhibited greater callousness toward women than males in the control group.

How can these findings be explained? Zillmann and Bryant (1984) point out hat the pornography used in their research depicts women as socially nondiscriminating, as hysterically euphoric in response to just about any sexual or secudosexual stimulation, and eager to accommodate seemingly any and every sexual request. Such portrayals, they suggest, may convince even females of he hyperpromiscuous, accepting nature of women. This view may affect the redibility of the rape victim. In general, the authors suggest that "massive exposure to pornography appears to contribute to beliefs about sexual desire and sexual conduct that are not conducive to respect for the opposite (or the same) sex" (pp. 134–135).

Zillmann and Bryant's data are important in at least two respects. First, they suggest that some of the antisocial effects documented with sexually aggressive nedia stimuli (e.g., Malamuth & Check, 1980, 1981) may also occur with stimuli that do not directly focus on sexual coercion or violence. Second, the

importance of cumulative effects that may not be detected with single media exposures is clearly highlighted by the longitudinal nature of this study.

Conclusions. The findings show that pornographic media stimuli may affect varied responses relevant to social relations. These data by no means indicate that such effects are limited to sexually explicit materials; similar effects may occur with stimuli that are not sexually explicit. However, considerable data clearly reveal that exposure to sexually violent media affects perceptions, attitudes, and beliefs in a manner that may contribute to a cultural climate that is more accepting of actual violence against women. Moreover, the data suggest that exposure to violent pornography may increase males' aggression in the laboratory. Considerable caution must be exercised, however, in generalizing directly from such aggression to violence in nonlaboratory settings.

Recent data suggest that some of the negative effects of exposure to certain types of pornography (e.g., trivialization of rape) may not be limited to stimuli that are clearly violent but may also occur with nonviolent erotic portrayals such as those portraying women as insatiable, nondiscriminating sexual creatures. It is also apparent that exposure to various forms of sexually explicit stimuli, such as those portraying men and women in roles that involve equal power, mutual respect, and loving relationships, does not increase antisocial responses and may indeed reduce them.

Criminal Behavior

In a national survey of American adults, Abelson, Cohen, Heaton, and Sluder (1970) found that close to half of the respondents believed that pornography is one of the causes of rape. To examine this possibility with empirical research, we consider two types of approaches: (a) correlational studies assessing a possible relationship between the availability and/or consumption of pornography in differing areas and the rates of sex crimes² in these places and (b) retrospective studies comparing rapists' and control groups' exposure to pornography. For a discussion of the limitations of such methods, the reader is referred to Nelson (1982) and Court (1984).

Before evaluating the research, we would like to point out that in examining the possible relationship between pomography consumption and crime, the focus is on deviant behavior, that is, behavior that is not socially sanctioned. To the extent that pornography may be a manifestation of beliefs and "scripts" portraying a widely accepted cultural ideology, effects may be more likely in culturally sanctioned behaviors than in deviant responses (e.g., if pornography portrays an

²The use of the term *sex crimes* to refer to violent acts such as rape may be inappropriate due to the implication that such crimes are primarily motivated by sexual needs. However, due to the extensive use of this phrase in the relevant literature, it is also employed herein.

ideology of male dominance over women, effects may occur in culturally accepted expressions of such an ideology rather than in criminal behavior).

Sex Crimes. Studies examining a possible relationship between the consumption of pornography and sex crimes have generally used one of two approaches. One has been to assess whether changes in the availability of pornography were associated with corresponding changes in the rate of sex crimes. The second approach has been to compare different countries and/or states to determine whether there is a correlation between the amount of pornography consumed and the rate of sex crimes. Some studies used a combination of these two approaches (e.g., Court, 1984).

As part of the research of the commission, a number of studies analyzed the relation between changes in laws regulating the availability of pornography and the frequency of sex crimes. Some of these studies focused on Denmark. In the 1960s, the Danish government gradually relaxed restrictions on the sale of pornography and eliminated all restrictions on sales of pornographic books in 1967 and on all other erotic media in 1969. Using Copenhagen police statistics, investigators (e.g., Ben-Veniste, 1970; Kutchinsky, 1973) reported a reduction in the number of sex offenses occurring at the time restrictions on pornography were lifted. Closer examination of the data suggested that these reductions reflected real decreases in some sex crimes such as voyeurism, but in other crimes, the changes appear to be best explained by society's increasing tolerance for sexual activities such as homosexuality (Kutchinsky, 1973; Court, 1984). It is clear, however, that there was no reduction in the occurrence of rape. Conflicting data have been reported, with some studies suggesting no change in rape rates following the liberalization of pornography laws, whereas other studies indicate some minor increases in this violent crime (Bachy, 1976; Court, 1984; Kutchinsky, 1978).

In an analysis of sex crimes in the United States, Kupperstein and Wilson (1970) examined the FBI Uniform Crime Statistics from 1960 and 1969 and found an increase in that time period both in the availability of pornography and sex crimes. Although these data appear to show a correlational link, the investigators found that the rise in sex offenses did not exceed the proportional rise in other crimes. Kupperstein and Wilson (1970) concluded that "for the moment, the question of the relationship between availability of erotic materials and sex crimes must remain open to further question" (p. 32).

In an analysis of the availability of pornography throughout the world, Court (1984) concludes that there is evidence to suggest that certain types of pornography, particularly violent pornography, contribute to the occurrence of sex crimes. A note of caution must be raised regarding this research, however, because the selection of varied countries and/or states was not random and may reflect selection of individual examples that may or may not be representative. Further, although the data do appear to offer some correlation between the

availability of pornography and sex crimes, there does not seem to be a sufficient basis to conclude with confidence that a causal connection exists.

A study that examined all states in the United States was reported by Baron and Straus (1984), who analyzed whether there was a relationship between rates of rape and the extent to which sex magazines are part of the popular culture of each state (i.e., magazine sales). They found that there was a strong correlation between the popularity of pornography magazines and the incidence of rape. In contrast, a much weaker correlation was obtained between sex magazine consumption and general rates of nonsexual violent crime. The correlation between pornographic magazine consumption and rape rates remained statistically significant even following the partialing out of the potential contribution of various control variables. These investigators appropriately caution that such a correlation is suggestive but not a sufficient basis for establishing a causal connection.

Although various sources of data suggest that there may be some correlation between the consumption of pornography and the incidence of violent sexual crimes, there are also examples of countries where the rate of consumption of pornography in general, as well as violent pornography in particular, is high but the incidence of rape is relatively low. Earlier in this chapter we referred to the work of Abramson and Hayashi (1984) who note the high rate of sexual violence in the Japanese media. These writers also point out that Japan has a relatively low incidence of reported rape. They suggest that a combination of factors, including the existence of strong internal constraints (e.g., an emphasis from early childhood on not committing shameful acts), results in the low frequency of rape.

The research of Abramson and Hayashi as well as examples from countries such as Denmark should alert us to the fact that any causal connection between the availability of pornography and antisocial behavior, if one indeed exists, is bound to be a complex relationship mediated by many other factors. Considerable variability may exist in susceptibility to the influences of media stimuli such as violent pornography both among cultures and among individuals within a culture (Malamuth & Check, in press). Moreover, if certain media messages within pornography have an antisocial impact, the expression of such influences may be strongly affected by cultural norms. For example, there may be a low rate of violence within Japan, but it is a culture that appears to have a high degree of inequality between the genders and a history of considerable violence against other societies. Although pornography is not likely to have been a major cause of such patterns, it may be conjectured that the violent nature of Japanese pornography may reflect and perpetuate sexism and other behaviors despite effective constraints against actually committing violent acts prohibited by culture.

Conclusions. Both within the United States and in comparing a number of other countries, a positive correlation has been found between greater availability and/or consumption of pornography and higher rates of rape. These data are

clearly insufficient to infer any direct causal connection between these variables. In addition, there are examples of certain countries that have relatively high levels of available pornograpy and relatively low rape rates. It is also clear that in certain countries (e.g., Denmark) the liberalization of pornography laws did not result in a massive increase in the occurrence of rape, although it is also apparent that contrary to widely publicized views there was no decrease in such crimes. Nonetheless, the positive correlation points to the need for further research addressing the hypothesis that there may be some complex causal relationship between the availability of pornography and the committing of antisocial acts by some people, within some cultural environments.

Rapists and Pornography Exposure. A number of retrospective studies using survey-interview methods have sought to determine whether exposure to pornography may be related to deviant behavior. The general approach has been to examine whether there are differences in the amount of exposure to pornography by rapists and various groups of sex deviants in comparison to control samples. Methodological criticisms of these studies are discussed in Cline (1975) and Lederer (1980). Here we also consider the possibility that focusing on amount of exposure may be oversimplistic.

The findings of these studies (e.g., Cook & Fosen, 1970; Davis & Braucht, 1973; Goldstein et al., 1973; Propper, 1970; Walker, 1970) have been inconsistent. Some suggest that pornography exposure may indeed have contributed to the development of antisocial and deviant behaviors, whereas others find no support for this conclusion. Indeed, some of the latter studies suggest that rapists were exposed to less pornography than control comparison groups. Rather than discussing the many differences among these varied studies, we focus in greater detail on one, the research of Goldstein et al. (1973). Methodologically, this study appears to be one of the best in this area; it is frequently cited as providing no support for the hypothesis that pornography exposure may contribute to antisocial behavior.

The findings of Goldstein et al. (1973) indicate that in general rapists reported less exposure to pornography in adolescence than the control comparison groups. However, various aspects of these data appear to indicate that the type of pornography rapists were exposed to and the degree to which they were affected by it may have differed. For example, rapists reported an earlier age of peak experience with pornography. In addition, they were far more likely to have encountered pornographic photos displaying explicit sexual acts (rather than nudes) at an early age and to have had greater desire to imitate the activity portrayed in pornography (although they were less likely to have actually done it). Rapists were more likely to relate daily masturbation to thoughts of erotica, to have developed a stronger interest in pornography early in life, to have become repeatedly aroused by a particular theme, and to have more feelings of frustration and guilt related to their pornography exposure than control subjects.

Although Goldstein et al. (1973) did not specifically inquire about pornography involving coercive sex themes, it is clear from their interviews that media depictions involving sexual violence (e.g., motorcycle films depicting "gang bangs") frequently became part of rapists' daydreams and fantasies. In addition, they report that 55% of the rapists (as compared to 9% of the controls) used scenes from pornography in their fantasies and daydreams. In light of the content analyses reported earlier, which reveal an increasing degree of sexual violence within erotic stimuli, it seems likely that such depictions would affect rapists' sexual fantasies and daydreams. It may be relevant to note at this point that programs for treating rapists (e.g., Abel, Blanchard, & Becker, 1976, 1978; Brownell, Hayes, & Barlow, 1977) place considerable emphasis on changing their sexually violent fantasies in modifying their antisocial behavior. This suggests that if media depictions including violent pornography stimulate violent fantasies (Malamuth, 1981), then for some individuals such fantasies may affect behavior. Further, the data of Schaefer and Colgan (1977) may be relevant here. This research pointed to the possible importance of masturbation as increasing the likelihood of long-term effects of pornography (see also McGuire, Carlisle, & Young, 1965, on masturbatory conditioning). These data may be relevant to rapists' more frequent use of pornography during masturbation.

How can we account for the data suggesting that rapists had less exposure to pornography in childhood but were affected by it more? This and other studies suggest that rapists were more likely to come from home environments where education about sexuality was highly restricted and sex was generally treated as a taboo subject. (The relatively minimal exposure to erotica may have been a byproduct of this taboo attitude.) With such a background, it might be expected that exposure to pornography would exert a relatively more powerful influence on rapists' responses because it would be a primary source of information and stimulation. Consistent with this view are the data of Fisher and Byrne (1978) suggesting that individuals with a history of restrictive sexual socialization reacted more negatively to pornography but at the same time were more behaviorally affected by it.

Conclusions. The data in this area are limited and vulnerable to varied methodological criticisms, but some findings indicate that rapists had less exposure to pornography than controls, although their early exposure may have involved more hardcore material than that of control subjects. Further, the data suggest that rapists were more likely to have been strongly affected by their exposure to pornography than were controls. We speculate that rapists' relatively restrictive sexual socialization and education may have made them more likely to be affected by pornography. To the extent that pornography does present a certain ideology about male—female relations, it might be theorized that rapists' ideas about sexuality and heterosexual relations may indeed have been significantly affected by exposure to pornography. Had they had other sources of education about

sexuality and male-female relations in their childhood, they might have been less likely to have been as strongly affected by pornography exposure.

CONCLUDING COMMENTS

Our review of the research literature suggests that the sexual communications model of pornography may be overly limited in its scope. The data indeed are consistent with the view that erotic materials play diverse roles relevant to sexuality, such as expressions of sexual needs and ideas, enhancement of sexual arousal, and even therapeutic aid. However, content analytic data, findings from experimental studies focusing on social relations, and correlational research assessing the relation between pornography consumption and violence against women provide some support for the feminist model in its call for greater attention to the ideological/political messages communicated by sexually explicit materials. Particularly relevant messages for future research to investigate systematically are those regarding the nature of women and men, their roles, and relations.

We began this chapter by noting the surprising paucity of social scientific research on pornography, despite the tremendous size of this mass media industry. Our review of the existing research literature points to some progress but clearly highlights the compelling need for much more systematic, programmatic research. In an area where strong personal opinions abound, researchers using the tools of social science have a potentially important role to play in proceeding beyond the level of opinions to the realm of data that are open to challenge and/or replication by other investigators' research.

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