

Men's Behavior Toward Women After Viewing Sexually-Explicit Films: Degradation Makes a Difference

Anthony Mulac, Laura L. Jansma, and Daniel G. Linz

Past research indicates that short-term exposure to nonviolent sexual media stimuli can produce cognitive changes in men which, in turn, can affect their behavior toward women. This study explored differences among these behavioral effects based upon sexual degradation in film content and male viewers' gender schematicity, as an extension of the study of cognitive effects reported in Jansma, Linz, Mulac, and Imrich (1997). Seventy-one men viewed one of three films: (a) sexually-explicit and degrading to women, (b) sexually-explicit but non-degrading, or (c) non-sexual. The men then interacted with women in problem-solving dyads that were recorded on videotape. Men who viewed either sexually-explicit film displayed more dominance and anxiety than did the men who viewed the non-sexual film. This was true, however, for only the two-thirds who were non sex-typed (BSRI, Bem, 1974). Sex-typed men's behavior was consistent across sexual versus non-sexual film conditions. In addition, men who viewed the degrading sexual film displayed less anxiety, but more dominance, than men who watched the non-degrading sexual film. Women's behavior failed to distinguish which of the three films their partners had viewed, but was positively correlated with most of their partner's discriminating behavior. Results of men's viewing sexual or degrading sexual material are discussed in terms of negative social implications for women in the context of everyday male-female interactions.

Traditionally pornography research has investigated the effects of violent versus non-violent, sexually-explicit material (Allen, D'Alessio, & Brezgel, 1995; Bauserman, 1996; Demarê, Lips, & Briere, 1993; Fisher & Grenier, 1994; Pollard, 1995). Led by Donnerstein and Linz (e.g., Linz, Donnerstein, & Penrod, 1987) and Malamuth (e.g., Linz & Malamuth, 1993), the past two decades of research established the existence of deleterious effects from viewing violence paired with sexuality. Researchers assessed outcomes primarily in terms of men's aggressive behavior, or negative attitudes toward women (e.g., rape myth acceptance), or both. Limitations of this work lie in the contrived nature of outcome variables. Although aggression, the primary variable of interest in studies of violent pornography, can be of serious concern for women, its salience and frequency are likely to be lower when compared with other forms of sexual degradation and subtle sexism.

Recent work by McKenzie-Mohr and Zanna (1990) and Jansma, Linz, Mulac, and Imrich (1997) has created a new agendum for the exploration of the effects of sexual content. As a context for outcome assessment these authors prefer highly plausible mixed-sex interpersonal interactions, such as those in a work-oriented setting. The sexual objectification of women in non-sexual contexts can subtly devalue women and their competencies (Benokraitis, 1997), Both research teams (Jansma et al.,

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1997; McKenzie-Mohr & Zanna, 1990) differentiate male participants by sex-type as determined by the Bem Sex Role Inventory (BSRI, Bem, 1974), predicting more stereotypically masculine responses from gender-schematic men. Additionally, Jansma et al. (1997) introduced a key moderating stimulus variable—the sexual degradation of women. Revising old standards, which rely upon researchers' personal judgments regarding content, these authors distinguish objectively among sexual and degrading, sexual and non-degrading, and non-sexual experimental stimuli.

A similar distinction was tested by Golde, Strassberg, Turner, and Lowe (2000) who found that male college students who viewed video vignettes of male/female sexually-explicit and non-explicit interactions that were degrading to women were more likely to express attitudes supportive of rape than those who viewed non-degrading videos. Degradation also was studied by Murnen (2000) who asked respondents to listen to audiotaped conversations about a purported one-night stand by one of the speakers. The lead character in the story was liked less and judged lower in intelligence when described in degrading sexual terms than in non-degrading terms. The findings were clouded, however, by the confounding of sexuality and degradation in the descriptions.

Drawing upon gender schema theory (Bargh, 1984; Bem, 1981; Srull & Wyer, 1980; Taylor & Crocker, 1981), McKenzie-Mohr and Zanna (1990) and Jansma et al. (1997) agree that men's exposure to sex-stereotypic depictions of sexual interaction can prime traditional gender-role cognitive structures. Traditional sex-roles frame women as more attractive, sexual, and submissive, but less intelligent and rational than men with masculine being seen as the antithesis of feminine (Connell, 1995; Thomson & Pleck, 1986). Gender-role schema primed by sexual cues may guide men to focus on women's sexuality in non-sexual settings. Jansma et al. (1997) argued that exposure to sexually-explicit material, and especially degrading pornography, prime cognitive schemata consistent with the content of the stimuli. These schemata encourage men to focus on women's sexuality, fostering high expectations for women's sexual attractiveness, sexual interest, and sexual permissiveness. With men's attention focused selectively on women's sexuality, they may disregard other characteristics, such as women's intellect.

McKenzie-Mohr and Zanna (1990) assessed differences in men's gender-schematic and non-schematic (determined by BSRI, Bem, 1974) attitudes and behaviors toward a female interviewer after exposing the male viewers to a pornographic or a non-sexual video. In contrast to less stereotypically masculine men, the sex-stereotypic men were more inclined to focus on the woman's sexuality and disregard her intellectual competence. For example, when asked to recall their interview, sex-typed men who viewed pornography remembered more about the female confederate's physical attributes and less about what she said.

Jansma et al. (1997) tested whether exposure to a nonviolent degrading pornographic film would cause men who later interacted with women to focus on the women's sexuality at the expense of other attributes. These authors also tested whether male viewers' levels of masculinity and femininity, as measured by the BSRI (Bem, 1974), would interact with film content and heighten attention to the women's sexuality. After viewing a non-sexual film, sex-typed men judged their problem solving partners' sexual interest in them to be higher than did non sex-typed men. In contrast, sex-typed men who viewed a sexual film rated their

female partners lower in sexual interest. These findings suggest that sex-stereotypic men are likely to see women as sexual objects, except in comparison to highly sexual women such as those portrayed. By further differentiating sexual stimuli as degrading or non-degrading, Jansma et al. (1997) uncovered an additional interaction between film content and the categories of male viewers. Sex-typed men who viewed degrading, sexually-explicit film gave lower evaluations of their female partners' intellectual competence than did the non sex-typed men in the same film condition. As in McKenzie-Mohr and Zanna's (1990) study the sex-typed men performed in accordance with the traditional masculine sex roles after priming by sexual stimuli that depicts women as sexual objects for men's pleasure.

Behavioral Changes Following Film Viewing

The current study further segregated the responses of sex-stereotypic versus non sex-stereotypic men who viewed nonviolent sexual material that was either degrading or non-degrading. We observed men's behavior toward women in a mixed-sex, face-to-face task interaction immediately following men viewing the sexually-explicit and non-sexual stimuli. We determined whether the men's gender schematicity (Bem, 1981) moderated the effects of the films on their behavior toward women. In addition, because women might potentially match men's behavior in a synchronous fashion (Giles, Mulac, Bradac, & Johnson, 1987) or, alternatively, mismatch that behavior in a compensatory manner; we measured the same variables for women that we did for men, in order to assess more broadly the behavioral effects of the men's film viewing.

Few other studies of the effects of viewing pornography have analyzed men's behavior toward women and, therefore, little guidance for selecting behavioral variables exists in the literature. We expected, however, that degrading and non-degrading film viewing might result in certain broad categories of behavior on the part of men, including the following: dominance, sexual interest, anxiety, degradation, and disregard for women's intellect. Research in interpersonal communication has identified verbal and non-verbal variables that might be implicated in these overall categories and served as a basis for our outcome measures.

Behavioral factors associated with the communication of *dominance* include: (a) other-directed eye gaze (Burgoon & Dillman, 1995, Edinger & Patterson, 1983; McAndrew, Gold, Lanney, & Ryckman, 1984), (b) proximity (Burgoon & Dillman, 1995; Moore, 1985), (c) touch (Burgoon & Dillman, 1995; Crusco & Wetzel, 1984; Henley, 1973; Street & Buller, 1987; Summerhayes & Suchner, 1978), (d) interruptions (Rogers & Jones, 1975; Street & Buller, 1987; Wiley & Woolley, 1988; Zimmerman & West, 1975), and (e) speaking time (Burgoon, Johnson, & Koch, 1998; Lamb, 1981; Street & Buller, 1987). Measures of *sexual interest* or bids for intimacy in studies of flirting in natural settings recognize (a) leaning or moving toward the other (Givens, 1978; McCormick & Jones, 1989; Moore, 1985), (b) touch (McCormick & Jones, 1989), and (c) eye gaze (Givens, 1978; McCormick & Jones, 1989). It is unclear whether longer gazing and touch versus more frequent glances and shorter touches are more indicative of sexual interest.

Anxiety level can be established through global ratings of video-taped behavioral interaction (Mulac & Sherman, 1975; Mulac & Wiemann, 1997, 1998; Sherman, Mulac, & McCann, 1974;). Jurich and Polson (1985) and Mulac and Sherman (1975) have paired averted gaze with anxiety. Virtually nonexistent in the literature are quantified assessments of the *degradation* of women by men during interpersonal

interaction. Benokraitis (1997) presents innumerable subtle manifestations of sexism in professional contexts that may be considered disrespectful and, ultimately, degrading to women. Some common complaints by women include men's repeatedly ignoring their suggestions and talking over them during meetings, focusing on their appearance, and making unwanted sexual remarks. These types of behaviors have negative implications for judgments about women's professional competence and, by extension, their promotions, salaries, and financial success. We consider men's disregard for women's intellectual contributions to fit this category of disrespect, particularly when paired with a focus on their sexuality.

Although these specific behaviors were not measured by McKenzie-Mohr and Zanna (1990), those researchers demonstrated that stimuli depicting women as objects for men's sexual enjoyment can prime traditionally masculine schemata that guide judgments about female interlocutors and elicit stereotypically masculine behavior that is disrespectful toward women in a work environment. We anticipate that stereotypically masculine judgments, found to be primed in Jansma et al.'s (1997) study, will translate into a discernible pattern of verbal and nonverbal behaviors toward women and will include some of the behaviors outlined above.

Hypotheses and Research Questions

We hypothesize that after viewing sexually-explicit, as opposed to non-sexual film stimuli, men's behavior toward a female interlocutor will be more stereotypically masculine (H1). We also expect that degrading, as compared to non-degrading sexually-explicit material, will increase men's stereotypically masculine behavior in the mixed-sex, face-to-face interactions (H2).

Both McKenzie-Mohr and Zanna (1990) and Jansma et al. (1997) discovered that the gender schematicity of the men affected the nature of their responses. We propose that the effects of the sexual versus non-sexual (H3), and degrading versus non-degrading (H4), films are likely to be moderated by men's gender schematicity.

Aside from McKenzie-Mohr and Zanna's (1990) work in which the female interlocutor was a confederate, researchers have not detected female interactants' reactions to men's viewing of sexual material and degrading stimuli. We were intrigued by this potential for women to detect or otherwise respond to attitudinal differences, behavioral differences, or both in men who view sexually objectifying images of women. The female partners in Jansma et al. (1997) reported no awareness of differences in their self-reported feelings of degradation or of their male partners' dominance or sexual interest across conditions. We asked here whether the men's sexual versus non-sexual (RQ1), or degrading versus non-degrading (RQ2), film exposure had a measurable effect on their female partners' behavior in the subsequent interaction.

Method

Film Stimulus Materials

The film stimuli were determined previously by Jansma et al. (1997) to represent (a) sexually-explicit and degrading, (b) sexually-explicit and non-degrading, or (c) non-sexual content.

Film 1: Sexually-explicit and degrading. This film is an 11-minute segment from *Traci's Love Chamber*. In her "arena of pleasure," a room of spectators view Traci

being sexually aroused by four men in black leather masks and clothing. Traci performs fellatio on the four men while her voice-over describes her increasing pleasure and surprise at her own insatiability.

Film 2: Sexually-explicit and non-degrading. This 10-minute sexually-explicit film segment is from a series of sex educational videos entitled *Loving Better*. Voice-overs of the woman and the man express love, pleasure, and intimacy. Soft lights and music set a tender mood for the couple's caressing, kissing, oral stimulation, mutual climaxes, and loving post-coital embraces.

Film 3: Non-sexual. The television documentary entitled *The Power of Pictures* is the source of this ten-minute segment. The film demonstrates the impact of visual depictions in television news. Included are scenes of dramatic events, such as President Kennedy's assassination and funeral, and news coverage of the Vietnam War.

In an induction check university students evaluated the content of the three films. All three films were rated as equivalent to each other on "stimulating," but the sexual films were higher than the non-sexual film on "sexual arousal," and "sexually-explicit." The sexually-explicit degrading film was higher than the other two on "male dominance," "female insatiability," "female availability," and "female objectification." When compared to the sexually-explicit non-degrading film, the degrading film was lower on "mutual respect," "mutual sexual pleasure," and "affection." In addition, the non-degrading sexual film was considered more "happy" than the other two.

Respondents

The 71 male and 71 female undergraduate students from a large Western university whose cognitions were analyzed in the Jansma et al. (1997) study were the participants in the current investigation. Their ages ranged from 18 to 26 years ($M = 19.6$ years, $SD = 1.16$) and they received extra credit in their introductory communication course.

Bem Sex Role Inventory

All participants completed the Bem Sex Role Inventory (BSRI, Bem, 1974) embedded in a larger self-report survey two weeks before the film viewing and dyadic interaction portions of the study. The median-split method recommended by Bem (1981) was used to classify participants into one of four sex-role categories: sex-typed, androgynous, crossed-sex, and undifferentiated. Twenty-two of the 71 men (31%) were identified as sex-typed. Their masculinity scores were above the median and their femininity scores were below the median. Because sex-typed individuals tend to perceive reality differently and to behave differently than non sex-typed individuals (Bem, 1984), we collapsed the remaining three categories into one in order to permit meaningful comparisons. The remaining 49 men (69%) were categorized as non sex-typed. This procedure was employed in our earlier study of these men's cognitive appraisals of their female partners (Jansma et al., 1997).

Procedure

Men were asked to participate in two studies conducted by different researchers in separate areas of a building that houses several academic departments. Volunteers

seeking extra credit points in an introductory communication course were contacted via telephone and scheduled to view commercially-released films and offer their opinions. Upon arrival they were seated individually in a private 10' × 12' room in which they were assigned randomly to view one of the three films on a 19-inch television monitor. Then they completed a questionnaire indicating their impressions of the film segment they viewed. As they left the laboratory a male research assistant who appeared to be from a different academic department offered them the opportunity to take part in an interpersonal interaction study for additional extra credit points. The assistant led the men to another section of the building for the interaction task.

While the men viewed the films, women participated in an ostensibly unrelated study. They completed a questionnaire that assessed their attitudes toward the Communication Department. Then they were escorted to the interaction laboratory across the building. Here they met their randomly-assigned male partners and took part in the interaction task. The women had no knowledge of the men's film exposure.

The man and the woman were seated side-by-side approximately 15 inches apart on a sofa, facing a desk-height table. The male laboratory assistant explained the "survival task" and presented them with a set of 15 cards. The interactants were asked to prioritize the items named on each card (e.g., unloaded pistol, wet sleeping bag) in terms of its potential importance to surviving a plane crash in the wilderness. They were encouraged to discuss the rationale for each item's priority and to make their choices jointly. The assistant explained that they were allotted ten minutes, and that if they finished the task sooner they should review their decisions. All interactants received a written debriefing statement at the conclusion of the study and were given the opportunity to have their videotaped interaction erased (none did). Participants' self-reported feelings and impressions of their partners were presented in Jansma et al. (1997). The possible behavioral effects of the men's film viewing were analyzed and reported here.

Behavioral Variables

In order to distinguish the potential effects of viewing the three stimulus films, 21 behavioral variables were selected from the interpersonal communication literature. They were chosen for their potential implication in five broad psychological categories of interest: dominance, sexual interest, anxiety, degradation, and disregard of intellect. They included linguistic variables, such as directives and sexual references, as well as non-verbal variables such as anxiety, body gaze, and proximity. Table 1 lists and briefly describes these variables.

Behavioral Coding

The 21 behavioral variables were coded by teams of undergraduate students enrolled in an advanced university class in nonverbal communication analysis. The coders were trained weekly by the authors and then coded one variable at a time for each interactant. Working individually, the coders assessed the behaviors in a communication interactional analysis laboratory, using a videotape recorder, a 19-inch television monitor, and a computer with a customized Hypercard program. This program recorded, in 1/10 second intervals, the amount of time spent per minute in various states such as: (a) looking at partner's face, (b) looking at partner's

TABLE 1
 TWENTY-ONE BEHAVIORAL VARIABLES MEASURED TO ASSESS POSSIBLE EFFECTS OF MEN'S FILM VIEWING

| Category | Behavioral Variable | Description of Variable |
|----------|-----------------------------------|--|
| Gaze | <i>Face Gaze</i> | Length of time looking at partner's face |
| | <i>Body Gaze</i> | Length of time looking at partner's body |
| | <i>Gaze Avert</i> | Length of time looking away from partner |
| | <i>Length of Face Gaze</i> | Mean length of time looking at partner's face |
| | <i>Length of Body Gaze</i> | Mean length of time gazing at partner's body |
| | <i>Length Avert Gaze</i> | Mean length of time not looking at partner |
| Touch | <i>Card Touch</i> | Length of time touching cards (with survival items) |
| | <i>No Touch</i> | Length of time not touching cards or partner |
| | <i>Partner Touch</i> | Length of time touching partner |
| | <i>Length of Card Touch</i> | Mean length of time touching cards |
| | <i>Length of P Touch</i> | Mean length of time touching partner |
| | <i>Length of No Touch</i> | Mean length of time not touching cards or partner |
| Misc. | <i>Dominance</i> | Ratings (1-9) of apparent attempt to run things |
| | <i>Directives</i> | Telling partner what to do ("Put that here.") |
| | <i>Interruptions</i> | Beginning talk while partner is talking |
| | <i>Sexual References</i> | Number of statements having sexual connotations |
| | <i>Sexual Awareness</i> | Ratings (1-9) of apparent sexual interest in partner |
| | <i>Anxiety</i> | Ratings (1-9) of apparent communication anxiety |
| | <i>Proximity</i> | Ratings (1-9) of how close one is to partner |
| | <i>Intellectual Contributions</i> | Ratings (1-9) of quality of one's suggestions |
| | <i>Ignored Contributions</i> | Number of partner's suggestions that are ignored. |

body, and (c) looking away from partner. Because the program also recorded changes in condition, it made possible the computation of mean length of time spent in each condition (e.g., mean length of face gaze). During other replays of the interactions, observers coded, on a scale of 1-9 points, psychological variables such as dominance, sexual awareness, and anxiety. Four to five coders were assigned to each of several subsets of the 71 dyadic interactions.

Transformation and Reliability of Behavioral Variables

Those variables for which the data were presented in the form of proportions (e.g., length of time touching partner) were arcsin transformed (Winer, 1971). Reliability estimates were conducted for each team of raters using the data for each variable. These estimates took the form of Ebel intraclass reliability coefficients (Winer, 1971), and ranged from .63 to .96, with a median reliability of .84. For each variable the data were aggregated across the 4-5 judges in the form of arithmetic means to provide single scores for each male and female interactant.

Results

Step-wise discriminant analyses were conducted separately for men and for women, using the 21 behavioral items as predictor variables and the film viewed by the man as the criterion variable to make the following comparisons: (a) sexually-explicit films (#1 and #2) vs. non-sexual film (#3), and (b) degrading sexually-explicit film (#1) vs. non-degrading sexually-explicit film (#2). The results of the four discriminant analyses provided answers to the questions regarding whether or not men who viewed different films behaved dissimilarly toward their partners (H1 and H2) and whether or not their female partners' behavior varied with men's film exposure (RQ1 and RQ2). The potential moderating effects of the men's gender

TABLE 2
SUMMARY OF STEPWISE DISCRIMINANT ANALYSIS^a OF MEN'S BEHAVIORAL VARIABLES TO PREDICT SEXUAL
(DEGRADING AND NON-DEGRADING) VS. NON-SEXUAL FILM VIEWED

| DA Step | Language Variable | Film Predicted ^b | Canonical Coefficient ^c | F-to Remove | Wilks <i>lambda</i> |
|---------|--------------------------------|-----------------------------|------------------------------------|-------------|---------------------|
| 1 | Dominance | Sexual | -1.12 | 10.97 | .94 |
| 2 | Anxiety | Sexual | -0.72 | 6.92 | .87 |
| 3 | Proximity | Non-Sexual | 0.52 | 2.39 | .84 |
| 4 | Ignored Contributions | Sexual | -0.38 | 2.09 | .82 |
| 5 | M L ^d Partner Touch | Sexual | -0.55 | 3.20 | .81 |
| 6 | Gaze Avert | Sexual | -0.55 | 3.13 | .77 |

^aWilks *lambda* = 0.77, $F(6,63) = 3.11$, $p = .01$, $R^2 = .23$. Percent of reclassification accuracy based on discriminant function scores was 66% (Sexual = 72%, Non-Sexual = 63%).

^bRelatively high use of the variable led to this prediction for film viewed.

^cCoefficients are standardized. The designation of non-sexual film indicators as having positive coefficients, and sexual film as negative, was arbitrary.

^dML denotes mean length of the activity.

schematicity (H3 and H4) were assessed through analyses of variance of their behavioral scores established by the discriminant analyses.

Analysis of Men's Behavior

Sexually-explicit films vs. non-sexual film. The first research hypothesis predicted that men who viewed one of the sexually-explicit films (#1 and #2) would behave differently from men who viewed a non-sexual film (#3). The results of the stepwise discriminant analysis were consistent with this hypothesis, Wilks *lambda* = 0.77, $F(6,63) = 3.11$, $p = .01$, $R^2 = 0.23$. As Table 2 indicates, the men who viewed either of the sexually-explicit films displayed more dominance, anxiety, they ignored contributions of their partner more often, they touched their partner for longer periods of time, and they averted gaze more than those viewing the non-sexual film. The men who viewed the non-sexual film showed greater proximity, that is, they sat or leaned closer to their female partners than the men who viewed one of the sexual films. The accuracy of reclassification, based on the weighted combination of these six variables, was 66% (sexual films = 72%, non-sexual film = 63%).

Degrading sexually-explicit film vs. non-degrading sexually-explicit film. The next hypothesis (H2) proposed that men who viewed the degrading sexual film (#1) would behave differently from those who had seen the non-degrading sexual film (#2). The discriminant analysis provided results consistent this prediction on the basis of a weighted combination of 10 behaviors, Wilks *lambda* = 0.62, $F(10,35) = 2.17$, $p = .04$, $R^2 = 0.38$. As indicated in Table 3 the viewers of the degrading sexual film spent longer periods of time (i.e., mean length) touching cards, averting touch, and gazing at the face of their partner, in addition they interrupted their partner more frequently and they made more sexual references. The men who viewed the non-degrading sexual film spent more time (i.e., total amount) gazing at their partner's face, as well as averting gaze, and they spent longer periods of time averting gaze and touching their partner, and finally they displayed more anxiety. The weighted combination of these 10 variables permitted an overall accuracy of reclassification of 78% (degrading sexual film = 74%, non-degrading sexual film = 83%).

TABLE 3
SUMMARY OF STEPWISE DISCRIMINANT ANALYSIS^a OF MEN'S BEHAVIORAL VARIABLES TO PREDICT
DEGRADING SEXUAL VS. NON-DEGRADING SEXUAL FILM VIEWED

| DA Step | Language Variable | Film Predicted ^b | Canonical Coefficient ^c | F-to Remove | Wilks <i>lambda</i> |
|---------|-----------------------------|-----------------------------|------------------------------------|-------------|---------------------|
| 1 | Face Gaze (Amount) | Non-Degrading | 6.27 | 3.64 | .94 |
| 2 | M L ^d Card Touch | Degrading | -0.24 | .49 | .89 |
| 3 | M L Touch Nothing | Degrading | -0.78 | 4.98 | .86 |
| 4 | Gaze Avert (Amount) | Non-Degrading | 4.79 | 2.33 | .83 |
| 5 | Interruptions | Degrading | -0.56 | 3.31 | .81 |
| 6 | M L Face Gaze | Degrading | -1.85 | 7.10 | .77 |
| 7 | M L Gaze Avert | Non-Degrading | 0.73 | 4.70 | .72 |
| 8 | M L Partner Touch | Non-Degrading | 0.91 | 3.43 | .69 |
| 9 | Anxiety | Non-Degrading | 0.47 | 2.36 | .64 |
| 10 | Sex References | Degrading | -0.34 | 1.36 | .62 |

^aWilks *lambda* = 0.62, $F(10,35) = 2.17$, $p = .04$, $R^2 = .38$. Percent of reclassification accuracy based on discriminant function scores was 78% overall (Degrading Sexual film viewers = 74%, Non-Degrading Sexual film viewers = 83%).

^bRelatively high use of the variable led to this prediction for film viewed.

^cCoefficients are standardized. The designation of non-degrading sexual film indicators as having positive coefficients, and degrading sexual film indicators as negative, was arbitrary.

^dM L denotes mean length of the activity.

Analysis of Possible Moderating Effects of Men's Gender Schematicity

Next, analyses were conducted to determine whether the behavior of the men who had seen different films was in any way moderated by their gender schematicity. Based on the discriminant analyses that had successfully differentiated the men in the various film viewing groups, two sets of behavioral scores (in the form of discriminant function scores) were computed. These scores represented each man's weighted combination of variables that signified his behavior during the interaction. For example, the men who viewed either of the sexual films generally displayed more dominance, anxiety, ignored contributions, averted gaze, and they touched their partner for longer periods of time. Because these behaviors were arbitrarily given negative weights (in the form of canonical coefficients), these men generally had negative behavioral scores. Their BSRI category (sex-typed or non sex-typed) was then used to place them into one of four film-by-BSRI category groups.

Sexually-explicit films vs. non-sexual film by sex-role category. Hypothesis 3 predicted that men's tendency toward traditional sex roles would moderate their response to a sexually-explicit versus a non-sexual film. To test this a two-way analysis of variance (ANOVA) was computed with BSRI category (sex-typed or non sex-typed) and film condition (sexually-explicit or non-sexual) as the independent variables in which an interaction between the two would be consistent with this hypothesis. Results indicated no main effect for BSRI category, a main effect for film condition (supporting the results of the discriminant analysis, $F[1,67] = 8.32$, $p = .005$, $\eta^2 = .11$), and a marginally significant interaction between the two, $F[1,67] = 3.77$, $p = .056$, $\eta^2 = .05$. Dunnett T3 comparisons (Tabachnick & Fidell, 2001) indicated that non sex-typed men who viewed the sexual films had the lowest behavioral score, whereas both the non sex-typed and the sex-typed men who viewed the non-sexual film had the highest score (see Table 4 and Figure 1). The sex-typed men who saw the sexual film failed to differ from any of the other three groups. Viewed another way, the behavior of the non sex-typed men differed substantially depending on

TABLE 4
NON SEX-TYPED AND SEX-TYPED MEN'S MEAN BEHAVIORAL DISCRIMINANT FUNCTION SCORES AFTER VIEWING SEXUAL VS. NON-SEXUAL FILMS

| Film Condition | <i>Bem Category</i> | |
|----------------|-------------------------------------|-------------------------------------|
| | Non Sex-Typed Men | Sex-Typed Men |
| Sexual | -.626 ^a (<i>n</i> = 28) | .105 ^{ab} (<i>n</i> = 18) |
| Non-Sexual | .786 ^b (<i>n</i> = 19) | .569 ^b (<i>n</i> = 6) |

Note. Means with different superscripts differ statistically. ($p < .05$).

whether they saw sexual or non-sexual films, whereas the behavior of the sex-typed men did not; therefore, these data were consistent with the third hypothesis.

Degrading sexually explicit film vs. non-degrading sexually-explicit film by sex-role category. In order to address Hypothesis 4 a second two-way ANOVA was conducted with BSRI category (sex-typed or non sex-typed) and film condition (degrading sexually-explicit or non-degrading sexually-explicit) comprising the independent variables. The dependent variable for this analysis was the discriminant function score that differentiated the behavior of men who viewed the degrading sexual film from those who saw the non-degrading sexual film. This analysis revealed no main effect for BSRI category, a main effect for film condition (supporting the results of the discriminant analysis, $F[1,42] = 20.21$, $p < .001$, $\eta^2 = .32$), and no interaction between the two, $F[1,42] = 2.62$, $p = .113$, $\eta^2 = .06$. Therefore, the data were not consistent with the fourth hypothesis that predicted a difference in the behavior of sex-typed versus non sex-typed men after viewing degrading versus non-degrading sexually-explicit films. The type of sexually-explicit film they viewed, and not their gender schematicity, affected their behavior.

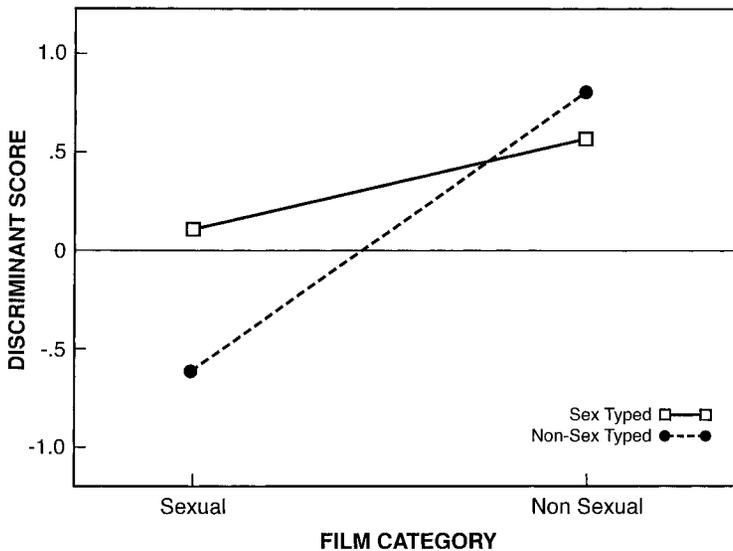


FIGURE 1

MEAN DISCRIMINANT FUNCTION BEHAVIORAL SCORES FOR SEX-TYPED AND NON SEX-TYPED MEN AFTER VIEWING SEXUAL (DEGRADING AND NON-DEGRADING) VS. NON-SEXUAL FILMS

Analysis of Women's Behavior

Research questions 1 and 2 were concerned with whether or not women's behavior would differ based on their male partners' film condition. Stepwise discriminant analyses were conducted using the women's 21 verbal and nonverbal behaviors as predictor variables, and the male partner's film viewing as the criterion variable, to make two comparisons: (a) the sexually-explicit films (#1 and #2) vs. the non-sexual film (#3), and (b) the degrading sexually-explicit film (#1) vs. the non-degrading sexually-explicit film (#2). The results provided negative answers to both research questions. That is, the women's behavior failed to differentiate whether their partner had been exposed to a sexually-explicit film or a non-sexual one, Wilks $\lambda = .85$, $F(7,63) = 1.53$, $p = .17$, $R^2 = 0.15$. The same was true in the attempt to distinguish women's behavior when their partner had viewed a degrading sexual film as opposed to a non-degrading sexual one, Wilks $\lambda = .80$, $F(5,40) = 2.03$, $p = .10$, $R^2 = 0.20$. Because the achieved probability levels approached statistical significance ($p = .17$ and $.10$, respectively), it is possible that women's behavior may have differed, depending on which of the three films their partner had viewed, in ways that our coding and statistical analysis could not detect. A larger sample of male/female pairs might have been able to permit the finding of differences in women's behavior.

Relationship of Male and Female Partners' Behavior

Even though women's behavior toward men who viewed different films failed to achieve statistical significance, it was possible that their actions were influenced, however subtly, by their male counterparts. Communication Accommodation Theory (Giles et al., 1987), among other perspectives, would predict a convergence of behaviors that could be seen in the form of positive correlation coefficients. Although any relationships found could not establish causation for the women's behavior, failure to find relationships would certainly undermine such a possibility. Therefore, two correlation analyses were conducted for selected behaviors of the males and their female partners, where the males had viewed different film conditions.

The first analysis viewed the behavior of all women compared to their male partners (i.e., those who had viewed either a sexually-explicit or non-sexual film). The behaviors tested were the 6 variables for which differences had been found for the males in the discriminant analysis, such as dominance and anxiety. Of the 6 correlation coefficients computed for partners' behaviors, 4 were substantial and positive. These were, in order of their entering the discriminant equation: anxiety ($r = .57$, $p < .001$), proximity ($r = .48$, $p < .001$), mean length partner touch ($r = .93$, $p < .0001$), and gaze avert ($r = .68$, $p < .0001$).

The second analysis assessed relationships for the 46 women whose partners viewed one of the sexually-explicit conditions (degrading or non-degrading). The behaviors analyzed were the 10 that had been established as differing, in weighted combination, for the viewers of the two sexual films. The 10 correlation coefficients demonstrated 7 positive relationships between partners. These were, in order of entry into the discriminant equation: face gaze ($r = .99$, $p < .0001$), gaze avert ($r = .76$, $p < .0001$), interruptions ($r = .35$, $p < .01$), mean length face gaze ($r = .28$, $p < .05$), mean length gaze avert ($r = .29$, $p < .05$), mean length partner touch ($r = .96$, $p < .0001$), and anxiety ($r = .55$, $p < .0001$).

Discussion

Operating under the assumption that not all sexually-explicit stimuli send the same message, our investigation examined the differences between the effects of men's viewing non-violent, sexually-explicit film that either degrades women or is respectful and egalitarian. Specifically, we assessed the relationship between men's viewing of nonviolent, sexually-explicit film stimuli and their subsequent behavior toward women in a problem-solving interaction. A trend in recent research led by McKenzie-Mohr and Zanna (1990) and Jansma et al. (1997) has established that priming sexual thoughts through sexual stimuli can increase some men's focus on female interlocutors' sexuality in non-sexual situations, and that men's gender-schematicity can moderate their responses. This line of research creates a context for testing the immediate influence of sexual material by employing face-to-face interactions with women following men's film exposure. Interpersonal circumstances provided more subtle and plausible outcomes when compared to much past research, which has measured aggressive attitudes or behaviors. Finally, this program of research measures men's behaviors, as opposed to their attitudes, toward women as potential outcomes of men's film viewing.

Building on this foundation, the present study sought to identify whether men's predisposition toward traditional sex roles interacted with sex-stereotypic depictions of women as objects for men's sexual pleasure. Our research design sought to counter limitations of past research and to promote a deeper understanding of the effects of nonviolent pornography by employing sexually-explicit film stimuli that were rated by independent viewers as either degrading or non-degrading (taken from Jansma et al., 1997). In contrast, other research has not objectively distinguished between the two types of non-violent, sexually-explicit material. By also assessing the behavior of the female partners during a problem-solving task, this research extends previous work in which only men's behavior was of consequence. The ensuing discussion reviews our findings, and suggests implications for everyday mixed-sex interactions.

Sexual vs. Non-Sexual Film Exposure

Our first concern was to ascertain whether male viewers' behavior toward their female interactional partners would be affected differentially by men's viewing of a sexually-explicit film versus a non-sexual film. Results indicated that these two groups of men were distinguishable by their patterns of behavior. The behavior of men who saw a sexual film was rated as more dominant toward their female partner. In addition, they displayed greater anxiety, more often ignored the intellectual contributions of their partner, and positioned themselves farther away. They tended to touch their partner for longer periods of time, but spent less time looking at their partner's body or face than did men who viewed the non-sexual film.

As we attempted to interpret the effects of viewing the explicit sexual material, we observed some parallels between these men's behaviors and those ascribed by stereotypical masculine sex-roles. Specifically, we noticed a pattern of male dominance and focus on female sexuality during their subsequent problem-solving conversations with women. High *dominance* ratings paired with evidence that these men were more likely to ignore their female partner's suggestions, indicated a tendency toward control and dominance. More subtly, these men's tendency to touch a woman for longer periods of time, but without looking at her, also might

indicate dominance. Just as easily, this pattern of behavior could point to an increased level of discomfort with their partner's sexuality, as underscored by their higher ratings on communicational anxiety. In contrast, the viewers of the non-sexual film sat or leaned closer to their partner and looked at their partner's faces and body more, demonstrating what is probably a more typical behavioral pattern for everyday problem-solving interaction between women and men.

Some potentially negative outcomes surfaced for men's viewing sexually-explicit stimuli—both for the women and men involved and for the dyadic interactional outcome. With regard to women, we believe that men's viewing of stimuli that enhance their dominance and controlling behavior may negatively affect women in terms of professional equality. The demonstrated disregard for women's input into the task solution suggests this consequence. Working women report repeatedly that men discount their suggestions, and that as a result they feel slighted, offended, disrespected, and potentially passed over for advancement opportunities (Benokraitis, 1998). In such circumstances it seems unlikely that women are being granted the respect and recognition necessary for career security and advancement. Viewing sexual material also has a potentially negative result for the male viewers if their increased anxiety levels inhibit their abilities to communicate in a relaxed and efficient manner with women. Finally, the higher levels of anxiety, shorter periods of eye contact, and tendency to disregard their partner's ideas may prove detrimental to the task solution, because these behaviors suggest a less cooperative attempt to solve the problem.

Degrading Sexual vs. Non-Degrading Sexual Film Exposure

Distinguishing between degrading and non-degrading sexually-explicit stimuli is not new. Only recently, however, has this distinction been operationalized by independent raters (Golde et al., 2000; Jansma et al., 1997). Relying upon these objective operationalizations, we assessed whether men's behavior differed based upon their viewing degrading sexually-explicit, as opposed to non-degrading sexually-explicit, films. Consistent with Jansma et al.'s (1997) analysis, which differentiated between men's attitudes toward female partners based upon degradation in film content, we found differences in the behavior between the two groups of men.

Compared with men who viewed the non-degrading sexually-explicit film, men who viewed the degrading sexual film displayed less anxiety, interrupted more, and made more sexual references. They looked at their partner's face for longer periods of time, but for less time overall; they looked away from their partner for shorter periods of time and for less total time. Also, they touched their partner for shorter periods of time, but either refrained from touching or touched the cards used in the interaction task for longer periods of time. This pattern of behavior demonstrates more deliberate action in contrast to the more anxious viewers of the non-degrading film who exhibited briefer and more frequent glances. If more deliberate action is considered as more stereotypically masculine and the more anxious behavior less so, then the degrading film produced a pattern of more stereotypically masculine behavior as we predicted.

Although it is difficult to decipher with certainty this specific pattern of communication behaviors in terms of speaker intention or meaning to the partner (Francis, 1979), several of these individual behaviors associated with viewing the degrading sexual film may be interpreted in terms of their potentially negative effects on the interaction. Specifically, the longer periods of time spent touching the cards and

greater use of interruptions may be interpreted as moves to control or dominate the task or their partner. Their greater use of sexual references in a non-sexual, problem-solving conversation appears inappropriate for the task and potentially embarrassing and disrespectful to the partner. Inappropriate sexual references and innuendoes are among a common form of sexual harassment, and women repeatedly report being offended by them in the workplace (Fitzgerald et al., 1988; Popovich, Licata, Nokovich, Martelli, & Zoloty, 1986; Sumrall, 1992). Viewers of the non-degrading sexual film appeared more aware of their partner interpersonally (greater amounts of face gaze and mean length partner touch). It is possible that they may have viewed the women less as objects and more as individuals. Their behavior also may appear to represent sexual awareness, interest, or a bid for intimacy, especially when paired with their higher anxiety levels. Yet, the men's self-reports in Jansma et al. (1997) do not indicate sexual awareness or sexual interest in the women. Perhaps they found the more loving film to be more arousing, and were uncertain about how to direct their arousal.

Moderating Effect on Sex-Typed versus Non Sex-Typed Men

Our comparison between non sex-typed and sex-typed men across film conditions indicated that not all men are affected similarly by sexually-explicit content. Studies by McKenzie-Mohr and Zanna (1990) and Jansma et al. (1997) have reported more powerful effects of film stimuli among sex-typed men. In contrast, our results indicated that the non sex-typed men were more strongly affected by the sexual material than were the sex-typed men. Worthy of note here is that we compared sex-typed men to all non sex-typed men, whereas McKenzie Mohr and Zanna (1990) compared them to androgynous men only. In Jansma et al. (1997) only the sex-typed men reported differing opinions of their female partners' sexual interest in them across the sexual versus non-sexual film conditions. From this fact we reasoned support for our argument that the sex-typed men may be primed more easily into a stereotypically masculine schema.

In the present study, however, it was the non sex-typed men (69% of the respondents) who exhibited greater behavioral differences across sexually-explicit versus non-sexual film conditions. This unanticipated finding may have resulted from sex-typed men's relatively callous notion of women in sexual situations, a notion that may have led to the sexual films having less of an effect on their behavior. Therefore we are prompted to reconsider the claim that sex-typed men would revert to a masculine schema more readily. While their self-reported cognitions demonstrate this view in the one instance (Jansma et al., 1997), their behavior did not follow suit. Certainly the effects of gender-schematicity warrant further interest.

On the other hand, no such film condition by BSRI category interaction was found for the men who viewed sexually-explicit degrading versus sexually-explicit non degrading films. For this comparison, sex-typed and non sex-typed men were affected in a similar manner by viewing the degrading versus non degrading film.

Women's Behavior toward Men Exposed to the Three Film Conditions

Many claim that men's viewing sexual material can be deleterious for women (Butler, 1992; Cowan, 1990; MacKinnon, 1989; Steinem, 1980). Understandably, few actually assess the impact on women in actual interaction. Given the variety of men's behavioral reactions, it follows that the more subtle, indirect effects on women

would be even more difficult to detect. Our analysis of women's behavior by men's film condition failed to uncover a statistically significant causal relationship, although in one case it approached significance. As we turned our focus toward correlational relationships, we discovered a pattern in which women's behaviors matched many of their male partners' discriminating behaviors.

Men who viewed the sexual, rather than non-sexual, films behaved with greater dominance and anxiety, sat further from the women, ignored their contributions, touched them for longer periods of time, and looked at them less. At the same time, their female partners reciprocally demonstrated a similar pattern of anxiety, proximity, touching, and lack of gaze toward their partners. These positively correlated behaviors offer something from which to speculate with regard to the women's collective experience. The importance may lie in the fact that behavioral matching exists at all, suggesting some, albeit indirect and subtle, variation in accordance with men's film condition. In contrast to the above group of women, those paired with the non-sexual film viewers matched their male partners more closely in terms of lack of anxiety, close proximity, greater touching their partner and looking at their face. As with their male partners, these women may have behaved much like they would in a typical problem-solving interaction with a peer in which the issue of sexuality was not particularly salient.

The degrading and non-degrading film conditions, which generated different behavioral patterns among the men, produced a similar pattern of behavioral matching among female partners. Men who viewed the degrading sexual film were distinguished from the non-degrading film viewers by a cluster of 10 behavioral tendencies including more interrupting, mean length of touching cards, touching nothing, gazing at face, and sexual references. They demonstrated more total face gaze, gaze avert, mean length gaze avert and partner touch, and more anxiety. Of these 10 behaviors that distinguished men, the women matched their male partners on 7 discriminating variables. The only exceptions were for mean length touching cards, and touching nothing, and sex references.

Viewers of the non-degrading sexual film appeared more interpersonally connected with their partner as indicated by higher levels of face gaze, amount and length of averted gaze, length of partner touch, and anxiety ratings, as well as lower levels of the other five discriminating variables. Their female partners matched the men's tendencies in terms of relatively high face gaze, averted gaze, mean length of averted gaze and partner touch, and anxiety, as well as lower interruptions and mean length face gaze. This combination of related behaviors could be seen as displaying interpersonal awareness of their partners. Regardless of the specific interpretation one might glean from the behavioral matching exhibited here, the strength and direction of these relationships suggest that the partners were attuned to one another's behaviors. Jansma et al. (1997) report no discernible differences in these same women's perceptions of their experiences and judgments of their partners. Thus, although women's interactions with men may be tied somewhat to men's exposure to degrading or non-degrading sexual material, women seemingly do not make cognitive attributions about men's behavior based upon film viewing.

Suggestions for Future Research

This study employed a short-term priming exposure to pornographic materials. More powerful effects may have occurred if a long-term exposure paradigm had been employed (e.g., Zillmann & Bryant, 1984) in order to provide more frequent

opportunities for development of sexist schemata. It is possible that by providing more frequent priming, long-term exposure would contribute to the chronic use of the cognitive concepts primed by degrading, sexually-explicit material. Such use may increase the likelihood that those concepts will be used to guide behavior toward women in an interaction task such as the one employed in this study. To date, research on long-term exposure has not compared the effects of degrading versus non-degrading, sexually-explicit stimuli.

In addition, although the three films were created to be different on dimensions that were critical to this study, the non-sexual film also contained scenes that were generally violent and masculine in nature. The film segment contained depictions of men killing men in contexts of war and political struggles. Male viewers may have been affected by the less happy or stereotypically masculine nature of this film, and thus, behaved toward their female partners based on stereotypic sex-roles that were unrelated to sexuality. This effect would be likely to have diminished the behavioral differences found between the sexual and non-sexual film viewers. Gender-neutral, yet equally engrossing, stimuli would be useful in future research.

Furthermore, the fact that these findings were observed in a laboratory setting has important advantages and disadvantages. Because of the degree of control we had over the stimuli and the procedure, it is reasonable to claim that the film conditions and the men's gender schematicity produced the results indicated. It is likely however, that the laboratory context may have limited or diminished the men's responses. For example, college students' use of sexually-explicit materials for purposes of diversion, or as a substitute for a sexual partner, has been directly and positively linked to the acceptance of rape myths (Perse, 1994). Therefore, the responses of the participants in this study may have been more negative toward women if they had been measured in a more natural setting in which they viewed the films for personal enjoyment. Further limitations of the experimental setting include limitations on participants' degree of arousal compared to a natural setting. Arousal has been shown to increase schematic processing, encouraging stereotypic judgments in relationship to those based upon targets' actual behaviors (Hansen & Krygowski, 1994). Thus, when men watch sexual films in an environment in which they are more likely to become aroused, differences in their behavior toward women may be more pronounced than in a laboratory setting. Future research may investigate issues unable to be addressed in the current research study, such as long-term exposure, self-selected viewing, and arousal.

Conclusion

Some researchers and policy makers contend that the content of sexually-degrading pornography, which dehumanizes and objectifies women, will cause those who view it to treat women in a demeaning and degrading manner. The investigation reported here offers some evidence to support this contention, but the results point to a more complex effect than often is assumed. The testing for these effects in an interpersonal context with women revealed some potentially negative behavioral outcomes that are likely to occur on a daily basis in male-female communication. Such a context appears to be an important one for assessing the consequences of viewing degrading sexual material, and suggests that more is involved than merely a matter of personal enjoyment. Clearly the context of

interpersonal interaction with women will be compulsory in future pornography research, as will distinguishing degrading from non-degrading, sexual material.

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