Can there be Positive Effects of Participation in Pornography Experiments?

JAMES V. P. CHECK AND NEIL M. MALAMUTH

Abstract

This two-phase experiment was conducted in response to recent ethical concerns about the possible antisocial effects of exposing research subjects to pornographic rape portrayals. In Phase 1, subjects were randomly assigned to read either an "acquaintance" rape depiction, a "stranger" rape depiction, or to read control materials. Subjects who read the rape depictions were then given a rape debriefing. This debriefing included a communication about the undesirable desensitizing effects of pairing sexual violence with other highly explicit and pleasing sexual stimuli. It was also designed to dispel a number of myths about rape. Half of the subjects who read the control materials were also given the rape debriefing, whereas the other half were given a control debriefing. This design enabled the assessment of the independent and interactive effects of the rape depictions and of the rape debriefing (although ethical considerations did not enable the use of a fully crossed factorial design). In Phase 2, subjects were presented with a number of newspaper articles (in which a newspaper report of a rape was embedded) and asked to give their opinions. The results indicated that the rape debriefing generally increased subjects' perceptions of pornography as a cause of rape. Subjects in the rape debriefing conditions also gave the rapist in the newspaper report a higher sentence, and saw the rape victim as less responsible, than did subjects in the control conditions. This latter effect, however, only occurred under conditions where subjects had earlier been exposed to an example of a rape depiction which was relevant to both the rape myths discussed in the rape debriefing and the newspaper report of the rape. These data suggest that participation in pornography experiments employing pornographic rape depictions can have an educational impact on subjects' postexperimental attitudes, if

the debriefing is appropriately constructed to dispel any rape myths that may be portrayed in the rape depictions.

Recent research has suggested that exposure to sexual violence in pornography can have antisocial effects, such as (a) increased acceptance of rape myths and increased acceptance of violence against women (Check & Malamuth, 1982; Malamuth & Check, 1981a, 1981b), (b) increased laboratory aggression against a female confederate (Donnerstein, 1986; Donnerstein & Berkowitz, 1981), and (c) decreased future perceptions of rape victims' suffering (Malamuth & Check, 1980; Malamuth, Haber, & Feshbach, 1980).

A typical procedure at the end of these pornography experiments is to debrief subjects, cautioning them about the completely fictitious nature of such portrayals. Material is also presented which is designed to educate the subject about the violent nature of rape, as well as to dispel a number of rape myths, especially any myths that may have been portrayed in the rape depictions used in the experiments. As Sheriff (1980) has recently pointed out, however, for ethical reasons it is necessary for pornography researchers to follow-up such studies with evaluations of the effectiveness of their debriefing procedures. These evaluations are necessary to ensure that the subjects themselves experienced no lasting adverse effects of exposure to the materials under investigation.

In response to this issue, Malamuth and Check (1984) conducted such an evaluation and found that subjects exposed to pornographic rape depictions followed by a rape debriefing were actually less accepting of certain rape myths (e.g., the myths that women want to be raped and that women are in general responsible for their own rapes) than subjects who were exposed to consenting-intercourse depictions (without a rape debriefing). Similar findings have been reported by Donnerstein and Berkowitz (1981). These data suggest the very interesting possibility that an appropriate debriefing in this type of research may not only counteract the possible antisocial effects of exposure to rape but may also be a useful tool in educating subjects and changing attitudes about sexual violence and pornography.

It is important to note that both the Malamuth and Check (1984) and the Donnerstein and Berkowitz (1981) studies were concerned exclusively with the ethics of exposing subjects to pornographic depictions that may adversely affect subjects. In these studies the rape-

1 The term pornography will be used throughout this paper to refer to sexually explicit stimuli, without any pejorative meaning necessarily intended.
exposure conditions differed from the consenting-intercourse-exposure conditions in two respects: First, subjects in these two conditions were exposed to different sexual depictions (i.e., rape vs. consenting depictions), and second, subjects in the rape-exposure conditions received a rape debriefing, whereas subjects in the consenting-intercourse-exposure conditions received a debriefing containing filler material. Thus it is not possible to tell whether the observed effects were due to the effects of the rape debriefing, or to the combined effects of exposure to rape plus the debriefing. One question which arises, therefore, is whether a debriefing can, in and of itself, be effective in changing attitudes. This question is, of course, irrelevant to the ethical issue of whether subjects who had been exposed to rape depictions left the experiment experiencing any lasting adverse effects on their attitudes (to which the answer appears to be no, since the research to date has found positive effects of such exposure). However, the issue of what actually caused the observed reduction in rape-myth-acceptance attitudes is one which clearly merits systematic investigation.

The present investigation attempted to address this issue by including a control condition in which subjects were exposed to a consenting-intercourse (control) depiction, but nonetheless received the same rape debriefing at the end of the experiment as subjects in the rape-exposure conditions. By comparing this consenting-sex/rape-debriefing-exposure condition to the consenting-sex/control (nonrape)-debriefing-exposure condition, it was possible to determine the impact of the debriefing in the absence of prior exposure to a rape depiction.

An important theoretical question related to the question of debriefing effects per se is the issue of whether a rape debriefing designed to change attitudes about rape myths must be preceded by an actual example of a rape depiction in order to be maximally effective in changing rape-myth-acceptance attitudes. It may be argued, for example, that there are some debriefing effects which occur only under conditions where a rape debriefing is preceded by a depiction of rape which portrays the rape myths addressed in the debriefing. As Malamuth, Feshbach, and Heim (1980) have suggested, exposure to rape depictions (especially rape depictions which portray rape myths) followed by a debriefing designed to discredit the myths fostered by the rape depictions may lead to an important corrective experience by providing research participants with new insights about how they may unwittingly accept rape myths. Similarly, research on inoculation ef-
In the Assessment Phase, (2 to 3 days later, depending upon class schedules), subjects responded to a newspaper account of a real (acquaintance) rape and were also asked to give their perceptions of the causes of rape. The design was a 4 (Exposure) x 2 (Subject Gender) factorial. The dependent variables were reactions to a newspaper account of a rape and perceptions of the causes of rape.

Materials

Stories. In the stranger-rape depiction, a man secretly followed a woman home, broke into her apartment, and forcibly raped her. In the acquaintance-rape depiction, the woman was sexually experienced, the couple had been out drinking and dancing together, and the woman went up to the man’s apartment with him after the date. The couple began kissing and when the woman refused to continue on to have intercourse, the man raped her. This latter rape story was included because of its particular relevance to the myths discussed in the rape debriefing. The consenting-intercourse depiction was identical to the acquaintance-rape depiction up until the point where the man kissed the woman. At this point, the woman accepted the man’s further advances and the couple proceeded to mutually consenting intercourse.

Story Questionnaire. In order to validate the intended manipulations and ensure that the manipulations were not confounded with other variables, a questionnaire was attached to each story. The questionnaire included items assessing perceptions of the sexual explicitness and the realism of the stories (scaled from 1 = not at all realistic/sexually explicit to 5 = very realistic/sexually explicit), and perceptions of the quality of the writing (scaled from 1 = poorly written to 5 = very well written). These variables were included as control variables, in order to ensure that the stories were perceived as similar on these dimensions. There were also three “manipulation check” items, assessing perceptions of the woman’s willingness (scaled from 1 = completely willing to 10 = completely unwilling), and perceptions of the woman’s pleasure and of the woman’s pain (scaled from 1 = no pleasure/pain to 9 = extremely high pleasure/pain). A demographic form was also included but no names were asked.

Validation Study. Prior to using the stories in the main experiment, an initial validation study was conducted in order to ensure that the three stories were perceived as equally sexually explicit, realistic, and well written, as intended, and to ensure that subjects’ perceptions of
the woman's reactions were as intended. It was expected that the woman in the rape depictions would be perceived as less willing and as experiencing less pleasure and more pain than the woman in the consenting-intercourse depiction. Since previous theorizing and research has suggested that people have very different conceptions of stranger rape versus acquaintance rape (e.g., Klemmack & Klemmack, 1976; Weis & Borges, 1973), it was also expected that the woman in the acquaintance-rape depiction would be perceived as more willing and as experiencing more pleasure and less pain than the woman in the stranger-rape depiction, even though there were no indications of any victim willingness or pleasure in either rape depiction, and even though the explicit pain cues were the same for both rape depictions.

The three stories were randomly distributed to 10 male and 15 female undergraduate psychology students taking summer courses at the Universities of Manitoba and Winnipeg. The students were asked to read the stories and fill out the story questionnaire (described above) during class time. Subjects were then given the same debriefings that were to be used in the main experiment (described below) and thanked for their participation.

As expected, a 3 (Story) x 2 (Gender) multivariate analysis of variance (MANOVA) performed on the item set assessing perceptions of the sexual explicitness, realism, and quality of writing of the stories yielded no significant effects. The means for each variable as a function of story are presented in the first three rows of Table 1. As can be seen from the table, the three stories were perceived as equally sexually explicit, realistic, and well written, as intended. A similar MANOVA conducted on the items assessing perceptions of the woman's reactions yielded the expected effect of story, with univariate effects on all three variables (see footnotes, Table 1). As can be seen from rows 4 to 6 of Table 1, the woman was seen as more willing and as experiencing more pleasure and less pain in the consenting depiction than in either of the two rape depictions, as intended. As well, the woman in the acquaintance-rape depiction was perceived as more willing and experiencing more pleasure and less pain than the woman in the stranger-rape depiction, consistent with previous theorizing and research (Klemmack & Klemmack, 1976; Weis & Borges, 1973). Finally, there were no effects of gender, nor any interactions involving gender, which is consistent with the results of Malamuth and Check (1980b).

These results confirm that the two rape depictions were effectively portrayed as nonconsenting depictions and also confirm the expectation that the acquaintance-rape victim would be perceived as reacting more favorably to the assault than the stranger-rape victim. It should be stressed that these differential ratings of the two rape stories are the result of perceptual biases (i.e., mistaken perceptions that acquaintance-rape victims react more favorably to the assault than stranger-rape victims), since there were no indications in the stories of a favorable reaction from either of the two rape victims.

Debriefings. The debriefings were typewritten and distributed in sealed envelopes. The nonrape (control) debriefing contained filler material about the value of research on human sexuality and was the same as that used by Malamuth and Check (1984). The rape debriefing was similar to that used by Malamuth and Check (1984) (i.e., pointing out the violent nature of rape and attempting to dispel a number of rape myths), but also included the following communication designed to educate subjects about the possible undesirable effects of pairing sexual violence in pornography with other highly explicit and pleasing sexual stimuli:

Although rape is a terrible crime, rape themes are frequently found in erotic magazines. In pornographic magazines and books, writers will often present sexual violence (e.g., rape) with other highly explicit and arousing material (as in this experiment). Over time, people may tend to ignore the violence of rape because there are other sexually pleasing aspects to the stories. We do not want you to

Table 1

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Acquaintance Rape</th>
<th>Stranger Rape</th>
<th>Consenting Intercourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Variables</td>
<td>Mean (8)</td>
<td>Mean (8)</td>
<td>Mean (9)</td>
</tr>
<tr>
<td>Sexual Explicitness</td>
<td>4.28</td>
<td>3.38</td>
<td>3.44 *</td>
</tr>
<tr>
<td>Realism</td>
<td>3.12</td>
<td>3.38</td>
<td>3.00 *</td>
</tr>
<tr>
<td>Quality of the Writing</td>
<td>2.50</td>
<td>2.12</td>
<td>2.89 *</td>
</tr>
<tr>
<td>Manipulation Check Variables*</td>
<td>4.75</td>
<td>1.00</td>
<td>8.67 *</td>
</tr>
<tr>
<td>Woman's Willingness**</td>
<td>2.88</td>
<td>1.12</td>
<td>7.11 *</td>
</tr>
<tr>
<td>Woman's Pleasure***</td>
<td>4.02</td>
<td>8.12</td>
<td>2.33 *</td>
</tr>
</tbody>
</table>

Note. For each variable, higher values indicate more of the variable being measured. Within rows, means with different subscripts differ at p < .05. Numbers in parentheses are cell sizes.

feel, however, that your responses were in any way wrong or deviant, because these stories were designed to be highly sexually arousing, and do not in any way reflect the true horror of real rape.

Newspaper Article and Measures. The article used to assess debriefing effectiveness was the same as that used by Malamuth and Check (1984) and was about a man who had been arrested and charged with raping a woman acquaintance who had accepted his invitation to come to his home. The article had appeared in one of the local newspapers. This particular newspaper account was selected because it was relevant to the rape myths discussed in the rape debriefing. In addition, a number of the items which followed the rape newspaper article (see below) have been shown in previous research (Check & Malamuth, in press) to be correlated with Burt's (1980) Rape Myth Acceptance scale.

On a number of scales that followed the article, subjects were asked to indicate the extent of their agreement with the police's decision to lay charges (scaled from 1 = strongly disagree to 7 = strongly agree), to what extent (if at all) they thought the woman shared responsibility for being raped (scaled from 1 = not at all to 5 = very much), and the recommended sentence for the man (in years) if convicted.

Subjects were also asked to indicate to what extent (if at all) they believed that each of nine different factors contributes to rape. These were victim causes (victim behavior, women secretly wanting to be raped, and victims' nonreporting to the police), rapist causes (mental illness, natural masculine tendencies, and fear of homosexuality), and societal causes (the legal system, pornography, and societal attitudes). They were asked to indicate their response for each cause on a 6-point scale, from 1 = not at all important as a cause to 6 = very important.

Procedure

Exposure Phase. In the exposure phase of the research, the stories and debriefings were distributed to subjects during class time. Subjects were unaware at this time that they would later be participating in the assessment phase of the research. At the beginning of the session, the experimenter indicated that the stories contained sexually explicit pornography, that responses were completely anonymous, and that anyone was free to leave at any time or not to read nor fill out any of the materials, without any penalty whatsoever. Two subjects decided not to read and fill out the materials. Each subject was given a story to read with an attached questionnaire containing the validation and subject background items. The debriefing was contained in a sealed envelope, and subjects were asked to read it after reading the story and filling out the questionnaire.

Assessment Phase. Two to 3 days after the exposure phase (depending upon class schedules), the effectiveness of the debriefing was assessed with a measure disguised as a "Public Survey Regarding Legal Decisions, " conducted by a second experimenter whom the subjects had not previously seen. Again, subjects were unaware of the connection between this assessment phase and the earlier exposure phase. This survey contained (a) an article about a government decision to consider letting more Vietnamese refugees into Canada, (b) an article about a U.S. Supreme Court ruling that natives were entitled to one half of Washington State's annual fish catch, and (c) an article about the metrification of Canada. The previously described article about the rape was embedded in this survey, in order to create the impression that it was just another "legal decision" to be studied.

Each newspaper article was followed by a number of questions (similar to those used with the rape article), asking subjects' opinions. For example, the Vietnamese refugee article was followed by items assessing (a) agreement with the government's decision to allow Vietnamese refugees into Canada, (b) opinions about whether too many or too few refugees are in Canada, (c) opinions about who should be responsible for the refugees, (d) judgments about how many refugees there are, and (e) perceptions of how important each of a number of factors are in contributing to the existence of refugees.

A postexperimental questionnaire which was given at the end of the assessment phase revealed that these procedures were effective in disguising the connection between the two phases of the research, thus eliminating the possibility of demand awareness of the experimental hypotheses (Orne, 1969). In several previous studies employing similar multiphase procedures no subject has ever indicated any awareness of any connection between different phases of the research, nor any awareness that the rape newspaper article used in the Public Survey was the main article of interest (e.g., Malamuth & Check, 1981; Malamuth, Reisin, & Spinner, 1979).

On the basis of demographic data collected in both phases, data from the rape newspaper article were matched with information about which story and debriefing the subjects had read in the exposure phase. Of the 194 subjects who had participated in the exposure phase of the research, 158, or 81%, were in class when the assessment phase was conducted and were successfully matched with their exposure
phase data. The analyses to be reported below are based upon the responses of these 158 matched subjects.

**Results**

**Story Questionnaire Responses**

As was the case with the validation study, a 3 (Story) x 2 (Gender) MANOVA performed on the story-questionnaire item set assessing perceptions of the sexual explicitness, realism, and quality of writing of the stories yielded no significant effects. The means for each variable across the three stories are presented in the first three rows of Table 2. As can be seen from the table, all three stories were rated similarly on these variables, as in the validation study (see rows 1 to 3 of Table 1). A similar MANOVA conducted on the item set assessing perceptions of the woman's reactions yielded the same highly significant story effects as in the validation study (all $p < .0001$, see footnotes, Table 2). The mean differences across the three stories (presented in rows 4 to 6 of Table 2) were again highly similar to the differences found in the validation study (see also Table 1). Finally, there were no gender effects, nor any interactions involving gender. Thus these data replicate the validation study quite well and further confirm the validity of the intended manipulations.

![Table 2](https://example.com/table2.png)

**Mean Ratings of the Stories in the Main Experiment**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Acquaintance Rape</th>
<th>Stranger Rape</th>
<th>Consenting Intercourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Variables</td>
<td>Mean (53)</td>
<td>Mean (53)</td>
<td>Mean (53)</td>
</tr>
<tr>
<td>Sexual Explicitness</td>
<td>3.81</td>
<td>4.04</td>
<td>3.81</td>
</tr>
<tr>
<td>Realism</td>
<td>3.26</td>
<td>3.28</td>
<td>3.36</td>
</tr>
<tr>
<td>Quality of the Writing</td>
<td>2.68</td>
<td>2.74</td>
<td>2.64</td>
</tr>
<tr>
<td>Manipulation Check Variables*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman's Willingness**</td>
<td>4.29</td>
<td>2.21</td>
<td>9.62</td>
</tr>
<tr>
<td>Woman's Pleasure***</td>
<td>3.29</td>
<td>2.40</td>
<td>7.17</td>
</tr>
<tr>
<td>Woman's Pain****</td>
<td>4.85</td>
<td>5.32</td>
<td>2.55</td>
</tr>
</tbody>
</table>

*Multivariate $F(6, 300) = 49.46, p < .0001$; **Univariate $F(2, 152) = 135.9, p < .0001$.

Note. For each variable, higher values indicate more of the variable being measured. Within rows, means with different subscripts differ at $p < .05$. Numbers in parentheses are cell sizes.

In order to assess the effects of the debriefings, MANOVAs were performed on each of the four assessment-phase item sets (responses to the newspaper article, and perceived victim causes, rapist causes, and societal causes of rape). Since, for ethical reasons, there were no conditions where rape depictions were given followed by a nonrape debriefing, the design of the experiment was not a fully crossed Story Exposure x Debriefing Exposure factorial. Therefore, in order to test the relevant experimental hypotheses, the analysis was conducted using two planned comparisons. The first comparison was a contrast of the three groups receiving a rape debriefing versus the group receiving a consenting depiction followed by the nonrape (control) debriefing. This comparison was designed to test the hypothesis that the debriefing would have an impact on subjects' attitudes regardless of prior exposure. The second comparison was a contrast between the two rape-story/rape-debriefing conditions and the two consenting-intercourse conditions. This second comparison was designed to test the hypothesis that the effects of the rape debriefing would be maximal under conditions of prior exposure to rape. The results for each hypothesis will be discussed separately below. Note that there were no gender effects nor any interactions with gender. Also, the only significant effects are those which are reported.

**Hypothesis 1: Rape-Debriefing Effects.** The multivariate tests of Hypothesis 1 yielded an effect on the item set assessing perceptions of the societal causes of rape, $F(3, 148) = 5.33, p < .002$, with a univariate effect only on perceptions of pornography as a cause of rape, $F(1, 150) = 12.91, p < .0005$. The means for each condition are presented in Table 3. As can be seen from row 2 of the table, individual follow-up comparisons revealed that subjects who had earlier read a rape debriefing subsequently saw pornography as more of a cause of rape than did subjects who had read a nonrape (control) debriefing. Note also that this effect occurred regardless of whether the subject had earlier read a rape depiction or a consenting depiction, suggesting that the effect was generalizable and not specific to any one exposure condition.

**Hypothesis 2: Rape-Denotation/Rape-Debriefing-Exposure Effects.** Multivariate tests of Hypothesis 2 revealed effects on the item set asking responses to the newspaper article, $F(3, 148) = 2.47, p < .07$, with

As Hummel & Sligo (1971) have demonstrated, multivariate analysis of variance is generally more conservative than its univariate counterpart, even where significant
materials and to assess the effectiveness of these procedures whenever possible (Sherif, 1980). Our data suggest that research directed towards assessing debriefing effectiveness would be fruitful not only in order to satisfy ethical proscriptions but also to provide new insights into ways of immunizing subjects against accepting rape myths and perhaps other antisocial attitudes regarding rape and pornography.

References


Accepted for publication December 17, 1982