Fantasies and Exposure to Sexually Explicit Magazines¹

We assessed whether a relationship exists between the degree of men's exposure to Playboy and Penthouse magazines and the frequency of their sexual and hostile-aggressive fantasies. No significant relationships were found between frequency of readership of Playboy and either sexual or aggressive fantasies. This finding supported the contention by Playboy's publisher that consumers are not attracted to the magazine primarily for sexual fantasizing. Penthouse readership was best predicted by the interaction of sexual and hostile fantasies: For those with low-hostile fantasies, there was not a significant relationship between sexual fantasies and Penthouse exposure, whereas for those with high-hostile fantasies, there was a strong association between exposure to this magazine and sexual fantasizing (r = .51, p < .0001). These results did not change when statistical controls were used for possible confounding with other media and fantasies. Although these findings were largely predicted on the basis of an expressive model, which asserts that consumers' exposure to sexual media is an expression of their conscious fantasies, some of the data may also be explained by other models. The need for better theoretical models to guide further research is emphasized.

There has been considerable research on the relationship between sexually explicit media and attitudes, beliefs, and behavior (for reviews see Donnerstein, Linz, & Penrod, 1987; Malamuth & Billings, 1986). Surprisingly, however, there has been relatively little focus on the connection between such media and fantasies or daydreams.² This is surprising because the mass media in general, and sexually explicit media in particular, are likely to exert considerable influence on fantasy experiences (Singer, 1975, 1980).

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Our research focused on the relationship between frequency of exposure to sexually explicit magazines and fantasies, with particular focus on sexual and on hostile fantasies. The data gathered here may be helpful in guiding future research concerning both the "uses and gratifications" (Rubin, 1986) and the effects of sexually explicit media.

In recent studies, Baron and Straus (1984, 1987) assessed the statistical prediction of rape rates in the United States. After controlling for all the relevant variables they could think of, these investigators found that the frequency of readership of sexually explicit magazines in a state made a significant contribution to the prediction of rape rates. Because these are aggregate data on a state level, they certainly cannot be used to infer any causal effects at the level of individuals. However, they do heighten the need for research assessing the characteristics of relatively high consumers of such magazines. It is important to emphasize that the present research does not focus on aggressive or other behavior but on fantasies, which do not, of course, have any simple or direct connection with actual behavior.

Early scientific research on sexuality already concluded that fantasies played an important role in people's sexual lives (Kinsey, Pomeroy, & Martin, 1948). Later research (e.g., Campagna, 1985-1986; Hariton & Singer, 1974; Kelley & Byrne, 1978; Stewart, 1978) extended the earlier work and showed that sexual fantasies serve a variety of functions, including stimulation during intercourse, masturbation, and other sexual activities. Therefore, many researchers concluded that sexual fantasies were usually harmless and may be beneficial for many people (e.g., Davison, 1985). Others, however, have suggested that under some circumstances, certain types of fantasies, such as those involving coercive and hostile themes, may increase the likelihood of aggressive behavior (e.g., Greendlinger & Byrne, 1987). Similarly, some researchers have contended that fantasizing about aggressive acts observed on television (Huesmann & Eron, 1984, 1986) or in "detective magazines" (Dietz, Harry, & Hazelwood, 1986) could increase the probability that such acts would be actually performed, although the research data have not been very consistent (e.g., Huesmann & Eron, 1986).

Hostility, Sexual Fantasies, and Media

Several theorists have suggested connections among hostility, sexual fantasies, and media. One of the most controversial is Stoller (1985). He theorizes that hostility underlies most, if not all, sexual excitement and

fantasy as well as all sexual aberrations. He focuses on the "scripts" of these fantasies. Pornography represents sexual fantasies based on developmental conflicts left over from childhood. He theorizes that eroticizing these scripts is a way of symbolically mastering the trauma. The details included in scripted fantasy (e.g., fetishistic objects or practices), he suggests, are extremely important because they represent the traumatic events of an earlier time when the individual was humiliated or harmed. Pairing sexual excitement (masturbation) with these trauma-related fetish stimuli and with fantasies of sexual conquest operates, according to Stoller, much like reciprocal inhibition in the behavioral treatment of anxiety. It is considered generally harmless and may even have some therapeutic effects.

Interestingly, a perspective articulated by Lurie (1980) shares some of the psychodynamic elements of Stoller's view but perceives the role of pornography in a much more negative light. She suggests that sexual and other fantasies "that give pleasure are formed to combat a disappointing, hostile reality" (p. 160). Men, she contends, frequently fear women and their sexuality and perceive hostility in women. Pornography that portrays women as available, vulnerable, and controlled is designed to alleviate these fears of women, but "pornographic images point specifically to the fears they are meant to combat . . . pornographic fantasies perpetuate and intensify, rather than eliminate, the male dread of women" (pp. 171-172).

Laboratory research has documented some complex associations between hostile thoughts and feelings and exposure to sexually explicit stimuli. Studies focusing on the effects of mildly arousing nude pictorials from *Penthouse* and *Playboy* have found that these reduce hostile feelings and the accompanying behavioral aggression (e.g., Baron & Bell, 1977; Donnerstein, Donnerstein, & Evans, 1975). Donnerstein et al. have suggested that these effects were due to the distracting influence of the mildly erotic stimuli. In contrast, depictions that were much more sexually explicit and arousing appeared to increase aggression in men who were angered earlier (Donnerstein et al., 1975).

The Present Research

Sexually Explicit Magazines

The two magazines used in the present research—*Playboy* and *Penthouse*—have the highest circulations among sexually explicit magazines (Audit Bureau of Circulation, 1985). Although similar in some respects, it is clear

that they also differ in their historical origins, contents, and possibly in the consumers' motivations for their selection. *Playboy* was described by the 1970 Presidential Commission on Pornography as "preeminent... unique in the periodical industry" (Commission on Pornography, 1970, p. 14). According to its publisher, Hugh Hefner (1962), this magazine is fundamentally different from other magazines that contain sexual explicitness. He argues that its primary appeal lies in its overall editorial, entertainment, and informative content rather than its potential as a source of sexual stimulation. Some critics of this magazine, however, have taken a radically different view (e.g., Lederer, 1980; MacKinnon, 1987).

Although Penthouse is often described as one of Playboy's imitators, it is generally more "risqué" and seems to emphasize much more directly its appeal as "erotic entertainment," that is, as a source of sexual stimulation and fantasies. It appears that *Penthouse* regularly searches for ways to increase its appeal as a stimulant for masturbatory fantasies (Sarnoff & Sarnoff, 1979). The percentage of content that contains nudity appears to be considerably greater in Penthouse. One noteworthy feature of Penthouse is the "letters" or forum section. Here first-person accounts (name withheld by request) of a broad variety of sexual acts are described, some of which are "less common" sexual practices. These less common scripts include voyeurism, sadomasochism, cross-dressing, and sexual arousal to a wide variety of stimuli and objects (e.g., boots, handcuffs, clothing, razors, physical handicaps). This section appears directly intended to provide sexual fantasy material to the consumer. It seems to have been so successful that the Penthouse Corporation now publishes several magazines that are primarily devoted to such letters (e.g., Penthouse Letters, Forum, Variations). Playboy does not include a comparable feature.

Another distinguishing aspect of the two magazines is found in their levels of sexual violence. Although both magazines contain a relatively small percentage of blatant violence, it is significantly higher in *Penthouse* (Malamuth & Spinner, 1980). The percentage of sexual violence in *Playboy* has recently been found to be very small indeed (Scott & Cuvelier, 1987).

Penthouse also appears to more frequently portray women as "available, vulnerable and controlled." In Penthouse, each issue typically includes graphic portrayals of simulated sex (frequently between women) and a "gynecological" focus on body parts, for example, a focus on the genitals or buttocks only, in addition to pictorials of nude females in a variety of poses. In contrast, Playboy's nudity is usually restricted to nudes showing the

entire woman or the top part of her body, including the face; relatively seldom does it have a "depersonalized" focus on a body part only.

Models and Hypotheses

A variety of theoretical models have been proposed regarding the relationship between the media and fantasies (e.g., Singer, 1975). The current research was guided by the "expressive" model (Klinger, 1971) as extended to sexual media. This model asserts that consumers' exposure to sexual media is an expression of their conscious fantasies. The amount and specific content selected by consumers parallel or reflect these fantasies. It is assumed that the content of sexual fantasies is related to nonsexual fantasies, needs, and thoughts (e.g., Sarnoff & Sarnoff, 1979). If a person's nonsexual fantasies focus to a high degree on themes of power, hostility, and aggression, it is expected that these will also be expressed in their sexual fantasies. Individuals with more hostile-aggressive fantasies would be expected to find media sexual themes that emphasize loving relations of relatively little use. They are more likely to be attracted to relatively depersonalized, dominant, or hostile media sexual images. In contrast, individuals with relatively few hostile-aggressive fantasies may find such media images less useful for sexual fantasizing, and they might be more likely to rely on personal loving experiences, rather than on media, for their sexual fantasies.

On the basis of these aspects of an expressive model, the following three hypotheses were made:

Hypothesis 1: Men with more frequent sexual fantasies will be more likely to read both Penthouse and Playboy magazines. However, high sexual fantasizing will be associated with a preference for Penthouse over Playboy.

The first part of this hypothesis was based on the assumption that both magazines are used to elicit and enhance sexual fantasies and daydreams and that (a) men who more frequently sexually fantasize will be more likely to seek both of these magazines, and (b) that those who are exposed to the magazines more frequently for other motives (e.g., to read the articles) will sometimes be stimulated to fantasize sexually by the nudes and other sexual content of the magazines.

The second part of the hypothesis is based on the impression that in comparing the two magazines, *Penthouse* is more exclusively geared as "erotic entertainment" designed to enhance or satisfy sexual fantasies.

Hypothesis 2: Hostile-aggressive fantasizing is expected to correlate positively with amount of exposure to *Penthouse* magazine; no significant relationship is predicted for *Playboy*.

The content of *Penthouse* (such as the occurrence of some sexual violence in the pictorials and cartoons and some of the so-called letters) is likely to appeal to those with more aggressive fantasies. The content of *Playboy* is not perceived as consistent with hostile fantasizing and a similar correlation was therefore not predicted for this magazine.

Hypothesis 3: In comparison to men with low-hostile-aggressive fantasies, those with high-hostile daydreams will show a stronger correlation between amount of sexual fantasizing and consumption of *Penthouse*. Playboy is not expected to show the same data pattern.

This hypothesis is based on the view that *Penthouse* provides sexual content that can most effectively satisfy or enhance depersonalized and sometimes aggressive fantasies. Because men with more hostile fantasies may be more likely to have this type of sexual fantasies (whereas men with relatively low hostility may be more likely to have loving, personalized sexual fantasies), it is predicted that a stronger correlation will exist for the former group between degree of exposure to *Penthouse* and sexual fantasizing. Because *Playboy* was not expected to relate to hostile fantasizing, a similar prediction was not made.

As noted, our study explored the relationships between men's degree of exposure to sexually explicit magazines and their own fantasies. If associations were found, they might be explained by the overlap between readership of sex magazines and other media. For example, if a correlation were found between exposure to sexually explicit magazines and hostile-aggressive fantasies, it might be because men who read such magazines more frequently also view TV violence frequently. Exposure to media violence, rather than to sexual magazines, might be responsible for the association with hostile fantasies. Although no attempt was made in the course of our research to infer causal connections, we also conducted analyses that controlled for such overlap of exposure to other media.

Method

Subjects

Subjects of this study were 106 male undergraduate students from the Universities of Manitoba and Winnipeg. University of Manitoba subjects received experimental credits toward their course grades in exchange for participation. University of Winnipeg subjects participated voluntarily prior to guest lectures on research into fantasy.

Several days after participation in an initial session, subjects were recruited by different researchers for an ostensibly totally unrelated study that was actually the second phase of this research. Although subjects were not asked to provide their names on the questionnaires administered in either phase of the research, they were asked to provide background information (date and place of birth, number of siblings, etc.) at both times of testing. This procedure, previously used successfully by Malamuth and Check (1981), enabled accurate matching of the same individuals' questionnaires from both sessions while maintaining a certain degree of anonymity and reducing the likelihood that subjects would perceive any connection between the two measures used (see Procedure section for additional information).

Instruments

MEDIA USE CHECK LIST

The Media Use Check List (MUCL) consisted of listings of the names of various media contents available throughout the Winnipeg area at the time the study was conducted. These included names of regular TV programs aired on all stations (n = 414), the names of all radio programs available on all stations (n = 232), a listing of each section of the two local newspapers (n = 14), and the names of all magazines (n = 87) available at three typical magazine outlets (a grocery store, a university bookstore, and a convenience store). Subjects indicated on a scale ranging from 0 to 2 (never, sometimes, or regularly their experience with each of the media.

Two independent research assistants performed a content analysis of all the items listed in the MUCL. They used eight content categories to code the items from the three media: interpersonal information (e.g., news, interviews, gossip), impersonal information (e.g., scientific factual information

or "how to do it" instructions), sports and physical activity, sexualromantic, musical, nonviolent drama, violent drama, and comedy. The
coders were trained to use a manual of definitions and examples by
practicing on a small sample of TV, radio, and print materials. They were
then asked to code each item on the MUCL from their direct knowledge of
the item or to expose themselves to the item if they were not familiar with it.
A small number of items from each medium were no longer available; so
they were coded on the basis of archival data such as program descriptions
in old television and radio listings.

Intercoder agreements for the use of the content categories were quite high, both for judgments based on direct knowledge (Cohen's kappa = .82 for TV, .88 for radio, and .75 for print) and upon archival sources (Cohen's kappa = .80 for TV, .56 for radio, and 1.00 for print). Disagreements were settled by discussions between coders with reference to definitions provided for the various categories.

Test-retest stability of the MUCL scores over a 2-week period were computed on a separate sample of 27 students, and reliability coefficients ranged from .74 to 1.00. The one exception was the category of radio sports, whose coefficient was much lower (.40) due possibly to the broadcasting of special sporting events.

With regard to the coding of radio, it should be noted that no radio programs were classified as sexual-romantic or as nonviolent drama. In the print medium, the only magazine that was judged violent was *Heavy Metal*, which contains both violent and sexually explicit content. (Although a variety of other "violent" magazines were initially included, e.g., detective magazines, there was little reported consumption of these magazines among this student population.) Caution is therefore needed in interpreting any relationship between frequency of readership of this magazine and *Penthouse* or *Playboy*, because all of these contain explicit sexual elements. However, the occurrence of only one magazine in this category limited the opportunity for investigating the relation between hostile and sexual fantasies and the use of violent print media.

For the purposes of the present research, we examined the frequency of readership of two magazines within the sexual print category: *Playboy* and *Penthouse*. Other sexual magazines were reported to have such low readership in this sample that they could not be used for meaningful analyses.

It is noteworthy that the province in which this study was conducted is relatively restrictive of sexually explicit materials. For example, this

province usually does not permit X-rated movies to be shown in movie theaters, nor are there any "strip" or "nude" live-entertainment establishments.

IMAGINAL PROCESSES INVENTORY

The Imaginal Processes Inventory (IPI) developed by Singer and Antrobus (1970) was used to assess daydreaming and fantasizing. It is a self-report questionnaire with high internal consistency (Singer & Antrobus, 1972) and test-retest reliability (Giambra, 1977). Factor analyses of this instrument have consistently shown a stable underlying factor structure (Giambra, 1977; Singer & Antrobus, 1972). To ensure that this questionnaire could be completed within one hour, a shortened version of the scale was employed. It included 23 of the 28 total subscales (with exclusion of five subscales that a priori seemed least relevant to the purposes of the research). The scales excluded were Present, Future, and Past Orientations in Daydreams (subscales 10, 11, and 12, respectively), Night Dream Frequency (subscale 2), and the Self-Revelation Scale (subscale 28).

The items of the IPI are written in the first person and describe the content, frequency, and emotional tone of daydreams and fantasies, as well as affective reactions to them. Responses are indicated on a 5-point scale ranging from "definitely not true for me" to "very true for me." The following are examples of items on the two scales of particular interest here:

Sexual fantasies: "While working intently at a job, my mind will wander to thoughts about sex"; "While reading, I often slip into daydreams about sex or making love to someone"; and "Whenever I am bored, I dream about the opposite sex."

Hostile-aggressive fantasies: "In my fantasies, I see myself seeking revenge on those I dislike"; "In my daydreams I become angry and even antagonistic towards others"; and "I imagine myself physically hurting someone I hate."

Procedure

Respondents were asked to fill out the MUCL in their classes. Several days to several weeks later, a different researcher visited these classes and administered the IPI. As noted earlier, based on background information collected at both phases, subjects' questionnaires were matched. This procedure was used to minimize demand characteristics (Orne, 1962) or

cross-instrument contamination that might have occurred if the media-use and fantasy-life instruments had been administered in the same session or by the same experimenter. This procedure allowed for temporal separation and apparent unrelatedness of the instruments while maintaining the subjects' anonymity to obtain more honest data.

Results

Frequency of Magazine Readership

With regard to readership of *Playboy*, 57 respondents indicated that they "rarely or never read" this magazine (i.e., the 0-point level), 41 subjects indicated the 1-point level ("occasionally read"), and 8 subjects indicated the 2-point level ("regularly read"). With regard to *Penthouse* readership, 60 subjects indicated the 0 level, 37 the 1 level, and 9 the 2 level. The correlation between readership of *Playboy* and *Penthouse* magazines was r = .54, p < .001. Although this indicates considerable overlap, it indicates sufficient difference to warrant separate analyses for these two magazines. The distributions found here appear quite similar to those in a recent national random sample of Americans conducted by *Newsweek* (Gallup, 1985).

Correlations Between Magazine Readership and the IPI Subscales

Of the 23 IPI subscales, *Penthouse* readership correlated positively with sexual fantasizing $(r=.29, p<.005)^4$ and with hostile-aggressive fantasizing (r=.25, p<.01). The only other significant relationship for *Penthouse* was an inverse correlation with mentation rate (r=.24, p<.02). For *Playboy* magazine, the only significant correlation was an inverse relation with mentation rate (r=.21, p<.05). The correlations with hostile (r=.18, p<.10) and sexual (r=.15, p<.13) fantasies were not significant for this magazine. These data provide only partial support for the first part of Hypothesis 1 (i.e., for *Penthouse*), because there was no significant correlation between sexual fantasies and readership of *Playboy*.

To test the second part of the first hypothesis, a difference score was created for preference of *Penthouse* over *Playboy* by subtracting for each person his amount of exposure to the latter magazine from that to the former. This difference score was then correlated with amount of sexual

fantasizing. The result yielded a significant effect (r = .23, p < .02), thereby supporting the hypothesis.

The significant correlation between hostile-aggressive fantasies for *Penthouse* but not for *Playboy* is consistent with the second hypothesis.

Regressions Using Three Fantasy Categories

Because there were three fantasy categories that correlated significantly with Penthouse readership, regression analyses were conducted to examine the unique and combined relations between these fantasies and Penthouse consumption. This was particularly advisable, because sexual and hostile-aggressive fantasies were correlated with each other $(r=.39,\ p<.001)$. Entered as independent variables were the three types of fantasies (i.e., sexual, hostile-aggressive, and mentation rate) and the interactions among these variables (see Cohen & Cohen, 1983).

With only the "main effects" entered, both the sexual (beta = .35, p < .0005) and mentation rate (beta = .23, p < .02) categories contributed significantly to the equation, but hostile-aggressive fantasies (beta = .10, p = n.s.) did not. The Multiple R was .390 (p < .0002). Using a hierarchical procedure (Cohen & Cohen, 1983) interactions were then entered, resulting in a significant contribution of the interaction between sexual and hostile-aggressive fantasies. The addition of this interaction to the equation was significant, F(1, 101) = 4.34, p < .04, with the overall equation yielding a Multiple R of .484, p < .0001.

To examine this interaction further and to test Hypothesis 3, a median split was performed on the distribution of hostile-aggressive fantasies, yielding low-hostility (n = 52) and high-hostility (n = 54) groups. The correlations between amount of sexual fantasizing and the frequency of Penthouse consumption were then calculated separately within each of these two hostility groups. The correlation was not significant for the low-hostility group, r = .17, p = n.s., but was highly significant for the high-hostility group, r = .51, df = 53, t < .0001. These data indicate that among men with few hostile-aggressive fantasies, higher sexual fantasizing is not correlated with higher exposure to Penthouse. However, among men with relatively high hostile-aggressive fantasizing, higher sexual fantasizing is strongly associated with greater consumption of Penthouse. A comparison between the correlations obtained for the high- as compared

with the low-hostile men yielded a significant difference (Z = 2.49, p < .02). These data are consistent with the third hypothesis.

A similar analysis conducted for *Playboy* showed that for low-hostile-fantasizing men, there was no relation between consumption of this magazine and frequency of sexual fantasizing, r = .03, p = n.s. For high-hostile men, there was a correlation that was very close to statistical significance, r = .225, p < .051. The difference between these correlations was not significant (Z = 1.00).

Controlling for Possible Overlap Between Playboy and Penthouse

Additional analyses were conducted to control for the overlap in readership between *Penthouse* and *Playboy*. A regression analysis to predict sexual fantasizing was conducted in which both *Penthouse* and *Playboy* were entered into the equations. Regression equations were conducted separately for the low- and for the high-hostile-fantasy groups. As expected, for the low-hostile-fantasy group, neither magazine contributed significantly. In contrast, for high-hostile-fantasy subjects, *Penthouse* made a strong contribution (beta = .54, p < .0004), whereas *Playboy* did not contribute (beta = .07, p = n.s.). These data suggest that once the overlap between the two magazines is controlled for, only *Penthouse* is associated with higher sexual fantasizing (among men with relatively high hostile-aggressive fantasizing).

Controlling for Overlap with Other Media

The significant associations between *Penthouse* and sexual fantasies for high-hostile men might be due to some overlap between the readership of this magazine and exposure to other types of media or to a pattern of general media consumption among some men. For example, it might be that men who are relatively high in both hostile-aggressive and sexual fantasies consume more of all types of media or particularly those of "high arousal" potential. To examine such possibilities, several analyses were conducted.

First, correlations were computed between the sexual and hostile-aggressive fantasies and all of the media categories studied here. The results showed that sexual fantasizing correlated positively with only one other category, print humor (r = .22, p < .05). This might be due to the fact that this category included some sexually explicit humor, for example,

Lampoon Magazine. The only other significant correlation with sexual fantasies was a negative correlation with radio impersonal information (e.g., shows such as "Handyman Hotline," "Schools Broadcast," "The Food Show"; r = -.26, p < .006).

Hostile-aggressive fantasies correlated positively with four television categories, violence (r=.31, p<.001), $\sec{(r=.20, p<.04)}$, $\mathrm{drama}(r=.24, p<.02)$, and humor (r=.29, p<.002), and with print humor (r=.25, p<.02). Hostile-aggressive fantasies also correlated negatively with radio impersonal information (r=.21, p<.04). These data are consistent with other analyses showing that TV viewing in various categories correlates with hostile and dysphoric daydreaming (e.g., McIlwraith & Schallow, 1983).

Second, to control for possible overlap among these media several regression analyses were conducted. In one of these, Penthouse, Playboy, and the six media categories (which correlated with either sexual or hostile fantasies) were "forced entered" in an equation to predict the interaction between sexual and hostile fantasies. The results showed that only Penthouse made a positive significant contribution to the equation (p < .003) and radio impersonal information was inversely related (p < .05). Two alternative analyses were also used: (a) Separate regressions were conducted for the low-hostile and for the high-hostile fantasy groups in which Penthouse, Playboy, and the six media categories were entered to predict sexual fantasy, and (b) analyses were conducted on the six media categories described above in a manner similar to those reported earlier for Penthouse; that is, regression analyses were computed using as independent variables the sexual-, hostile-, and mentation-fantasy categories as well as the interaction between sexual and hostile fantasies, followed by computing separate correlations between each of the six media and sexual fantasies within the low- and high-hostility groups. Both of these alternative procedures consistently indicated that the relationship for high-hostilefantasy men between exposure to Penthouse and sexual fantasy is not explained by overlap with exposure to any of the other media investigated here.

Discussion

In regard to the first hypothesis, the data were consistent for *Penthouse* magazine only. After applying appropriate controls, the results did not show positive correlation between frequency of *Playboy* readership and amount of

sexual or any other type of fantasizing. These data appear to be consistent with Hefner's (1962) assertion that readers are not attracted to this magazine primarily for sexual stimulation and fantasy. Obviously, this does not mean that the nudity and similar content in *Playboy* are not a part of its attraction to many readers. However, the fact that frequency of sexual fantasizing did not correlate with readership suggests that other factors may be more central in affecting readership of this magazine, at least for the type of sample used here. This, of course, does not necessarily negate various elements of the critics' charges, such as those regarding the ideology ostensibly promoted by this magazine (MacKinnon, 1987).

The findings were consistent with the second part of Hypothesis 1, because there was a relationship between higher sexual fantasizing and preference for *Penthouse* over *Playboy*. Hypothesis 2 also received support, with hostile-aggressive fantasies correlating significantly with *Penthouse* but not *Playboy* readership.

Turning to the third hypothesis, regression analyses revealed that the interaction of sexual and hostile fantasizing predicted differences in readership of Penthouse. Further probing showed that for men with relatively high hostile fantasizing, there was a strong positive correlation between amount of sexual daydreaming and frequency of exposure to this magazine. In contrast, for relatively low-hostile men the correlation between sexual fantasizing and frequency of exposure did not reach statistical significance. These findings were not changed when controls were used to address possible confounding between consumption of *Penthouse* and use of other media. These data are clearly supportive of the third hypothesis, although the usual cautions about not inferring causation from correlational data must be stressed. However, the present results do bear some similarity to the experimental study by Mohr and Zanna (in press). These investigators found that exposure to sexually explicit stimuli caused some men (i.e., those classified as gender-schematic) to think and act in a more "sexual way" toward a woman in a task-oriented (or "professional") situation. Future research should more specifically investigate whether frequent exposure to certain types of sexually explicit images in a variety of settings might actually cause some people to think about others in a sexual way, even when such thoughts might be inappropriate to the setting (e.g., one of the items on the Sexual Daydreaming Scale used in the present research refers to thinking about sex while intently working at a job).

Although the present data were, on the whole, strongly supportive of the hypotheses generated from the expressive model, it should be noted that there are other models that might equally well explain some of the results reported here. For example, Goldstein, Kant, and Hartman (1973) described a defensive model by which sexual media are largely used to defend against undesired self-generated sexual fantasies and thoughts, particularly those involving hostile and "perverted" themes. In keeping with this model, these investigators reported that, in comparison with controls, rapists more frequently incorporated media depictions of consenting heterosexual intercourse into their fantasies but not "less socially acceptable" themes. The rapists did report relatively frequent self-generated thoughts and fantasies of hostile-sexual themes that they often struggled to ward off. Goldstein et al. suggested that rapists "may be using the erotic material to incorporate heterosexual themes into their fantasies to offset the guilt-arousing content of the perverse thoughts generated in their own heads" (p. 134).6

The defensive model would argue that the high correlation found for the high-hostile men between *Penthouse* readership and sexual fantasizing is due to the use of the sexual content to block out internally produced hostile fantasies. According to this model, men with relatively low levels of internally produced hostile fantasies did not show a similar correlation, because they do not use the erotica to "defend" against their internally produced fantasies.

A difference between the expressive and defensive model's explanations is that the former suggests that more hostile men are particularly attracted to magazines such as *Penthouse* because of the "unusual," the "fetishistic," the "depersonalized," and the violent content. The defensive model suggests that such men are primarily attracted to the more conventional "sexual" content that serves to ward off the less acceptable internal fantasies. These different perspectives indicate that in future research there is a need to focus on the specific content within the magazine that is used and the manner in which it is used rather than focusing on readership of the magazine as the unit of analysis. Obviously, it would also be useful to expand the study to a considerably wider range of magazines and other media and to obtain specific reports from subjects about how they use sex media. It would also be useful to conduct more experimental research in which subjects are exposed to systematic manipulations in the media content and their subsequent fantasies are analyzed (e.g., Malamuth, 1981).

The data reported in the present research suggest some connections among consumption of certain sexually explicit media, sexual fantasies, and hostility. As the foregoing discussion illustrates, however, the reasons for and implications of such relationships are far from clear at this stage, and they require more probing in further research. It is apparent that there is a need for more elaborate and clearly defined theoretical models that can guide research by making relatively specific and competing predictions.

As a final note, the only other IPI fantasy scale found to relate with amount of exposure to sexually explicit magazines was mentation rate, with readership associated with slower and more deliberate fantasy mentation, that is, more frequent readers of sexually explicit magazines were less likely to report that their minds were full of rapidly paced images and thoughts. This may reflect the slow pace of often-repeated favorite fantasy scripts that might be timed to correspond with masturbation. The use of mentation rate as a control did not change the associations found for *Penthouse* exposure.

Notes

- 1. The data base used for the present research was collected as part of a larger study examining the relationship between media-use patterns and adult fantasy life. Some aspects of that research have been published elsewhere (McIlwraith & Schallow, 1983). However, the "finer-grained" analyses reported here, focusing on the fantasy and media-usage correlates of exposure to particular sex magazines, were conducted exclusively for this article.
- 2. The terms fantasies and daydreams are used interchangeably here to refer to both fantasies and daydreams. Also, we interchangeably use the terms sex media, sexually explicit media, erotica, and pornography without any pejorative meaning necessarily intended.
- 3. These are purely impressions not based at this point on scientific data. We are currently analyzing the data from a longitudinal content analysis that operationally defines such concepts.
 - 4. Unless otherwise indicated, the df for all correlations is 104.
- 5. This finding is consistent with earlier research (e.g., Barclay, 1970, 1971). It might be explained by psychoanalytic concepts (e.g., Stoller, 1985) or by suggesting that individuals less inhibited in their daydreams might be more inclined to explore both sexual and hostile themes.
- 6. In contrast, some recent research with rapists indicates that they might incorporate images from both consenting and coercive sexual media into sexually violent fantasies (Marshall, 1984).

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